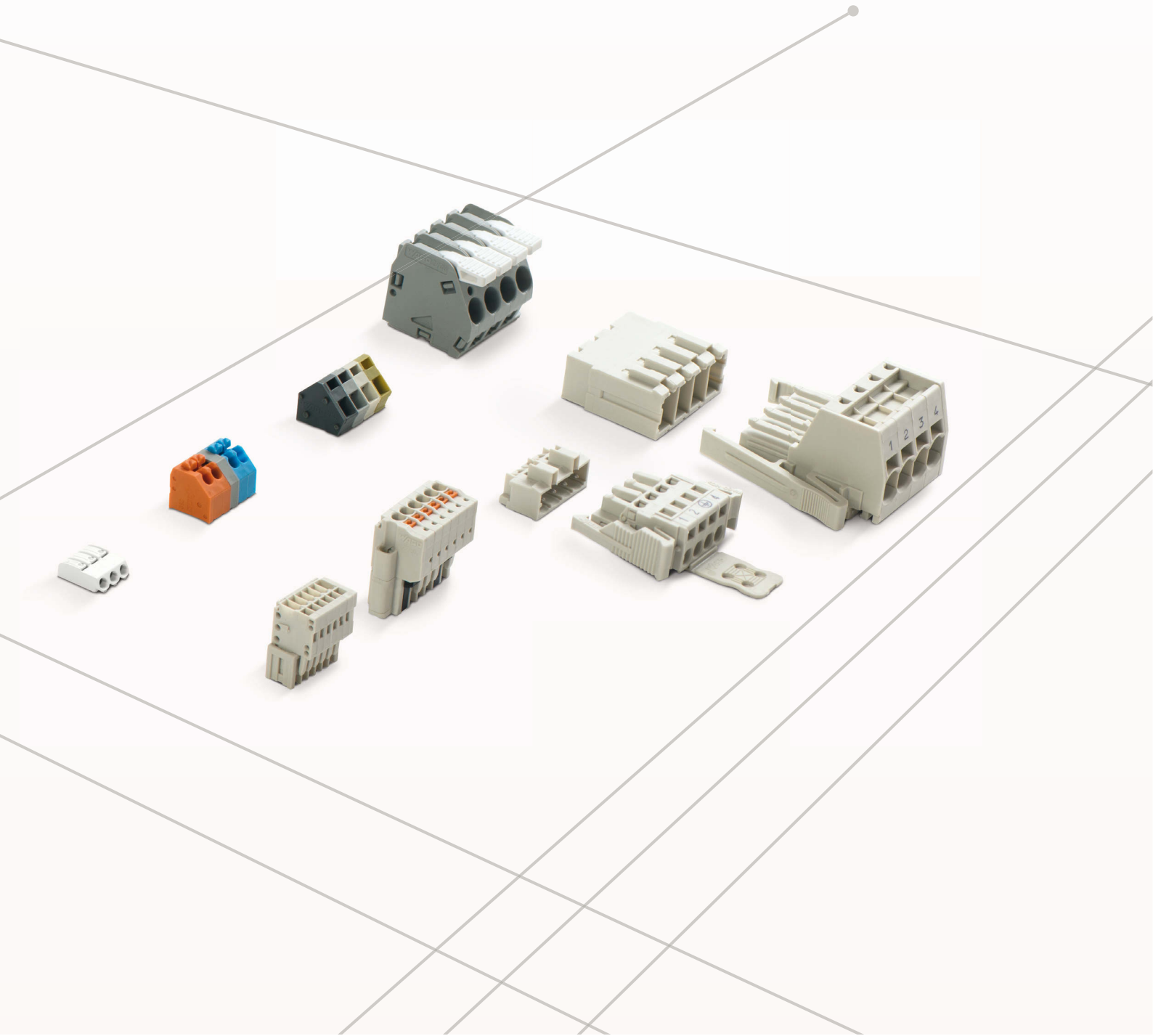
WAGO PCB Terminal Blocks and WAGO Connectors

Full Line Catalog, Volume 2 – Edition 2019/2020

2



WAGO Full Line Catalogs



Volume 1, WAGO Rail-Mount Terminal Block Systems

- Rail-Mount Terminal Blocks
- Rail-Mount Terminal Blocks with Pluggable Connector (X-COM®-SYSTEM)
- Patchboard Systems
- Terminal Strips
- PUSH WIRE® Connectors for Junction Boxes
- Lighting Connectors
- Shield Connecting System



Volume 2, WAGO PCB Terminal Blocks and WAGO Connectors

- PCB Terminal Blocks
- THR/SMD PCB Terminal Blocks
- *MULTI CONNECTION SYSTEM (MCS)*
- Pluggable PCB Terminal Blocks
- Feedthrough Terminal Blocks
- Specialty Connectors
- Empty Housings



Volume 3, Automation Technology

- Solutions & Software
- Operating & Monitoring
- Controllers
- Modular I/O-SYSTEM, IP20
- Industrial Switches
- Radio Technology
- IP67 Sensor/Actuator Boxes, IP67 Cables and Connectors



Volume 4, WAGO Interface Electronic

- Relay and Optocoupler Modules
- Signal Conditioners and Isolation Amplifiers
- Current and Energy Measurement Technology
- Power Supplies
- Interface Modules and System Wiring
- Overvoltage Protection
- Empty Housings



Volume 5, WAGO Pluggable Connection System *WINSTA*®

- Pluggable Connectors
- Snap-In Device Connectors
- Pluggable PCB Connectors
- Distribution Connectors
- Cable Assemblies
- Flat Cable Systems
- Distribution Boxes



Volume 6, WAGO Marking

- Printer
- Software
- Terminal Block Marking
- Cable and Conductor Marking
- Device Marking
- Marker Carriers

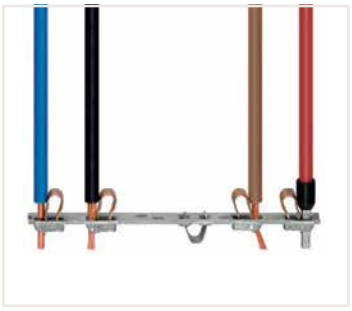
Volume 2, WAGO PCB Terminal Blocks and WAGO Connectors

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	**WAGO *MULTI CONNECTION SYSTEM* (*MCS*) MINI** Pin Spacing: 3.5 mm (0.138 inch), 3.81 mm (0.15 inch) / 0.08 … 1.5 mm² (28 … 14 AWG)	345
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Operating WAGO Connection Technologies

Please follow the applicable product-specific termination instructions.

PUSH-IN CAGE CLAMP®





The universal connection with an additional advantage: Push-in connection
Terminate solid and stranded (Class B 7 strands or less), as well as ferruled conductors, by simply pushing them in – no tools required.

Termination for all conductor types:
- Open clamping unit.
- Insert the conductor.
- Release clamp – done!



Push-in CAGE CLAMP® terminates the following copper conductors:
solid



stranded



fine-stranded, also with tinned single strands



fine-stranded, tip-bonded

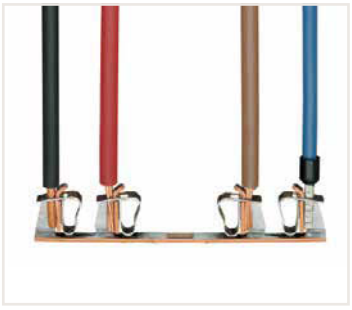


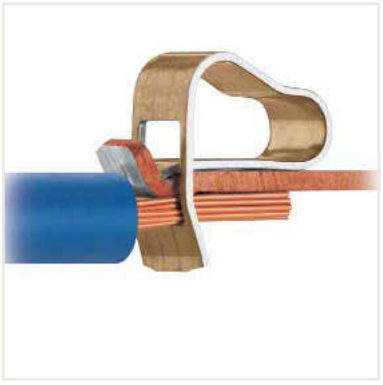
fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

CAGE CLAMP®





The universal connection for solid, stranded and fine-stranded conductors

Termination:
- Open clamping unit.
- Insert the conductor.
- Release clamp – done!



CAGE CLAMP® terminates the following copper conductors:
solid



stranded



fine-stranded, also with tinned single strands



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

Operating WAGO Connection Technologies

Please follow the applicable product-specific termination instructions.

POWER CAGE CLAMP®







POWER CAGE CLAMP terminates the following copper conductors: solid



stranded



fine-stranded, also with tinned single strands



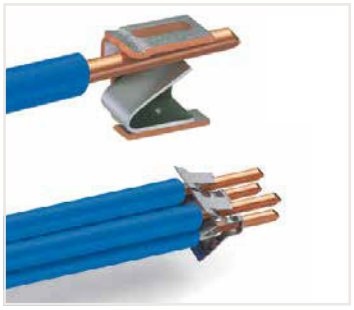
fine-stranded, with ferrule (gastight crimped)

The universal connection for conductors larger than 35 mm² (2 AWG)

Termination:

- Open clamp by turning a T-wrench counter-clockwise.
- Press the integrated latch to open clamping unit for hands-free wiring.
- Insert the conductor.
- A small counter-clockwise rotation closes the clamp, securing conductor.

PUSH WIRE®







PUSH WIRE® terminates the following copper conductors: solid

PUSH WIRE® connection for solid and stranded conductors (depending on the model used)

Termination:

Tool-free, twist-free terminations for solid and rigid stranded conductors – simply push into the unit.

PCB Terminal Blocks
– Product Overview by Pin Spacing –

2.5 mm/0.098 inch, 2.54 mm/0.1 inch

233 Series

CAGE CLAMP®
0.08 … 0.5 mm² / 28 … 20 AWG
Page 19

218 Series

CAGE CLAMP®
0.08 … 0.5 mm² / 28 … 20 AWG
Page 95

218 Series THR

CAGE CLAMP®
0.08 … 0.5 mm² / 28 … 20 AWG
Page 285, 286

233 Series

CAGE CLAMP®
0.08 … 0.5 mm² / 28 … 20 AWG
Page 99

234 Series

CAGE CLAMP®
0.08 … 0.5 mm² / 28 … 20 AWG
Page 101

250 Series

PUSH-IN CAGE CLAMP®
0.2 … 0.5 mm² / 24 … 20 AWG
Page 161, 153

250 Series THR 2.5

PUSH-IN CAGE CLAMP®
0.2 … 0.5 mm² / 24 … 20 AWG
Page 277

3 mm/0.118 inch

2059 Series SMT

PUSH WIRE®
0.14 … 0.34 mm² / 26 … 22 AWG "sol."
Page 293

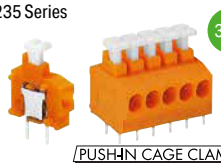
2059 Series SMT

PUSH WIRE®
0.5 mm² / 20 AWG "sol."
Page 293

3.5 mm/0.138 inch, 3.81 mm/0.15 inch

739 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 77, 79

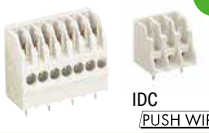
235 Series 3.81

PUSH-IN CAGE CLAMP®
0.5 … 1.5 mm² / 20 … 16 AWG
Page 177, 179

805 Series 3.5

PUSH-IN CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 16 AWG
Page 183, 185

250 Series 3.5

PUSH-IN CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 16 AWG
Page 165

251 Series 3.5

IDC
PUSH WIRE®
0.5 … 1.5/1.0 mm² / 20 … 16/18 AWG "sol."
Page 231

744 Series 3.5

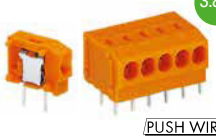
PUSH WIRE®
0.5 … 1.5 mm² / 20 … 16 AWG "sol."
Page 219

805 Series 3.5 THR

PUSH-IN CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 16 AWG
Page 281

250 Series THR 3.5

PUSH-IN CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 16 AWG
Page 279

235 Series 3.81

PUSH WIRE®
0.5 … 1.5 mm² / 20 … 16 AWG "sol."
Page 209, 211

735 Series 3.81

PUSH WIRE®
0.5 … 1.5 mm² / 20 … 16 AWG "sol."
Page 223 … 227

4 mm/0.156 inch

2060 Series THR

PUSH-IN CAGE CLAMP®
0.2 … 0.75 mm² / 24 … 18 AWG
Page 261

2060 Series THR

PUSH-IN CAGE CLAMP®
0.2 … 0.75 mm² / 24 … 18 AWG
Page 261

2060 Series SMT

PUSH-IN CAGE CLAMP®
0.2 … 0.75 mm² / 24 … 18 AWG
Page 297

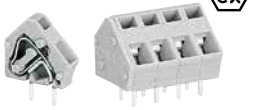
2060 Series SMT

PUSH-IN CAGE CLAMP®
0.2 … 0.75 mm² / 24 … 18 AWG
Page 297

Ex e II approval — THR Through-Hole Reflow Soldering — SMT Surface-Mount Technology

5 mm/0.197 inch, 5.08 mm/0.2 inch

236 Series

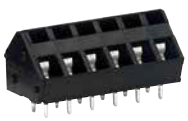


CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 21, 27

236 Series

5 THR



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 33

745 Series

5



CAGE CLAMP®

0.08 … 4 mm² / 28 … 12 AWG
Page 35, 38

745 Series

5



CAGE CLAMP®

0.08 … 4 mm² / 28 … 12 AWG
Page 41, 43

739 Series



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 81

740 Series

5



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 91

816 Series

5



PUSH-IN CAGE CLAMP®

2 x 0.2 … 1.5 mm² / 2 x 24 … 16 AWG
Page 141

Disconnect/test terminal blocks, 742 Series



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 237, 239

Terminal blocks with jumper slot, 742 Series



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 241, 243

Fuse terminal blocks, 742 Series

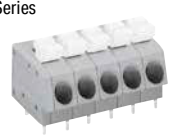


CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 245, 247

804 Series

5



PUSH-IN CAGE CLAMP®

0.25 … 2.5 mm² / 20 … 12 AWG
Page 189

736 Series



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 57

737 Series



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 65

738 Series



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 73

735 Series

5



PUSH WIRE®

0.5 … 1.5 mm² / 20 … 16 AWG "sol."
Page 223 … 229

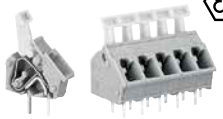
255 Series



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 105 … 109

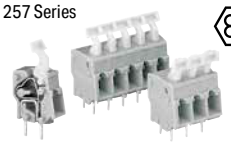
256 Series



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 111 … 119

257 Series



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 121 … 129

2604 Series

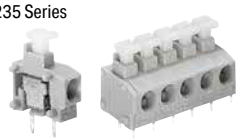
5



PUSH-IN CAGE CLAMP®

0.2 … 4 mm² / 24 … 12 AWG
Page 191, 193

235 Series

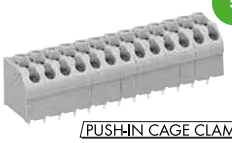


PUSH-IN CAGE CLAMP®

0.5 … 1.5 mm² / 20 … 14 AWG
Page 173, 175

250 Series

5



PUSH-IN CAGE CLAMP®

0.5 … 1.5 mm² / 20 … 14 AWG
Page 161

250 Series

5

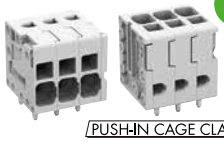


PUSH-IN CAGE CLAMP®

2 x 0.5 … 1.5 mm² / 20 … 14 AWG
Page 165, 169

2624 Series

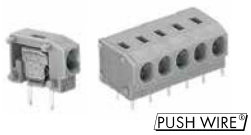
5



PUSH-IN CAGE CLAMP®

0.2 … 6 mm² / 24 … 10 AWG
Page 145, 147

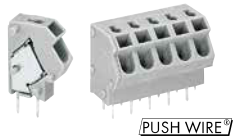
235 Series



PUSH WIRE®

0.5 … 2.5 mm² / 20 … 14 AWG "sol."
Page 205, 207

254 Series



PUSH WIRE®

0.5 … 2.5 mm² / 20 … 12 AWG "sol."
Page 215, 217

253 Series

5



PUSH WIRE®

2 x 0.5 … 1.5 mm² / 2 x 20 … 16 AWG "sol."
Page 233

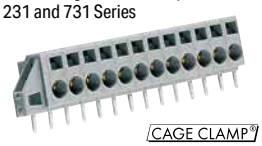
Feedthrough terminal strips, 741 Series



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 789 … 795

Feedthrough terminal strips, 231 and 731 Series



CAGE CLAMP®

0.08 … 2.5 mm² / 28 … 12* AWG
Page 797, 803

6 mm/0.236 inch

2061 Series

THR



PUSH-IN CAGE CLAMP®

0.5 … 1.5 mm² / 20 … 16 AWG
Page 267

2061 Series

THR



PUSH-IN CAGE CLAMP®

0.5 … 1.5 mm² / 20 … 16 AWG
Page 267

2061 Series

SMT



PUSH-IN CAGE CLAMP®

0.5 … 1.5 mm² / 20 … 16 AWG
Page 303

2061 Series

SMT



PUSH-IN CAGE CLAMP®

0.5 … 1.5 mm² / 20 … 16 AWG
Page 303

2070 Series

SMT 6,5



PUSH-IN CAGE CLAMP®

0.2 … 0.75 mm² / 24 … 18 AWG
Page 311

2065 Series



PUSH WIRE®
PUSH-IN CAGE CLAMP®

0.2 … 0,75 mm² / 24 … 18 AWG
Page 307

● Only available in this pin spacing!

*AWG 12: THHN, THWN

PCB Terminal Blocks
– Product Overview by Pin Spacing –

7.5 mm/0.295 inch, 7.62 mm/0.3 inch

236 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 23, 29

739 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 85, 87

745 Series

CAGE CLAMP®
0.2 … 4 mm² / 28 … 12 AWG
Page 41, 43

736 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 58, 62

255 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 105 … 109

235 Series

PUSH-IN CAGE CLAMP®
0.5 … 1.5 mm² / 20 … 14 AWG
Page 173

2706 Series

CAGE CLAMP®
0.5 … 6 mm² / 20 … 10 AWG
Page 133

235 Series

PUSH WIRE®
0.5 … 2.5 mm² / 20 … 14 AWG "sol."
Page 205

745 Series

CAGE CLAMP®
0.08 … 4 mm² / 28 … 12 AWG
Page 38

745 Series

CAGE CLAMP®
0.2 … 6 mm² / 24 … 10 AWG
Page 47, 49

737 Series

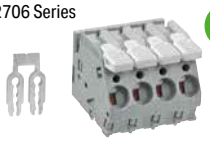
CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 66, 70

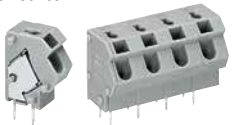
256 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 111 … 119

250 Series

PUSH-IN CAGE CLAMP®
0.5 … 1.5 mm² / 20 … 14 AWG
Page 161

2706 Series

CAGE CLAMP®
0.5 … 6 mm² / 20 … 10 AWG
Page 135

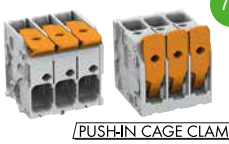
254 Series

PUSH WIRE®
0.5 … 2.5 mm² / 20 … 12 AWG "sol."
Page 215, 217

2604 Series

PUSH-IN CAGE CLAMP®
0.2 … 4 mm² / 24 … 12 AWG
Page 193

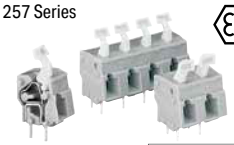
2624 Series

PUSH-IN CAGE CLAMP®
0.2 … 6 mm² / 24 … 10 AWG
Page 148

2606 Series

PUSH-IN CAGE CLAMP®
0.2 … 10 mm² / 24 … 8 AWG
Page 197

2626 Series

PUSH-IN CAGE CLAMP®
0.2 … 10 mm² / 24 … 8 AWG
Page 151

257 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 121 … 129

804 Series

PUSH-IN CAGE CLAMP®
0.25 … 2.5 mm² / 22 … 12 AWG
Page 189

746 Series

PUSH-IN CAGE CLAMP®
2 x 0.5 … 10 mm² / 2 x 20 … 8 AWG
Page 143

Feedthrough terminal strips, 741 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 789 … 795

8 mm/0.314 inch

2060 Series

PUSH-IN CAGE CLAMP®
0.2 … 0.75 mm² / 24 … 18 AWG
Page 301

2060 Series

PUSH-IN CAGE CLAMP®
0.2 … 0.75 mm² / 24 … 18 AWG
Page 265

2060 Series

PUSH-IN CAGE CLAMP®
0.2 … 0.75 mm² / 24 … 18 AWG
Page 265

10 mm/0.394 inch, 10.16 mm/0.4 inch

236 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 25, 31

745 Series

CAGE CLAMP®
0.2 … 6 mm² / 24 … 10 AWG
Page 45

745 Series

CAGE CLAMP®
0.08 … 4 mm² / 28 … 12 AWG
Page 41, 43

736 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 59, 63

255 Series

CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12* AWG
Page 105 … 109

235 Series

PUSH-IN CAGE CLAMP®
0.5 … 1.5 mm² / 20 … 14 AWG
Page 173

2706 Series

CAGE CLAMP®
0.5 … 6 mm² / 20 … 10 AWG
Page 133

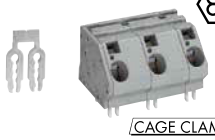
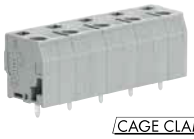
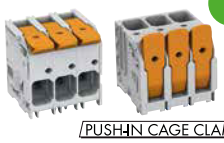
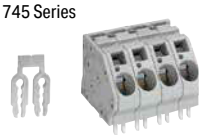
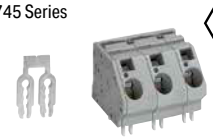
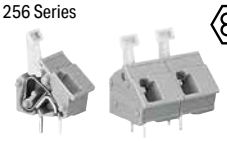
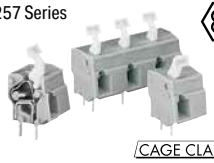
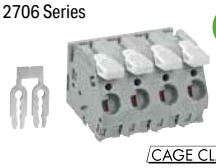
235 Series

PUSH WIRE®
0.5 … 2.5 mm² / 20 … 14 AWG "sol."
Page 205

Ex e II approval

THR Through-Hole Reflow Soldering

SMT Surface-Mount Technology

10 mm/0.394 inch, 10.16 mm/0.4 inch		11,5 mm/0.453 inch 12,5 mm/0.492 inch	15 mm/0.59 inch	20 mm/0.787 inch
745 Series  10 CAGE CLAMP® 0.08 … 4 mm² / 28 … 12 AWG Page 38		745 Series  CAGE CLAMP® 0.08 … 4 mm² / 28 … 12 AWG Page 39	745 Series  CAGE CLAMP® 0.2 … 6 mm² / 24 … 10 AWG Page 45	745 Series  CAGE CLAMP® 0.2 … 16 mm² / 24 … 6 AWG Page 51, 53
739 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12* AWG Page 89	2616 Series  10 PUSH-IN CAGE CLAMP® 0.75 … 16 mm² / 18 … 4 AWG Page 201	2604 Series  11,5 PUSH-IN CAGE CLAMP® 0.2 … 4 mm² / 24 … 12 AWG Page 193		
745 Series  10 CAGE CLAMP® 0.2 … 6 mm² / 24 … 10 AWG Page 47, 49	745 Series  10 CAGE CLAMP® 0.2 … 16 mm² / 24 … 6 AWG Page 51, 53	745 Series  CAGE CLAMP® 0.2 … 6 mm² / 24 … 10 AWG Page 45	745 Series  CAGE CLAMP® 0.2 … 16 mm² / 24 … 6 AWG Page 51, 53	
737 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12* AWG Page 67, 71	2636 Series  10 PUSH-IN CAGE CLAMP® 0.75 … 16 mm² / 18 … 4 AWG Page 155	2624 Series  11,5 PUSH-IN CAGE CLAMP® 0.2 … 6 mm² / 24 … 10 AWG Page 147		
256 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12* AWG Page 111 … 119	257 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12* AWG Page 121 … 129		2716 Series  CAGE CLAMP® 1.5 … 16 mm² / 16 … 6 AWG Page 137	
2716 Series  10 CAGE CLAMP® 1.5 … 16 mm² / 16 … 6 AWG Page 137	2716 Series  10 CAGE CLAMP® 1.5 … 16 mm² / 16 … 6 AWG Page 139		2716 Series  CAGE CLAMP® 1.5 … 16 mm² / 16 … 6 AWG Page 139	
2706 Series  10 CAGE CLAMP® 0.5 … 6 mm² / 20 … 10 AWG Page 135		2706 Series  CAGE CLAMP® 0.5 … 6 mm² / 20 … 10 AWG Page 133		
254 Series  PUSH WIRE® 0.5 … 2.5 mm² / 20 … 12 AWG "sol." Page 215, 217	Feedthrough terminal strips, 741 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12* AWG Page 789 … 795			

Only available in this pin spacing!

*AWG 12: THHN, THWN

MCS – MULTI CONNECTION SYSTEM
– Product Overview by Pin Spacing –

2.5 mm/0.098 inch MICRO*

Female connectors, 733 Series

CAGE CLAMP®
0.08 … 0.5 mm² / 28 … 20 AWG
Page 329

Female connectors with locking levers, 733 Series

CAGE CLAMP®
0.08 … 0.5 mm² / 28 … 20 AWG
Page 329

Male headers with solder pins, 733 Series

Page 333

Male headers with solder pins, 733 Series THR

Page 337

Male connectors 733 Series

CAGE CLAMP®
0.08 … 0.5 mm² / 28 … 20 AWG
Page 331

3.5 mm/0.138 inch, 3.81 mm/0.15 inch MINI*

Female connectors, 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 349, 379

Female connectors with locking levers, 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 349, 379

Female connectors with screw flanges, 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 349

Female connectors with snap-in mounting feet, 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 350, 380

Female connectors with push-buttons, 2734 Series

PUSH-IN CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 14 AWG
Page 353, 383

Female connectors with push-buttons and locking levers, 2734 Series

PUSH-IN CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 14 AWG
Page 353, 383

Female connectors with push-buttons and mounting flanges, 2734 Series

PUSH-IN CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 14 AWG
Page 354, 383

Female connectors with push-buttons and screw flanges, 2734 Series 3.5

PUSH-IN CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 14 AWG
Page 353

Male headers with solder pins, 734 Series

Page 369, 395

Male headers with solder pins and threaded flanges, 734 Series 3.5

Page 370

Double-deck male headers with solder pins, 734 Series

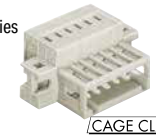
Page 369, 395

Male headers with solder pins, 734 Series THR

Page 375, 399

Male connectors 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 357, 387

Male connectors with mounting flanges, 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 357, 387

Male connectors with threaded flanges, 734 Series 3.5

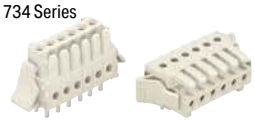
CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 357

Male connectors with snap-in mounting feet, 734 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 358, 388

Female headers with solder pins, 734 Series

Page 365, 391

Female headers with solder pins and locking levers, 734 Series

Page 365, 391

Combi strips, 734 Series 3.5

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 361

Combi strips with snap-in mounting feet, 734 Series 3.5

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 14 AWG
Page 362

3.5 mm/0.138 inch MINI HD*

Female connectors, 713 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 16 AWG
Page 417

Female connectors with levers, 713 Series

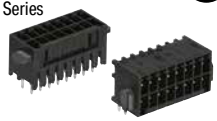
CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 16 AWG
Page 417

Female connectors with screw flanges, 713 Series

CAGE CLAMP®
0.08 … 1.5 mm² / 28 … 16 AWG
Page 417

Male headers with solder pins, 713 Series THR

Page 419, (THR: Page 425)

Male headers with solder pins and levers, 713 Series THR

Page 419 (THR: Page 429)

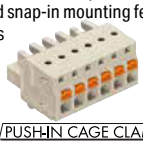
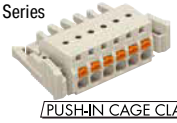
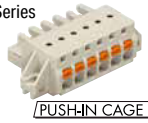
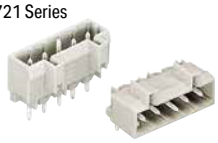
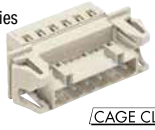
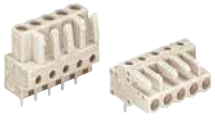
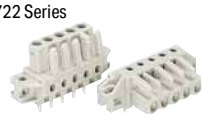
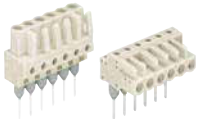
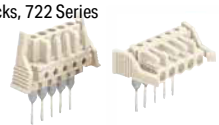
Male headers with solder pins and threaded flanges, 713 Series THR

Page 419 (THR: Page 427)

THR Through-Hole Reflow Soldering

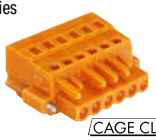
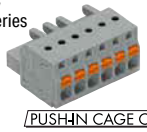
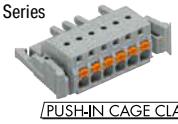
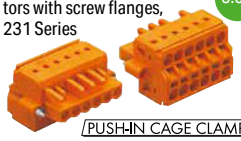
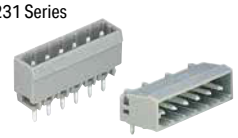
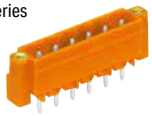
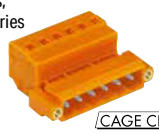
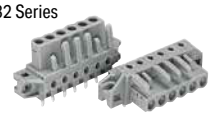
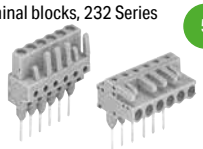
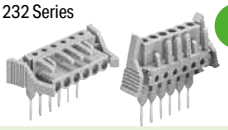
Only available in this pin spacing!

*100 % protected against mismating

3.5 mm/0.138 inch MINI SL	5 mm/0.197 inch MIDI*			
Female connectors, 714 Series  PUSH-IN CAGE CLAMP®	Female connectors, 721 Series  CAGE CLAMP®	Female connectors with locking levers, 721 Series  CAGE CLAMP®	Female connectors with mounting flanges, 721 Series  CAGE CLAMP®	Female connectors with snap-in mounting feet, 721 Series  CAGE CLAMP®
0.2 … 1.5 mm² / 24 … 16 AWG Page 441	0.08 … 2.5 mm² / 28 … 12 AWG Page 451	0.08 … 2.5 mm² / 28 … 12 AWG Page 451	0.08 … 2.5 mm² / 28 … 12 AWG Page 451, 452	0.08 … 2.5 mm² / 28 … 12 AWG Page 452
Male headers with solder pins, 714 Series 	Angled female connectors, 722 Series  CAGE CLAMP®	Female connectors with flanges for panel mounting, 721 Series  CAGE CLAMP®	Female connectors with snap-in feet for panel mounting, 721 Series  CAGE CLAMP®	
Page 443	0.08 … 2.5 mm² / 28 … 12 AWG Page 455	0.08 … 2.5 mm² / 28 … 12 AWG Page 457	0.08 … 2.5 mm² / 28 … 12 AWG Page 457	
	Female connectors with push-buttons, 2721 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and snap-in mounting feet, 2721 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and locking levers, 2721 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and mounting flanges, 2721 Series  PUSH-IN CAGE CLAMP®
	0.2 … 2.5 mm² / 24 … 12 AWG Page 461	0.2 … 2.5 mm² / 24 … 12 AWG Page 462	0.2 … 2.5 mm² / 24 … 12 AWG Page 461	0.2 … 2.5 mm² / 24 … 12 AWG Page 461
	2-conductor female connectors, 721 Series  PUSH-IN CAGE CLAMP®	2-conductor female connectors with locking levers, 721 Series  PUSH-IN CAGE CLAMP®		
	0.2 … 2.5 mm² / 24 … 12 AWG Page 459	0.2 … 2.5 mm² / 24 … 12 AWG Page 459		
	Male headers with solder pins, 721 Series 			
	Page 479			
	Male connectors, 721 Series  CAGE CLAMP®	Male connectors with snap-in mounting feet, 721 Series  CAGE CLAMP®	Male connectors with mounting flanges, 721 Series  CAGE CLAMP®	Male connectors with snap-in flanges, 721 Series  CAGE CLAMP®
	0.08 … 2.5 mm² / 28 … 12 AWG Page 473	0.08 … 2.5 mm² / 28 … 12 AWG Page 466	0.08 … 2.5 mm² / 28 … 12* AWG Page 465	0.08 … 2.5 mm² / 28 … 12 AWG Page 465
	Female headers with solder pins, 722 Series 	Female headers with solder pins and locking levers, 722 Series 	Female headers with solder pins and mounting flanges, 722 Series 	Female headers with solder pins and spacers, 722 Series 
	Page 353	Page 473	Page 475	Page 476
	Male connectors for rail-mount terminal blocks, 721 Series 	Female connectors for rail-mount terminal blocks, 722 Series 	Female connectors with locking levers, for rail-mount terminal blocks, 722 Series 	
	Page 491	Page 487	Page 487	

MCS – MULTI CONNECTION SYSTEM
– Product Overview by Pin Spacing –

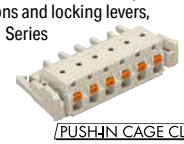
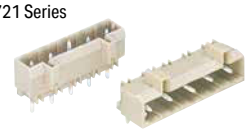
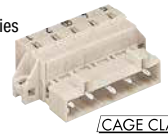
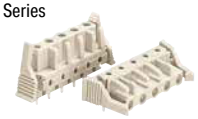
5 mm/0.197 inch, 5.08 mm/0.2 inch MIDI Classic

Female connectors, 231 Series  CAGE CLAMP®	Female connectors with integrated end plate, 231 Series  CAGE CLAMP®	Female connectors with snap-in mounting feet, 231 Series  CAGE CLAMP®	Female connectors with locking levers, 231 Series  CAGE CLAMP®	Female connectors with mounting flanges, 231 Series  CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12 AWG Page 549, 603	0.08 … 2.5 mm² / 28 … 12 AWG Page 549, 603	0.08 … 2.5 mm² / 28 … 12 AWG Page 551, 607	0.08 … 2.5 mm² / 28 … 12 AWG Page 550, 604	0.08 … 2.5 mm² / 28 … 12 AWG Page 550, 605
Angled female connectors, 232 Series  CAGE CLAMP®	Female connectors with screw flanges, 231 Series 5.08  CAGE CLAMP®	Female connectors with flanges for panel mounting, 731 Series 5  CAGE CLAMP®	Female connectors with snap-in feet for panel mounting, 731 Series 5  CAGE CLAMP®	
0.08 … 2.5 mm² / 28 … 12 AWG Page 553, 609	0.08 … 2.5 mm² / 28 … 12 AWG Page 604	0.08 … 2.5 mm² / 28 … 12 AWG Page 555	0.08 … 2.5 mm² / 28 … 12 AWG Page 556	
Female connectors with push-buttons, 2231 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and integrated end plate, 2231 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and snap-in mounting feet, 2231 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and locking levers, 2231 Series  PUSH-IN CAGE CLAMP®	Female connectors with push-buttons and mounting flanges, 2231 Series  PUSH-IN CAGE CLAMP®
0.2 … 2.5 mm² / 24 … 12 AWG Page 561, 615	0.2 … 2.5 mm² / 24 … 12 AWG Page 561, 615	0.2 … 2.5 mm² / 24 … 12 AWG Page 562, 616	0.2 … 2.5 mm² / 24 … 12 AWG Page 562, 615	0.2 … 2.5 mm² / 24 … 12 AWG Page 562, 616
Female connectors with push-buttons and screw flanges, 2231 Series 5.08  PUSH-IN CAGE CLAMP®	2-conductor female connectors, 231 Series  PUSH-IN CAGE CLAMP®	2-conductor female connectors with locking levers, 231 Series  PUSH-IN CAGE CLAMP®	2-conductor female connectors with screw flanges, 231 Series 5.08  PUSH-IN CAGE CLAMP®	
0.2 … 2.5 mm² / 24 … 12 AWG Page 616	0.2 … 2.5 mm² / 24 … 12 AWG Page 559, 611	0.2 … 2.5 mm² / 24 … 12 AWG Page 559, 611	0.2 … 2.5 mm² / 24 … 12 AWG Page 611	
Male headers with solder pins, 231 Series 	Male headers with solder pins and mounting flanges, 231 Series 5 	Male headers with solder pins and threaded flanges, 231 Series 5.08 	Male headers for double-deck assembly, 232 Series 	Male headers with solder pins, 231 Series THR 5 
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Male connectors, 231 Series  CAGE CLAMP®	Male connectors with snap-in mounting feet, 231 Series  CAGE CLAMP®	Male connectors with mounting flanges, 231 Series  CAGE CLAMP®	Male connectors with snap-in flanges, 231 Series  CAGE CLAMP®	Male connectors with threaded flanges, 231 Series 5.08  CAGE CLAMP®
0.08 … 2.5 mm² / 28 … 12 AWG Page 565, 619	0.08 … 2.5 mm² / 28 … 12 AWG Page 567, 621	0.08 … 2.5 mm² / 28 … 12 AWG Page 565, 619	0.08 … 2.5 mm² / 28 … 12 AWG Page 566, 620	0.08 … 2.5 mm² / 28 … 12 AWG Page 619
Male connectors with snap-in and threaded flanges, 231 Series 5.08  CAGE CLAMP®	Double-pin male connectors for DIN-35 rail mounting, 232 Series 		Female headers with solder pins, 232 Series 	Female headers with solder pins and locking levers, 232 Series 
0.08 … 2.5 mm² / 28 … 12 AWG Page 621	Page 595, 639		Page 569, 623	Page 569, 623
Female headers with solder pins and mounting flanges, 232 Series 	Female headers with solder pins and spacers, 232 Series 	Male connectors for rail-mount terminal blocks, 231 Series 5 	Female connectors for rail-mount terminal blocks, 232 Series 5 	Female connectors with locking levers, for rail-mount terminal blocks, 232 Series 5 
Page 571, 625	Page 572, 626	Page 600	Page 597	Page 597

THR Through-Hole Reflow Soldering

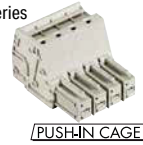
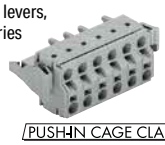
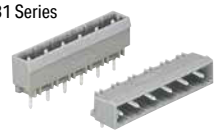
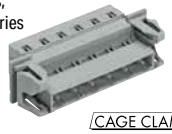
Only available in this pin spacing!

7.5 mm/0.295 inch MIDI*

Female connectors, 721 Series  0.08 … 2.5 mm² / 28 … 12 AWG Page 493	Female connectors with snap-in mounting feet, 721 Series  0.08 … 2.5 mm² / 28 … 12 AWG Page 494	Female connectors with locking levers, 721 Series  0.08 … 2.5 mm² / 28 … 12 AWG Page 493
Female connectors with mounting flanges, 721 Series  0.08 … 2.5 mm² / 28 … 12 AWG Page 493, 494	Female connectors with flanges for panel mounting, 721 Series  0.08 … 2.5 mm² / 28 … 12 AWG Page 497	Female connectors with snap-in feet for panel mounting, 721 Series  0.08 … 2.5 mm² / 28 … 12 AWG Page 497
Female connectors with push-buttons, 2721 Series  0.2 … 2.5 mm² / 24 … 12 AWG Page 501	Female connectors with push-buttons and snap-in mounting feet, 2721 Series  0.2 … 2.5 mm² / 24 … 12 AWG Page 502	Female connectors with push-buttons and locking levers, 2721 Series  0.2 … 2.5 mm² / 24 … 12 AWG Page 501
Female connectors with push-buttons and mounting flanges, 2721 Series  0.2 … 2.5 mm² / 24 … 12 AWG Page 501	2-conductor female connectors, 721 Series  0.2 … 2.5 mm² / 24 … 12 AWG Page 499	2-conductor female connectors with locking levers, 721 Series  0.2 … 2.5 mm² / 24 … 12 AWG Page 499
Male headers with solder pins, 721 Series  Page 519		
Male connectors, 723 Series  0.08 … 2.5 mm² / 28 … 12 AWG Page 505	Male connectors with snap-in mounting feet, 723 Series  0.08 … 2.5 mm² / 28 … 12 AWG Page 506	Male connectors with mounting flanges, 723 Series  0.08 … 2.5 mm² / 28 … 12 AWG Page 505
Male connectors with snap-in flanges, 723 Series  0.08 … 2.5 mm² / 28 … 12 AWG Page 505		Female headers with solder pins, 722 Series  Page 513
Female headers with solder pins and locking levers, 722 Series  Page 513	Female headers with solder pins and mounting flanges, 722 Series  Page 514	Female headers with solder pins and spacers, 722 Series  Page 516

*100 % protected against mismating

MCS – MULTI CONNECTION SYSTEM
– Product Overview by Pin Spacing –

7.5 mm/0.295 inch, 7.62 mm/0.3 inch MIDI Classic			7.62 mm/0.3 inch MAXI 6*	10.16 mm/0.4 inch MAXI 16*
Female connectors, 231 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 641, 685	Female connectors with snap-in mounting feet, 231 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 642, 686	Female connectors with locking levers, 231 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 641, 685	Female connectors, 831 Series  PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 741	Female connectors, 832 Series  PUSH-IN CAGE CLAMP® 0,75 … 16 mm² / 18 … 4 AWG Page 747
Female connectors with mounting flanges, 231 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 641, 685	Angled female connectors, 732 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 645, 689	Female connectors with flanges or snap-in feet for panel mounting, 731 Series  7.5 CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 647	Female connectors with locking levers, 831 Series  PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 741	Female connectors with locking levers, 831 Series  PUSH-IN CAGE CLAMP® 0,75 … 16 mm² / 18 … 4 AWG Page 747
Female connectors with push-buttons, 2231 Series  PUSH-IN CAGE CLAMP® 0.2 … 2.5 mm² / 24 … 12 AWG Page 653, 693	Female connectors with push-buttons and snap-in mounting feet, 2231 Series  PUSH-IN CAGE CLAMP® 0.2 … 2.5 mm² / 24 … 12 AWG Page 654, 694	Female connectors with push-buttons and locking levers, 2231 Series  PUSH-IN CAGE CLAMP® 0.2 … 2.5 mm² / 24 … 12 AWG Page 653, 693		
Female connectors with push-buttons and mounting flanges, 2231 Series  PUSH-IN CAGE CLAMP® 0.2 … 2.5 mm² / 24 … 12 AWG Page 653, 693	2-conductor female connectors, 231 Series  PUSH-IN CAGE CLAMP® 0.2 … 2.5 mm² / 24 … 12 AWG Page 651, 691	2-conductor female connectors with locking levers, 231 Series  PUSH-IN CAGE CLAMP® 0.2 … 2.5 mm² / 24 … 12 AWG Page 651, 691		
Male headers with solder pins, 231 Series  Page 667, 707	Male headers with solder pins and mounting flanges, 231 Series  7.5 Page 667	Male headers with solder pins, 231 Series THR  7.5 Page 675 … 680	Male headers with solder pins, 831 Series  Page 745	Male headers with solder pins, 832 Series  Page 751
Male connectors, 731 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 657, 697	Male connectors with snap-in mounting feet, 731 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 659, 699	Male connectors with mounting flanges, 731 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 657, 697	Male connectors, 831 Series  PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 743	Male connectors, 832 Series  PUSH-IN CAGE CLAMP® 0,75 … 16 mm² / 18 … 4 AWG Page 749
Male connectors with snap-in flanges, 731 Series  CAGE CLAMP® 0.08 … 2.5 mm² / 28 … 12 AWG Page 658, 698	Double-pin male connectors for DIN-35 rail mounting, 232 Series  Page 683, 711	Female headers with solder pins, 232 Series  Page 661, 701		
Female headers with solder pins and locking levers, 232 Series  Page 661, 701	Female headers with solder pins and mounting flanges, 232 Series  Page 663, 703	Female headers with solder pins and spacers, 232 Series  Page 644, 704	Male connectors for DIN-35 rail mounting, 831 Series  PUSH-IN CAGE CLAMP® 0.5 … 10 mm² / 20 … 8 AWG Page 743	

THR Through-Hole Reflow Soldering

Only available in this pin spacing!

*100 % protected against mismating

Connectors for:

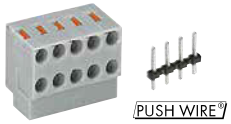
3.5 mm/0.138 inch

2-conductor compact PCB connectors, 252 Series



2 x 0.4 … 0.8 mm Ø / 2 x 26 … 20 AWG
Page 763 "sol."

2-conductor compact PCB connectors, 252 Series



2 x 0.4 … 0.8 mm Ø / 2 x 26 … 20 AWG
Page 763 "sol."

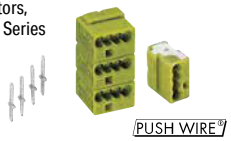
5 mm/0.197 inch, 5.75 mm/0.23 inch

2-conductor PCB connector strips (pinstrip pluggable), 806 Series



2 x 0.2 … 1.5 mm² / 2 x 24 … 16 AWG
Page 765

4-conductor modular PCB connectors, 243 Series



4 x 0.4 … 0.8 mm Ø / 4 x 24 … 18 AWG
Page 767 "sol."

Specialty Applications

Wire-tap branch connectors, 730 Series



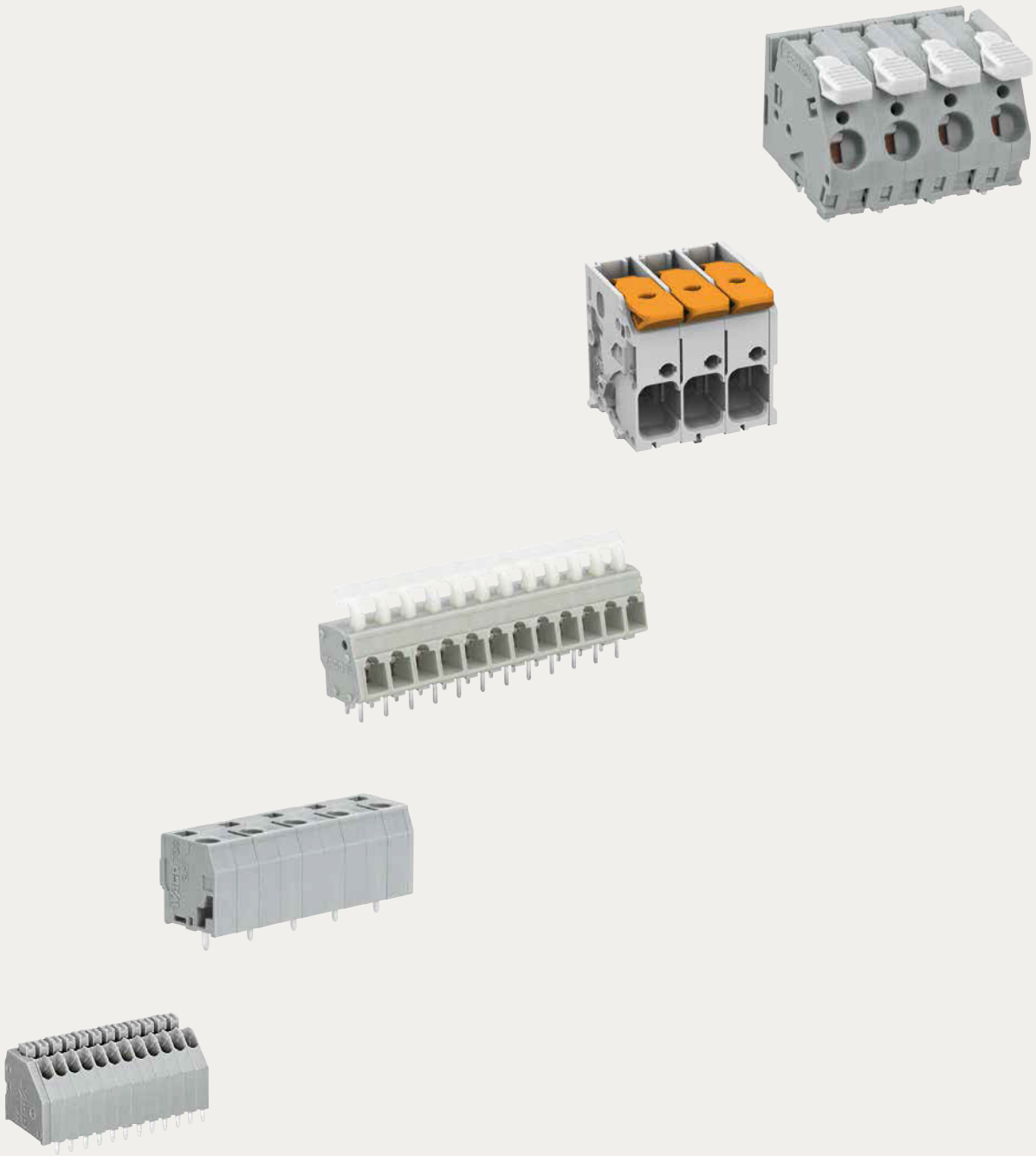
0.75 … 1.5 mm² / 18 … 16 AWG
Page 808, 813

KNX/EIB Applications

Connectors for bus coupler units, 243 Series



4 x 0.6 … 0.8 mm Ø / 22 … 20 AWG
Page 817 "sol."



WAGO PCB Terminal Blocks

WAGO PCB Terminal Blocks

	Nominal Cross-Section	Series	Page
 PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	0.5 mm²	233	18
	2.5 mm²	236	20
	4; 6; 16 mm²	745	34
	2.5 mm²	736	56
	2.5 mm²	737	64
	2.5 mm²	738	72
	1.5; 2.5 mm²	739	76
	2.5 mm²	740	90
 PCB Terminal Blocks ▸ Actuation type: Push-button, Locking slide, Lever ▸ CAGE CLAMP®	0.5 mm²	218	94
	0.5 mm²	233	98
	0.5 mm²	234	100
	2.5 mm²	255	104
	2.5 mm²	256	110
	2.5 mm²	257	120
	6 mm²	2706	132
	16 mm²	2716	136
 2-Conductor PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP®	1.5 mm²	816	140
	10 mm²	746	142
 PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP®	6 mm²	2624	144
	10 mm²	2626	150
	16 mm²	2636	154
 PCB Terminal Blocks ▸ Actuation type: Push-button, Lever ▸ Push-in CAGE CLAMP®	0.5; 1.5; 2.5 mm²	250	160
	0.75; 1.5 mm²	235	172
	1.5 mm²	805	182
	2.5 mm²	804	188
	4 mm²	2604	190
	10 mm²	2606	196
	16 mm²	2616	200
 PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ PUSH WIRE®	1.5; 2.5 mm²	235	204
	2.5 mm²	254	214
	1.5 mm²	744	218
 PCB Terminal Blocks ▸ Actuation type: Push-button ▸ PUSH WIRE®	1.5 mm²	735	222
 PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ PUSH WIRE® ▸ IDC-Anschluss	1.5 mm²	251	230
2-conductor PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ PUSH WIRE®	1.5 mm²	253	232
 Modular PCB Disconnect/Test Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	2.5 mm²	742	236
Modular PCB Fuse Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	2.5 mm²	742	244
 Accessories for PCB Terminal Blocks			252
Accessories and Tools			829

CAGE CLAMP®

233 and 236 Series
Description and Installation

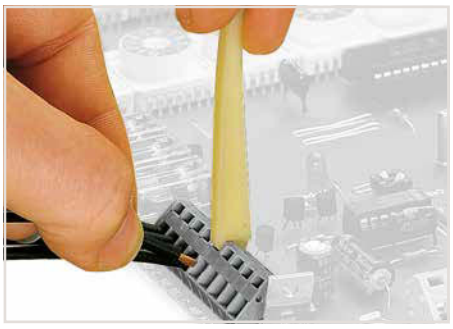
1



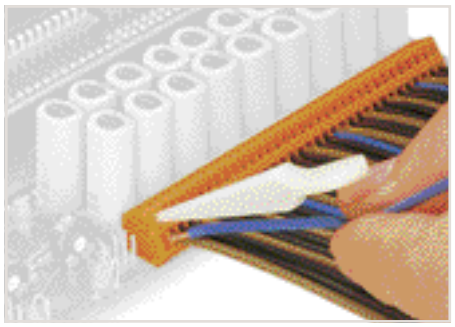
Inserting a conductor via 3.5 mm screwdriver.
Screwdriver actuation parallel to conductor entry.



Inserting a conductor via 3.5 mm screwdriver.
Screwdriver actuation perpendicular to conductor entry.



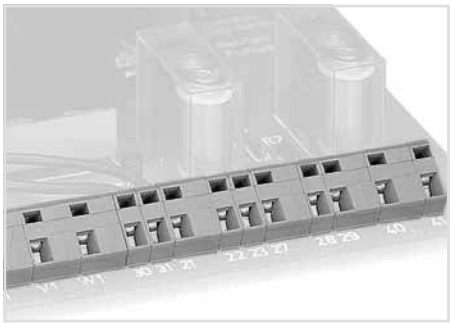
Inserting a conductor via operating tool.



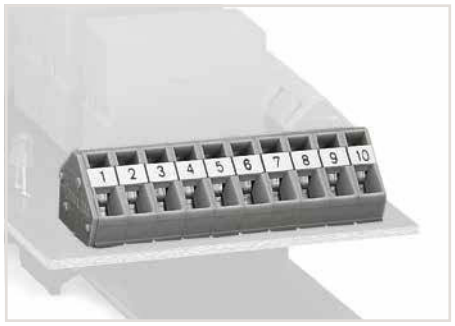
Inserting a conductor via 233-332 Operating Tool. Operation is performed parallel to conductor entry.



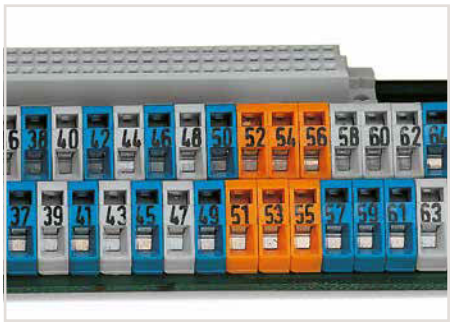
PCB Terminal Strips placed behind each other save space – staggering them by half the pin spacing simplifies subsequent wiring of the first row.



Combining PCB terminal blocks with different pin spacing.



Labeling with self-adhesive marking strips.



Labeling via factory direct marking.

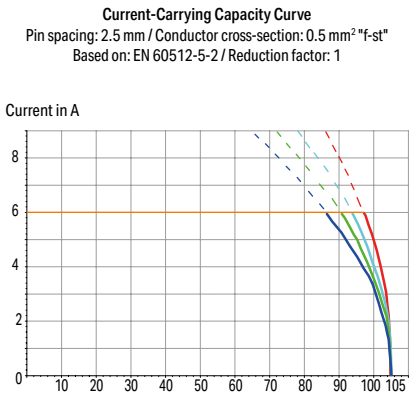
PCB Terminal Block ▸ 233 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 0.5 mm² ▸ Terminal strip

1



- Compact terminal strips with CAGE CLAMP® connection and screwdriver actuation parallel or perpendicular to conductor entry
- Double solder pins for high mechanical stability
- Custom color combinations



Electrical Data			
Pin spacing	2.5 mm (0.098 inch) / 2.54 mm (0.1 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	6 A	6 A	6 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	30°
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 mm²
Note (conductor cross-section)	Terminating 0.75 mm²/18 AWG conductors is possible; however insulation diameter allows only every other clamping unit to be terminated with this conductor size.

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter (tolerance)	1.1(+0.1) mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 832
Tools	Page 838, 839
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

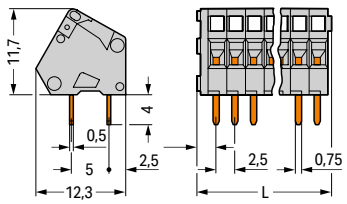
PCB Terminal Block ▸ 233 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 0.5 mm² ▸ Terminal strip

Pin spacing: 2.5 mm (0.098 inch) ▸ Color: gray



Pole No.	Item No.	PU (SPU)
2	233-102	600 (100)
3	233-103	500 (125)
4	233-104	400 (100)
5	233-105	340 (85)
6	233-106	280 (70)
7	233-107	240 (60)
8	233-108	220 (55)
9	233-109	200 (50)
10	233-110	180 (45)
12	233-112	140 (35)

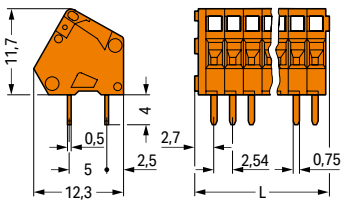


L = (pole no. x pin spacing) + 2.3 mm

Pin spacing: 2.54 mm (0.1 inch) ▸ Color: orange



Pole No.	Item No.	PU (SPU)
2	233-402	600 (100)
3	233-403	500 (125)
4	233-404	400 (100)
5	233-405	340 (85)
6	233-406	280 (70)
7	233-407	240 (60)
8	233-408	220 (55)
9	233-409	200 (50)
10	233-410	180 (45)
12	233-412	140 (35)



L = (pole no. x pin spacing) + 2.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

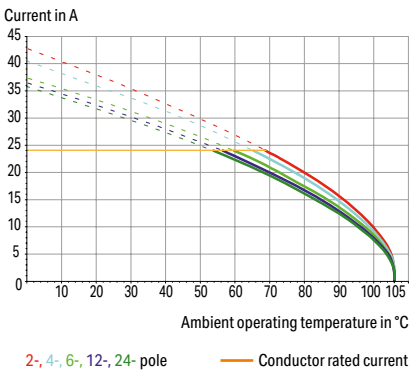
PCB Terminal Block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Modular Terminal Block ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch

1



- Modular PCB terminal blocks with CAGE CLAMP® connection, screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- For custom PCB terminal strip assemblies
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart



Electrical Data			
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 254
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

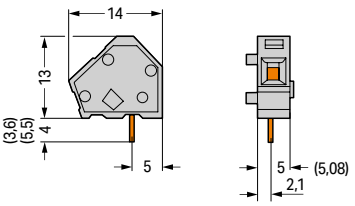
PCB Terminal Block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Modular Terminal Block ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch

Number of solder pins per potential: 1



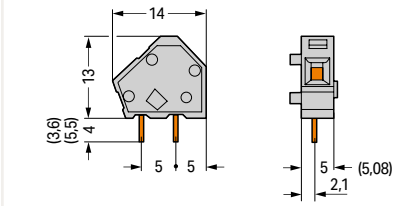
Color	Item No.	PU (SPU)
gray	236-101	600 (100)
blue	236-714	600 (100)
orange	236-716	600 (100)
black	236-854	600 (100)
yellow	236-711	600 (100)
light gray	236-713	600 (100)
green	236-715	600 (100)
light green	236-717	600 (100)
violet	236-894	600 (100)
brown	236-884	600 (100)
red	236-710	600 (100)
dark gray	236-712	600 (100)



Number of solder pins per potential: 2



Color	Item No.	PU (SPU)
gray	236-401	600 (100)
blue	236-744	600 (100)
orange	236-746	600 (100)
black	236-851	600 (100)
yellow	236-741	600 (100)
light gray	236-743	600 (100)
green	236-745	600 (100)
light green	236-747	600 (100)
violet	236-891	600 (100)
brown	236-881	600 (100)
red	236-740	600 (100)
dark gray	236-742	600 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	236-100	2000 (100)
blue	236-400	2000 (100)
orange	236-600	2000 (100)
black	236-850	2000 (100)
light gray	236-300	2000 (100)
green	236-500	2000 (100)
light green	236-700	2000 (100)
red	236-800	2000 (100)
dark gray	236-200	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Versions for Ex e II and Ex i
- Solder pin length: 3.6 mm
- Solder pin length: 5.5 mm

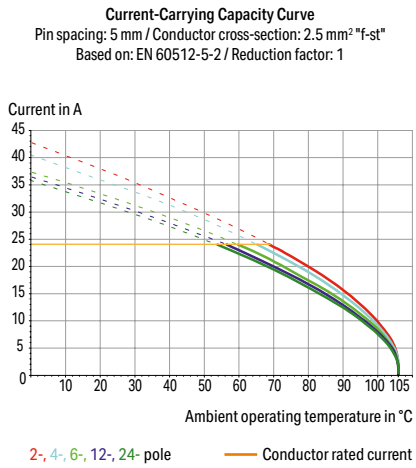
PCB Terminal Block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Modular Terminal Block ▸ Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

1



- Modular PCB terminal blocks with CAGE CLAMP® connection, screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- For custom PCB terminal strip assemblies
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart



Electrical Data			
Pin spacing	7.5/7.62 mm / 0.295/0.3 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	400 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 254
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

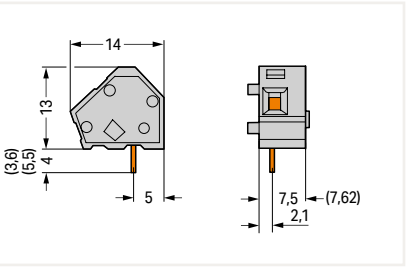
PCB Terminal Block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Modular Terminal Block ▸ Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

Number of solder pins per potential: 1



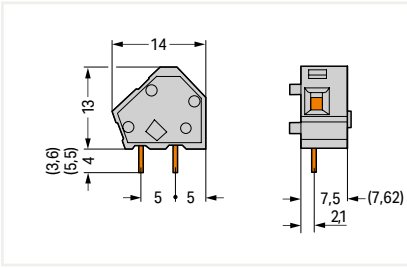
Color	Item No.	PU (SPU)
gray	236-201	400 (100)
blue	236-724	400 (100)
orange	236-726	400 (100)
black	236-855	400 (100)
light gray	236-723	400 (100)
green	236-725	400 (100)
light green	236-727	400 (100)
brown	236-885	400 (100)
dark gray	236-722	400 (100)



Number of solder pins per potential: 2



Color	Item No.	PU (SPU)
gray	236-501	400 (100)
blue	236-754	400 (100)
orange	236-756	400 (100)
black	236-852	400 (100)
light gray	236-753	400 (100)
green	236-755	400 (100)
light green	236-757	400 (100)
brown	236-882	400 (100)
dark gray	236-752	400 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	236-100	2000 (100)
blue	236-400	2000 (100)
orange	236-600	2000 (100)
black	236-850	2000 (100)
light gray	236-300	2000 (100)
green	236-500	2000 (100)
light green	236-700	2000 (100)
red	236-800	2000 (100)
dark gray	236-200	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Versions for Ex e II and Ex i
- Solder pin length: 3.6 mm
- Solder pin length: 5.5 mm

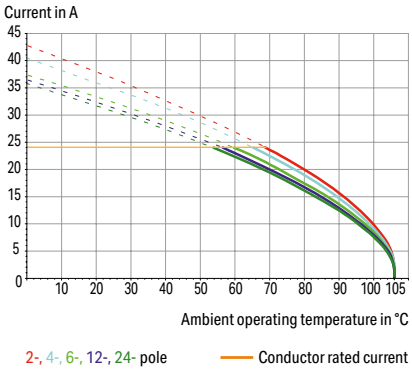
PCB Terminal Block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Modular Terminal Block ▸ Pin spacing: 10/10.16 mm / 0.394/0.4 inch

1



- Modular PCB terminal blocks with CAGE CLAMP® connection, screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- For custom PCB terminal strip assemblies
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart



Electrical Data			
Pin spacing	10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	630 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 834
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

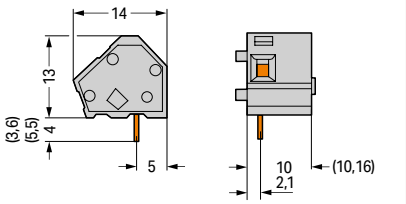
PCB Terminal Block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Modular Terminal Block ▸ Pin spacing: 10/10.16 mm / 0.394/0.4 inch

Number of solder pins per potential: 1



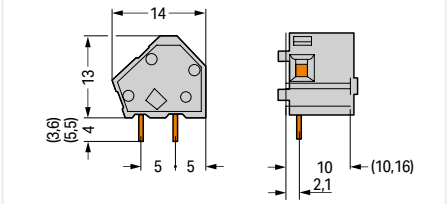
Color	Item No.	PU (SPU)
gray	236-301	300 (100)
blue	236-734	300 (100)
orange	236-736	300 (100)
black	236-856	300 (100)
light gray	236-733	300 (100)
green	236-735	300 (100)
light green	236-737	300 (100)
dark gray	236-732	300 (100)



Number of solder pins per potential: 2



Color	Item No.	PU (SPU)
gray	236-601	300 (100)
blue	236-764	300 (100)
orange	236-766	300 (100)
black	236-853	300 (100)
light gray	236-763	300 (100)
green	236-765	300 (100)
light green	236-767	300 (100)
dark gray	236-762	300 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	236-100	2000 (100)
blue	236-400	2000 (100)
orange	236-600	2000 (100)
black	236-850	2000 (100)
light gray	236-300	2000 (100)
green	236-500	2000 (100)
light green	236-700	2000 (100)
red	236-800	2000 (100)
dark gray	236-200	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Versions for Ex e II and Ex i
- Solder pin length: 3.6 mm
- Solder pin length: 5.5 mm

PCB Terminal Block ▸ 236 Series

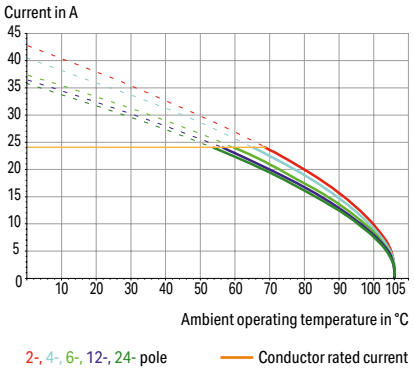
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Terminal strip ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▸ Color: gray

1



- PCB terminal strips with CAGE CLAMP® connection and screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- Mixed-color PCB terminal strips from factory
- Operating tools for factory wiring
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 254
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

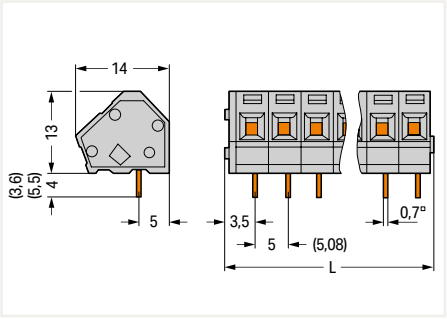
PCB Terminal Block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Terminal strip ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▸ Color: gray

Number of solder pins per potential: 1



Pole No.	Item No.	PU (SPU)
2	236-102	420 (105)
3	236-103	280 (70)
4	236-104	220 (55)
6	236-106	140 (35)
8	236-108	100 (25)
12	236-112	80 (20)
16	236-116	60 (15)
24	236-124	40 (10)
36	236-136	20 (5)
48	236-148	20 (5)

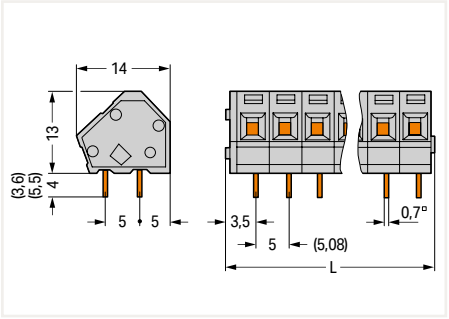


L = (pole no. x pin spacing) + 2.3 mm

Number of solder pins per potential: 2



Pole No.	Item No.	PU (SPU)
2	236-402	420 (105)
3	236-403	280 (70)
4	236-404	220 (55)
6	236-406	140 (35)
8	236-408	100 (25)
12	236-412	80 (20)
16	236-416	60 (15)
24	236-424	40 (10)
36	236-436	20 (5)
48	236-448	20 (5)



L = (pole no. x pin spacing) + 2.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking
- Solder pin length: 3.6 mm
- Solder pin length: 5.5 mm

PCB Terminal Block ▸ 236 Series

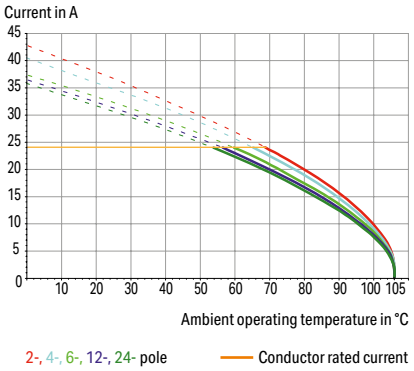
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Terminal strip ▸ Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch ▸ Color: gray

1



- PCB terminal strips with CAGE CLAMP® connection and screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- Mixed-color PCB terminal strips from factory
- Operating tools for factory wiring
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	**7.5/7.62 mm / 0.295/0.3 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	400 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
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Additional information, see "Technical Section"	
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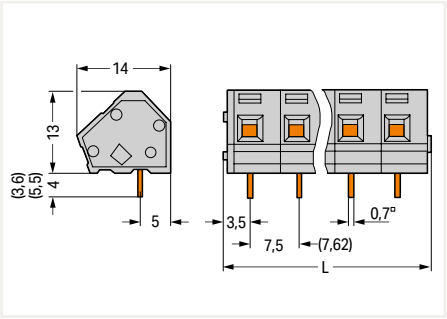
PCB Terminal Block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Terminal strip ▸ Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch ▸ Color: gray

Number of solder pins per potential: 1

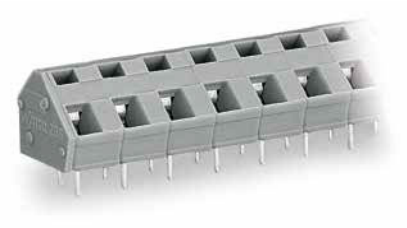


Pole No.	Item No.	PU (SPU)
2	236-202	280 (70)
3	236-203	200 (50)
4	236-204	140 (35)
6	236-206	100 (25)
8	236-208	80 (20)
12	236-212	40 (10)
16	236-216	40 (10)
24	236-224	20 (5)

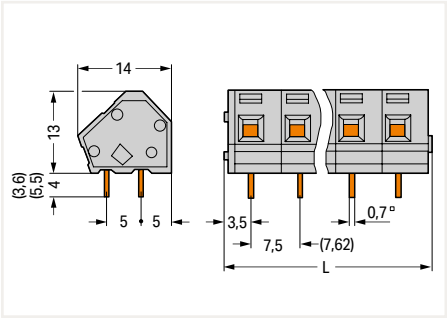


L = (pole no. x pin spacing) + 2.3 mm

Number of solder pins per potential: 2



Pole No.	Item No.	PU (SPU)
2	236-502	280 (70)
3	236-503	200 (50)
4	236-504	140 (35)
6	236-506	100 (25)
8	236-508	80 (20)
12	236-512	40 (10)
16	236-516	40 (10)
24	236-524	20 (5)



L = (pole no. x pin spacing) + 2.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking
- Solder pin length: 3.6 mm
- Solder pin length: 5.5 mm

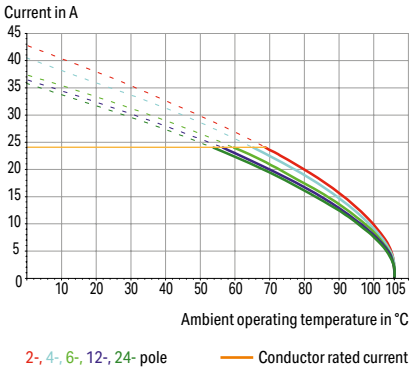
PCB Terminal Block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Terminal strip ▸ Pin spacing: 10/10.16 mm / 0.394/0.4 inch ▸ Color: gray

1



- PCB terminal strips with CAGE CLAMP® connection and screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- Mixed-color PCB terminal strips from factory
- Operating tools for factory wiring
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart



Electrical Data			
Pin spacing	10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	630 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 834
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

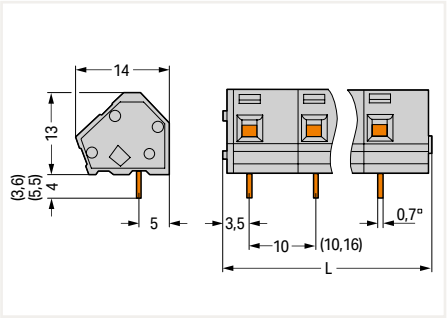
PCB Terminal Block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Terminal strip ▸ Pin spacing: 10/10.16 mm / 0.394/0.4 inch ▸ Color: gray

Number of solder pins per potential: 1

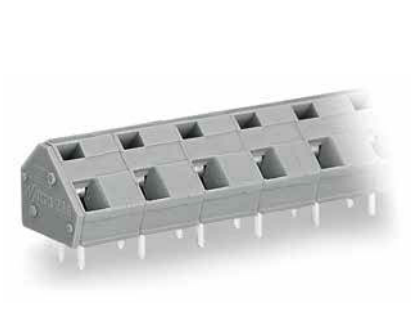


Pole No.	Item No.	PU (SPU)
2	236-302	200 (50)
3	236-303	140 (35)
4	236-304	100 (25)
6	236-306	80 (20)
8	236-308	60 (15)
12	236-312	40 (10)
16	236-316	20 (5)
24	236-324	20 (5)

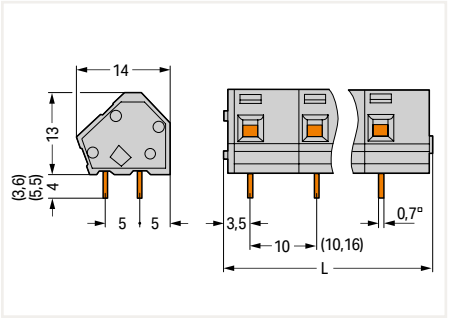


L = (pole no. x pin spacing) + 2.3 mm

Number of solder pins per potential: 2



Pole No.	Item No.	PU (SPU)
2	236-602	200 (50)
3	236-603	140 (35)
4	236-604	100 (25)
6	236-606	80 (20)
8	236-608	60 (15)
12	236-612	40 (10)
16	236-616	20 (5)
24	236-624	20 (5)



L = (pole no. x pin spacing) + 2.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

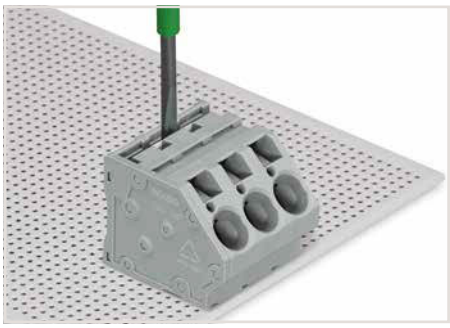
- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking
- Solder pin length: 3.6 mm
- Solder pin length: 5.5 mm

CAGE CLAMP®

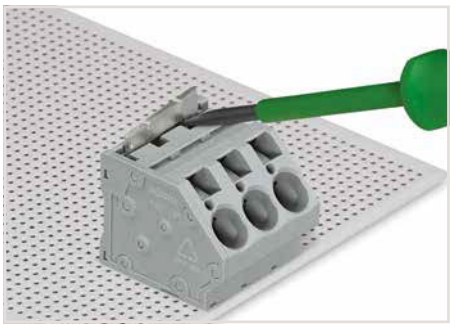
745 Series
Description and Installation



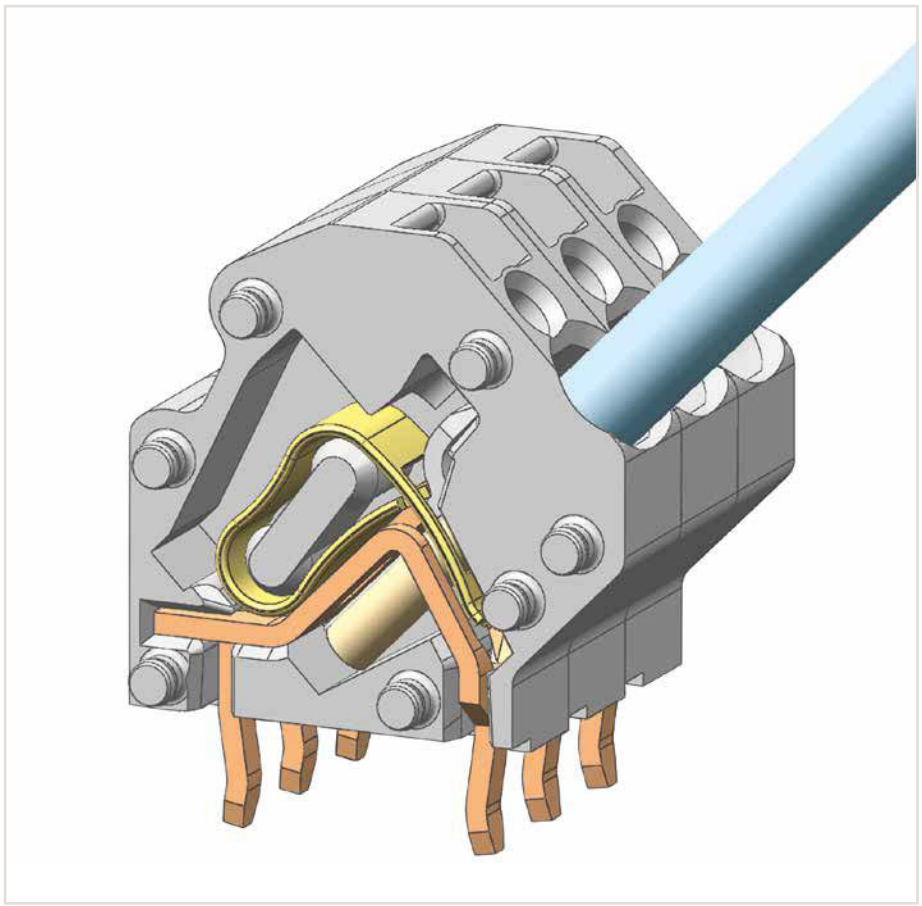
Inserting/removing a conductor via 5.5 mm screwdriver – 745 Series, 16 mm².



To insert a comb-style jumper bar, push it down using a screwdriver until it hits the backstop – 745 Series.



To remove the comb-style jumper bar, lift it up using a screwdriver – 745 Series.



745 Series



Marking via miniature WSB and WMB markers or factory direct marking – 745 Series.



Testing with test plug – 745 Series.

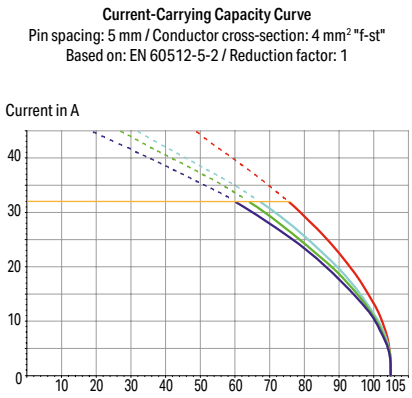
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Modular Terminal Block ▸ Pin spacing: 5 mm (0.197 inch)

1



- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® for custom PCB terminal strip assemblies
- Versions with Ex approval
- Spacers for higher voltage applications
- Double solder pins for high mechanical stability
- Space-efficient configuration of terminal strips placed behind each other
- Integrated testing tap



Electrical Data			
Pin spacing	**5 mm (0.197 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	32 A	32 A	32 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter (tolerance)	$1.5^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

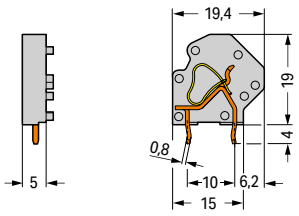
Ferrule	Page 847
Marking	Page 833
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Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

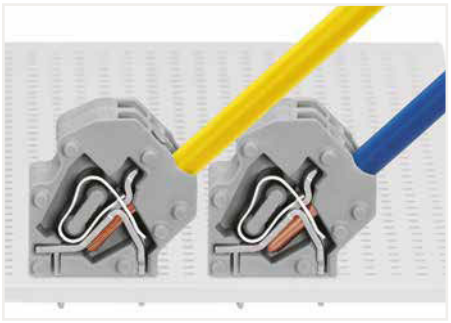
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Modular Terminal Block ▸ Pin spacing: 5 mm (0.197 inch)

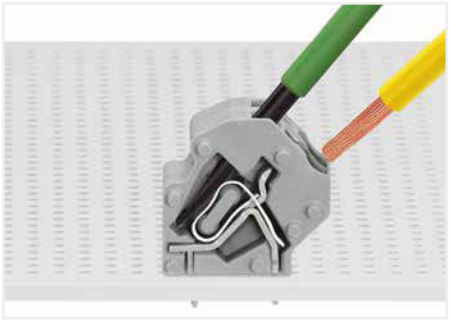


Color	Item No.	PU (SPU)
gray	745-3801	200 (50)
blue	745-3804	200 (50)
light gray	745-3803	200 (50)
light green	745-3808	200 (50)

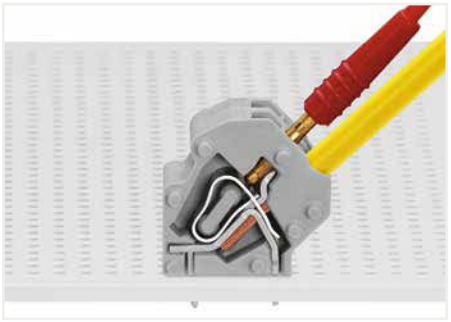




Saving space: two PCB terminal strips arranged in a row.



Inserting a conductor via 3.5 mm screwdriver.



Testing with 2 mm Ø test plug.

Accessories; for all products on this page



End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	745-3100	1000 (100)



intermediate plate; extends pin spacing; Pin spacing: 2.5 mm (0.098 inch)

Color	Item No.	PU (SPU)
gray	745-3138	200 (50)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Versions for Ex e II and Ex i
- Other colors

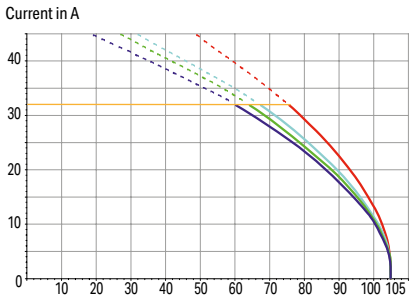
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Terminal strip ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Versions with Ex approval
- Mixed-color PCB terminal strips from factory
- Space-saving configuration of terminal strips when placed behind each other
- Custom color combinations
- Double solder pins for high mechanical stability
- Integrated testing tap



Electrical Data									
Pin spacing	**5 mm (0.197 inch)**			**7.5 mm (0.295 inch)**			**10 mm (0.394 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	800 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	300 V	300 V	600 V
Rated current	20 A	-	10 A	20 A	20 A	10 A	20 A	20 A	5 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	300 V	300 V	600 V
Rated current	20 A	-	10 A	20 A	20 A	10 A	20 A	20 A	5 A

Electrical Data									
Pin spacing	**12.5 mm (0.492 inch)**								
Ratings per	IEC/EN 60664-1								
Overvoltage category	III	III	II						
Pollution degree	3	2	2						
Rated voltage	1000 V	1000 V	1000 V						
Rated impulse voltage	8 kV	8 kV	8 kV						
Rated current	32 A	32 A	32 A						
Approvals per	UL 1059								
Use Group	B	C	D						
Rated voltage	600 V	600 V	-						
Rated current	20 A	20 A	-						
Approvals per	CSA								
Use Group	B	C	D						
Rated voltage	600 V	600 V	-						
Rated current	20 A	20 A	-						

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Ferrule	Page 847
Marking	Page 833
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Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Terminal strip ▸ Color: gray

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter (tolerance)	$1.5^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

PCB Terminal Block ▸ 745 Series

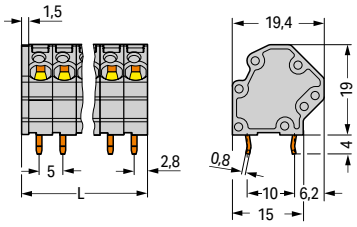
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Terminal strip ▸ Color: gray

1

Pin spacing: 5 mm (0.197 inch)



Pole No.	Item No.	PU
2	745-3102	276
3	745-3103	192
4	745-3104	144
5	745-3105	120
6	745-3106	96
7	745-3107	84
8	745-3108	72
9	745-3109	60
10	745-3110	60
11	745-3111	48
12	745-3112	48

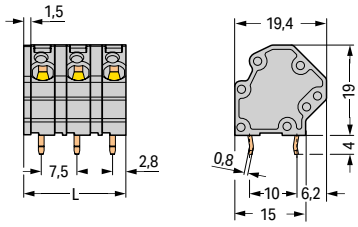


L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU
2	745-3152	228
3	745-3153	132
4	745-3154	108
5	745-3155	84
6	745-3156	72
7	745-3157	60
8	745-3158	48
9	745-3159	48
10	745-3160	36
11	745-3161	30
12	745-3162	30

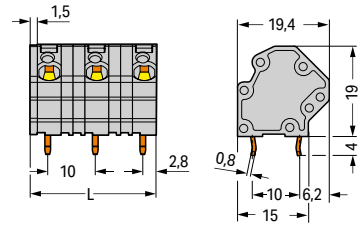


L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

Pin spacing: 10 mm (0.394 inch)



Pole No.	Item No.	PU (SPU)
2	745-3202	192
3	745-3203	120
4	745-3204	84
5	745-3205	60
6	745-3206	48
7	745-3207	48
8	745-3208	36
9	745-3209	36
10	745-3210	24
11	745-3211	12
12	745-3212	24 (12)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking

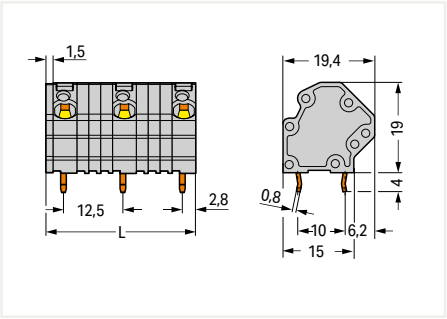
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 12.5 mm (0.492 inch)



Pole No.	Item No.	PU (SPU)
2	745-3252	168
3	745-3253	96
4	745-3254	72
5	745-3255	40
6	745-3256	36
7	745-3257	36
8	745-3258	24 (12)
9	745-3259	24
10	745-3260	24
11	745-3261	12
12	745-3262	12



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking

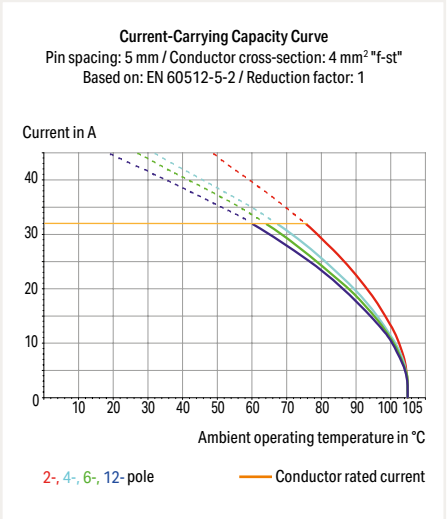
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Number of jumper slots: 1 ▸ Modular terminal block

1



- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® for custom PCB terminal strip assemblies
- Versions with Ex approval
- Common and distribute potentials via comb-style jumper bars
- Double solder pins for high mechanical stability
- Integrated testing tap
- Marker slot for Mini-WSB markers



Electrical Data									
Pin spacing	5 mm (0.197 inch)			7.5 mm (0.295 inch)			10 mm (0.394 inch)		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	20 A	-	10 A	20 A	20 A	10 A	20 A	20 A	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	20 A	-	10 A	20 A	20 A	10 A	20 A	20 A	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter (tolerance)	$1.5^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Jumper	Page 253
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

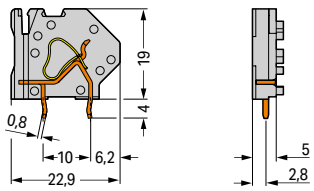
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Number of jumper slots: 1 ▸ Modular terminal block

Pin spacing: 5 mm (0.197 inch)



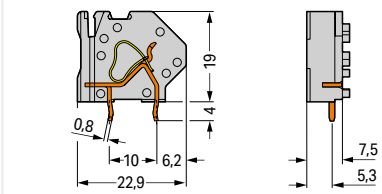
Color	Item No.	PU (SPU)
gray	745-801	200 (50)
blue	745-804	200 (50)
light gray	745-803	200 (50)
green-yellow	745-807	200 (50)
light green	745-808	200 (50)



Pin spacing: 7.5 mm (0.295 inch)



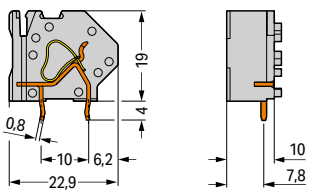
Color	Item No.	PU (SPU)
gray	745-811	200 (50)
blue	745-814	200 (50)
light gray	745-813	200 (50)
green-yellow	745-817	200 (50)
light green	745-818	200 (50)



Pin spacing: 10 mm (0.394 inch)



Color	Item No.	PU (SPU)
gray	745-821	200 (50)
blue	745-824	200 (50)
light gray	745-823	200 (50)
green-yellow	745-827	200 (50)
light green	745-828	200 (50)



Accessories; for all products on this page



End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	745-100	1000 (100)



End plate; 7.9 mm; Screw mounting

Color	Item No.	PU (SPU)
gray	745-140	500 (100)



End plate; 7.3 mm; Screw mounting

Color	Item No.	PU (SPU)
gray	745-145	500 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

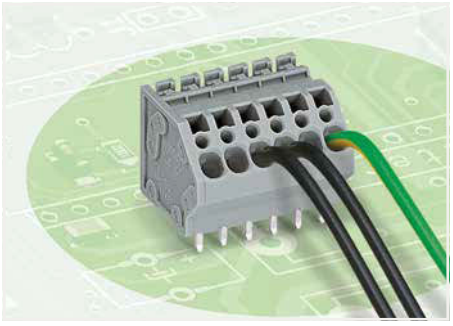
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Versions for Ex e II and Ex i
- Other colors

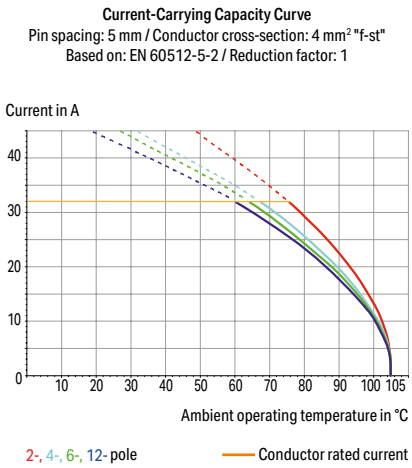
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Number of jumper slots: 1 ▸ Terminal strip ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Versions with Ex approval
- Common and distribute potentials via comb-style jumper bars
- Double solder pins for high mechanical stability
- Custom color combinations
- Integrated testing tap
- Marker slot for Mini-WSB markers



Electrical Data									
Pin spacing	5 mm (0.197 inch)			7.5 mm (0.295 inch)			10 mm (0.394 inch)		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	20 A	-	10 A	20 A	20 A	10 A	20 A	20 A	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	20 A	-	10 A	20 A	20 A	10 A	20 A	20 A	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter (tolerance)	$1.5^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Jumper	Page 253
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

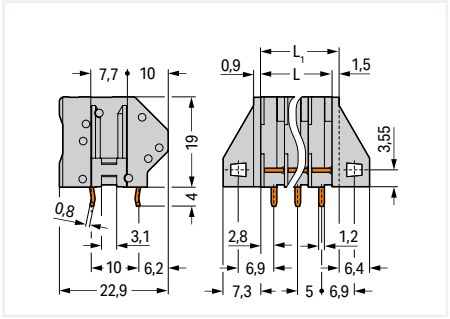
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 4 mm² ▸ Number of jumper slots: 1 ▸ Terminal strip ▸ Color: gray

Pin spacing: 5 mm (0.197 inch)

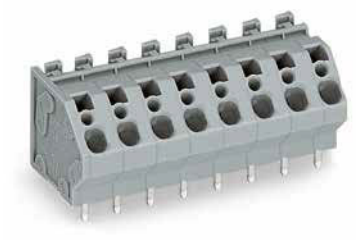


Pole No.	Item No.	PU
2	745-102	230
3	745-103	160
4	745-104	120
5	745-105	100
6	745-106	80
7	745-107	70
8	745-108	60
9	745-109	50
10	745-110	50
12	745-112	40

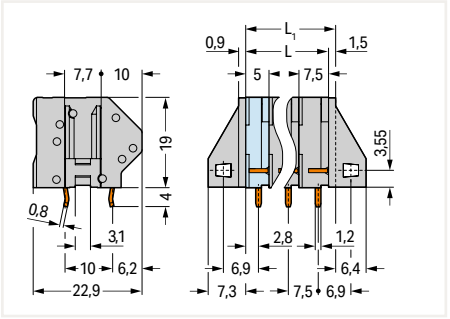


L = (pole no. − 1) x pin spacing + 5 mm
L_1 = L + +1.5 mm ≙ version **without** mounting flanges

Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU
2	745-152	180
3	745-153	120
4	745-154	90
5	745-155	70
6	745-156	60
7	745-157	50
8	745-158	40
9	745-159	40
10	745-160	30
12	745-162	30

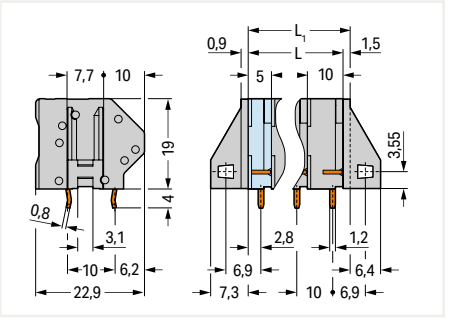


L = (pole no. − 1) x pin spacing + 5 mm
L_1 = L + +1.5 mm ≙ version **without** mounting flanges

Pin spacing: 10 mm (0.394 inch)



Pole No.	Item No.	PU
2	745-202	160
3	745-203	100
4	745-204	70
5	745-205	50
6	745-206	40
7	745-207	40
8	745-208	30
9	745-209	30
10	745-210	20
12	745-212	20



L = (pole no. − 1) x pin spacing + 5 mm
L_1 = L + +1.5 mm ≙ version **without** mounting flanges

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Versions with mounting flanges
- Direct marking

PCB Terminal Block ▸ 745 Series

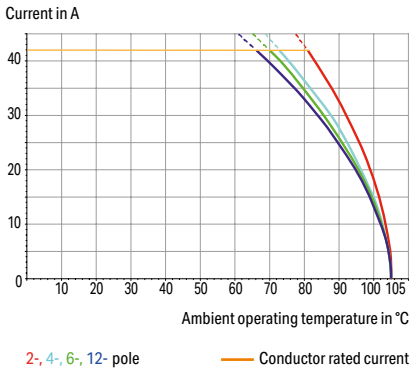
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Terminal strip ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Versions with Ex approval
- Unrestricted UL approval up to 600 V with 12.5 mm pin spacing
- Double solder pins for high mechanical stability
- Custom color combinations
- Integrated testing tap
- Marker slot for Mini-WSB markers

Current-Carrying Capacity Curve
Pin spacing: 7.5 mm / Conductor cross-section: 6 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data

Pin spacing	10 mm (0.394 inch)			12.5 mm (0.492 inch) / 15 mm (0.591 inch)		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	800 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	300 V	600 V	600 V	600 V	-
Rated current	10 A	10 A	5 A	30 A	30 A	-
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	300 V	600 V	600 V	600 V	-
Rated current	10 A	10 A	5 A	30 A	30 A	-

Connection Data

Connection technology	CAGE CLAMP®
Strip length	11 … 12 mm / 0.43 … 0.47 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 4 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 4 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4.5 mm
Solder pin dimensions	1 x 1.4 mm
Drilled hole diameter (tolerance)	$1.8^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Jumper	Page 253
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

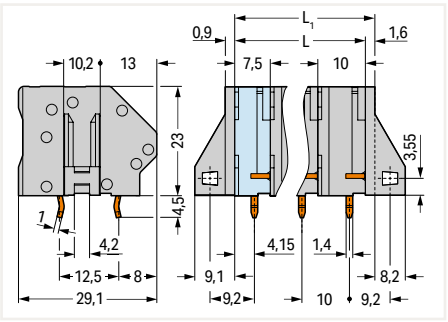
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 10 mm (0.394 inch)



Pole No.	Item No.	PU
2	745-1352	104
3	745-1353	72
4	745-1354	48
5	745-1355	40
6	745-1356	32
7	745-1357	24
8	745-1358	24
9	745-1359	24
10	745-1360	16
12	745-1362	16

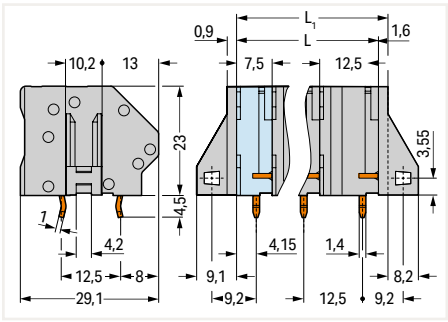


L = (pole no. – 1) x pin spacing + 7.5 mm
L_1 = L + 1.6 mm ≙ version **without** mounting flanges

Pin spacing: 12.5 mm (0.492 inch)



Pole No.	Item No.	PU
2	745-1402	80
3	745-1403	48
4	745-1404	40
5	745-1405	32
6	745-1406	24
7	745-1407	24
8	745-1408	16
9	745-1409	16
10	745-1410	16
12	745-1412	8

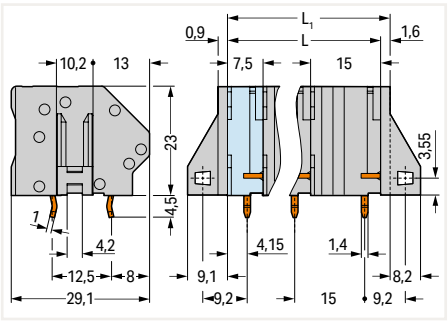


L = (pole no. – 1) x pin spacing + 7.5 mm
L_1 = L + 1.6 mm ≙ version **without** mounting flanges

Pin spacing: 15 mm (0.591 inch)



Pole No.	Item No.	PU
2	745-1452	64
3	745-1453	40
4	745-1454	32
5	745-1455	24
6	745-1456	16
7	745-1457	16
8	745-1458	16
9	745-1459	8
10	745-1460	8
12	745-1462	8



L = (pole no. – 1) x pin spacing + 7.5 mm
L_1 = L + 1.6 mm ≙ version **without** mounting flanges

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Versions with mounting flanges
- Direct marking

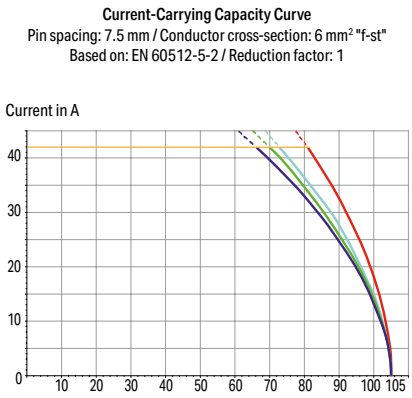
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Number of jumper slots: 1 ▸ Modular terminal block

1



- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® for custom PCB terminal strip assemblies
- Versions with Ex approval
- Common and distribute potentials via comb-style jumper bars
- Double solder pins for high mechanical stability
- Integrated testing tap
- Marker slot for Mini-WSB markers



Electrical Data						
Pin spacing	**7.5 mm (0.295 inch)**			**10 mm (0.394 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	30 A	30 A	10 A	30 A	30 A	10 A
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	30 A	30 A	10 A	30 A	30 A	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	11 … 12 mm / 0.43 … 0.47 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 4 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 4 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4.5 mm
Solder pin dimensions	1 x 1.4 mm
Drilled hole diameter (tolerance)	$1.8^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Jumper	Page 253
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
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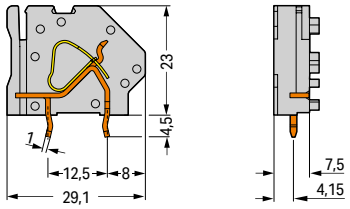
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Number of jumper slots: 1 ▸ Modular terminal block

Pin spacing: 7.5 mm (0.295 inch)



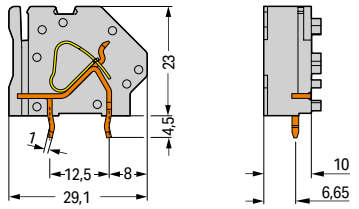
Color	Item No.	PU (SPU)
gray	745-831	100 (50)
blue	745-834	100 (5)
light gray	745-833	100 (50)
green-yellow	745-837	100 (50)
light green	745-838	100 (50)



Pin spacing: 10 mm (0.394 inch)



Color	Item No.	PU (SPU)
gray	745-841	100 (50)
blue	745-844	100 (50)
light gray	745-843	100 (50)
green-yellow	745-847	100 (50)
light green	745-848	100 (50)



Accessories; for all products on this page



End plate; 1.6 mm; snap-on type

Color	Item No.	PU (SPU)
gray	745-300	500 (100)



intermediate plate; extends pin spacing; Pin spacing: 2.5 mm (0.098 inch)

Color	Item No.	PU (SPU)
gray	745-338	500 (50)



End plate; 9.8 mm; Screw mounting

Color	Item No.	PU (SPU)
gray	745-340	200 (50)



End plate; 9.1 mm; Screw mounting

Color	Item No.	PU (SPU)
gray	745-345	200 (50)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

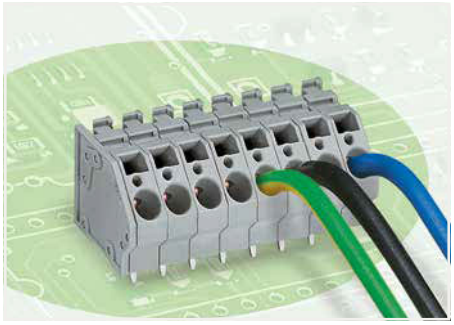
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- Versions for Ex e II and Ex i
- Other colors

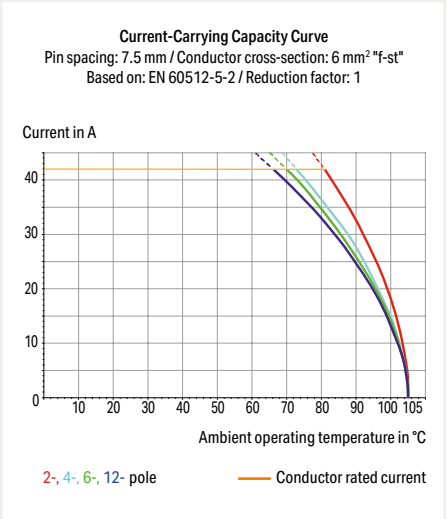
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Number of jumper slots: 1 ▸ Terminal strip ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Versions with Ex approval
- Common and distribute potentials via comb-style jumper bars
- Double solder pins for high mechanical stability
- Custom color combinations
- Integrated testing tap
- Marker slot for Mini-WSB markers



Electrical Data						
Pin spacing	**7.5 mm (0.295 inch)**			**10 mm (0.394 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	30 A	30 A	10 A	30 A	30 A	10 A
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	150 V	300 V
Rated current	30 A	30 A	10 A	30 A	30 A	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	11 … 12 mm / 0.43 … 0.47 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 4 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 4 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4.5 mm
Solder pin dimensions	1 x 1.4 mm
Drilled hole diameter (tolerance)	$1.8^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Jumper	Page 253
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

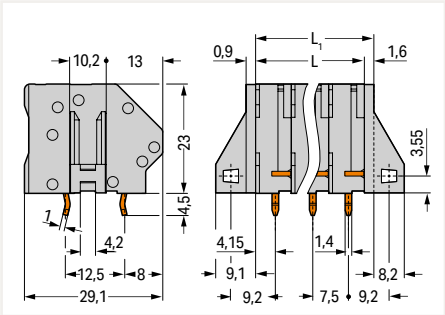
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Number of jumper slots: 1 ▸ Terminal strip ▸ Color: gray

Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU
2	745-302	128
3	745-303	88
4	745-304	64
5	745-305	48
6	745-306	40
7	745-307	40
8	745-308	32
9	745-309	24
10	745-310	24
12	745-312	16

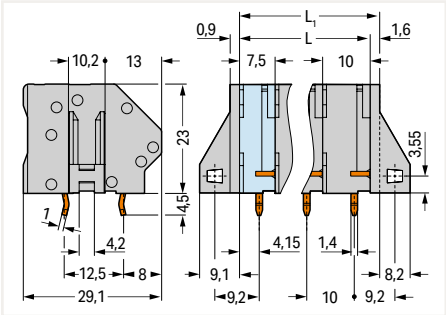


L = (pole no. – 1) x pin spacing + 7.5 mm
L_1 = L + 1.6 mm ≙ version **without** mounting flanges

Pin spacing: 10 mm (0.394 inch)



Pole No.	Item No.	PU
2	745-352	104
3	745-353	72
4	745-354	48
5	745-355	40
6	745-356	32
7	745-357	24
8	745-358	24
9	745-359	24
10	745-360	16
12	745-362	16



L = (pole no. – 1) x pin spacing + 7.5 mm
L_1 = L + 1.6 mm ≙ version **without** mounting flanges

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Versions with mounting flanges
- Direct marking

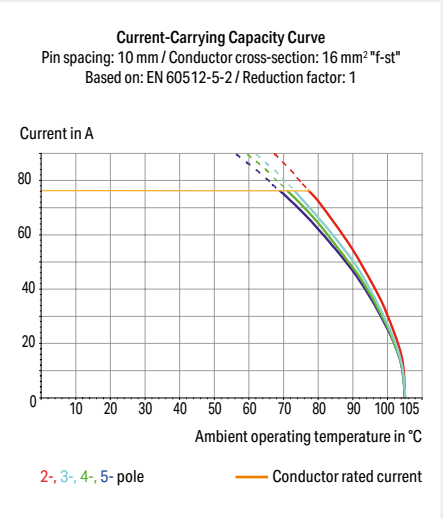
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Number of jumper slots: 1 ▸ Modular terminal block

1



- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® for custom PCB terminal strip assemblies
- Versions with Ex approval
- Unrestricted UL approval up to 600 V with 20 mm pin spacing
- Common and distribute potentials via comb-style jumper bars
- Four solder pins for high mechanical stability
- Integrated testing tap
- Marker slot for Mini-WSB markers



Electrical Data									
Pin spacing	**10 mm (0.394 inch)**			**15 mm (0.591 inch)**			**20 mm (0.787 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	630 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	8 kV	8 kV	8 kV	12 kV	12 kV	12 kV
Rated current	76 A	76 A	76 A	76 A	76 A	76 A	76 A	76 A	76 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	300 V	600 V	600 V	600 V	-
Rated current	10 A	-	10 A	65 A	65 A	5 A	65 A	65 A	-
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	300 V	600 V	600 V	600 V	-
Rated current	10 A	-	10 A	65 A	65 A	5 A	65 A	65 A	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.2 … 16 mm² / 24 … 6 AWG
Fine-stranded conductor	0.2 … 16 mm² / 24 … 6 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 10 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 10 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	6.5 mm
Solder pin dimensions	1.2 x 1.6 mm
Drilled hole diameter (tolerance)	$2.2^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Jumper	Page 253
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

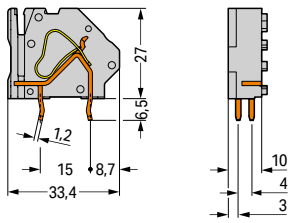
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Number of jumper slots: 1 ▸ Modular terminal block

Pin spacing: 10 mm (0.394 inch)



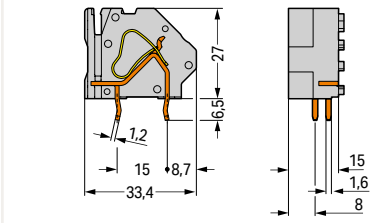
Color	Item No.	PU (SPU)
gray	745-851/006-000	100 (100)
blue	745-854/006-000	100 (100)
light gray	745-853/006-000	100
green-yellow	745-857/006-000	100 (100)
light green	745-858/006-000	100



Pin spacing: 15 mm (0.591 inch)



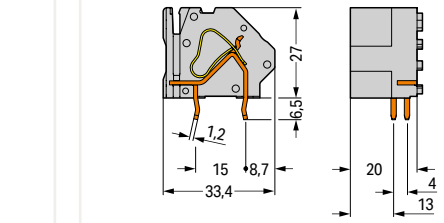
Color	Item No.	PU (SPU)
gray	745-871/006-000	100 (100)
blue	745-874/006-000	100 (100)
light gray	745-873/006-000	100 (100)
green-yellow	745-877/006-000	100 (100)
light green	745-878/006-000	100



Pin spacing: 20 mm (0.787 inch)



Color	Item No.	PU (SPU)
gray	745-881/006-000	50 (50)
blue	745-884/006-000	50 (50)
light gray	745-883/006-000	50 (50)
green-yellow	745-887/006-000	50
light green	745-888/006-000	50



Accessories; for all products on this page



End plate; 1.7 mm; snap-on type

Color	Item No.	PU (SPU)
gray	745-500	500 (100)



End plate; 10.5 mm; Screw mounting

	Item No.	PU (SPU)
	745-540	200 (50)
	745-545	200 (50)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Versions for Ex e II and Ex i
- Other colors
- Solder pin length: 5 mm

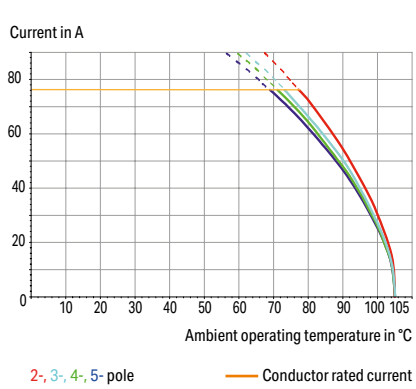
PCB Terminal Block ▸ 745 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Number of jumper slots: 1 ▸ Terminal strip ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Versions with Ex approval
- Unrestricted UL approval up to 600 V with 20 mm pin spacing
- Common and distribute potentials via comb-style jumper bars
- Four solder pins for high mechanical stability
- Integrated testing tap
- Marker slot for Mini-WSB markers



Electrical Data									
Pin spacing	**10 mm (0.394 inch)**			**15 mm (0.591 inch)**			**20 mm (0.787 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	630 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	8 kV	8 kV	8 kV	12 kV	12 kV	12 kV
Rated current	76 A	76 A	76 A	76 A	76 A	76 A	76 A	76 A	76 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	300 V	600 V	600 V	600 V	-
Rated current	10 A	-	10 A	65 A	65 A	5 A	65 A	65 A	-
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	300 V	600 V	600 V	600 V	-
Rated current	10 A	-	10 A	65 A	65 A	5 A	65 A	65 A	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.2 … 16 mm² / 24 … 6 AWG
Fine-stranded conductor	0.2 … 16 mm² / 24 … 6 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 10 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 10 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	6.5 mm
Solder pin dimensions	1.2 x 1.6 mm
Drilled hole diameter (tolerance)	$2.2^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Jumper	Page 253
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 745 Series

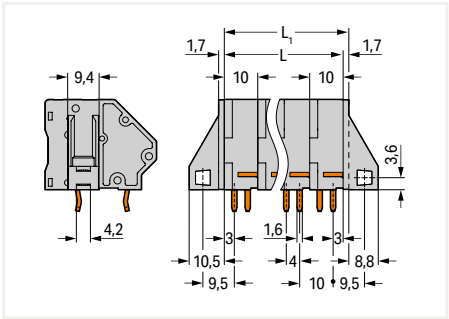
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Number of jumper slots: 1 ▸ Terminal strip ▸ Color: gray

1

Pin spacing: 10 mm (0.394 inch)



Pole No.	Item No.	PU
2	745-502/006-000	48
3	745-503/006-000	32
4	745-504/006-000	24
5	745-505/006-000	20

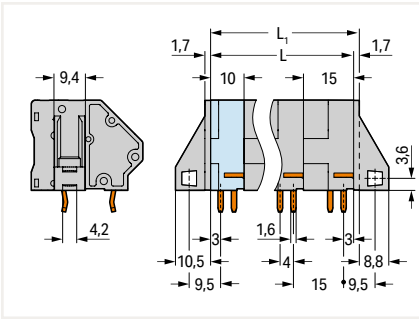


L = (pole no. − 1) x pin spacing + 10 mm
L_1 = L + 1.7 mm ≙ version **without** mounting flanges

Pin spacing: 15 mm (0.591 inch)



Pole No.	Item No.	PU
2	745-602/006-000	36
3	745-603/006-000	24
4	745-604/006-000	16
5	745-605/006-000	12

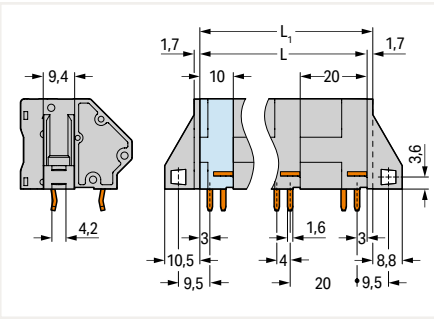


L = (pole no. − 1) x pin spacing + 10 mm
L_1 = L + 1.7 mm ≙ version **without** mounting flanges

Pin spacing: 20 mm (0.787 inch)



Pole No.	Item No.	PU
2	745-652/006-000	32
3	745-653/006-000	20
4	745-654/006-000	12
5	745-655/006-000	8



L = (pole no. − 1) x pin spacing + 10 mm
L_1 = L + 1.7 mm ≙ version **without** mounting flanges

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Versions with mounting flanges
- Direct marking
- Solder pin length: 5 mm

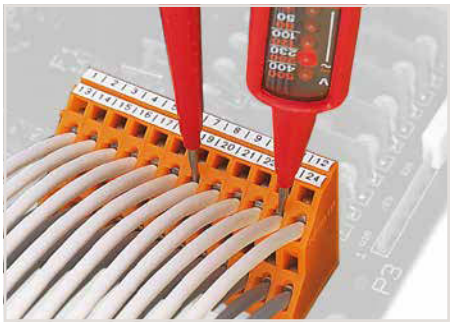
CAGE CLAMP®

736, 737 and 738 Series
Description and Installation

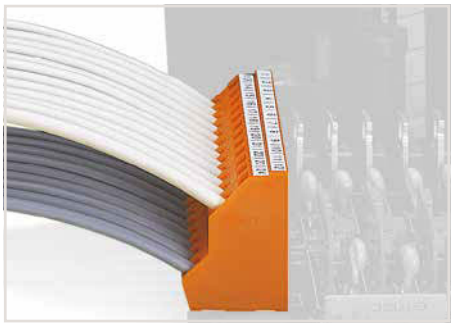
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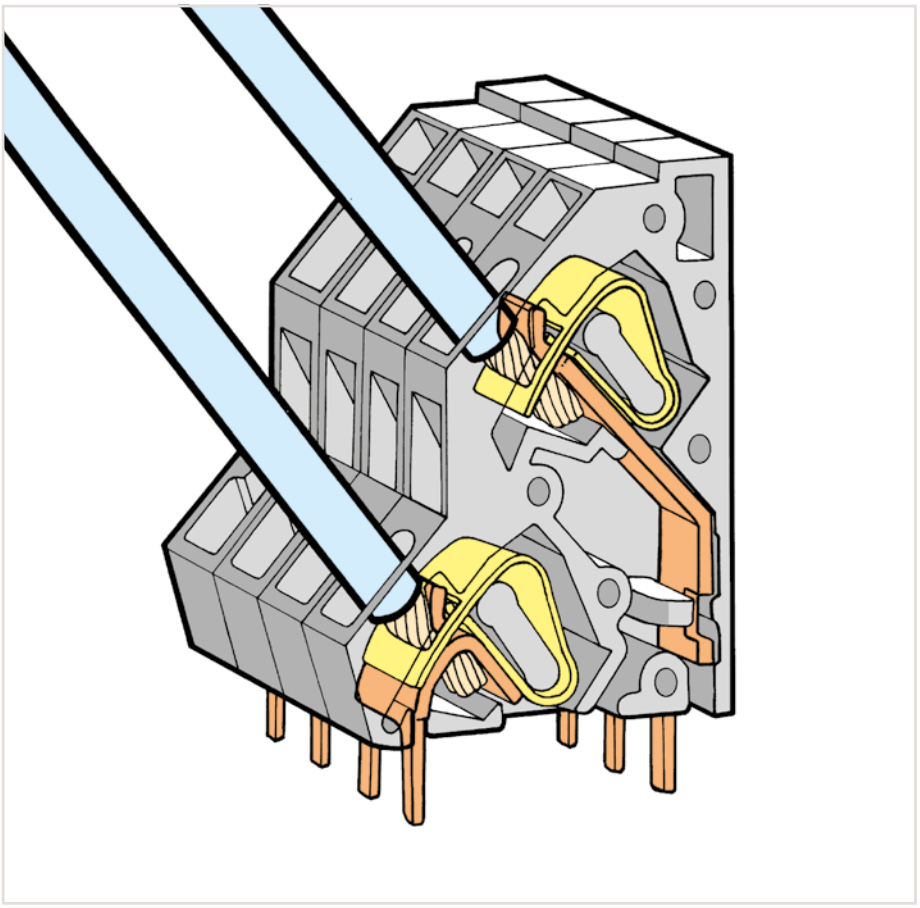
Inserting a conductor via 3.5 mm screwdriver.
Screwdriver actuation parallel to conductor entry.



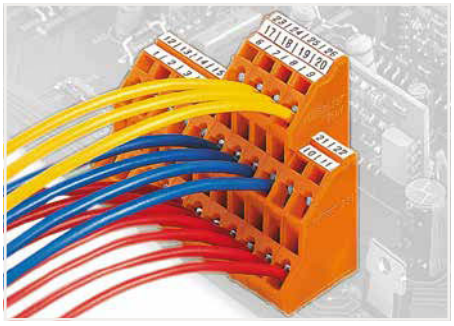
Testing via contact area above the conductors.



Low space requirements due to high-density design – double-Deck PCB terminal strip – 736 Series.



736 Series



Labeling with self-adhesive marking strips.

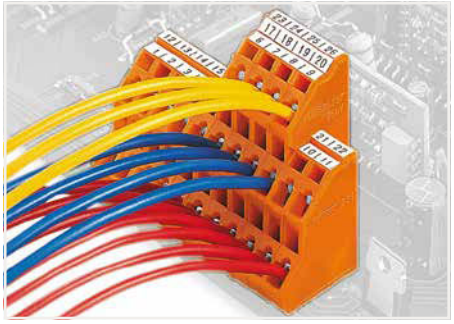
736, 737 and 738 Series
Combination of Multilevel PCB Terminal Strips



Possible combination:
Double- (736 Series) and triple-Deck PCB terminal strips (737 Series) upon request
Combination of Multilevel PCB Terminal Strips



Possible combination:
Double- (736 Series) and triple-Deck PCB terminal strips (737 Series) upon request





Possible combination:
Double- (737 Series) and quadruple-Deck PCB terminal strips (738 Series) upon request

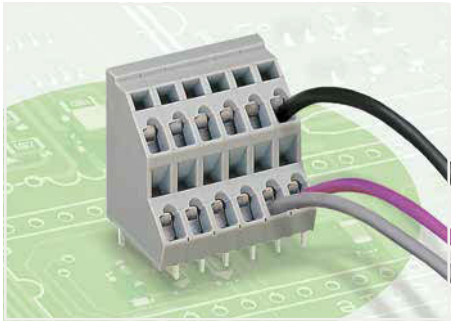


Possible combination:
Double- (737 Series) and quadruple-Deck PCB terminal strips (738 Series) upon request

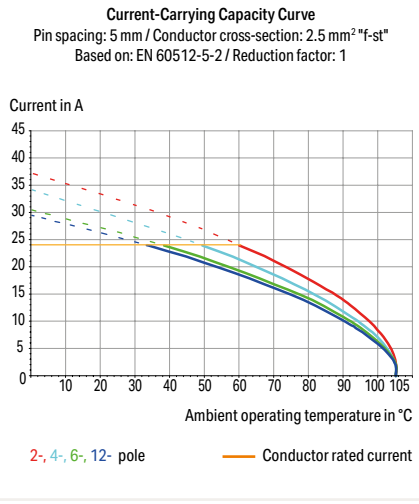
Double-Deck PCB Terminal Block ▸ 736 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- High-density, double-Deck design for space-efficient wiring of multiple conductors in confined areas
- Custom marking for all termination levels



Electrical Data									
Pin spacing	**5 mm (0.197 inch)**			**7.5 mm (0.295 inch)**			**10 mm (0.394 inch)**		
Between the modules									
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Between the decks									
Ratings according to 2	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.3$^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 254
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Double-Deck PCB Terminal Block ▸ 736 Series

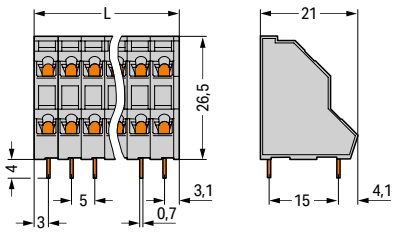
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 5 mm (0.197 inch)

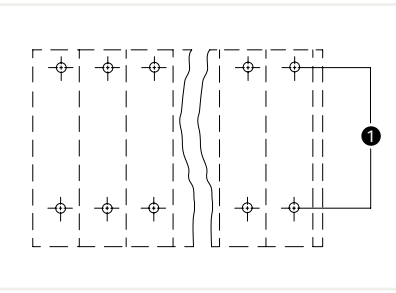
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	736-102	161
3	736-103	112
4	736-104	84
6	736-106	56
8	736-108	42
12	736-112	28
16	736-116	21
24	736-124	14



L = (pole no. x pin spacing) + 1 mm

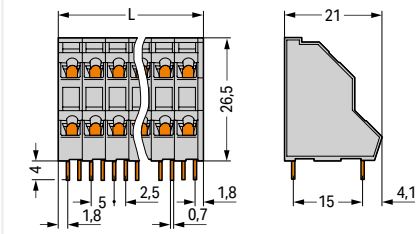


(1) Solder pins in a row

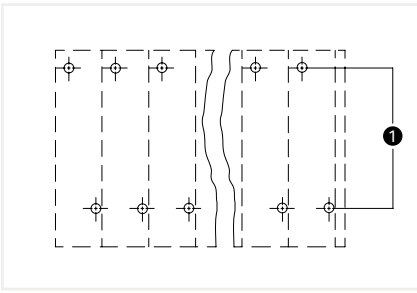
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	736-202	161
3	736-203	112
4	736-204	84
6	736-206	56
8	736-208	42
12	736-212	28
16	736-216	21
24	736-224	14



L = (pole no. x pin spacing) + 1 mm



(1) Solder pin staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

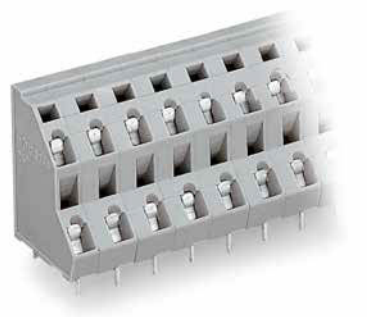
Double-Deck PCB Terminal Block ▸ 736 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: gray

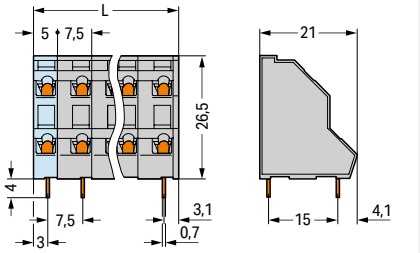
Pin spacing: 7.5 mm (0.295 inch)

1

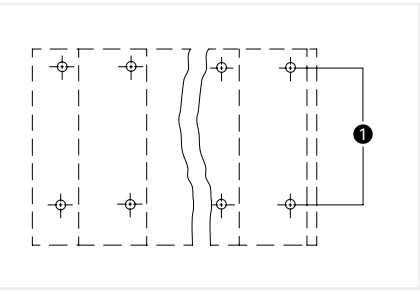
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	736-502	133
3	736-503	84
4	736-504	63
6	736-506	42
8	736-508	28
12	736-512	21
16	736-516	14

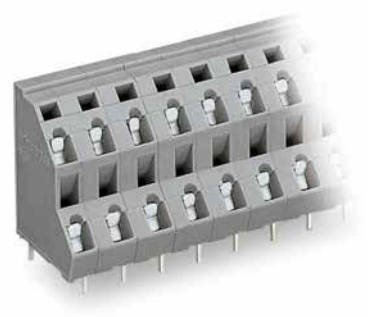


L = (pole no. – 1) x pin spacing + 5 mm + 1 mm

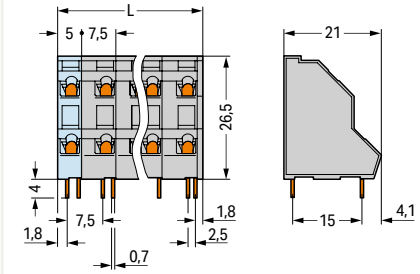


(1) Solder pins in a row

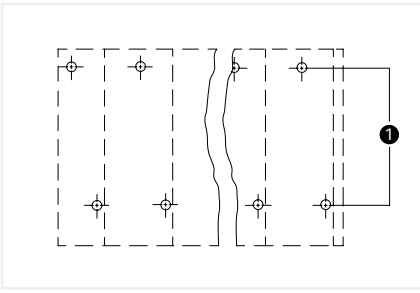
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	736-552	133
3	736-553	84
4	736-554	63
6	736-556	42
8	736-558	28
12	736-562	21
16	736-566	14



L = (pole no. – 1) x pin spacing + 5 mm + 1 mm



(1) Solder pin staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

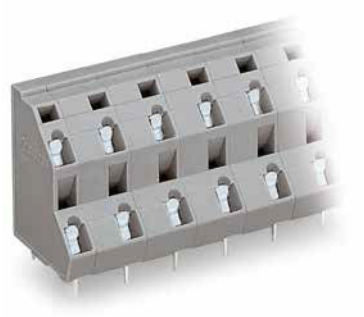
- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

Double-Deck PCB Terminal Block ▸ 736 Series

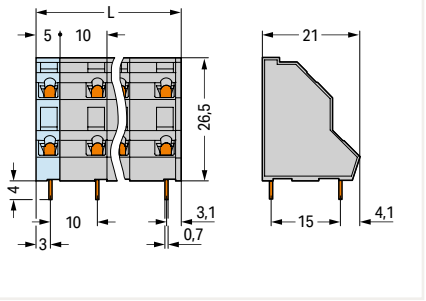
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 10 mm (0.394 inch)

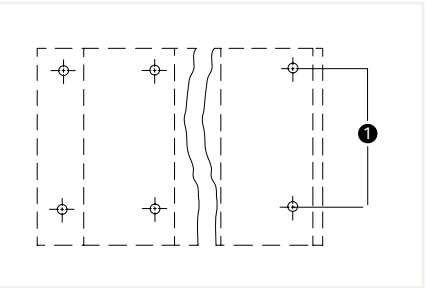
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	736-702	112
3	736-703	70
4	736-704	49
6	736-706	28
8	736-708	21
12	736-712	14

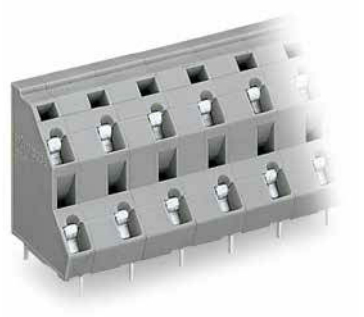


L = (pole no. – 1) x pin spacing + 5 mm + 1 mm

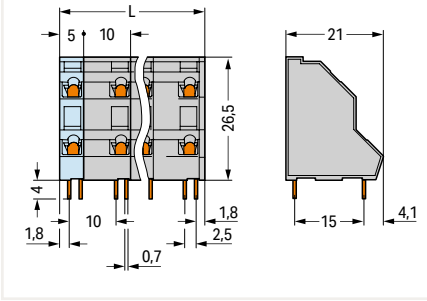


(1) Solder pins in a row

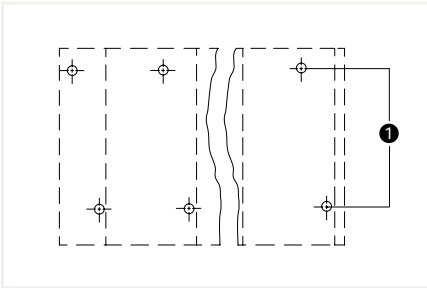
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	736-752	112
3	736-753	70
4	736-754	49
6	736-756	28
8	736-758	21
12	736-762	14



L = (pole no. – 1) x pin spacing + 5 mm + 1 mm



(1) Solder pin staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

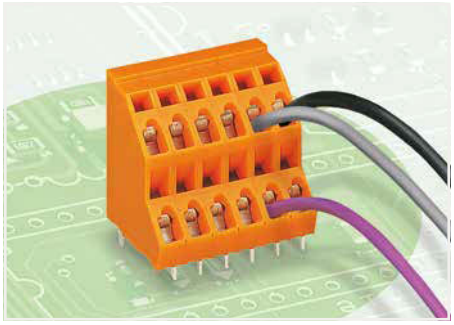
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

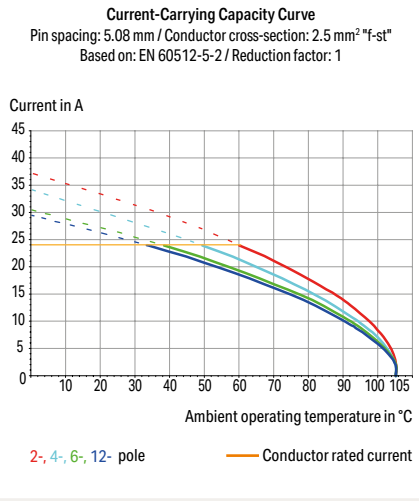
Double-Deck PCB Terminal Block ▸ 736 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: orange

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- High-density, double-Deck design for space-efficient wiring of multiple conductors in confined areas
- Custom marking for all termination levels



Electrical Data									
Pin spacing	**5.08 mm (0.2 inch)**			**7.62 mm (0.3 inch)**			**10.16 mm (0.4 inch)**		
Between the modules									
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Between the decks									
Ratings according to 2	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.3$^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 254
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Double-Deck PCB Terminal Block ▸ 736 Series

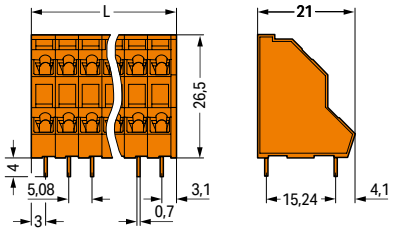
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: orange

Pin spacing: 5.08 mm (0.2 inch)

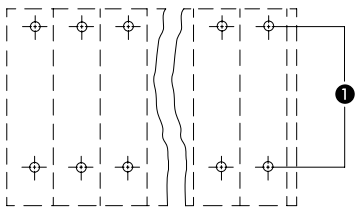
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	736-302	161
3	736-303	112
4	736-304	84
6	736-306	56
8	736-308	42
12	736-312	28
16	736-316	21
24	736-324	14



L = (pole no. x pin spacing) + 1 mm

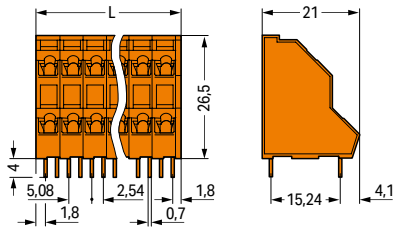


(1) Solder pins in a row

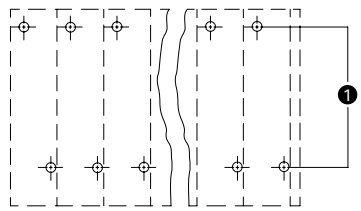
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	736-402	161
3	736-403	112
4	736-404	84
6	736-406	56
8	736-408	42
12	736-412	28
16	736-416	21
24	736-424	14



L = (pole no. x pin spacing) + 1 mm



(1) Solder pin staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

Double-Deck PCB Terminal Block ▸ 736 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: orange

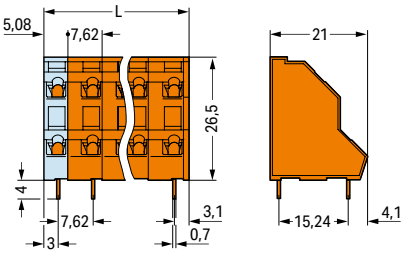
Pin spacing: 7.62 mm (0.3 inch)

1

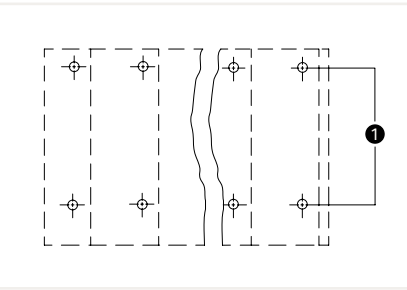
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU (SPU)
2	736-602	133
3	736-603	84 (21)
4	736-604	63
6	736-606	35
8	736-608	28
12	736-612	14
16	736-616	14

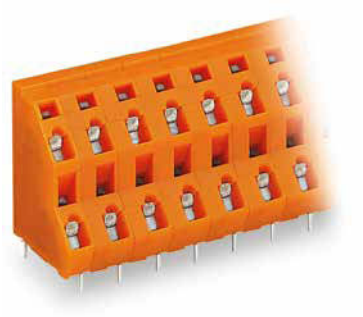


L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm

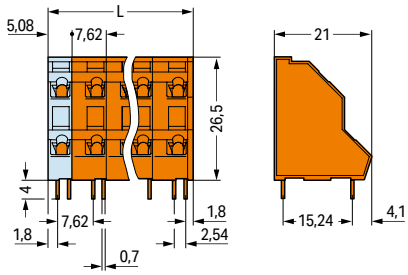


(1) Solder pins in a row

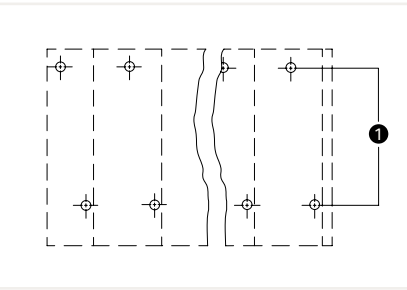
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	736-652	133
3	736-653	84
4	736-654	63
6	736-656	35
8	736-658	28
12	736-662	14
16	736-666	14



L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm



(1) Solder pin staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

Double-Deck PCB Terminal Block ▸ 736 Series

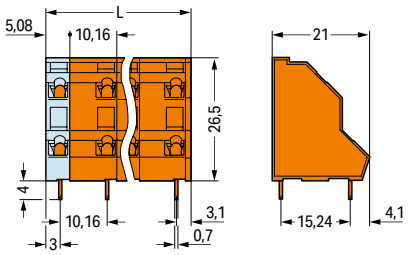
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: orange

Pin spacing: 10.16 mm (0.4 inch)

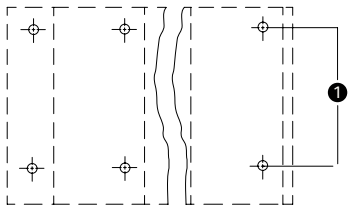
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	736-802	112
3	736-803	70
4	736-804	49
6	736-806	28
8	736-808	21
12	736-812	14

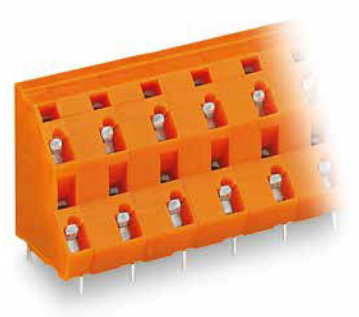


L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm

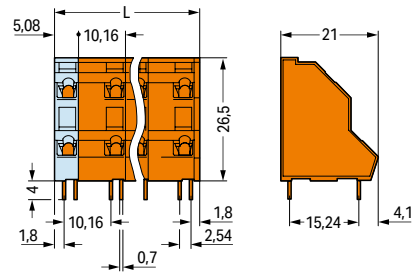


(1) Solder pins in a row

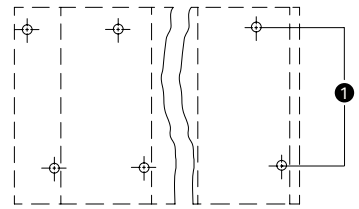
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	736-852	112
3	736-853	70
4	736-854	49
6	736-856	28
8	736-858	21
12	736-862	14



L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm



(1) Solder pin staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

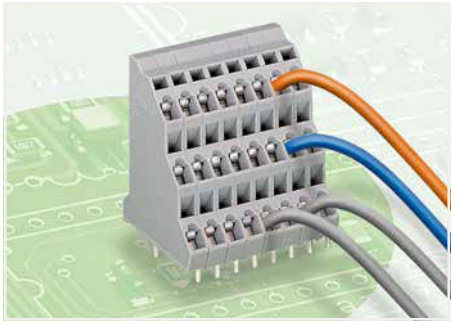
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

Triple-Deck PCB Terminal Block ▸ 737 Series

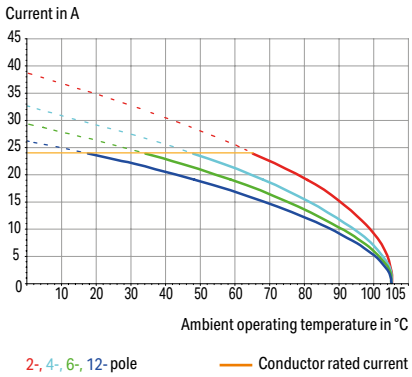
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- High-density, double-Deck design for space-efficient wiring of multiple conductors in confined areas
- Custom marking for all termination levels

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	**5 mm (0.197 inch)**			**7.5 mm (0.295 inch)**			**10 mm (0.394 inch)**		
Between the modules									
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Between the decks									
Ratings according to 2	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.3$^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 254
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Triple-Deck PCB Terminal Block ▸ 737 Series

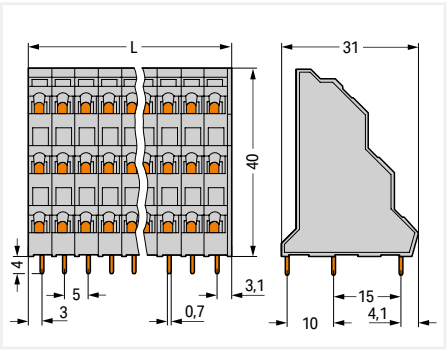
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 5 mm (0.197 inch)

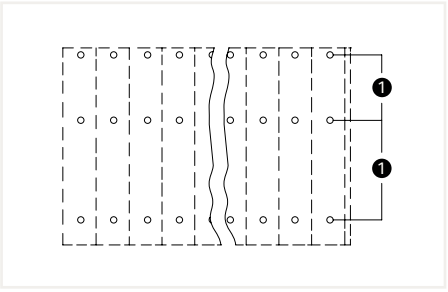
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	737-102	92
3	737-103	64
4	737-104	48
6	737-106	32
8	737-108	24
12	737-112	16
16	737-116	12
24	737-124	8



L = (pole no. x pin spacing) + 1 mm

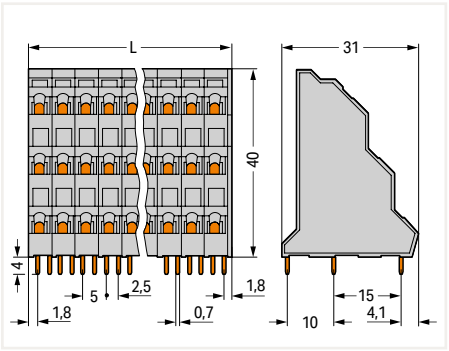


(1) Solder pins in a row

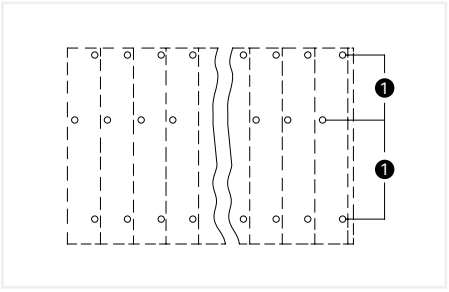
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	737-202	92
3	737-203	64
4	737-204	48
6	737-206	32
8	737-208	24
12	737-212	16
16	737-216	12
24	737-224	8



L = (pole no. x pin spacing) + 1 mm



(1) Solder pin for deck 2, staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

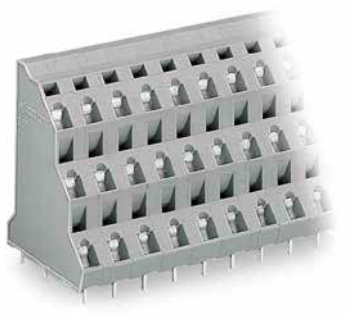
Triple-Deck PCB Terminal Block ▸ 737 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: gray

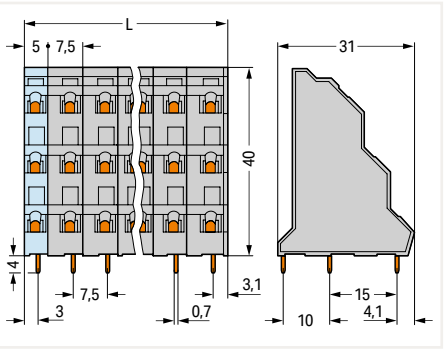
Pin spacing: 7.5 mm (0.295 inch)

1

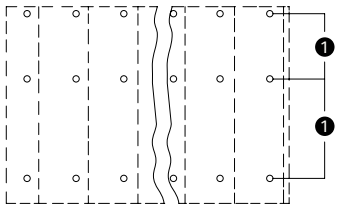
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	737-502	76
3	737-503	48
4	737-504	36
6	737-506	24
8	737-508	16
12	737-512	8
16	737-516	8

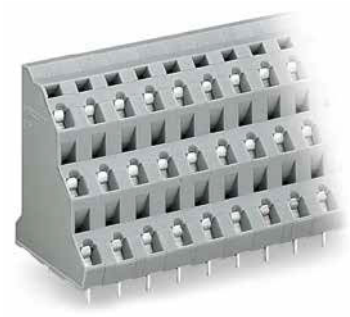


L = (pole no. – 1) x pin spacing + 5 mm + 1 mm

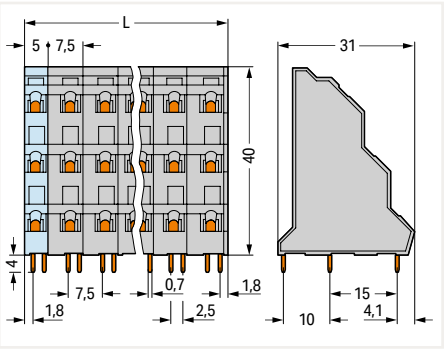


(1) Solder pins in a row

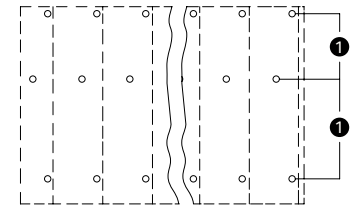
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	737-552	76
3	737-553	48
4	737-554	36
6	737-556	24
8	737-558	16
12	737-562	8
16	737-566	8



L = (pole no. – 1) x pin spacing + 5 mm + 1 mm



(1) Solder pin for deck 2, staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

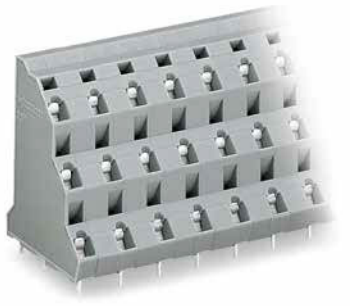
- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

Triple-Deck PCB Terminal Block ▸ 737 Series

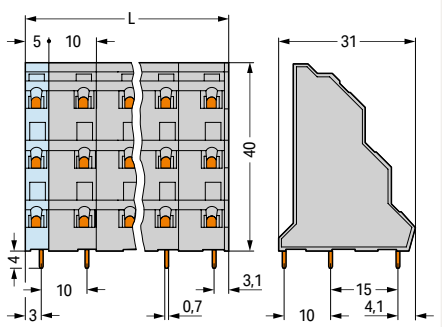
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 10 mm (0.394 inch)

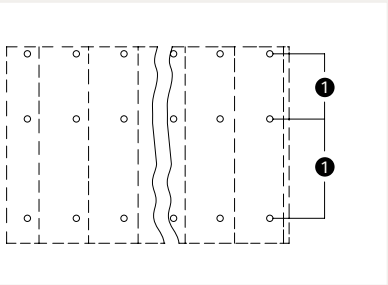
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	737-702	64
3	737-703	40
4	737-704	28
6	737-706	16
8	737-708	12
12	737-712	8



L = (pole no. – 1) x pin spacing + 5 mm + 1 mm

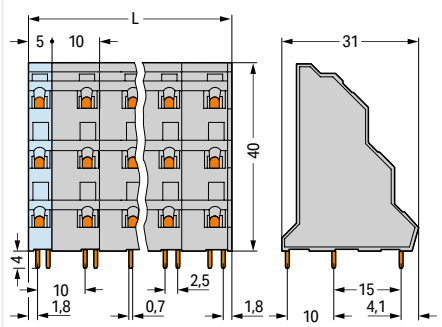


(1) Solder pins in a row

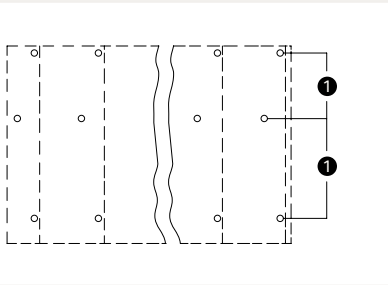
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	737-752	64
3	737-753	40
4	737-754	28
6	737-756	16
8	737-758	12
12	737-762	8



L = (pole no. – 1) x pin spacing + 5 mm + 1 mm



(1) Solder pin for deck 2, staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

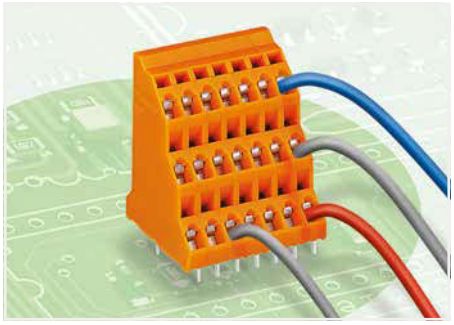
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

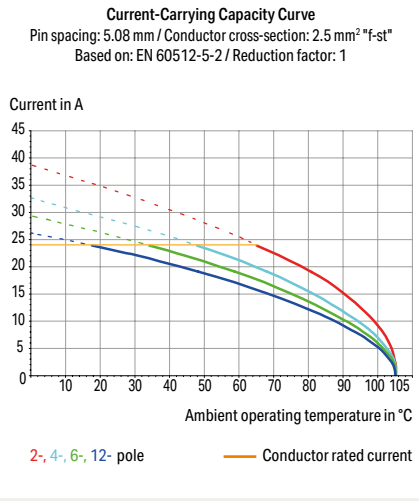
Triple-Deck PCB Terminal Block ▸ 737 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: orange

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- High-density, double-Deck design for space-efficient wiring of multiple conductors in confined areas
- Custom marking for all termination levels



Electrical Data									
Pin spacing	**5.08 mm (0.2 inch)**			**7.62 mm (0.3 inch)**			**10.16 mm (0.4 inch)**		
Between the modules									
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Between the decks									
Ratings according to 2	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A	21 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.3$^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

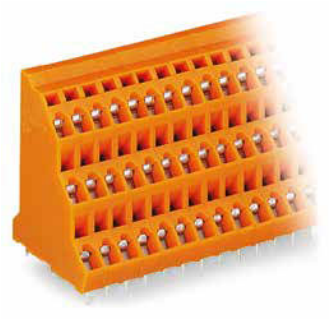
Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 254
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Triple-Deck PCB Terminal Block ▸ 737 Series

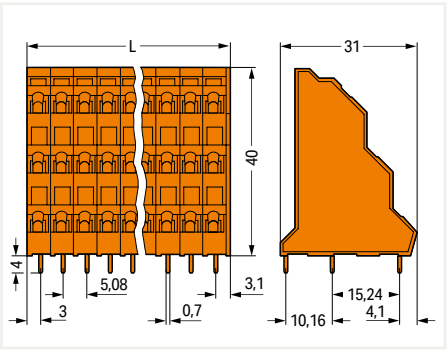
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: orange

Pin spacing: 5.08 mm (0.2 inch)

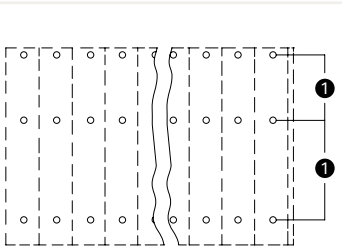
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	737-302	92
3	737-303	64
4	737-304	48
6	737-306	32
8	737-308	24
12	737-312	16
16	737-316	12
24	737-324	8

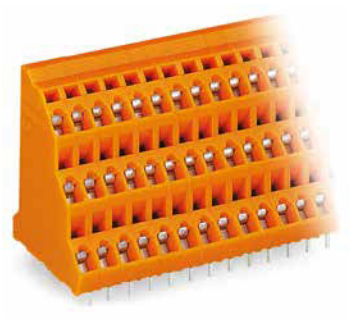


L = (pole no. x pin spacing) + 1 mm

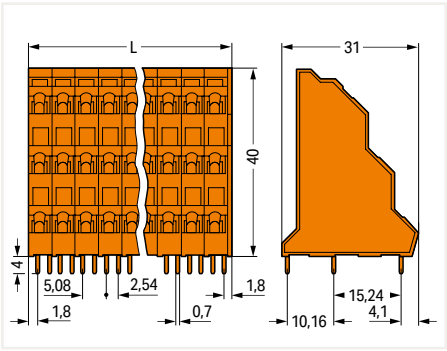


(1) Solder pins in a row

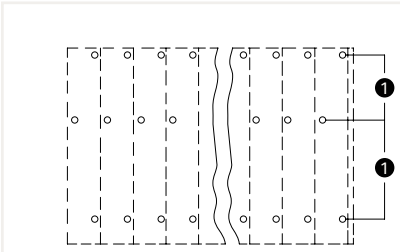
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	737-402	96
3	737-403	64
4	737-404	48
6	737-406	32
8	737-408	24
12	737-412	16
16	737-416	12
24	737-424	8



L = (pole no. x pin spacing) + 1 mm



(1) Solder pin for deck 2, staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

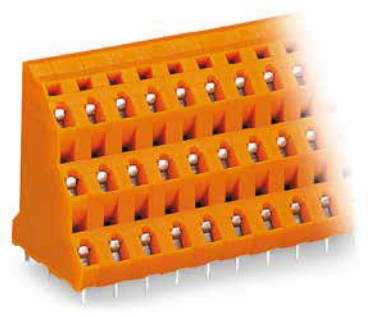
Triple-Deck PCB Terminal Block ▸ 737 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: orange

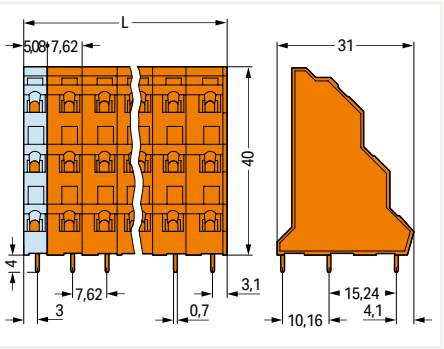
Pin spacing: 7.62 mm (0.3 inch)

1

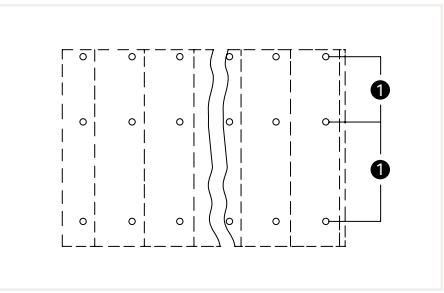
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	737-602	76
3	737-603	48
4	737-604	36
6	737-606	20
8	737-608	16
12	737-612	8
16	737-616	8

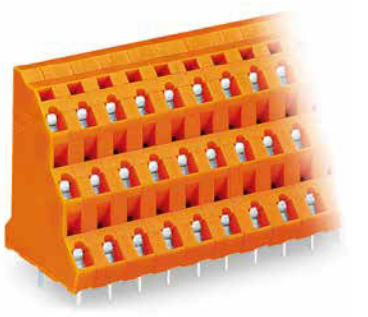


L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm

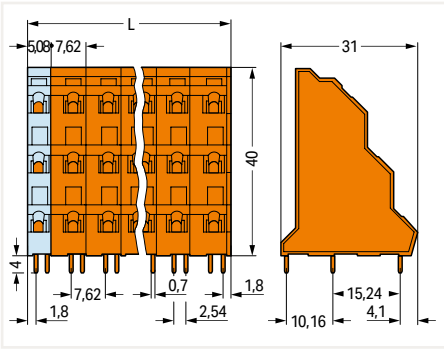


(1) Solder pins in a row

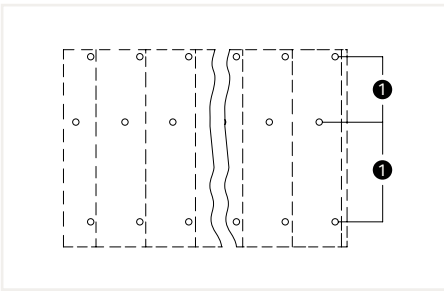
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	737-652	76
3	737-653	48
4	737-654	36
6	737-656	20
8	737-658	16
12	737-662	8
16	737-666	8



L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm



(1) Solder pin for deck 2, staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

Triple-Deck PCB Terminal Block ▸ 737 Series

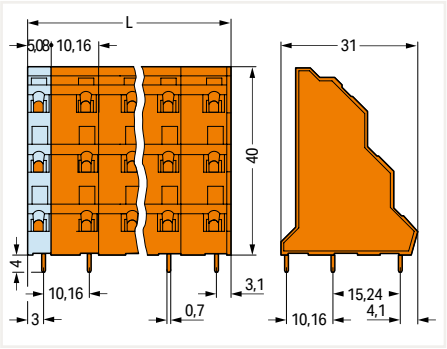
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: orange

Pin spacing: 10.16 mm (0.4 inch)

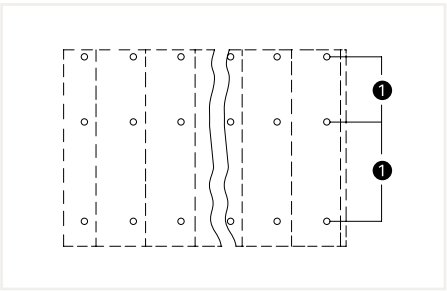
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	737-802	64
3	737-803	40
4	737-804	28
6	737-806	16
8	737-808	12
12	737-812	8

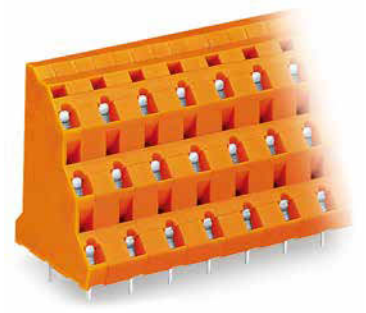


L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm

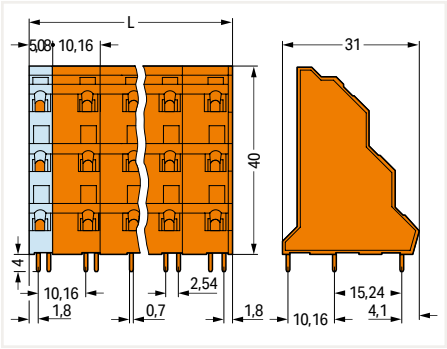


(1) Solder pins in a row

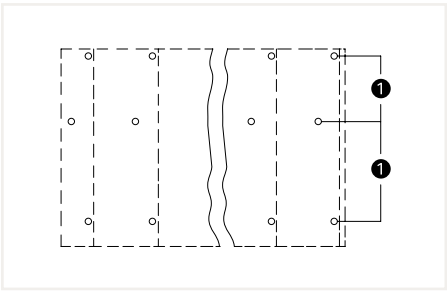
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	737-852	64
3	737-853	40
4	737-854	28
6	737-856	16
8	737-858	12
12	737-862	8



L = (pole no. – 1) x pin spacing + 5.08 mm + 1 mm



(1) Solder pin for deck 2, staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

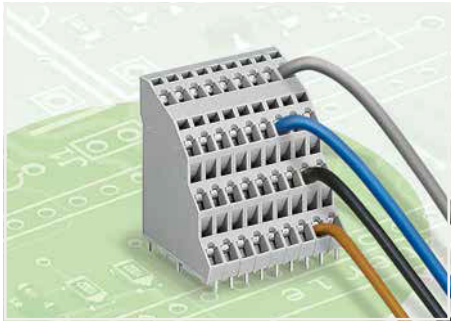
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

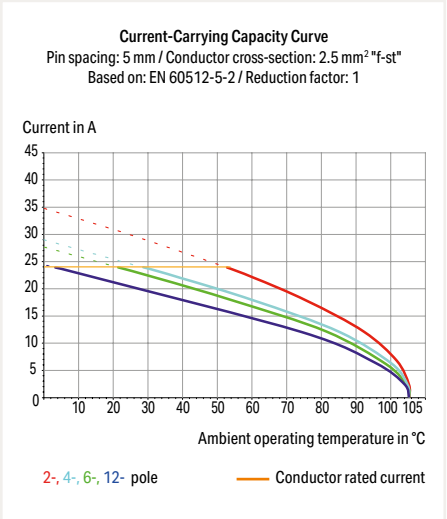
Quadruple-Deck PCB Terminal Block ▸ 738 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- High-density, double-Deck design for space-efficient wiring of multiple conductors in confined areas
- Angled conductor entry and CAGE CLAMP® actuation streamline operation
- Custom marking for all termination levels



Electrical Data			
Pin spacing	5 mm (0.197 inch)		
Between the modules			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	18 A	18 A	18 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Between the decks			
Ratings according to 2	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	18 A	18 A	18 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.3(+0.1) mm

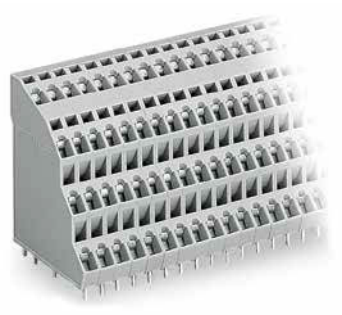
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 254
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

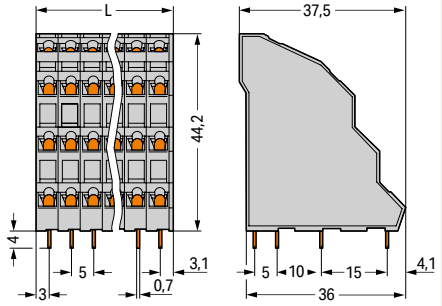
Quadruple-Deck PCB Terminal Block ▸ 738 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

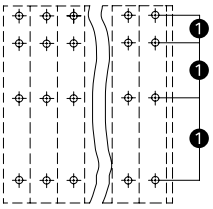
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	738-102	72
3	738-103	48
4	738-104	36
6	738-106	24
8	738-108	18
12	738-112	12
16	738-116	9
24	738-124	6

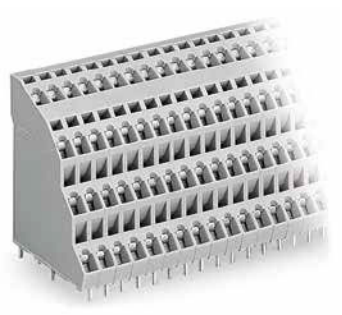


L = (pole no. x pin spacing) + 1 mm

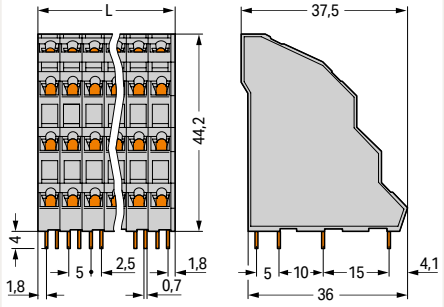


(1) Solder pins in a row

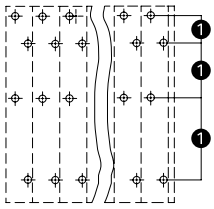
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	738-202	72
3	738-203	48
4	738-204	36
6	738-206	24
8	738-208	18
12	738-212	12
16	738-216	9
24	738-224	6



L = (pole no. x pin spacing) + 1 mm



(1) Solder pin for deck 2 an 4, staggered by half a pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

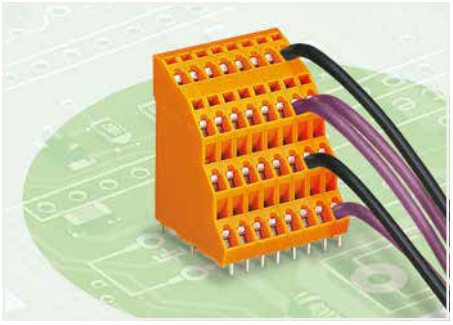
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

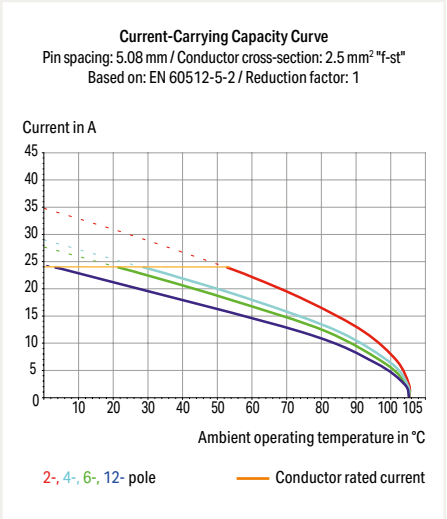
Quadruple-Deck PCB Terminal Block ▸ 738 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Color: orange

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- High-density, double-Deck design for space-efficient wiring of multiple conductors in confined areas
- Angled conductor entry and CAGE CLAMP® actuation streamline operation
- Custom marking for all termination levels



Electrical Data			
Pin spacing	5.08 mm (0.2 inch)		
Between the modules			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	18 A	18 A	18 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Between the decks			
Ratings according to 2	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	18 A	18 A	18 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.3(+0.1) mm

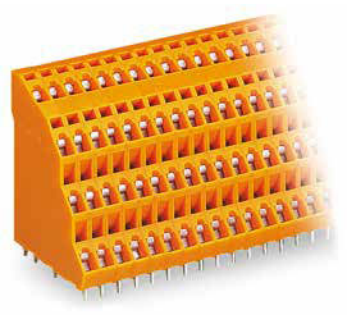
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
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Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

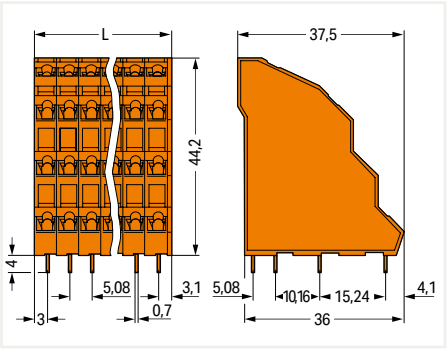
Quadruple-Deck PCB Terminal Block ▸ 738 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Color: orange

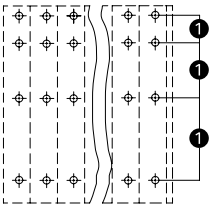
Solder pin arrangement within the terminal block, in line



Pole No.	Item No.	PU
2	738-302	69
3	738-303	48
4	738-304	36
6	738-306	24
8	738-308	18
12	738-312	12
16	738-316	9
24	738-324	6

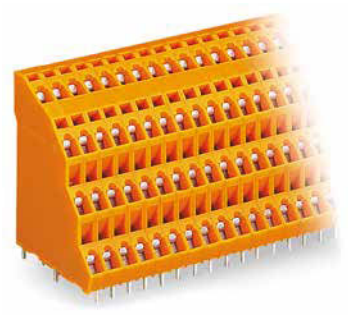


L = (pole no. x pin spacing) + 1 mm

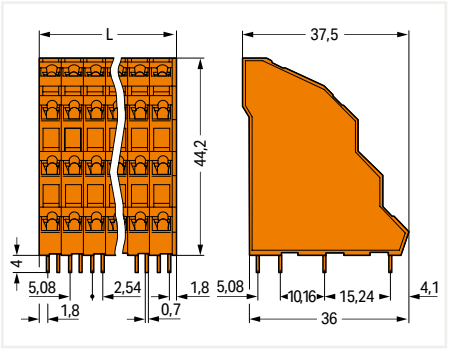


(1) Lötstifte in Reihe

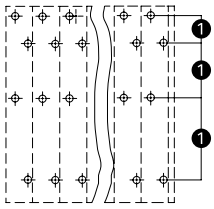
Solder pin arrangement within the terminal block, staggered



Pole No.	Item No.	PU
2	738-402	69
3	738-403	48
4	738-404	36
6	738-406	24
8	738-408	18
12	738-412	12
16	738-416	9
24	738-424	6



L = (pole no. x pin spacing) + 1 mm



(1) Lötstifte für Stockwerk 2 und 4 um das halbe Rastermaß versetzt

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

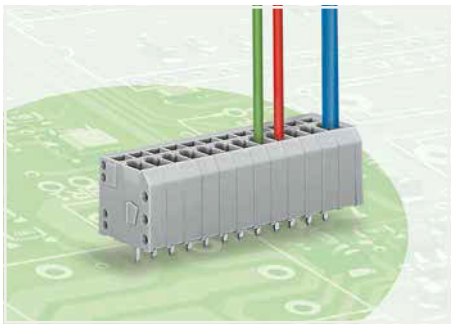
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

PCB Terminal Block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: gray

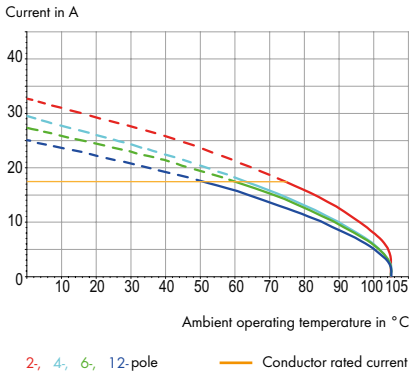
1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Vertical conductor entry and operating direction for space-saving positioning/grouping

Current-Carrying Capacity Curve

Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	3.5 mm (0.138 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	14 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

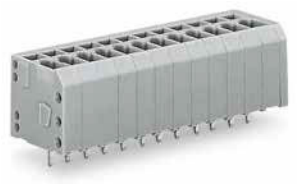
Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.4 mm
Solder pin dimensions	0.6 x 0.8 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

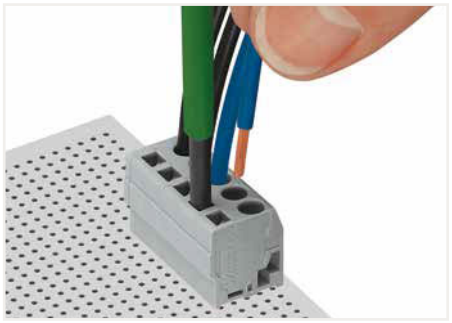
Ferrule	Page 847
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Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: gray





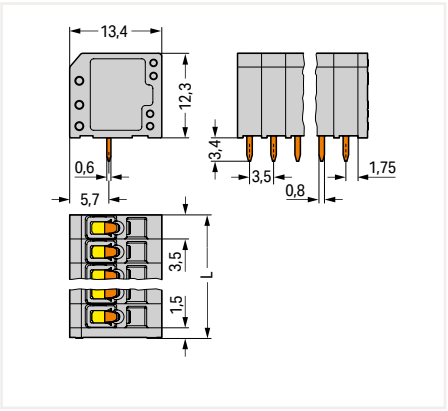


Inserting a conductor parallel to screwdriver actuation – 739 Series.

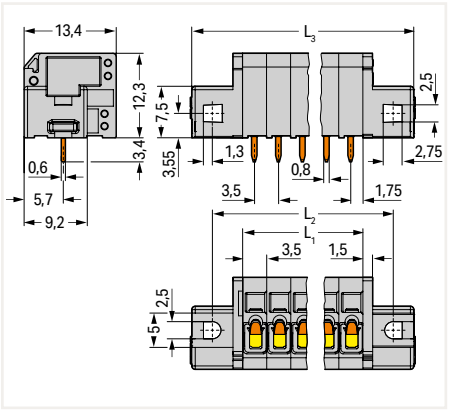
Pole No.	Item No.	PU (SPU)
2	739-302	560 (140)
3	739-303	400 (100)
4	739-304	300 (75)
5	739-305	240 (60)
6	739-306	200 (50)
7	739-307	180 (45)
8	739-308	160 (40)
9	739-309	140 (35)
10	739-310	120 (30)
12	739-312	100 (25)

Mounting type: Mounting flange

Pole No.	Item No.	PU (SPU)
2	739-302/001-000	200 (50)
3	739-303/001-000	180 (45)
4	739-304/001-000	140 (35)
5	739-305/001-000	140 (35)
6	739-306/001-000	120 (30)
7	739-307/001-000	180 (45)
8	739-308/001-000	100 (25)
9	739-309/001-000	80 (20)
10	739-310/001-000	80 (20)
12	739-312/001-000	80 (20)



L = (pole no. x pin spacing) + 1.5 mm



L_1 = pole no. x pin spacing
$L_2 = L_1 + 8.8$ mm
$L_3 = L_1 + 14.8$ mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

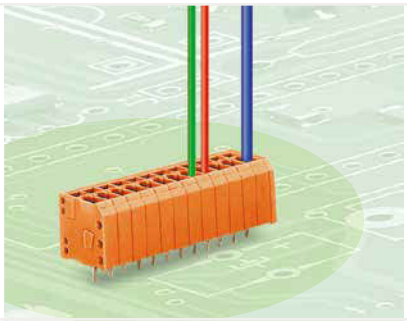
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

PCB Terminal Block ▸ 739 Series

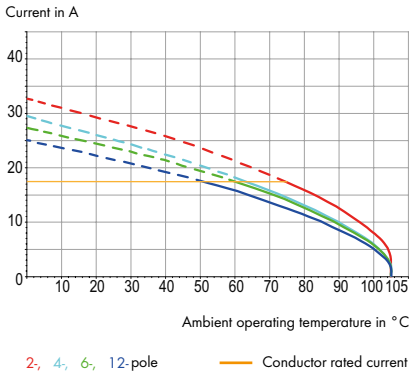
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm (0.15 inch) ▸ Color: orange

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Vertical conductor entry and operating direction for space-saving positioning/grouping

Current-Carrying Capacity Curve
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	3.81 mm (0.15 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	500 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	14 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.4 mm
Solder pin dimensions	0.6 x 0.8 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

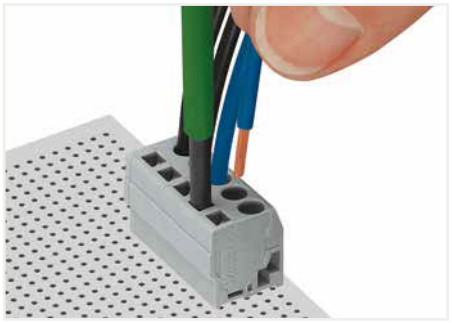
Ferrule	Page 847
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Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm (0.15 inch) ▸ Color: orange





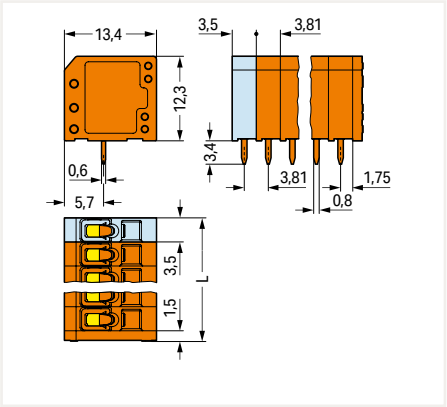


Inserting a conductor parallel to screwdriver actuation – 739 Series.

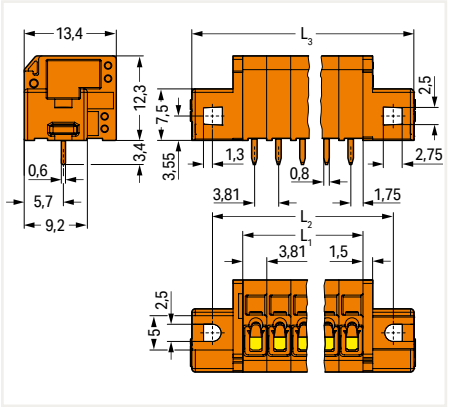
Pole No.	Item No.	PU (SPU)
2	739-332	520 (130)
3	739-333	360 (90)
4	739-334	280 (70)
5	739-335	220 (55)
6	739-336	180 (45)
7	739-337	160 (40)
8	739-338	140 (35)
9	739-339	120 (30)
10	739-340	120 (30)
12	739-342	100 (25)

Mounting type: Mounting flange

Pole No.	Item No.	PU (SPU)
2	739-332/001-000	200 (50)
3	739-333/001-000	180 (45)
4	739-334/001-000	140 (35)
5	739-335/001-000	140 (35)
6	739-336/001-000	120 (30)
7	739-337/001-000	180 (45)
8	739-338/001-000	100 (25)
9	739-339/001-000	80 (20)
10	739-340/001-000	80 (20)
12	739-342/001-000	60 (15)



L = pole no. x pin spacing + 3.5 mm + 1.5 mm



L_1 = pole no. x pin spacingL_2 = L_1 + 8.8 mmL_3 = L_1 + 14.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

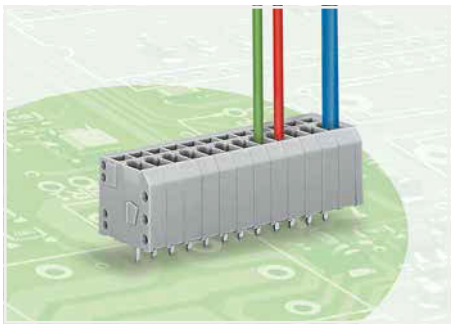
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- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

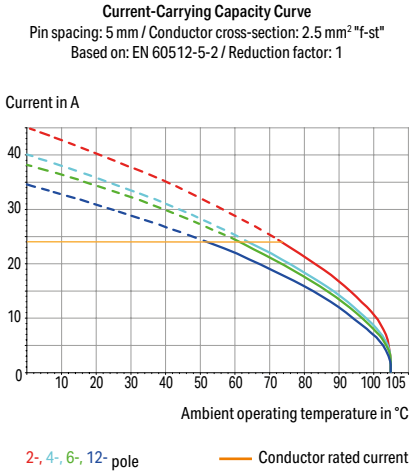
PCB Terminal Block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Vertical conductor entry and operating direction for space-saving positioning/grouping



Electrical Data			
Pin spacing	5 mm (0.197 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	12 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

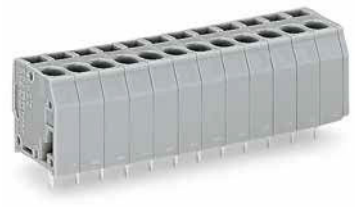
Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.2 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter (tolerance)	$1.6^{(+0.1)}$ mm

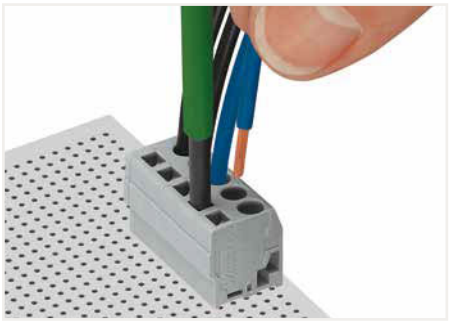
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 739 Series

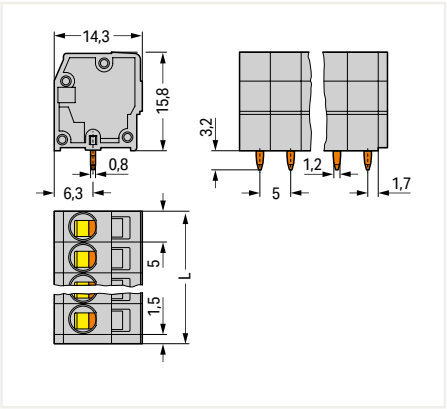
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray





Inserting a conductor parallel to screwdriver actuation – 739 Series.

Pole No.	Item No.	PU (SPU)
2	739-102	400 (100)
3	739-103	280 (70)
4	739-104	220 (55)
5	739-105	180 (45)
6	739-106	140 (35)
7	739-107	120 (30)
8	739-108	100 (25)
9	739-109	100 (25)
10	739-110	80 (20)
12	739-112	60 (15)
16	739-116	40 (10)
24	739-124	20 (5)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

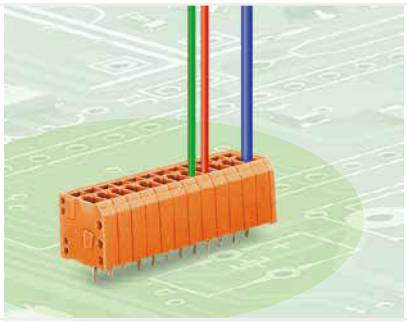
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

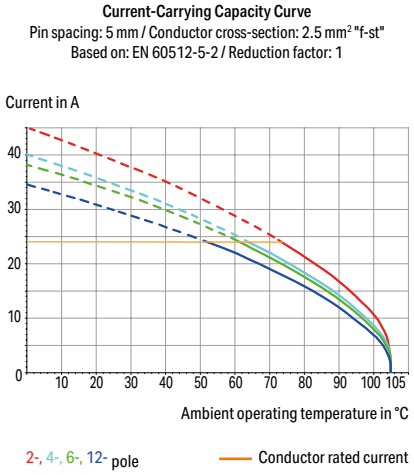
PCB Terminal Block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Color: orange

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Vertical conductor entry and operating direction for space-saving positioning/grouping



Electrical Data			
Pin spacing	5.08 mm (0.2 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	12 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.2 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter (tolerance)	$1.6^{(+0.1)}$ mm

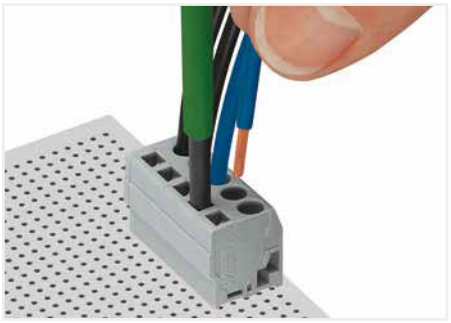
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 739 Series

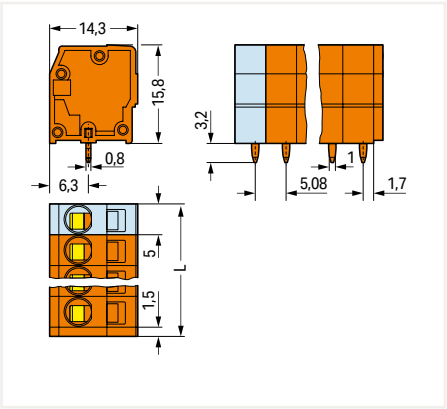
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Color: orange





Inserting a conductor parallel to screwdriver actuation – 739 Series.

Pole No.	Item No.	PU (SPU)
2	739-152	400 (100)
3	739-153	280 (70)
4	739-154	220 (55)
5	739-155	160 (40)
6	739-156	140 (35)
7	739-157	120 (30)
8	739-158	100 (25)
9	739-159	100 (25)
10	739-160	80 (20)
12	739-162	60 (15)
16	739-166	40 (10)
24	739-174	20 (5)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

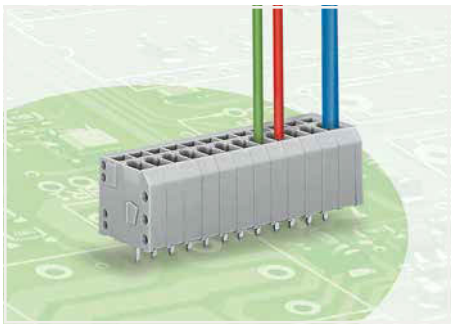
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

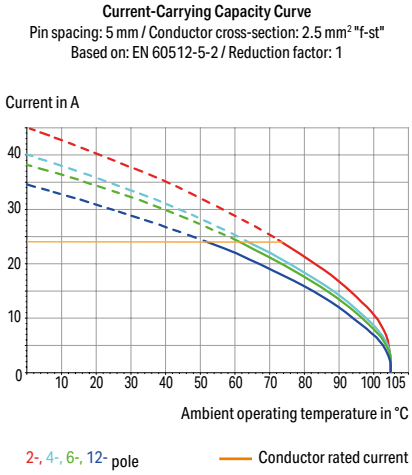
PCB Terminal Block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 7.5 mm (0.295 inch) ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Vertical conductor entry and operating direction for space-saving positioning/grouping



Electrical Data			
Pin spacing	**7.5 mm (0.295 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	8 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

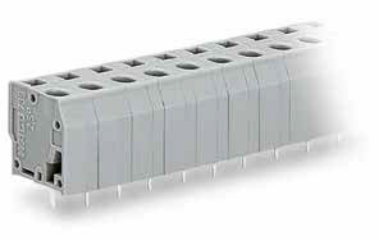
Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.2 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter (tolerance)	$1.6^{(+0.1)}$ mm

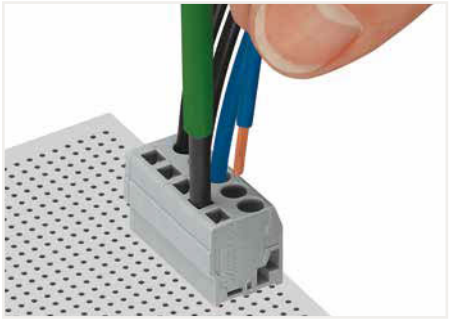
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 739 Series

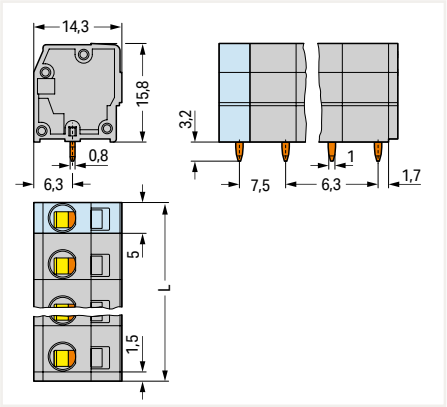
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 7.5 mm (0.295 inch) ▸ Color: gray





Inserting a conductor parallel to screwdriver actuation – 739 Series.

Pole No.	Item No.	PU (SPU)
2	739-202	340 (85)
3	739-203	220 (55)
4	739-204	160 (40)
5	739-205	120 (30)
6	739-206	100 (25)
7	739-207	80 (20)
8	739-208	80 (20)
9	739-209	60 (15)
10	739-210	60 (15)
12	739-212	40 (10)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

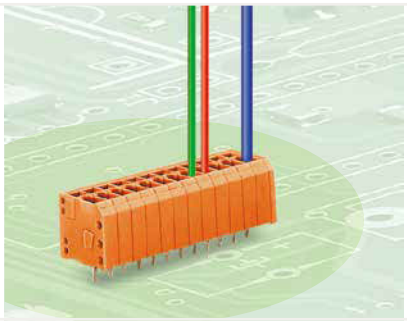
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

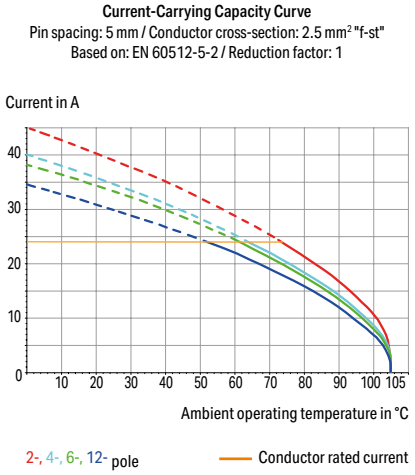
PCB Terminal Block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 7.62 mm (0.3 inch) ▸ Color: orange

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Vertical conductor entry and operating direction for space-saving positioning/grouping



Electrical Data			
Pin spacing	7.62 mm (0.3 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	8 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.2 mm
Solder pin dimensions	0.8 x 1.2 mm
Drilled hole diameter (tolerance)	$1.6^{(+0.1)}$ mm

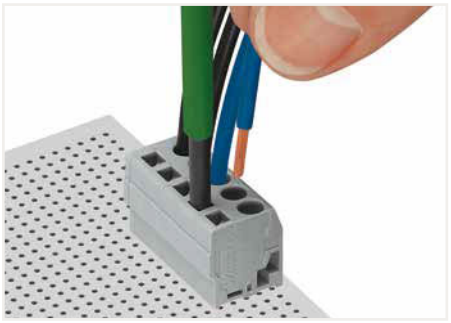
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 739 Series

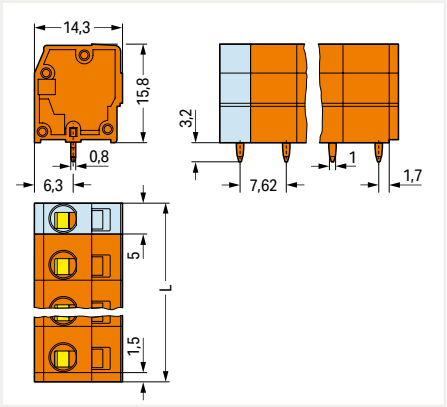
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 7.62 mm (0.3 inch) ▸ Color: orange





Inserting a conductor parallel to screwdriver actuation – 739 Series.

Pole No.	Item No.	PU (SPU)
2	739-232	320 (80)
3	739-233	220 (55)
4	739-234	160 (40)
5	739-235	120 (30)
6	739-236	100 (25)
7	739-237	80 (20)
8	739-238	80 (20)
9	739-239	60 (15)
10	739-240	60 (15)
12	739-242	40 (10)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

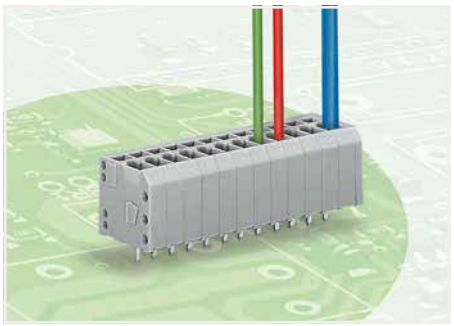
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

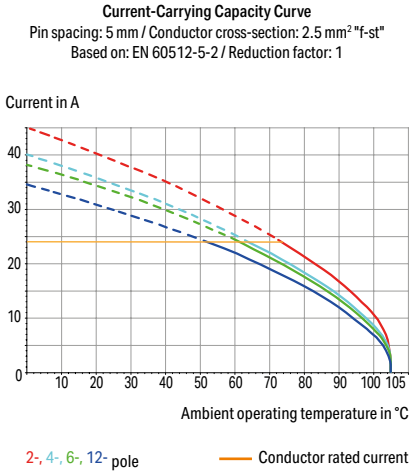
PCB Terminal Block ▸ 739 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 10 mm (0.394 inch) ▸ Color: gray

1



- PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- Vertical conductor entry and operating direction for space-saving positioning/grouping



Electrical Data			
Pin spacing	10 mm (0.394 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	300 V	600 V
Rated current	20 A	12 A	5 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	300 V	600 V
Rated current	12 A	12 A	5 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.2 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter (tolerance)	$1.6^{(+0.1)}$ mm

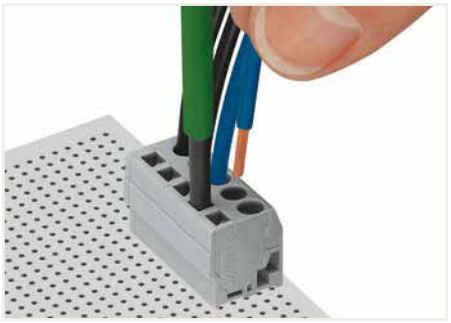
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 834
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 739 Series

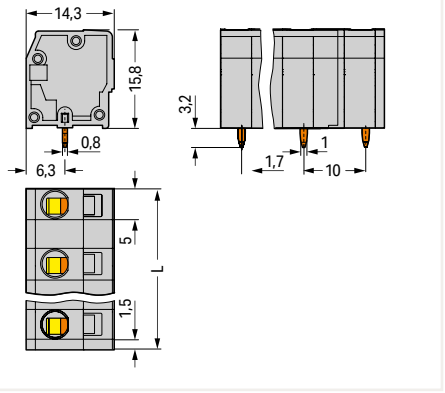
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 10 mm (0.394 inch) ▸ Color: gray





Inserting a conductor parallel to screwdriver actuation – 739 Series.

Pole No.	Item No.	PU (SPU)
2	739-3202	280 (70)
3	739-3203	180 (45)
4	739-3204	120 (30)
9	739-3205	100 (25)
10	739-3210	40 (10)
11	739-3206	80 (20)
12	739-3212	40 (10)
13	739-3207	60 (15)
15	739-3208	60 (15)
17	739-3209	40 (10)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

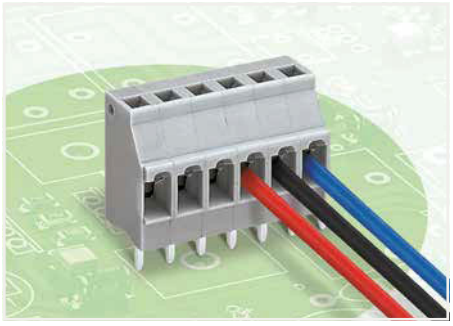
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

PCB Terminal Block ▸ 740 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

1



- PCB terminal strips with CAGE CLAMP® connection and top-of-unit screwdriver actuation
- Pin and dimensions compatible with screw-type terminal blocks of similar design
- PCB terminal strips may be positioned adjacently without losing any poles

Electrical Data			
Pin spacing	**5 mm (0.197 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	300 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	16 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

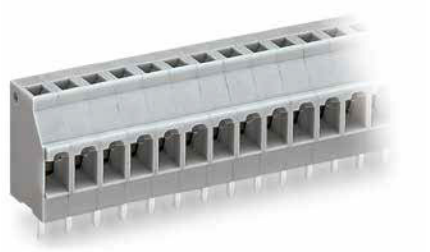
Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	5.1 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter (tolerance)	$1.3^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 740 Series

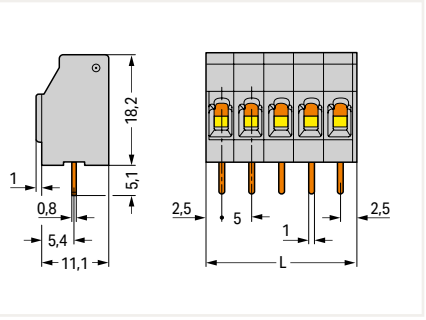
CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray





Inserting a conductor perpendicular to screwdriver actuation – 740 Series.

Pole No.	Item No.	PU (SPU)
2	740-102	460 (115)
3	740-103	300 (75)
4	740-104	240 (60)
5	740-105	180 (45)
6	740-106	140 (35)
7	740-107	120 (30)
8	740-108	100 (25)
9	740-109	100 (25)
10	740-110	80 (20)
12	740-112	60 (15)
16	740-116	60 (15)
24	740-124	40 (10)



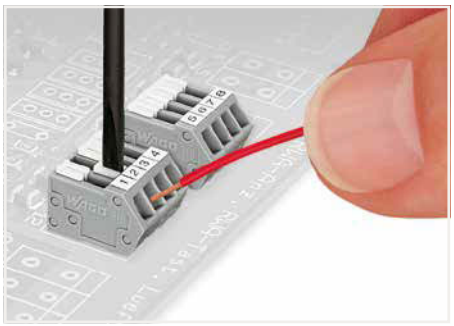
L = pole no. x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

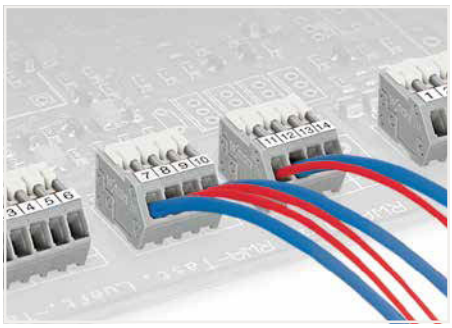
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

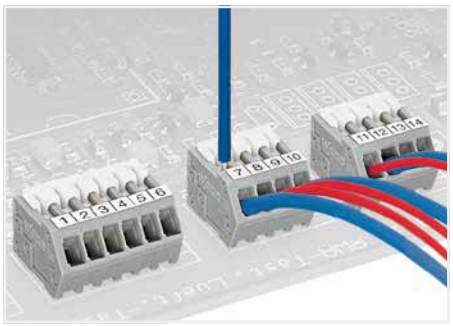
218 Series
Description and Installation



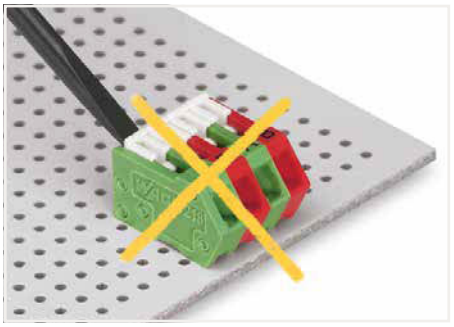
Terminating stranded conductors in confined spaces requires a great deal of patience, unless you use the new 218 Series PCB Terminal Strips. The clamping units of these strips can be held open during termination process via integrated locking slide.



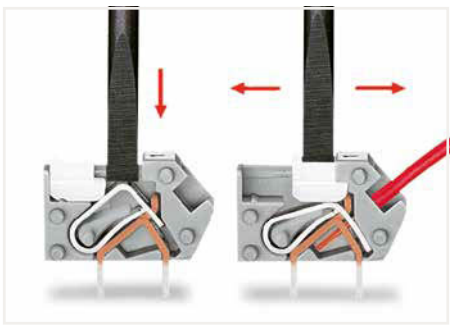
Terminating 0.75 mm² (18 AWG) conductors is possible; however, insulation diameter allows only every other clamping unit to be terminated with this conductor size.



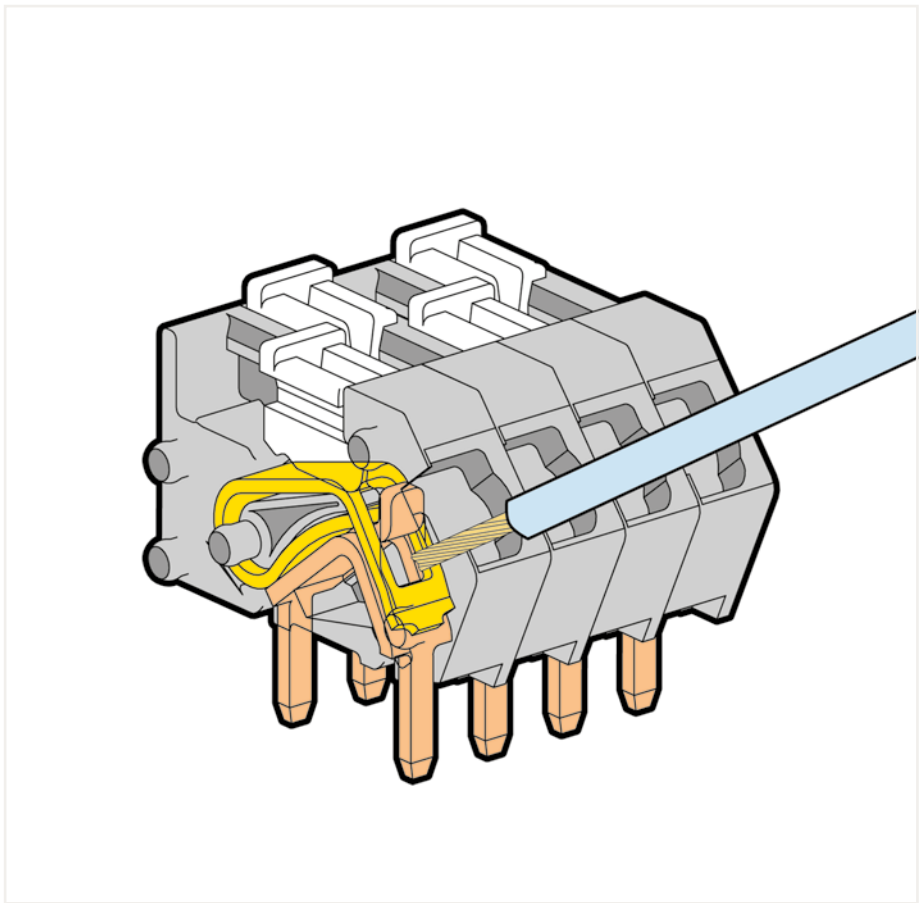
Testing directly on the clamping spring.



Incorrect – do not operate the locking slides from the back.



Conductor termination: To momentarily open the clamping unit, use screwdriver and then insert a stripped conductor. To open clamping unit for an extended period, move locking slide toward conductor entry hole. Then fully insert stripped conductor and move locking slide back to original position (also possible to perform with fingernail).



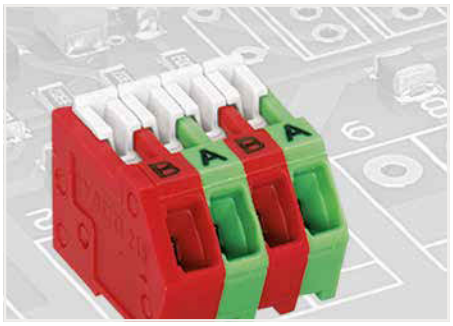
218 Series



Insulating housings are available in different colors.



Labeling with self-adhesive marking strips.



Labeling via factory direct marking.

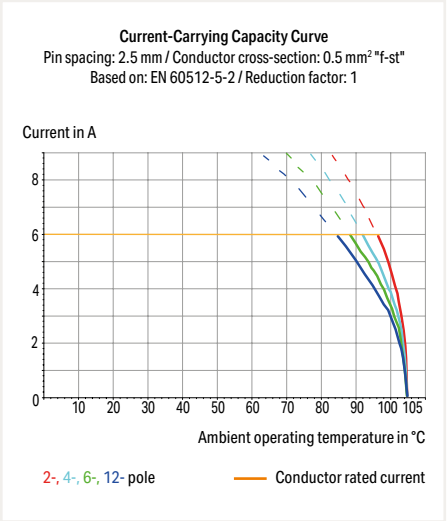
PCB Terminal Block ▸ 218 Series

CAGE CLAMP® ▸ Actuation type: Locking slide ▸ 0.5 mm² ▸ Terminal strip ▸ Color: gray

1



- Terminal strips are just 8.1mm high and feature an innovative, locking slide-actuated CAGE CLAMP®
- Several clamping units can be held open simultaneously
- Easy termination of stranded conductors in tight spaces (e.g., bus connectors)



Electrical Data			
Pin spacing	2.5 mm (0.098 inch) / 2.54 mm (0.1 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	80 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	6 A	6 A	6 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	40 °
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 mm²
Note (conductor cross-section)	Terminating 0.75 mm²/18 AWG conductors is possible; however insulation diameter allows only every other clamping unit to be terminated with this conductor size.

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	2.8 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter (tolerance)	1.1 (+ 0.1) mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 832
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

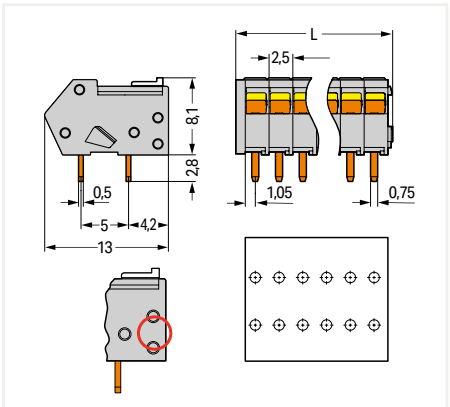
PCB Terminal Block ▸ 218 Series

CAGE CLAMP® ▸ Actuation type: Locking slide ▸ 0.5 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 2.5 mm (0.098 inch)



Pole No.	Item No.	PU (SPU)
2	218-102	1000 (100)
3	218-103	1000 (100)
4	218-104	500 (100)
5	218-105	500 (100)
6	218-106	280 (70)
7	218-107	240 (60)
8	218-108	220 (55)
9	218-109	200 (50)
10	218-110	180 (45)
11	218-111	160 (40)
12	218-112	140 (35)
13	218-113	140 (35)
14	218-114	120 (30)
15	218-115	120 (30)
16	218-116	100 (25)
17	218-117	100 (25)
18	218-118	100 (25)
19	218-119	80 (20)
20	218-120	80 (20)
21	218-121	80 (20)
22	218-122	80 (20)
23	218-123	80 (20)
24	218-124	60 (15)

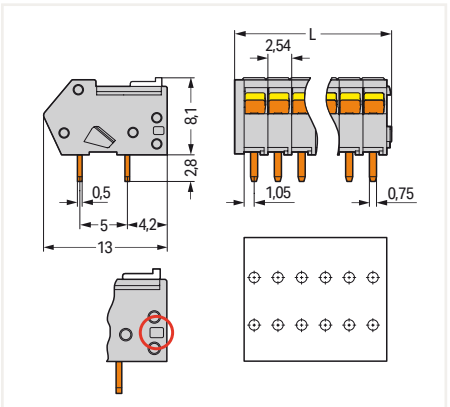


L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 2.54 mm (0.1 inch)



Pole No.	Item No.	PU (SPU)
2	218-502	1000 (100)
3	218-503	1000 (100)
4	218-504	500 (100)
5	218-505	500 (100)
6	218-506	280 (70)
7	218-507	240 (60)
8	218-508	220 (55)
9	218-509	180 (45)
10	218-510	160 (40)
11	218-511	160 (40)
12	218-512	140 (35)
13	218-513	140 (35)
14	218-514	120 (30)
15	218-515	120 (30)
16	218-516	100 (25)
17	218-517	100 (25)
18	218-518	100 (25)
19	218-519	80 (20)
20	218-520	80 (20)
21	218-521	80 (20)
22	218-522	80 (20)
23	218-523	80 (20)
24	218-524	60 (15)



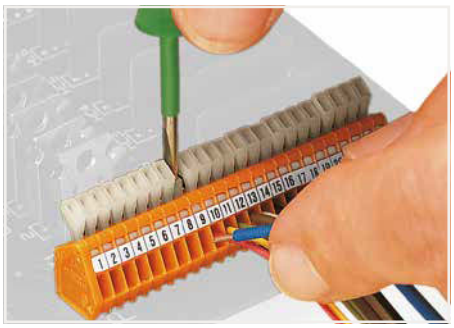
L = (pole no. x pin spacing) + 1.5 mm
A groove at the back of the terminal strip differentiates between the two pin spacings (red circle).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

233 and 234 Series
Description and Installation



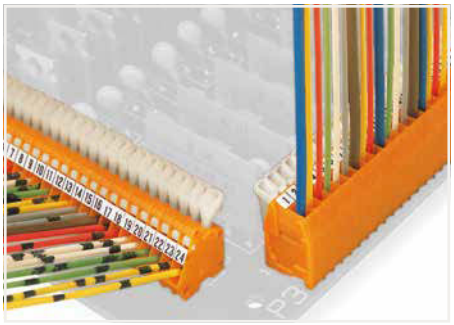
Inserting/removing a conductor.

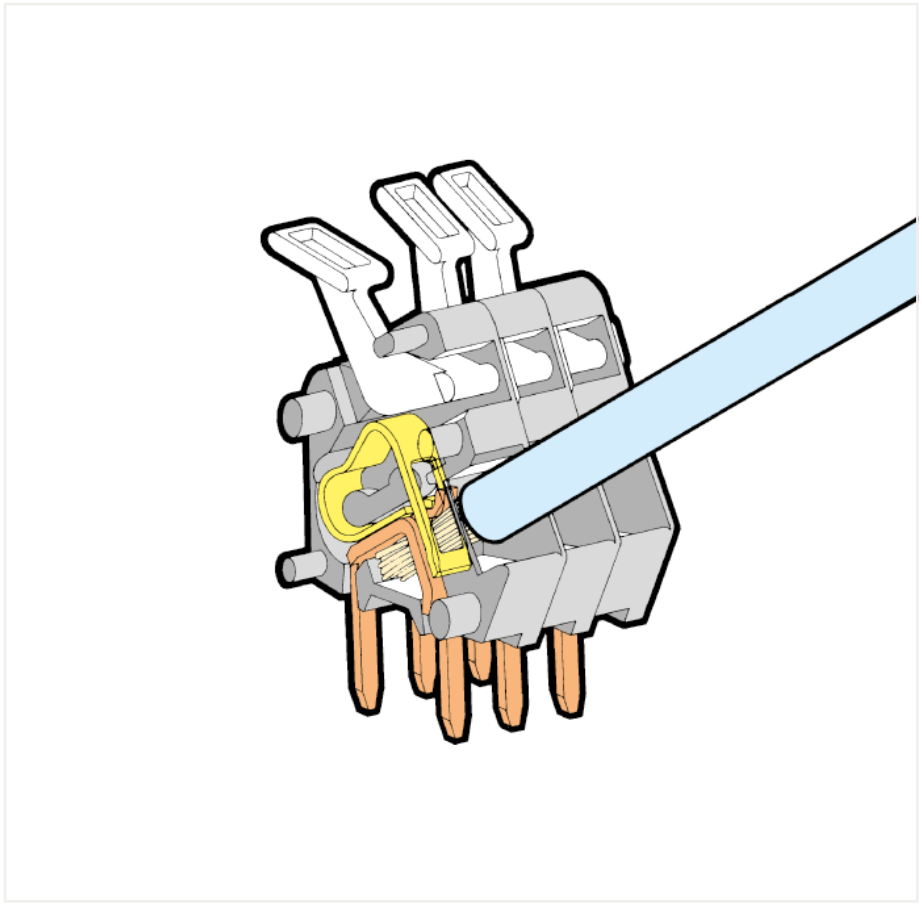


Nominal cross-section: 0.5 mm² (20 AWG);
0.75 mm² (18 AWG) only in every other position



Labeling via factory direct marking or self-adhesive marking strips.





233 Series

234 Series
Description and Installation



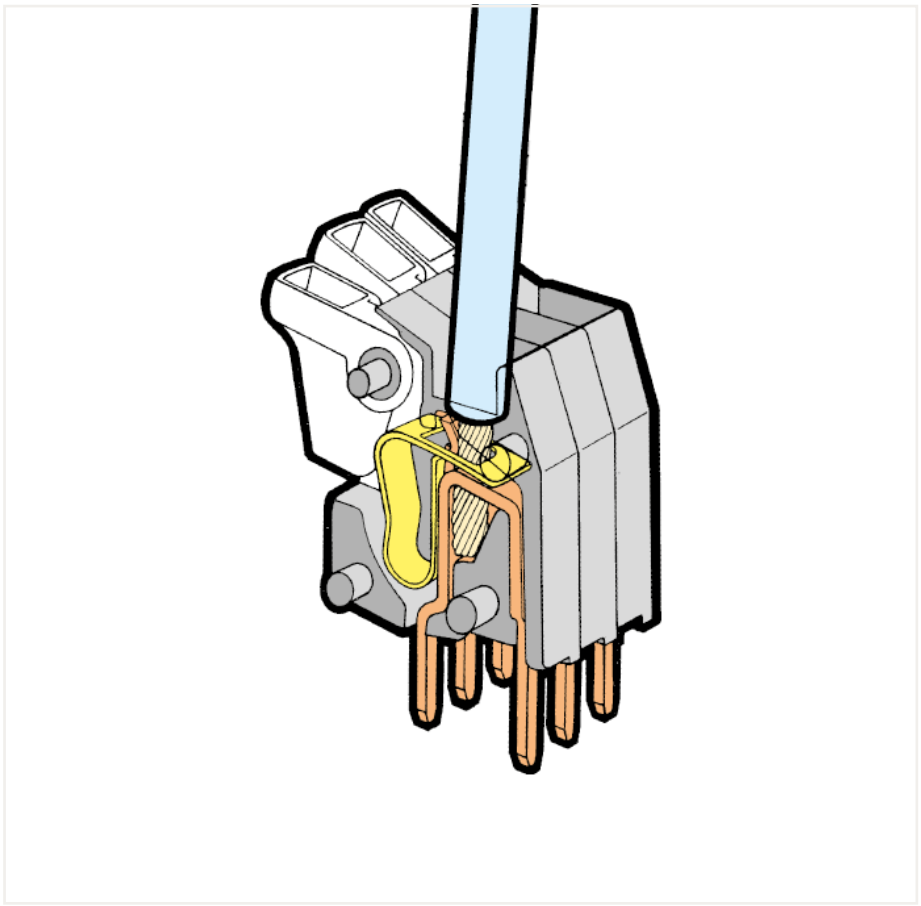
Inserting/removing a conductor.



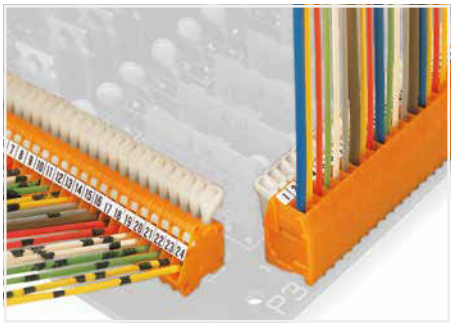
Nominal cross-section: 0.5 mm² (20 AWG);
0.75 mm² (18 AWG) only in every other position



Labeling via self-adhesive marking strips or factory direct marking.



234 Series



PCB Terminal Block ▸ 233 Series

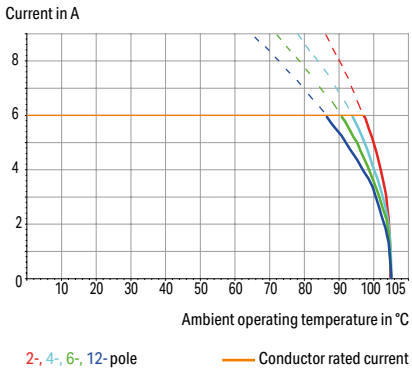
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Terminal strip

1



- Compact PCB terminal strips with CAGE CLAMP® connection and screwdriver actuation parallel or perpendicular to conductor entry
- Double solder pins for high mechanical
- Custom color combinations

Current-Carrying Capacity Curve
Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data				
Pin spacing	2.5 mm (0.098 inch) / 2.54 mm (0.1 inch)			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	63 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	6 A	6 A	6 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	30°
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 mm²
Note (conductor cross-section)	Terminating 0.75 mm²/18 AWG conductors is possible; however insulation diameter allows only every other clamping unit to be terminated with this conductor size.

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 832
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

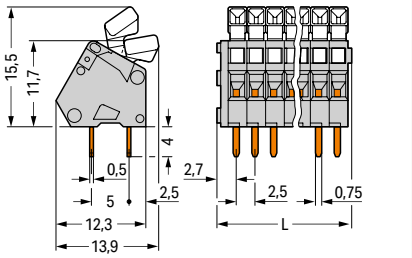
PCB Terminal Block ▸ 233 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Terminal strip

Pin spacing: 2.5 mm (0.098 inch) ▸ Color: gray



Pole No.	Item No.	PU (SPU)
2	233-202	600 (100)
3	233-203	500 (125)
4	233-204	400 (100)
5	233-205	340 (85)
6	233-206	280 (70)
7	233-207	240 (60)
8	233-208	220 (55)
9	233-209	200 (50)
10	233-210	180 (45)
12	233-212	140 (35)

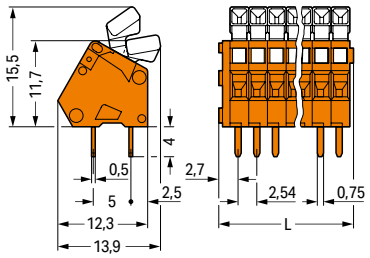


L = (pole no. x pin spacing) + 2.3 mm

Pin spacing: 2.54 mm (0.1 inch) ▸ Color: orange



Pole No.	Item No.	PU (SPU)
2	233-502	600 (100)
3	233-503	500 (125)
4	233-504	400 (100)
5	233-505	340 (85)
6	233-506	280 (70)
7	233-507	240 (60)
8	233-508	220 (55)
9	233-509	200 (50)
10	233-510	180 (45)
12	233-512	140 (35)



L = (pole no. x pin spacing) + 2.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

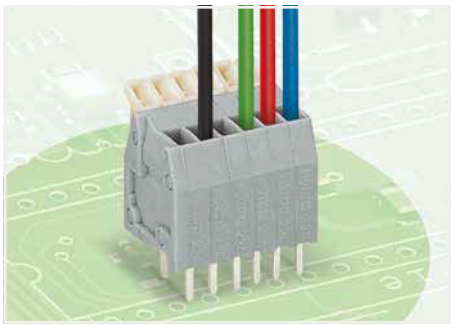
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

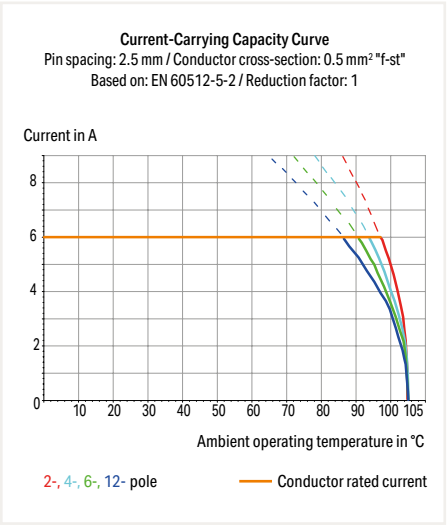
PCB Terminal Block ▸ 234 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Terminal strip

1



- Terminal strips with push-buttons and CAGE CLAMP® connection
- Double solder pins for high mechanical stability on PCB
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data			
Pin spacing	2.5 mm (0.098 inch) / 2.54 mm (0.1 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	6 A	6 A	6 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	150 V	-	-
Rated current	4 A	-	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

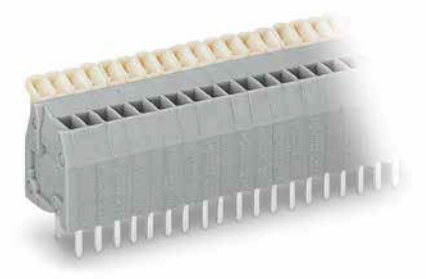
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 832
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

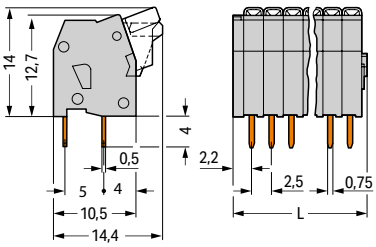
PCB Terminal Block ▸ 234 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Terminal strip

Pin spacing: 2.5 mm (0.098 inch) ▸ Color: gray

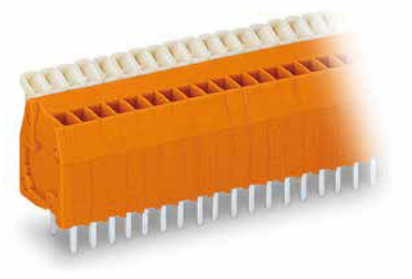


Pole No.	Item No.	PU (SPU)
2	234-202	600 (100)
3	234-203	520 (130)
4	234-204	400 (100)
5	234-205	340 (85)
6	234-206	280 (70)
7	234-207	240 (60)
8	234-208	220 (55)
9	234-209	200 (50)
10	234-210	180 (45)
12	234-212	140 (35)

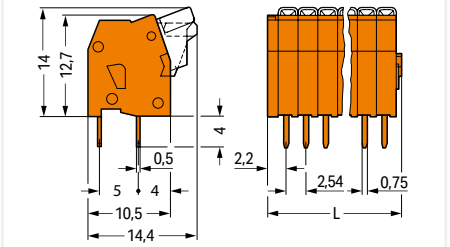


L = (pole no. x pin spacing) + 2.2 mm

Pin spacing: 2.54 mm (0.1 inch) ▸ Color: orange



Pole No.	Item No.	PU (SPU)
2	234-502	600 (100)
3	234-503	520 (130)
4	234-504	400 (100)
5	234-505	340 (85)
6	234-506	280 (70)
7	234-507	240 (60)
8	234-508	220 (55)
9	234-509	200 (50)
10	234-510	180 (45)
12	234-512	140 (35)



L = (pole no. x pin spacing) + 2.2 mm

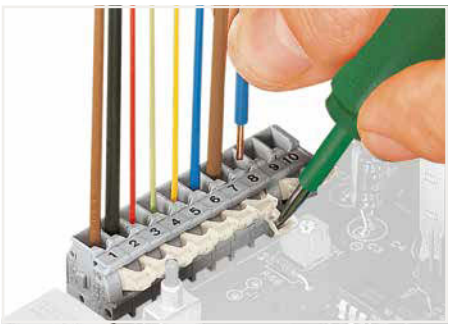
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

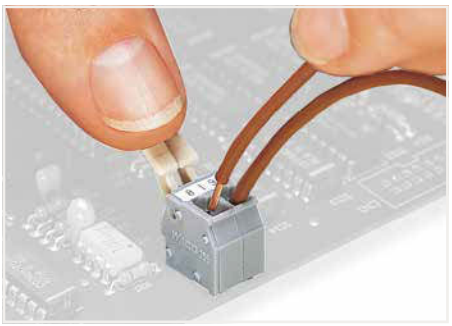
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

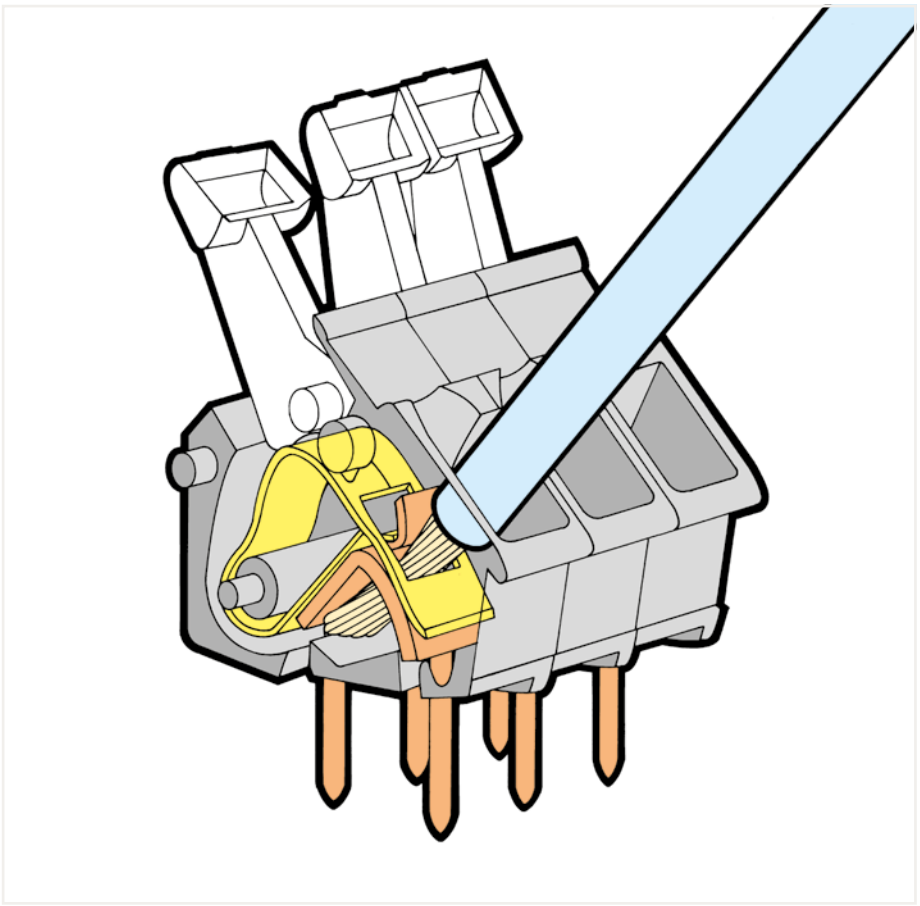
255, 256 and 257 Series
Description and Installation


Inserting/removing a conductor – 256 Series.


Inserting/removing a conductor – 255 Series.

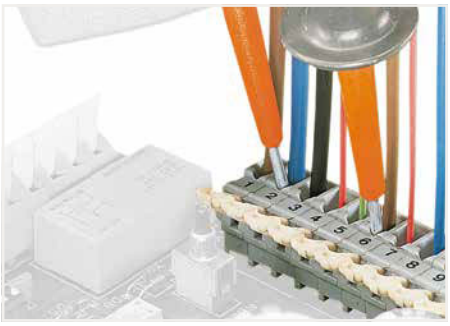

Inserting/removing a conductor via finger-operated lever – 255 Series.


Inserting/removing a conductor via finger-operated lever – 256 Series.


255, 256 and 257 Series


Possible conductor arrangement with terminal strips staggered (for 256 Series only).


Formation of groups using housings of different colors.


Testing with test probes.


Testing with test plug modules.

PCB Terminal Block ▸ 255 Series

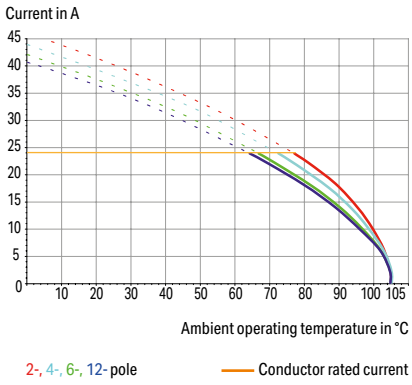
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Modular terminal block

1



- PCB modular terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 (+0.1) mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

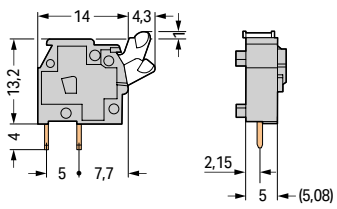
PCB Terminal Block ▸ 255 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Modular terminal block

Pin spacing: 5/5.08 mm / 0.197/0.2 inch



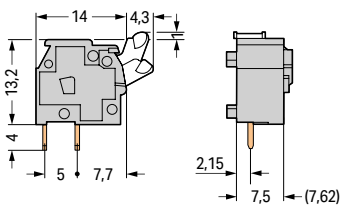
Color	Item No.	PU (SPU)
gray	255-401	500 (100)
blue	255-744	500 (100)
orange	255-746	500 (100)
black	255-748	500 (100)
yellow	255-741	500 (100)
light gray	255-743	500 (100)
light green	255-747	500 (100)
red	255-740	500 (100)
dark gray	255-742	500 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



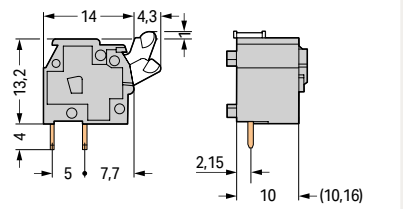
Color	Item No.	PU (SPU)
gray	255-501	400 (100)
blue	255-754	400 (100)
orange	255-756	400 (100)
black	255-758	400 (100)
yellow	255-751	400 (100)
light gray	255-753	400 (100)
light green	255-757	400 (100)
red	255-750	400 (100)
dark gray	255-752	400 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Color	Item No.	PU (SPU)
gray	255-601	300 (100)
blue	255-764	300 (100)
orange	255-766	300 (100)
black	255-768	300 (100)
yellow	255-761	300 (100)
light gray	255-763	300 (100)
light green	255-767	300 (100)
red	255-760	300 (100)
dark gray	255-762	300 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	255-100	2000 (100)
blue	255-400	2000 (100)
orange	255-600	2000 (100)
black	255-800	2000 (100)
light gray	255-300	2000 (100)
light green	255-700	2000 (100)
red	255-500	2000 (100)
dark gray	255-200	2000 (100)



intermediate plate; extends pin spacing; Pin spacing: 5/5.08 mm / 0.197/0.2 inch

Color	Item No.	PU (SPU)
gray	255-801	500 (100)



intermediate plate; extends pin spacing; Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

Color	Item No.	PU (SPU)
gray	255-811	400 (100)



intermediate plate; extends pin spacing; Pin spacing: 10/10.16 mm / 0.394/0.4 inch

Color	Item No.	PU (SPU)
gray	255-821	500 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other colors
- Versions for Ex e II and Ex i

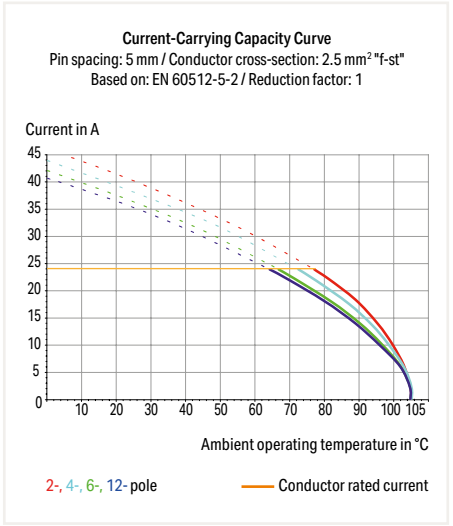
PCB Terminal Block ▸ 255 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

1



- PCB terminal strips with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data									
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**			**7.5/7.62 mm / 0.295/0.3 inch**			**10/10.16 mm / 0.394/0.4 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	90°
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 (+0.1) mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

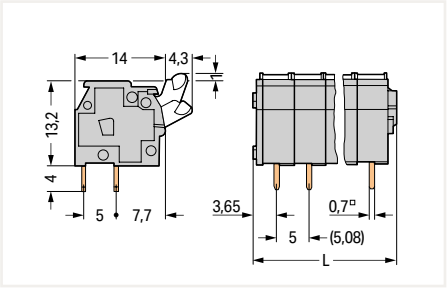
PCB Terminal Block ▸ 255 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

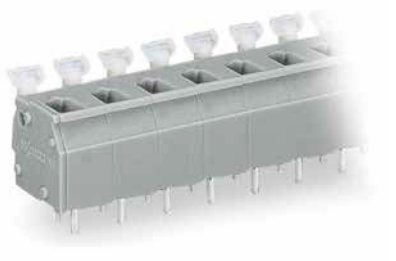


Pole No.	Item No.	PU (SPU)
2	255-402	400 (100)
3	255-403	280 (70)
4	255-404	200 (50)
5	255-405	160 (40)
6	255-406	140 (35)
7	255-407	120 (30)
8	255-408	100 (25)
9	255-409	100 (25)
10	255-410	80 (20)
12	255-412	60 (15)

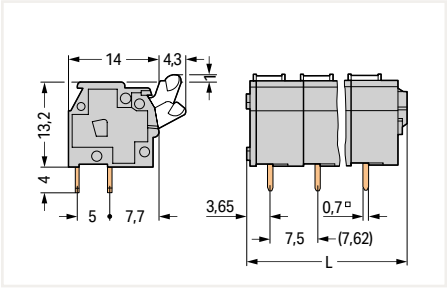


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

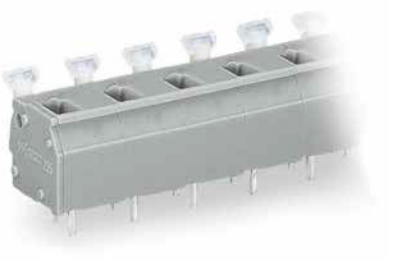


Pole No.	Item No.	PU (SPU)
2	255-502	280 (70)
3	255-503	180 (45)
4	255-504	140 (35)
5	255-505	120 (30)
6	255-506	100 (25)
7	255-507	80 (20)
8	255-508	60 (15)
9	255-509	60 (15)
10	255-510	60 (15)
12	255-512	40 (10)

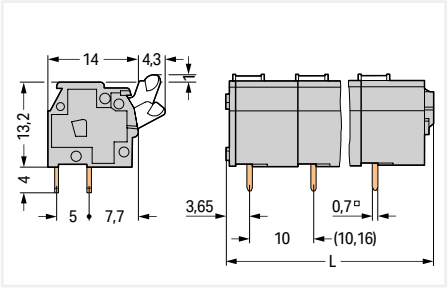


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Pole No.	Item No.	PU (SPU)
2	255-602	200 (50)
3	255-603	140 (35)
4	255-604	100 (25)
5	255-605	80 (20)
6	255-606	60 (15)
7	255-607	60 (15)
8	255-608	60 (15)
9	255-609	40 (10)
10	255-610	40 (10)
12	255-612	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking

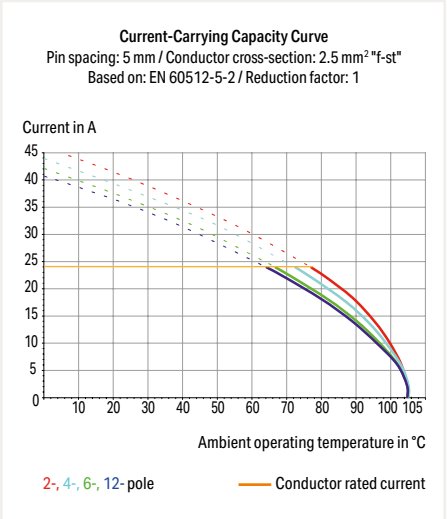
PCB Terminal Block ▸ 255 Series

CAGE CLAMP® ▸ Actuation type: Finger-operated lever ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

1



- PCB terminal strips with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	90°
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

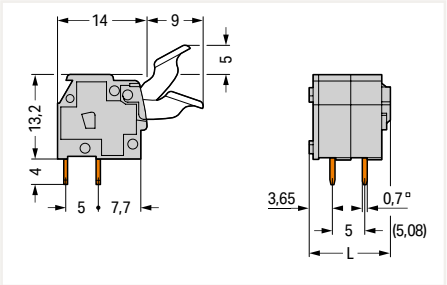
PCB Terminal Block ▸ 255 Series

CAGE CLAMP® ▸ Actuation type: Finger-operated lever ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch



Pole No.	Item No.	PU (SPU)
2	255-402/333-000	400 (100)
3	255-403/333-000	280 (70)
4	255-404/333-000	200 (50)
5	255-405/333-000	160 (40)
6	255-406/333-000	140 (35)
7	255-407/333-000	120 (30)
8	255-408/333-000	100 (25)
9	255-409/333-000	100 (25)
10	255-410/333-000	80 (20)
12	255-412/333-000	60 (15)

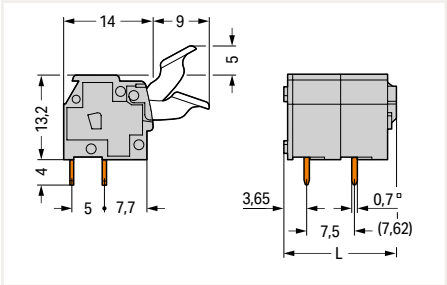


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



Pole No.	Item No.	PU (SPU)
2	255-502/333-000	280 (70)
3	255-503/333-000	180 (45)
4	255-504/333-000	140 (35)
5	255-505/333-000	120 (30)
6	255-506/333-000	100 (25)
7	255-507/333-000	80 (20)
8	255-508/333-000	60 (15)
9	255-509/333-000	60 (15)
10	255-510/333-000	60 (15)
12	255-512/333-000	40 (10)

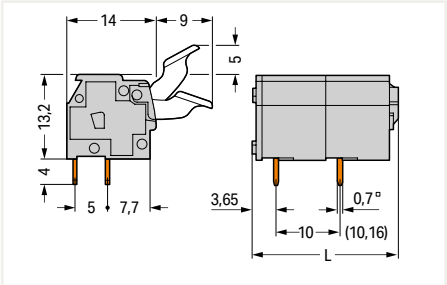


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Pole No.	Item No.	PU (SPU)
2	255-602/333-000	200 (50)
3	255-603/333-000	140 (35)
4	255-604/333-000	100 (25)
5	255-605/333-000	80 (20)
6	255-606/333-000	60 (15)
7	255-607/333-000	60 (15)
8	255-608/333-000	60 (15)
9	255-609/333-000	40 (10)
10	255-610/333-000	40 (10)
12	255-612/333-000	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

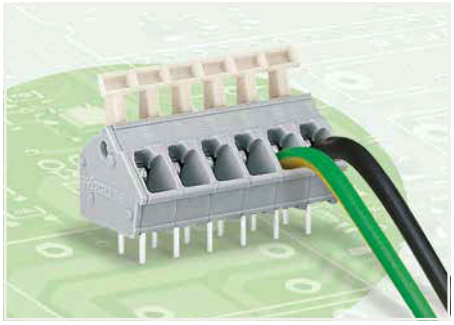
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking

PCB Terminal Block ▸ 256 Series

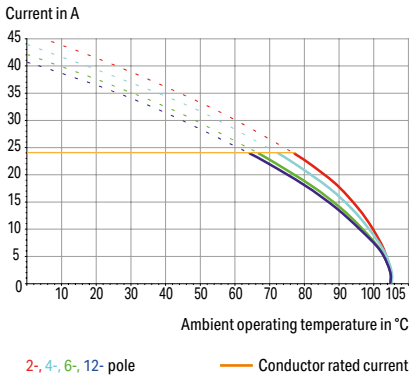
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Modular terminal block

1



- PCB modular terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**			**7.5/7.62 mm / 0.295/0.3 inch**			**10/10.16 mm / 0.394/0.4 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V	500 V	630 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 (+ 0.1) mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

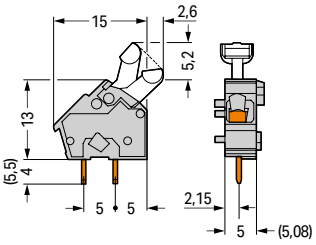
PCB Terminal Block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Modular terminal block

Pin spacing: 5/5.08 mm / 0.197/0.2 inch



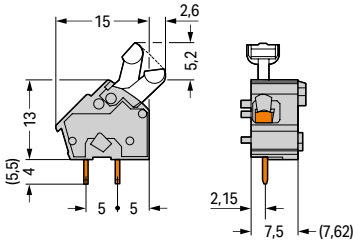
Color	Item No.	PU (SPU)
gray	256-401	600 (100)
blue	256-744	600 (100)
orange	256-746	600 (100)
light gray	256-743	600 (100)
light green	256-747	600 (100)
red	256-740	600 (100)
dark gray	256-742	600 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



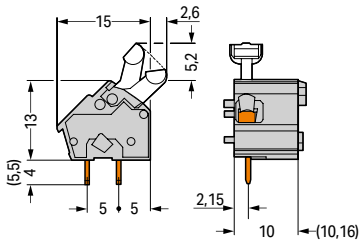
Color	Item No.	PU (SPU)
gray	256-501	400 (100)
blue	256-754	400 (100)
orange	256-756	400 (100)
light gray	256-753	400 (100)
light green	256-757	400 (100)
red	256-750	400 (100)
dark gray	256-752	400 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Color	Item No.	PU (SPU)
gray	256-601	300 (100)
blue	256-764	300 (100)
orange	256-766	300 (100)
light gray	256-763	300 (100)
light green	256-767	300 (100)
red	256-760	300 (100)
dark gray	256-762	300 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	256-100	2000 (100)
blue	256-400	2000 (100)
orange	256-600	2000 (100)
black	256-800	2000 (100)
light gray	256-300	2000 (100)
light green	256-700	2000 (100)
red	256-500	2000 (100)
dark gray	256-200	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

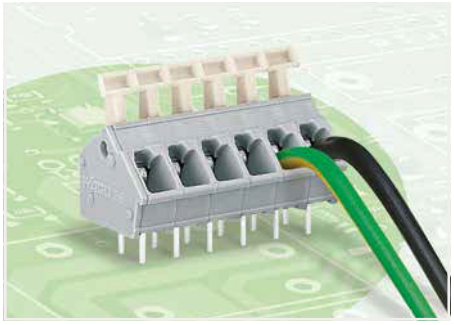
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other colors
- Versions for Ex e II and Ex i
- Solder pin length: 5.5 mm

PCB Terminal Block ▸ 256 Series

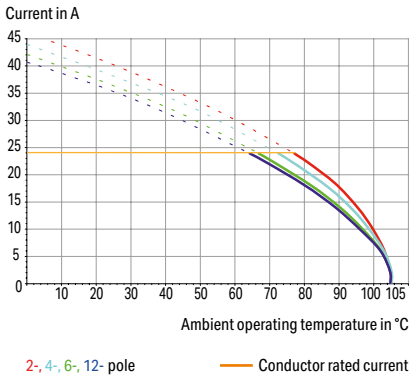
CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

1



- PCB terminal strips with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V	500 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 $^{(+0.1)}$ mm

Environmental Requirements

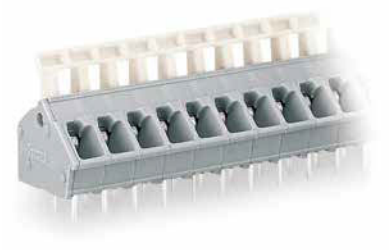
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

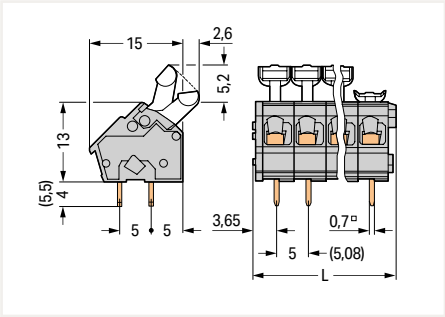
PCB Terminal Block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

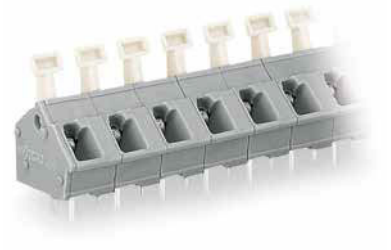


Pole No.	Item No.	PU (SPU)
2	256-402	400 (100)
3	256-403	280 (70)
4	256-404	200 (50)
5	256-405	160 (40)
6	256-406	140 (35)
7	256-407	120 (30)
8	256-408	100 (25)
9	256-409	100 (25)
10	256-410	80 (20)
12	256-412	60 (15)

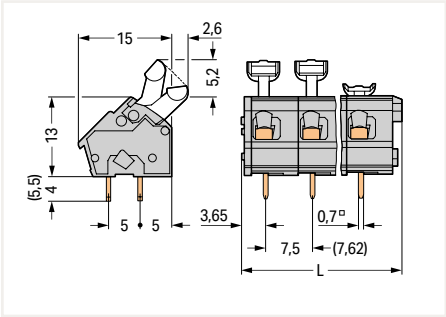


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

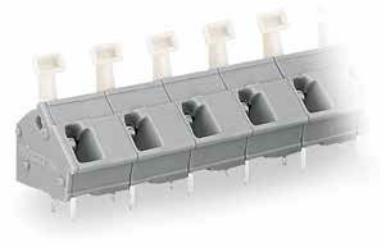


Pole No.	Item No.	PU (SPU)
2	256-502	280 (70)
3	256-503	180 (45)
4	256-504	140 (35)
5	256-505	120 (30)
6	256-506	100 (25)
7	256-507	80 (20)
8	256-508	60 (15)
9	256-509	60 (15)
10	256-510	60 (15)
12	256-512	40 (10)

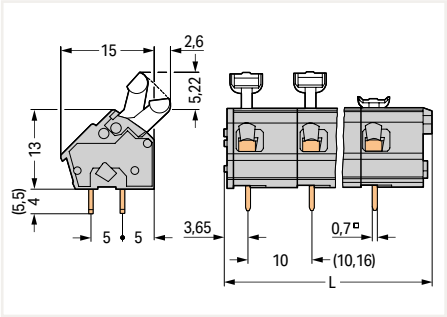


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Pole No.	Item No.	PU (SPU)
2	256-602	200 (50)
3	256-603	140 (35)
4	256-604	100 (25)
5	256-605	80 (20)
6	256-606	60 (15)
7	256-607	60 (15)
8	256-608	60 (15)
9	256-609	40 (10)
10	256-610	40 (10)
12	256-612	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking

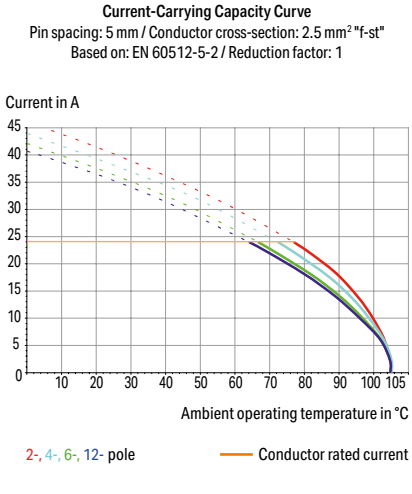
PCB Terminal Block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm² ▸ Modular terminal block

1



- PCB terminal blocks with angled push-buttons and CAGE CLAMP® connection
- Version with angled push-buttons for easy top-of-unit actuation
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V	500 V	630 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 (+ 0.1) mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

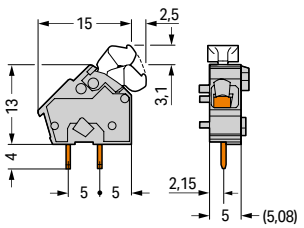
PCB Terminal Block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm² ▸ Modular terminal block

Pin spacing: 5/5.08 mm / 0.197/0.2 inch



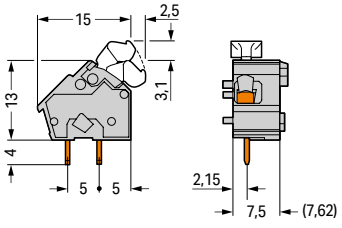
Color	Item No.	PU (SPU)
gray	256-461	600 (100)
blue	256-844	600 (100)
orange	256-846	600 (100)
light gray	256-843	600 (100)
light green	256-847	600 (100)
red	256-840	600 (100)
dark gray	256-842	600 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



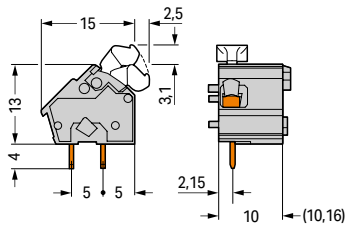
Color	Item No.	PU (SPU)
gray	256-561	400 (100)
blue	256-854	400 (100)
orange	256-856	400 (100)
light gray	256-853	400 (100)
light green	256-857	400 (100)
red	256-850	400 (100)
dark gray	256-852	400 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Color	Item No.	PU (SPU)
gray	256-661	300 (100)
blue	256-864	300 (100)
orange	256-866	300 (100)
light gray	256-863	300 (100)
light green	256-867	300 (100)
red	256-860	300 (100)
dark gray	256-862	300 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	256-100	2000 (100)
blue	256-400	2000 (100)
orange	256-600	2000 (100)
black	256-800	2000 (100)
light gray	256-300	2000 (100)
light green	256-700	2000 (100)
red	256-500	2000 (100)
dark gray	256-200	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other colors
- Versions for Ex e II and Ex i
- Solder pin length: 5.5 mm

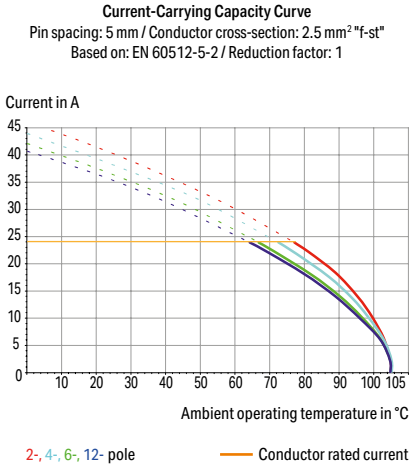
PCB Terminal Block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

1



- PCB terminal blocks with angled push-buttons and CAGE CLAMP® connection
- Version with angled push-buttons for easy top-of-unit actuation
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V	500 V	630 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip, in line
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

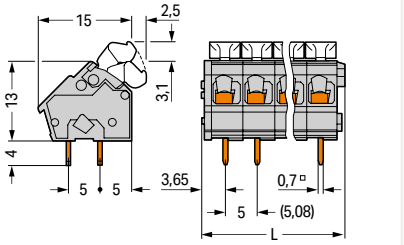
PCB Terminal Block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

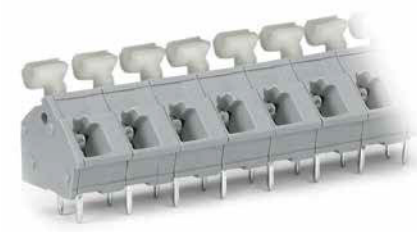


Pole No.	Item No.	PU (SPU)
2	256-402/334-000	400 (100)
3	256-403/334-000	280 (70)
4	256-404/334-000	200 (50)
5	256-405/334-000	160 (40)
6	256-406/334-000	140 (35)
7	256-407/334-000	120 (30)
8	256-408/334-000	100 (25)
9	256-409/334-000	100 (25)
10	256-410/334-000	80 (20)
12	256-412/334-000	60 (15)

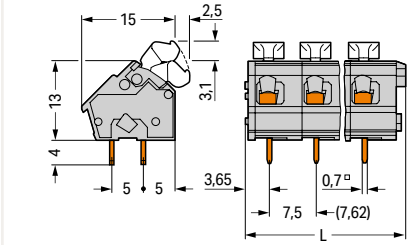


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

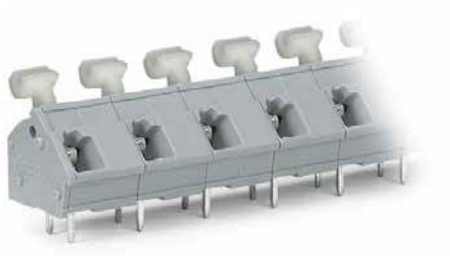


Pole No.	Item No.	PU (SPU)
2	256-502/334-000	280 (70)
3	256-503/334-000	180 (45)
4	256-504/334-000	140 (35)
5	256-505/334-000	120 (30)
6	256-506/334-000	100 (25)
7	256-507/334-000	80 (20)
8	256-508/334-000	60 (15)
9	256-509/334-000	60 (15)
10	256-510/334-000	60 (15)
12	256-512/334-000	40 (10)

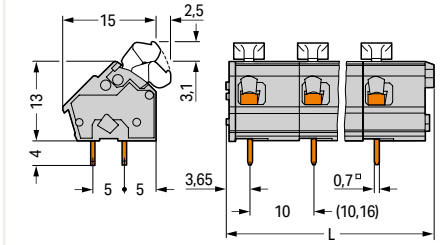


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Pole No.	Item No.	PU (SPU)
2	256-602/334-000	200 (50)
3	256-603/334-000	140 (35)
4	256-604/334-000	100 (25)
5	256-605/334-000	80 (20)
6	256-606/334-000	60 (15)
7	256-607/334-000	60 (15)
8	256-608/334-000	60 (15)
9	256-609/334-000	40 (10)
10	256-610/334-000	40 (10)
12	256-612/334-000	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking

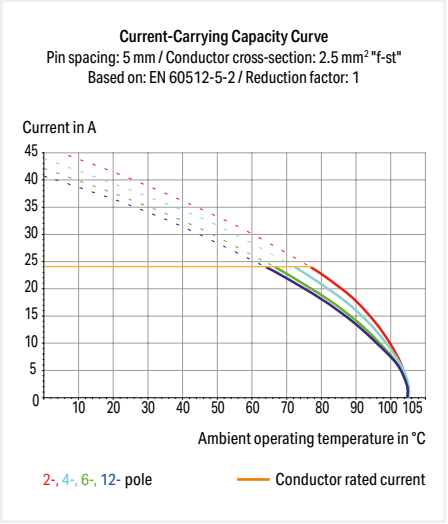
PCB Terminal Block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Finger-operated lever ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

1



- PCB terminal strips with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V	500 V	630 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 (+0.1) mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

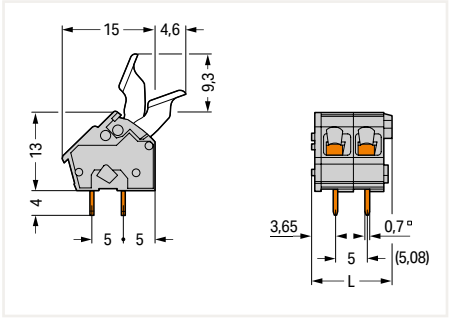
PCB Terminal Block ▸ 256 Series

CAGE CLAMP® ▸ Actuation type: Finger-operated lever ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch



Pole No.	Item No.	PU (SPU)
2	256-402/333-000	400 (100)
3	256-403/333-000	280 (70)
4	256-404/333-000	200 (50)
5	256-405/333-000	160 (40)
6	256-406/333-000	140 (35)
7	256-407/333-000	120 (30)
8	256-408/333-000	100 (25)
9	256-409/333-000	100 (25)
10	256-410/333-000	80 (20)
12	256-412/333-000	60 (15)

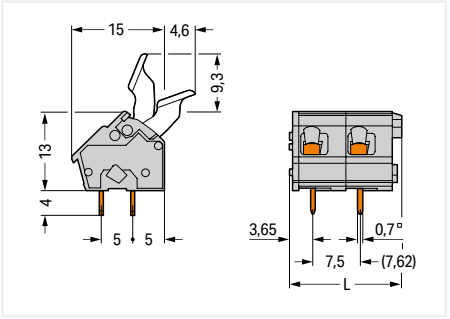


L = (pole no. x pin spacing) + 2.9 mm
For lengths greater than three poles, finger lever operation for center levers may not be possible due to finger size/spacing limitations.

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



Pole No.	Item No.	PU (SPU)
2	256-502/333-000	280 (70)
3	256-503/333-000	180 (45)
4	256-504/333-000	140 (35)
5	256-505/333-000	120 (30)
6	256-506/333-000	100 (25)
7	256-507/333-000	80 (20)
8	256-508/333-000	60 (15)
9	256-509/333-000	60 (15)
10	256-510/333-000	60 (15)
12	256-512/333-000	40 (10)

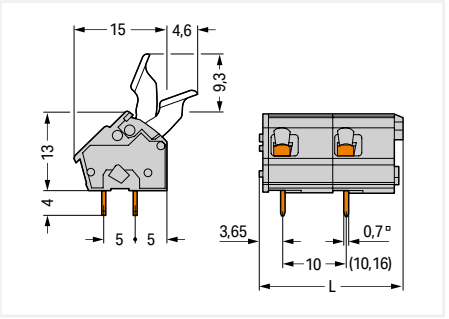


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Pole No.	Item No.	PU (SPU)
2	256-602/333-000	200 (50)
3	256-603/333-000	140 (35)
4	256-604/333-000	100 (25)
5	256-605/333-000	80 (20)
6	256-606/333-000	60 (15)
7	256-607/333-000	60 (15)
8	256-608/333-000	60 (15)
9	256-609/333-000	40 (10)
10	256-610/333-000	40 (10)
12	256-612/333-000	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

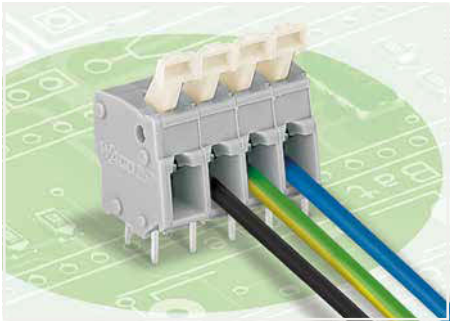
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking

PCB Terminal Block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Modular terminal block

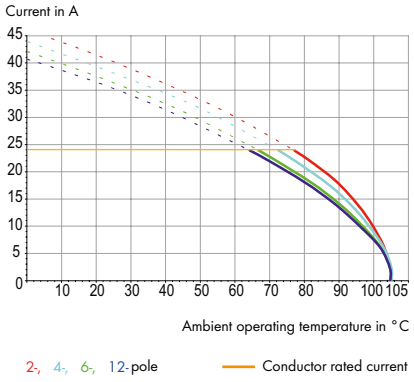
1



- PCB modular terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation
- Versions with angled push-buttons for simple top-of-unit actuation

Current-Carrying Capacity Curve

Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 (+0.1) mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

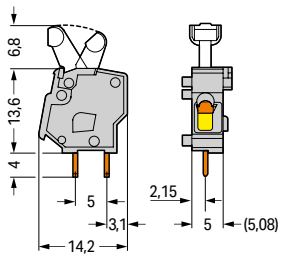
PCB Terminal Block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Modular terminal block

Pin spacing: 5/5.08 mm / 0.197/0.2 inch



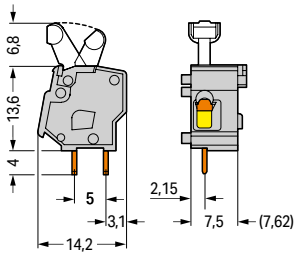
Color	Item No.	PU (SPU)
gray	257-401	500 (100)
blue	257-744	500 (100)
orange	257-746	500 (100)
light gray	257-743	500 (100)
light green	257-747	500 (100)
red	257-740	500 (100)
dark gray	257-742	500 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



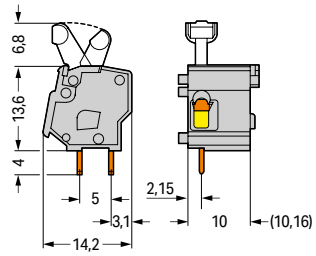
Color	Item No.	PU (SPU)
gray	257-501	400 (100)
blue	257-754	400 (100)
orange	257-756	400 (100)
light gray	257-753	400 (100)
light green	257-757	400 (100)
red	257-750	400 (100)
dark gray	257-752	400 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Color	Item No.	PU (SPU)
gray	257-601	300 (100)
blue	257-764	300 (100)
orange	257-766	300 (100)
light gray	257-763	300 (100)
light green	257-767	300 (100)
red	257-760	300 (100)
dark gray	257-762	300 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	257-100	2000 (100)
blue	257-400	2000 (100)
orange	257-600	2000 (100)
light gray	257-300	2000 (100)
light green	257-700	2000 (100)
red	257-500	2000 (100)
dark gray	257-200	2000 (100)



intermediate plate; extends pin spacing; Pin spacing: 5/5.08 mm / 0.197/0.2 inch

Color	Item No.	PU (SPU)
gray	257-801	500 (100)



intermediate plate; extends pin spacing; Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

Color	Item No.	PU (SPU)
gray	257-811	400 (100)



intermediate plate; extends pin spacing; Pin spacing: 10/10.16 mm / 0.394/0.4 inch

Color	Item No.	PU (SPU)
gray	257-821	300 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

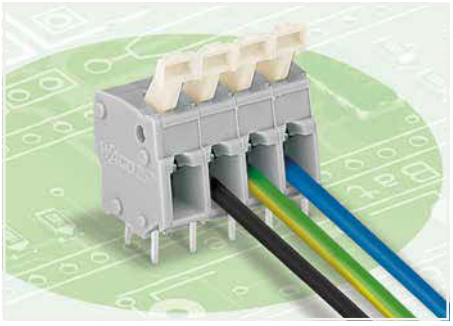
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other colors
- Versions for Ex e II and Ex i

PCB Terminal Block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

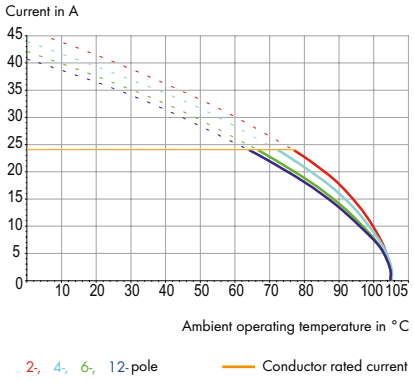
1



- PCB terminal strips with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation
- Versions with angled push-buttons for simple top-of-unit actuation

Current-Carrying Capacity Curve

Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 $^{(+0.1)}$ mm

Environmental Requirements

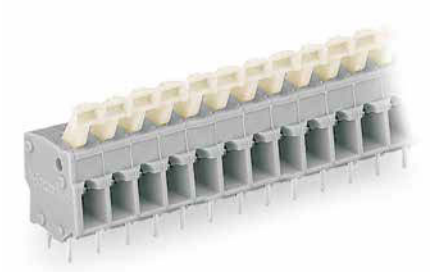
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
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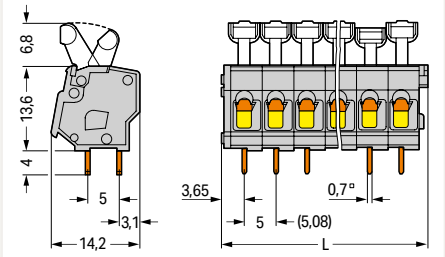
PCB Terminal Block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

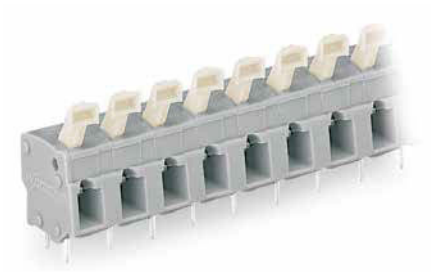


Pole No.	Item No.	PU (SPU)
2	257-402	400 (100)
3	257-403	280 (70)
4	257-404	220 (55)
5	257-405	180 (45)
6	257-406	140 (35)
7	257-407	120 (30)
8	257-408	100 (25)
9	257-409	100 (25)
10	257-410	80 (20)
12	257-412	80 (20)

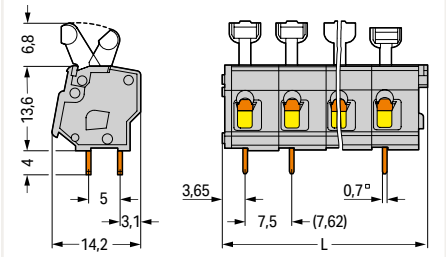


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



Pole No.	Item No.	PU (SPU)
2	257-502	280 (70)
3	257-503	200 (50)
4	257-504	140 (35)
5	257-505	120 (30)
6	257-506	100 (25)
7	257-507	80 (20)
8	257-508	80 (20)
9	257-509	60 (15)
10	257-510	60 (15)
12	257-512	40 (10)

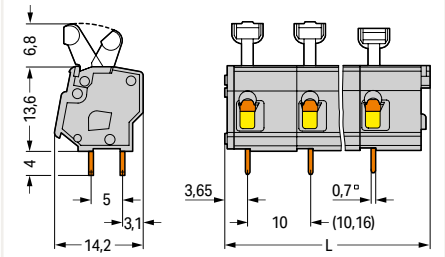


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Pole No.	Item No.	PU (SPU)
2	257-602	200 (50)
3	257-603	140 (35)
4	257-604	100 (25)
5	257-605	80 (20)
6	257-606	80 (20)
7	257-607	60 (15)
8	257-608	60 (15)
9	257-609	40 (10)
10	257-610	40 (10)
12	257-612	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

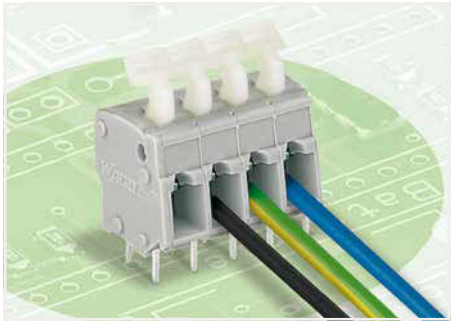
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking

PCB Terminal Block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm² ▸ Modular terminal block

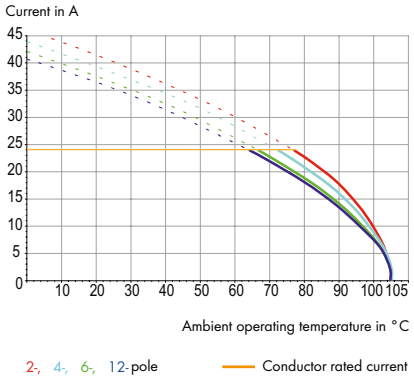
1



- PCB modular terminal blocks with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation
- Versions with angled push-buttons for simple top-of-unit actuation

Current-Carrying Capacity Curve

Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 (+0.1) mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

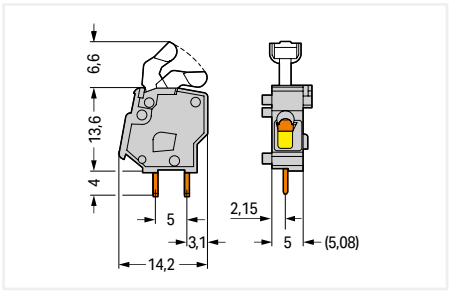
PCB Terminal Block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm² ▸ Modular terminal block

Pin spacing: 5/5.08 mm / 0.197/0.2 inch



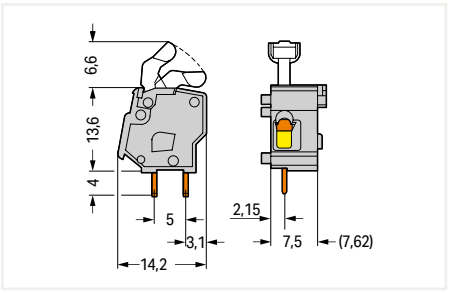
Color	Item No.	PU (SPU)
gray	257-451	500 (100)
blue	257-844	500 (100)
orange	257-846	500 (100)
light gray	257-843	500 (100)
light green	257-847	500 (100)
red	257-840	500 (100)
dark gray	257-842	500 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



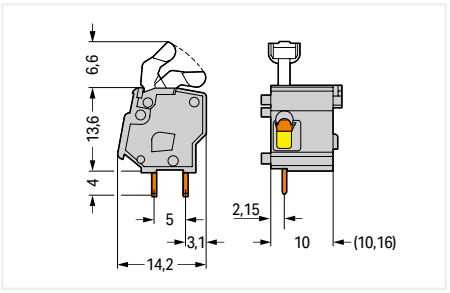
Color	Item No.	PU (SPU)
gray	257-551	400 (100)
blue	257-854	400 (100)
orange	257-856	400 (100)
light gray	257-853	400 (100)
light green	257-857	400 (100)
red	257-850	400 (100)
dark gray	257-852	400 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Color	Item No.	PU (SPU)
gray	257-651	300 (100)
blue	257-864	300 (100)
orange	257-866	300 (100)
light gray	257-863	300 (100)
light green	257-867	300 (100)
red	257-860	300 (100)
dark gray	257-862	300 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	257-100	2000 (100)
blue	257-400	2000 (100)
orange	257-600	2000 (100)
light gray	257-300	2000 (100)
light green	257-700	2000 (100)
red	257-500	2000 (100)
dark gray	257-200	2000 (100)



intermediate plate; extends pin spacing; Pin spacing: 5/5.08 mm / 0.197/0.2 inch

Color	Item No.	PU (SPU)
gray	257-801	500 (100)



intermediate plate; extends pin spacing; Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

Color	Item No.	PU (SPU)
gray	257-811	400 (100)



intermediate plate; extends pin spacing; Pin spacing: 10/10.16 mm / 0.394/0.3 inch

Color	Item No.	PU (SPU)
gray	257-821	300 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

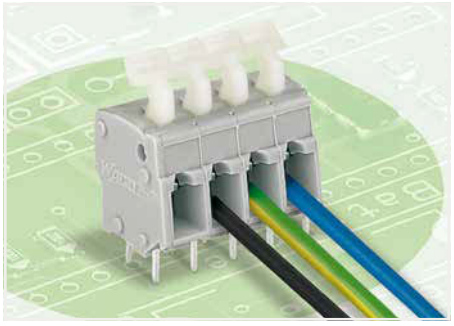
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other colors
- Versions for Ex e II and Ex i

PCB Terminal Block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

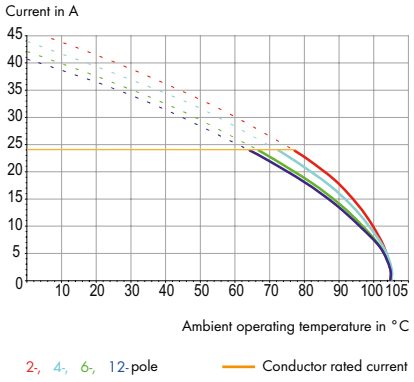
1



- PCB terminal strips with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation
- Versions with angled push-buttons for simple top-of-unit actuation

Current-Carrying Capacity Curve

Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 $^{(+0.1)}$ mm

Environmental Requirements

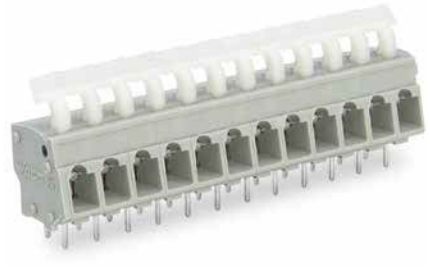
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
Tools	Page 838
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

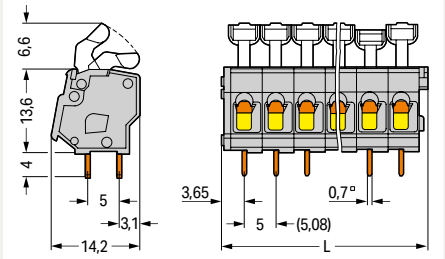
PCB Terminal Block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Push-button, angled ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

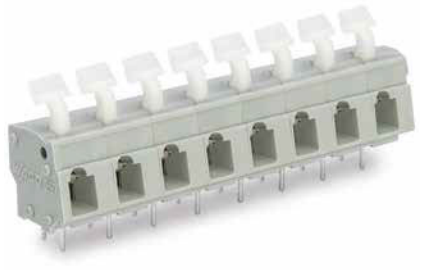


Pole No.	Item No.	PU (SPU)
2	257-452	400 (100)
3	257-453	280 (70)
4	257-454	220 (55)
5	257-455	180 (45)
6	257-456	140 (35)
7	257-457	120 (30)
8	257-458	100 (25)
9	257-459	100 (25)
10	257-460	80 (20)
12	257-462	80 (20)

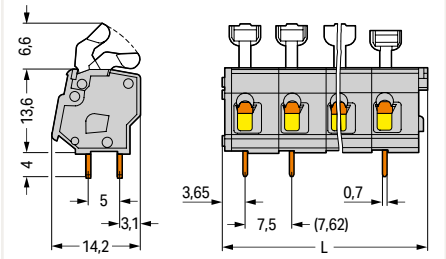


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

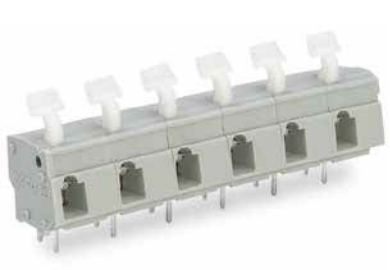


Pole No.	Item No.	PU (SPU)
2	257-552	280 (70)
3	257-553	200 (50)
4	257-554	140 (35)
5	257-555	120 (30)
6	257-556	100 (25)
7	257-557	80 (20)
8	257-558	80 (20)
9	257-559	60 (15)
10	257-560	60 (15)
12	257-562	40 (10)

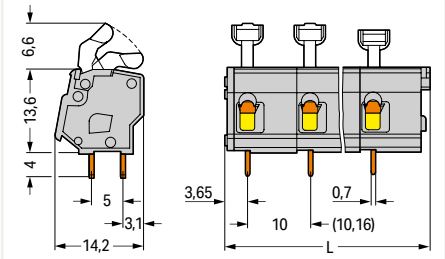


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Pole No.	Item No.	PU (SPU)
2	257-652	220 (55)
3	257-653	140 (35)
4	257-654	100 (25)
5	257-655	80 (20)
6	257-656	80 (20)
7	257-657	60 (15)
8	257-658	60 (15)
9	257-659	40 (10)
10	257-660	40 (10)
12	257-662	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

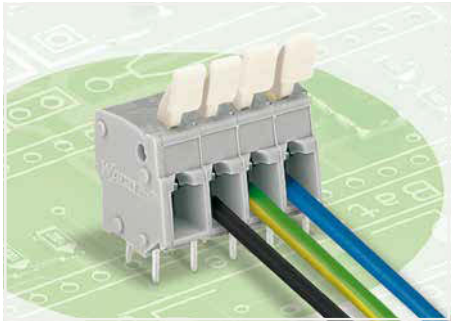
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- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking

PCB Terminal Block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Finger-operated lever ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

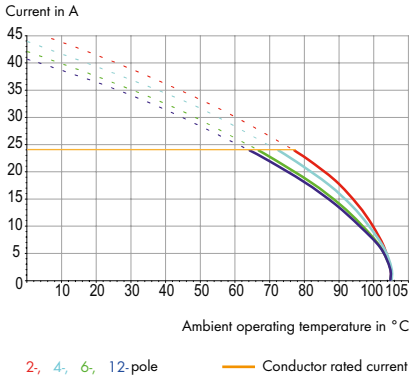
1



- PCB terminal strips with push-buttons and CAGE CLAMP® connection
- Versions with Ex approval
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- Ideal for in-the-field wiring thanks to simplified push-button actuation
- Convenient, tool-free operation
- Versions with angled push-buttons for simple top-of-unit actuation

Current-Carrying Capacity Curve

Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	15 A	-	10 A	15 A	-	10 A	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 (+0.1) mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 252
Commoning strips	Page 248
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

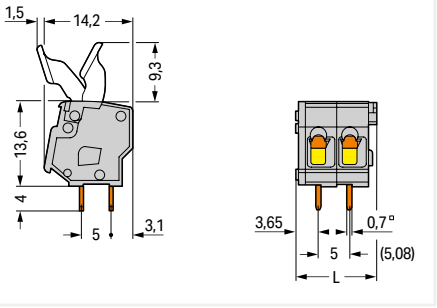
PCB Terminal Block ▸ 257 Series

CAGE CLAMP® ▸ Actuation type: Finger-operated lever ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch



Pole No.	Item No.	PU (SPU)
2	257-402/333-000	400 (100)
3	257-403/333-000	280 (70)
4	257-404/333-000	220 (55)
5	257-405/333-000	180 (45)
6	257-406/333-000	140 (35)
7	257-407/333-000	120 (30)
8	257-408/333-000	100 (25)
9	257-409/333-000	100 (25)
10	257-410/333-000	80 (20)
12	257-412/333-000	80 (20)

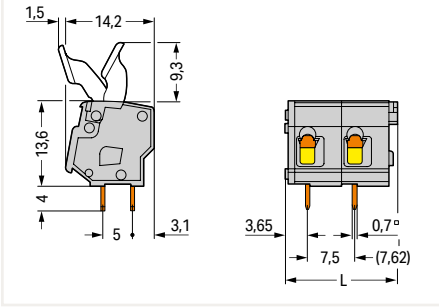


L = (pole no. x pin spacing) + 2.9 mm
For lengths greater than three poles, finger lever operation for center levers may not be possible due to finger size/spacing limitations.

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



Pole No.	Item No.	PU (SPU)
2	257-502/333-000	280 (70)
3	257-503/333-000	200 (50)
4	257-504/333-000	140 (35)
5	257-505/333-000	120 (30)
6	257-506/333-000	100 (25)
7	257-507/333-000	80 (20)
8	257-508/333-000	80 (20)
9	257-509/333-000	60 (15)
10	257-510/333-000	60 (15)
12	257-512/333-000	40 (10)

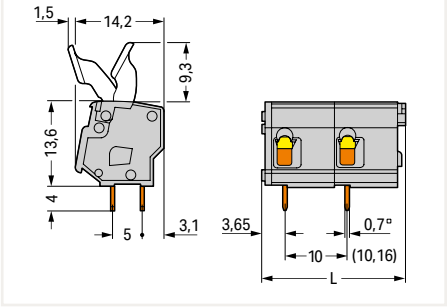


L = (pole no. x pin spacing) + 2.9 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Pole No.	Item No.	PU (SPU)
2	257-602/333-000	220 (55)
3	257-603/333-000	140 (35)
4	257-604/333-000	100 (25)
5	257-605/333-000	80 (20)
6	257-606/333-000	80 (20)
7	257-607/333-000	60 (15)
8	257-608/333-000	60 (15)
9	257-609/333-000	40 (10)
10	257-610/333-000	40 (10)
12	257-612/333-000	40 (10)



L = (pole no. x pin spacing) + 2.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

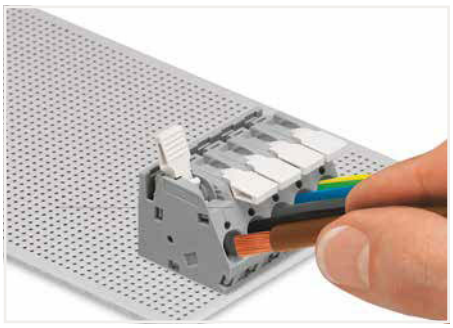
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Versions for Ex e II and Ex i
- Other colors
- Mixed-color terminal strips
- Direct marking

2706 and 2716 Series
Description and Installation



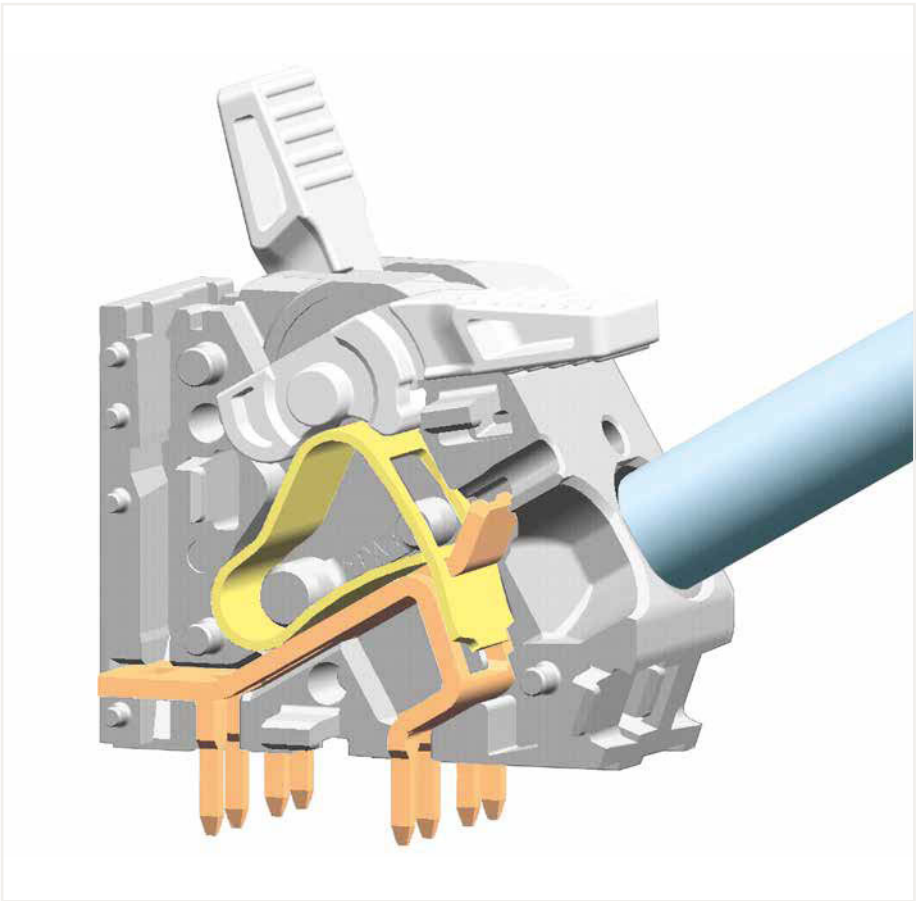
To open the clamping unit, pull the operating lever all the way back – 2706 and 2716 Series.



Inserting/removing a conductor – 2706 and 2716 Series.



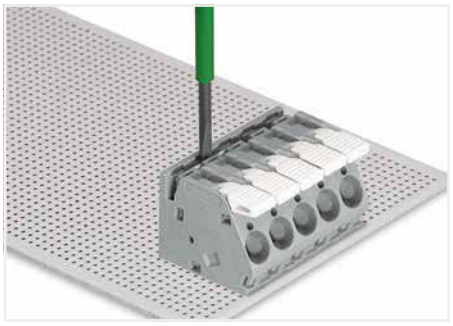
Testing with test plug – 2706 and 2716 Series.



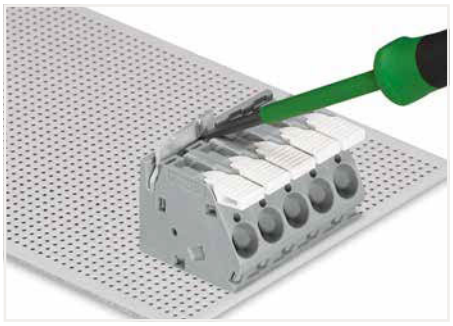
2706 and 2716 Series



Insert the comb-style jumper bar.



Push jumper bar down firmly using a screwdriver until it hits the backstop – 2706 and 2716 Series.



To remove the comb-style jumper bar, lift it up using a screwdriver – 2706 and 2716 Series.

PCB Terminal Block ▸ 2706 Series

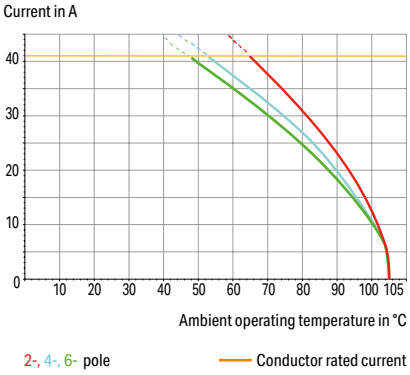
CAGE CLAMP® ▸ Actuation type: Lever ▸ 6 mm² ▸ Terminal strip ▸ Color: gray

1



- High-current terminal strips with lever-actuated CAGE CLAMP®
- Tool-free opening and closing – fingers open/close levers
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Two solder pins per contact point for high mechanical stability
- 600V UL for 12.5mm pin spacing

Current-Carrying Capacity Curve
Pin spacing: 7.5 mm / Conductor cross-section: 6 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	**7.5 mm (0.295 inch)**			**10 mm (0.394 inch)**			**12.5 mm (0.492 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	500 V	630 V	1000 V	800 V	1000 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A	41 A	41 A	41 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	150 V	600 V	300 V	600 V	-
Rated current	30 A	30 A	30 A	30 A	30 A	5 A	30 A	30 A	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	11 … 12 mm / 0.43 … 0.47 inch
Conductor entry angle to the PCB	30°
Solid conductor	0.5 … 6 mm² / 20 … 10 AWG
Fine-stranded conductor	0.5 … 6 mm² / 20 … 10 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 6 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 6 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4.5 mm
Solder pin dimensions	1 x 1.4 mm
Drilled hole diameter (tolerance)	$1.8^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Testing and measuring	Page 854
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

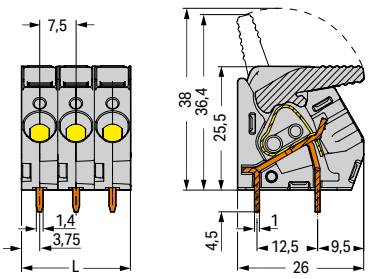
PCB Terminal Block ▸ 2706 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ 6 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU
2	2706-102	85
3	2706-103	55
4	2706-104	40
5	2706-105	30
6	2706-106	25
7	2706-107	20
8	2706-108	20
9	2706-109	15
10	2706-110	15
11	2706-111	15
12	2706-112	10

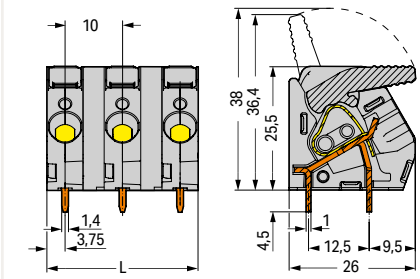


L = pole no. x pin spacing

Pin spacing: 10 mm (0.394 inch)



Pole No.	Item No.	PU
2	2706-202	70
3	2706-203	45
4	2706-204	30
5	2706-205	25
6	2706-206	20
7	2706-207	15
8	2706-208	15
9	2706-209	10
10	2706-210	10
11	2706-211	10
12	2706-212	10

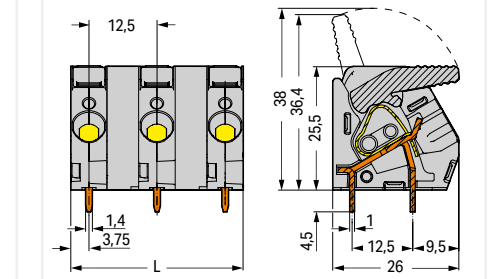


L = (pole no. x pin spacing) – 2.5 mm

Pin spacing: 12.5 mm (0.492 inch)



Pole No.	Item No.	PU
2	2706-302	65
3	2706-303	40
4	2706-304	25
5	2706-305	20
6	2706-306	15
7	2706-307	15
8	2706-308	10
9	2706-309	10
10	2706-310	10
11	2706-311	5
12	2706-312	5



L = (pole no. x pin spacing) – 5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

PCB Terminal Block ▸ 2706 Series

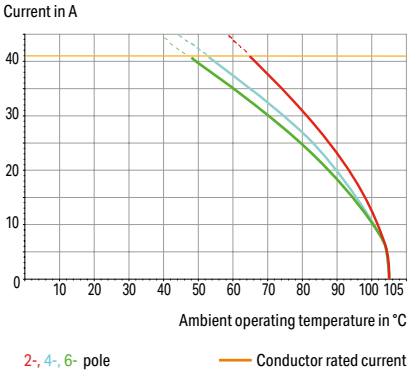
CAGE CLAMP® ▸ Actuation type: Lever ▸ Number of jumper slots: 1 ▸ 6 mm² ▸ Terminal strip ▸ Color: gray

1



- High-current terminal strips with lever-actuated CAGE CLAMP®
- Tool-free opening and closing – fingers open/close levers
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Two solder pins per contact point for high mechanical stability
- Versions with commoning option for distributing potentials

Current-Carrying Capacity Curve
Pin spacing: 7.5 mm / Conductor cross-section: 6 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data						
Pin spacing	**7.5 mm (0.295 inch)**			**10 mm (0.394 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	500 V	630 V	1000 V	800 V	1000 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	300 V	300 V	600 V
Rated current	30 A	30 A	30 A	30 A	30 A	5 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	11 … 12 mm / 0.43 … 0.47 inch
Conductor entry angle to the PCB	30°
Solid conductor	0.5 … 6 mm² / 20 … 10 AWG
Fine-stranded conductor	0.5 … 6 mm² / 20 … 10 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 6 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 6 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4.5 mm
Solder pin dimensions	1 x 1.4 mm
Drilled hole diameter (tolerance)	$1.8^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Jumper	Page 253
Testing and measuring	Page 854
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

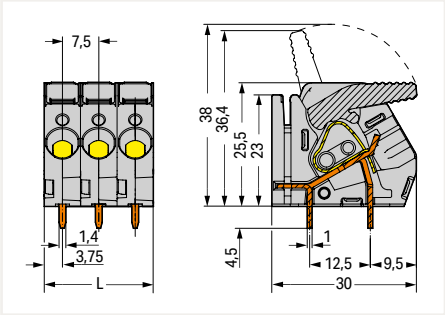
PCB Terminal Block ▸ 2706 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ Number of jumper slots: 1 ▸ 6 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU
2	2706-152	85
3	2706-153	55
4	2706-154	40
5	2706-155	30
6	2706-156	25
7	2706-157	20
8	2706-158	20
9	2706-159	15
10	2706-160	15
11	2706-161	15
12	2706-162	10

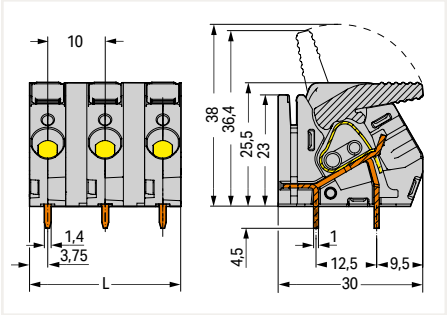


L = pole no. x pin spacing

Pin spacing: 10 mm (0.394 inch)



Pole No.	Item No.	PU
2	2706-252	70
3	2706-253	45
4	2706-254	30
5	2706-255	25
6	2706-256	20
7	2706-257	15
8	2706-258	15
9	2706-259	10
10	2706-260	10
11	2706-261	10
12	2706-262	10



L = (pole no. x pin spacing) – 2.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

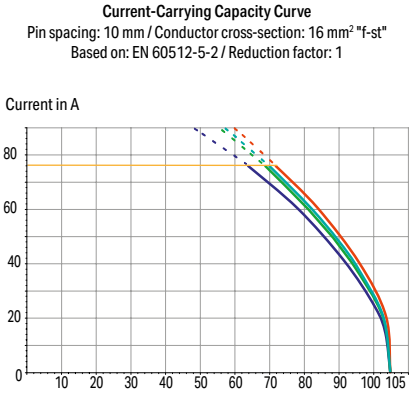
PCB Terminal Block ▸ 2716 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Terminal strip ▸ Color: gray

1



- High-current terminal strips with lever-actuated CAGE CLAMP®
- Tool-free opening and closing – fingers open/close levers
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Four solder pins per contact point for high mechanical stability
- 600V UL for 15mm pin spacing
- Pin and dimensions compatible to high-current, screw-type terminal blocks



Electrical Data						
Pin spacing	**10 mm (0.394 inch)**			**15 mm (0.591 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	800 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A	76 A	76 A	76 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	600 V	600 V	-
Rated current	55 A	55 A	10 A	65 A	65 A	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Conductor entry angle to the PCB	30°
Solid conductor	1.5 … 16 mm² / 16 … 6 AWG
Fine-stranded conductor	1.5 … 16 mm² / 16 … 6 AWG
Fine-stranded conductor with ferrule with plastic collar	1.5 … 10 mm²
Fine-stranded conductor with ferrule without plastic collar	1.5 … 10 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4.5 mm
Solder pin dimensions	0.95 x 1.2 mm
Drilled hole diameter (tolerance)	$1.6^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Testing and measuring	Page 854
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

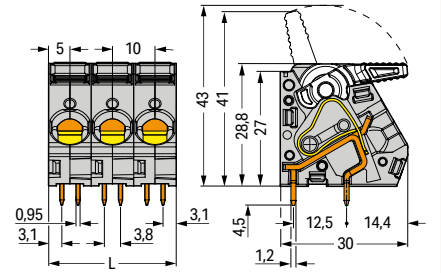
PCB Terminal Block ▸ 2716 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 10 mm (0.394 inch)



Pole No.	Item No.	PU
2	2716-102	65
3	2716-103	40
4	2716-104	30
5	2716-105	25
6	2716-106	20
7	2716-107	15
8	2716-108	15

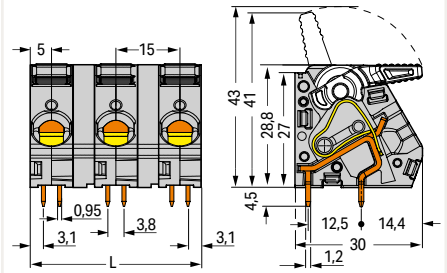


L = pole no. x pin spacing

Pin spacing: 15 mm (0.591 inch)



Pole No.	Item No.	PU
2	2716-202	50
3	2716-203	30
4	2716-204	20
5	2716-205	15
6	2716-206	15
7	2716-207	10
8	2716-208	10



L = (pole no. x pin spacing) – 5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

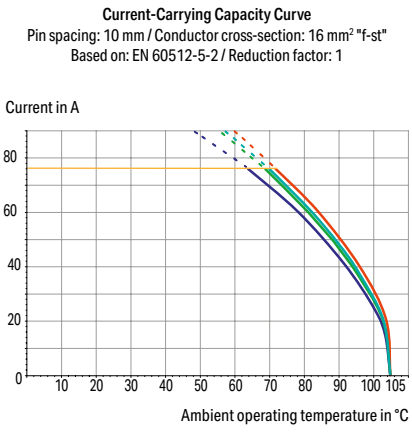
PCB Terminal Block ▸ 2716 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ Number of jumper slots: 1 ▸ 16 mm² ▸ Terminal strip ▸ Color: gray

1



- High-current terminal strips with lever-actuated CAGE CLAMP®
- Tool-free opening and closing – fingers open/close levers
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Four solder pins per contact point for high mechanical stability
- 600V UL for 15mm pin spacing
- Versions with commoning option for distributing potentials



Electrical Data						
Pin spacing	**10 mm (0.394 inch)**			**15 mm (0.591 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	800 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A	76 A	76 A	76 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	150 V	300 V	600 V	600 V	-
Rated current	55 A	55 A	10 A	65 A	65 A	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Conductor entry angle to the PCB	30°
Solid conductor	1.5 … 16 mm² / 16 … 6 AWG
Fine-stranded conductor	1.5 … 16 mm² / 16 … 6 AWG
Fine-stranded conductor with ferrule with plastic collar	1.5 … 10 mm²
Fine-stranded conductor with ferrule without plastic collar	1.5 … 10 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4.5 mm
Solder pin dimensions	0.95 x 1.2 mm
Drilled hole diameter (tolerance)	$1.6^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Jumper	Page 253
Testing and measuring	Page 854
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

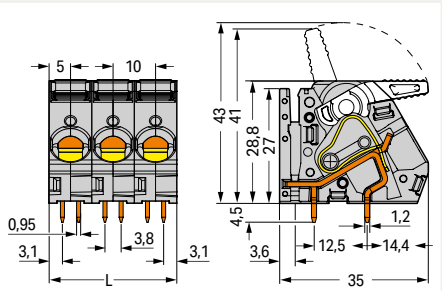
PCB Terminal Block ▸ 2716 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ Number of jumper slots: 1 ▸ 16 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 10 mm (0.394 inch)



Pole No.	Item No.	PU
2	2716-152	52
3	2716-153	32
4	2716-154	24
5	2716-155	20
6	2716-156	16
7	2716-157	12
8	2716-158	12

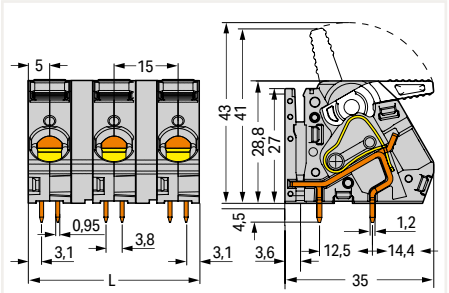


L = pole no. x pin spacing

Pin spacing: 15 mm (0.591 inch)



Pole No.	Item No.	PU
2	2716-252	40
3	2716-253	24
4	2716-254	16
5	2716-255	12
6	2716-256	12
7	2716-257	8
8	2716-258	8



L = (pole no. x pin spacing) – 5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

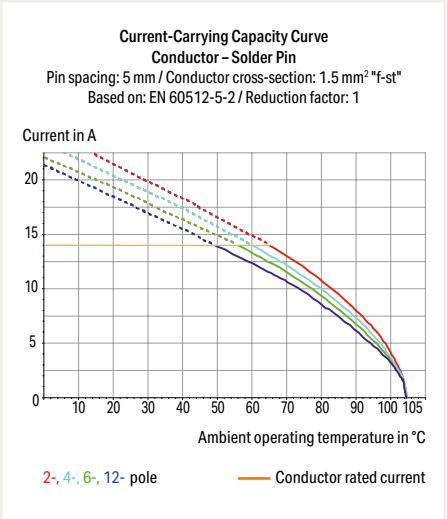
2-Conductor PCB Terminal Block ▸ 816 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

1



- Two-conductor terminal strips with screwdriver actuation and Push-in CAGE CLAMP® connection
- Double entries for supply and power distribution
- Simple, reliable connection via clamping units featuring individual operating slots
- Simple, push-in termination of solid and ferruled conductors



Electrical Data			
Pin spacing	**5 mm (0.197 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	14 A	14 A	14 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.2 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.2 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.5 mm
Solder pin dimensions	0.8 x 0.5 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

2-Conductor PCB Terminal Block ▸ 816 Series

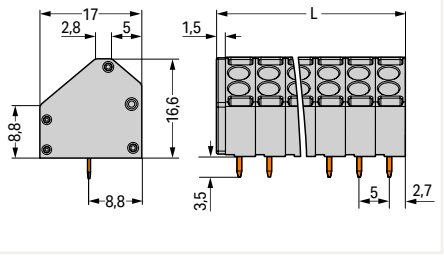
Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray





Open the clamping unit via 5.5 mm screwdriver to insert/ remove fine-stranded conductors.
Push in solid and ferruled conductors until fully inserted.

Pole No.	Item No.	PU (SPU)
2	816-102	322 (161)
3	816-103	224 (112)
4	816-104	168 (84)
5	816-105	140 (70)
6	816-106	112 (56)
7	816-107	98 (49)
8	816-108	84 (42)
9	816-109	70 (35)
10	816-110	70 (35)
11	816-111	56 (28)
12	816-112	56 (28)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

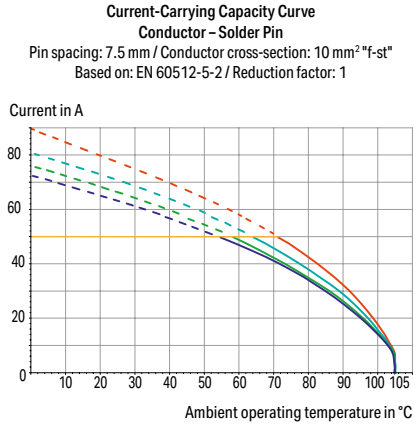
2-Conductor PCB Terminal Block ▸ 746 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Pin spacing: 7.5 mm (0.295 inch) ▸ Color: gray

1



- Two-conductor terminal strips with screwdriver actuation and Push-in CAGE CLAMP® connection
- Double entries for supply and power distribution
- Simple, reliable connection via clamping units featuring individual operating slots
- 600 V UL per UL 1059
- Simple, push-in termination of solid and ferruled conductors
- Marker slot for miniature WSB and WMB markers



Electrical Data			
Pin spacing	**7.5 mm (0.295 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	800 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	50 A	50 A	50 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	50 A	50 A	-
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	44 A	44 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	13 … 15 mm / 0.51 … 0.59 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 6 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 6 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	4.4 mm
Solder pin dimensions	1.6 x 1.2 mm
Drilled hole diameter (tolerance)	$2.2^{(+0.1)}$ mm

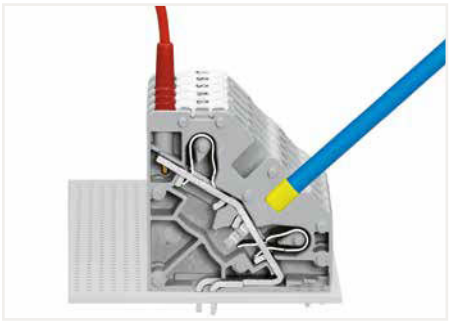
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

2-Conductor PCB Terminal Block ▸ 746 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Pin spacing: 7.5 mm (0.295 inch) ▸ Color: gray



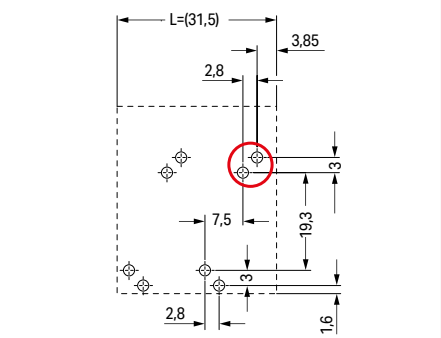


Inserting solid and ferruled conductors by simply pushing them into unit.
Testing with 2 mm Ø test plug.

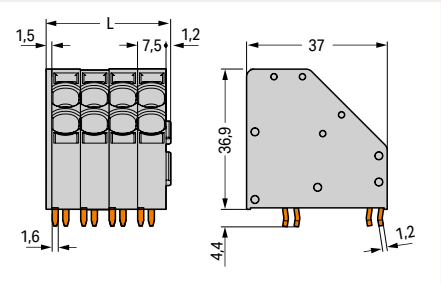


Inserting fine-stranded conductors via 5.5 mm screwdriver.

Pole No.	Item No.	PU
2	746-2302	60
3	746-2303	40
4	746-2304	32
5	746-2305	24
6	746-2306	20
7	746-2307	16
8	746-2308	16
9	746-2309	12
10	746-2310	12
12	746-2312	8



First solder pins, right rear (red circle)



L = (pole no. x pin spacing) + 2.7 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

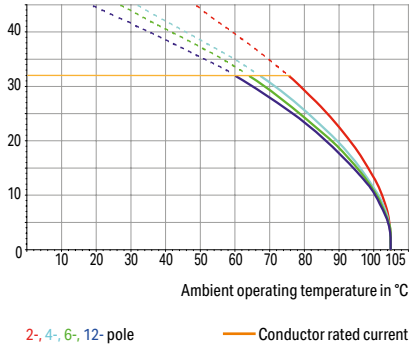
PCB Terminal Block ▸ 2624 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Modular Terminal Block ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

1



- PCB terminal blocks with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry



Electrical Data			
Pin spacing	**5 mm (0.197 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	400 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	41 A	41 A	41 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	26 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 12 mm / 0.39 … 0.47 inch
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor, with twin ferrule	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter (tolerance)	$1.3^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

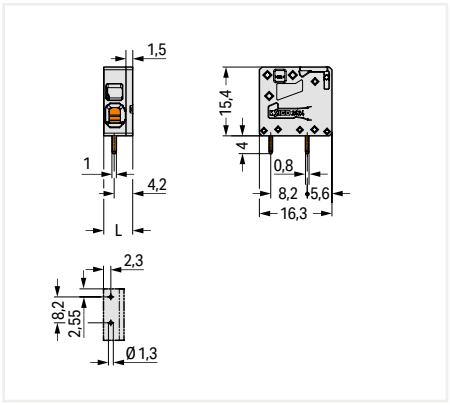
PCB Terminal Block ▸ 2624 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Modular Terminal Block ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

Conductor entry angle to the PCB: 0°



Color	Item No.	PU
gray	2624-1101	300

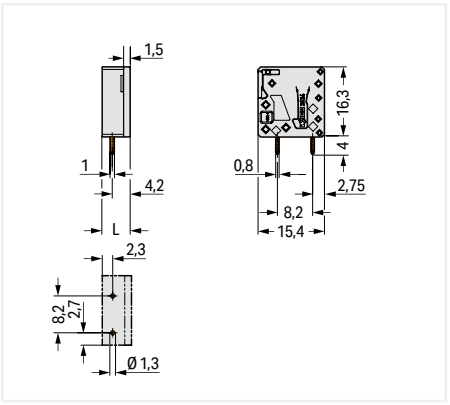


L = 6,5 mm

Conductor entry angle to the PCB: 90°



Color	Item No.	PU
gray	2624-3101	300



L = 6,5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

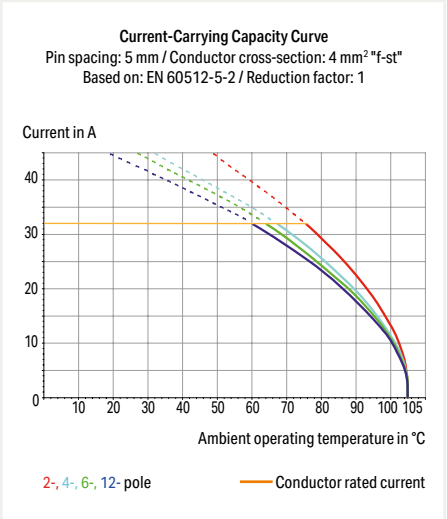
PCB Terminal Block ▸ 2624 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Terminal strip ▸ Color: gray

1



- PCB terminal blocks with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry



Electrical Data									
Pin spacing	**5 mm (0.197 inch)**			**7.5 mm (0.295 inch)**			**11.5 mm (0.453 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	400 V	630 V	630 V	630 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A	41 A	41 A	41 A	41 A	41 A	41 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	150 V	300 V	600 V	600 V	-
Rated current	26 A	-	10 A	26 A	26 A	10 A	26 A	26 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 12 mm / 0.39 … 0.47 inch
Solid conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor	0.2 … 6 mm² / 24 … 10 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor, with twin ferrule	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter (tolerance)	$1.3^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

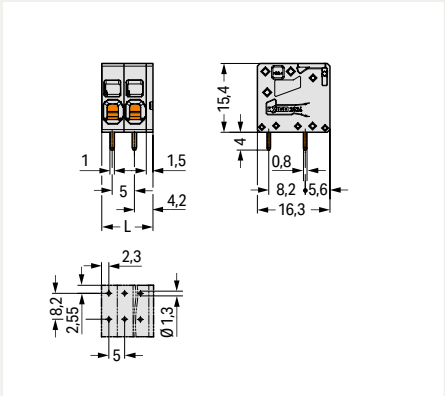
PCB Terminal Block ▸ 2624 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Terminal strip ▸ Color: gray

Conductor entry angle to the PCB: 0° ▸ Pin spacing: 5 mm (0.197 inch)



Pole No.	Item No.	PU
2	2624-1102	200
3	2624-1103	150
4	2624-1104	100
5	2624-1105	100
6	2624-1106	80
7	2624-1107	50
8	2624-1108	50
9	2624-1109	50
10	2624-1110	40
11	2624-1111	35
12	2624-1112	35

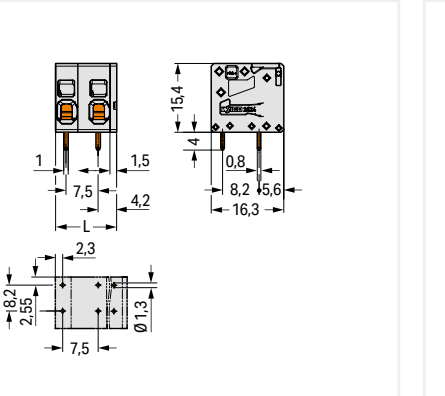


L = (pole no. - 1) x pin spacing + 6.5 mm

Conductor entry angle to the PCB: 0° ▸ Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU
2	2624-1302	200
3	2624-1303	120
4	2624-1304	80
5	2624-1305	70
6	2624-1306	50
7	2624-1307	50
8	2624-1308	40
9	2624-1309	35
10	2624-1310	35
11	2624-1311	25
12	2624-1312	25

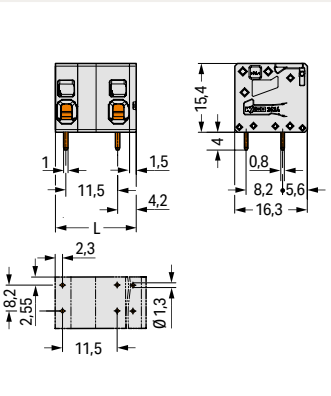


L = (pole no. - 1) x pin spacing + 6.5 mm

Conductor entry angle to the PCB: 0° ▸ Pin spacing: 11.5 mm (0.453 inch)



Pole No.	Item No.	PU
2	2624-1502	100
3	2624-1503	80
4	2624-1504	50
5	2624-1505	40
6	2624-1506	40
7	2624-1507	30
8	2624-1508	25
9	2624-1509	25
10	2624-1510	20
11	2624-1511	20
12	2624-1512	20



L = (pole no. - 1) x pin spacing + 6.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

PCB Terminal Block ▸ 2624 Series

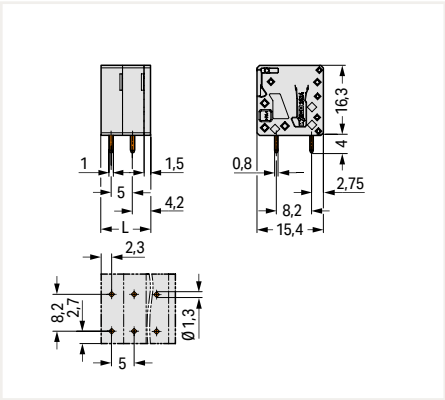
Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 6 mm² ▸ Terminal strip ▸ Color: gray

1

Conductor entry angle to the PCB: 90° ▸ Pin spacing: 5 mm (0.197 inch)



Pole No.	Item No.	PU
2	2624-3102	200
3	2624-3103	150
4	2624-3104	100
5	2624-3105	100
6	2624-3106	80
7	2624-3107	50
8	2624-3108	50
9	2624-3109	50
10	2624-3110	40
11	2624-3111	35
12	2624-3112	35

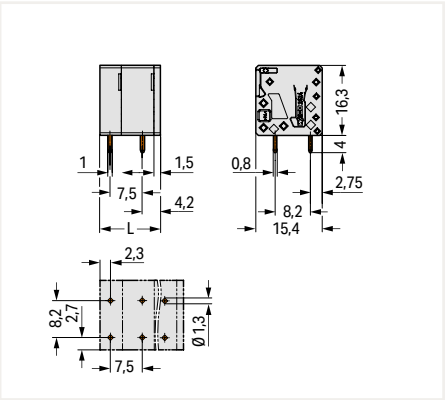


L = (pole no. - 1) x pin spacing + 6.5 mm

Conductor entry angle to the PCB: 90° ▸ Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU
2	2624-3302	200
3	2624-3303	120
4	2624-3304	80
5	2624-3305	70
6	2624-3306	50
7	2624-3307	50
8	2624-3308	40
9	2624-3309	35
10	2624-3310	35
11	2624-3311	25
12	2624-3312	25

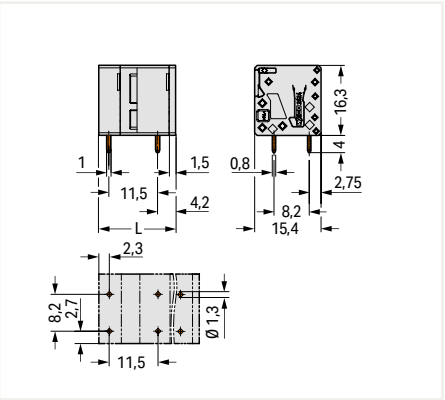


L = (pole no. - 1) x pin spacing + 6.5 mm

Conductor entry angle to the PCB: 90° ▸ Pin spacing: 11.5 mm (0.453 inch)



Pole No.	Item No.	PU
2	2624-3502	100
3	2624-3503	80
4	2624-3504	50
5	2624-3505	40
6	2624-3506	40
7	2624-3507	30
8	2624-3508	25
9	2624-3509	25
10	2624-3510	20
11	2624-3511	20
12	2624-3512	20



L = (pole no. - 1) x pin spacing + 6.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

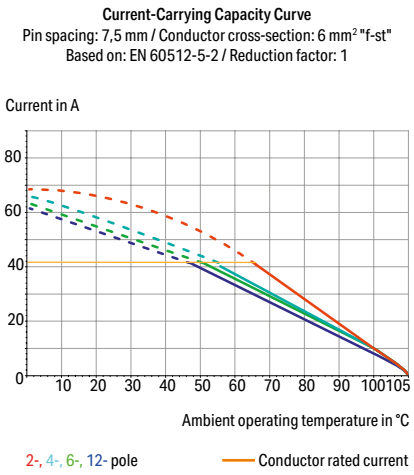
PCB Terminal Block ▸ 2626 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Modular Terminal Block ▸ Pin spacing: 7.5 mm (0.295 inch) ▸ Color: gray

1



- PCB terminal blocks with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry



Electrical Data			
Pin spacing	**7.5 mm (0.295 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	800 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A
Approvals per		UL 1059	
Use Group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	38 A	38 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	13 … 15 mm / 0.51 … 0.59 inch
Solid conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 6 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 6 mm²
Fine-stranded conductor, with twin ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	1.5 x 1 mm
Drilled hole diameter (tolerance)	$2^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

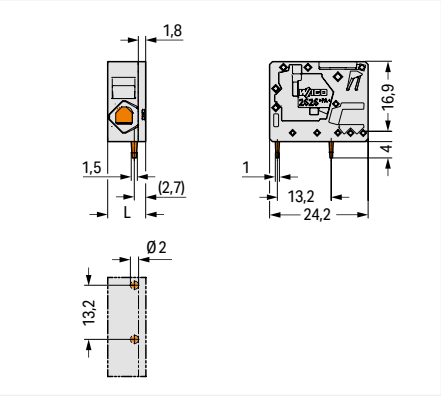
PCB Terminal Block ▸ 2626 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Modular Terminal Block ▸ Pin spacing: 7.5 mm (0.295 inch) ▸ Color: gray

Conductor entry angle to the PCB: 0°



Color	Item No.	PU
gray	2626-1101	200

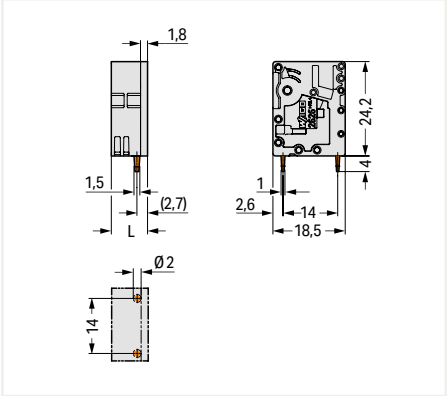


L = 9.3 mm

Conductor entry angle to the PCB: 90°



Color	Item No.	PU
gray	2626-3101	200



L = 9.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

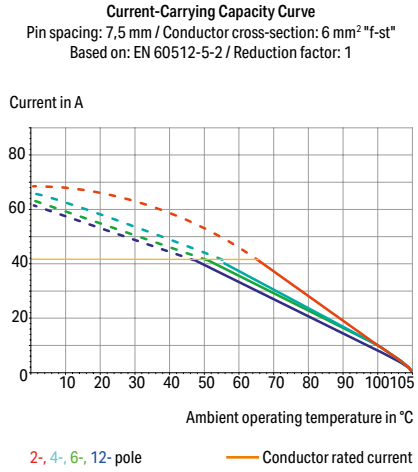
PCB Terminal Block ▸ 2626 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Terminal strip ▸ Pin spacing: 7.5 mm (0.295 inch) ▸ Color: gray

1



- PCB terminal blocks with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry



Electrical Data			
Pin spacing	**7.5 mm (0.295 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	800 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A
Approvals per		UL 1059	
Use Group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	38 A	38 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	13 … 15 mm / 0.51 … 0.59 inch
Solid conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 6 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 6 mm²
Fine-stranded conductor, with twin ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	4 mm
Solder pin dimensions	1.5 x 1 mm
Drilled hole diameter (tolerance)	$2^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

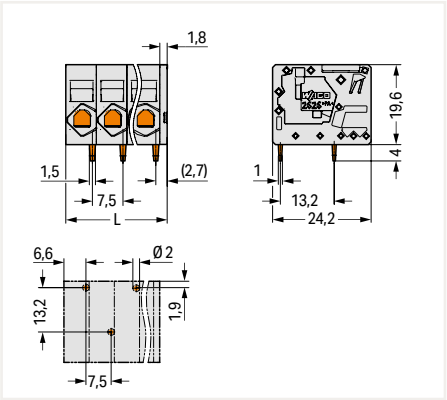
PCB Terminal Block ▸ 2626 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 10 mm² ▸ Terminal strip ▸ Pin spacing: 7.5 mm (0.295 inch) ▸ Color: gray

Conductor entry angle to the PCB: 0°



Pole No.	Item No.	PU
2	2626-1102/020-000	140
3	2626-1103/020-000	90
4	2626-1104/020-000	70
5	2626-1105/020-000	60
6	2626-1106/020-000	50
7	2626-1107/020-000	40
8	2626-1108/020-000	40
9	2626-1109/020-000	35
10	2626-1110/020-000	30
11	2626-1111/020-000	25
12	2626-1112/020-000	25

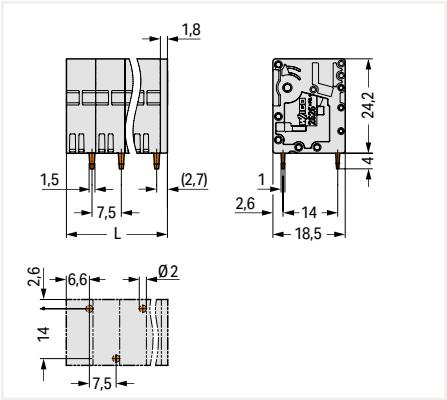


L = (pole no. - 1) x pin spacing + 9.3 mm

Conductor entry angle to the PCB: 90°



Pole No.	Item No.	PU
2	2626-3102/020-000	140
3	2626-3103/020-000	90
4	2626-3104/020-000	70
5	2626-3105/020-000	60
6	2626-3106/020-000	50
7	2626-3107/020-000	40
8	2626-3108/020-000	40
9	2626-3109/020-000	35
10	2626-3110/020-000	30
11	2626-3111/020-000	25
12	2626-3112/020-000	25



L = (pole no. - 1) x pin spacing + 9.3 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

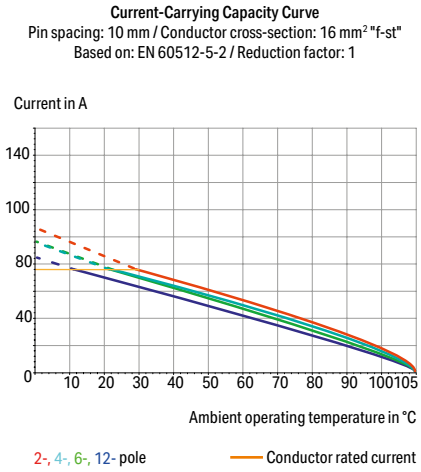
PCB Terminal Block ▸ 2636 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Modular Terminal Block ▸ Pin spacing: 10 mm (0.394 inch) ▸ Color: gray

1



- PCB terminal blocks with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry



Electrical Data			
Pin spacing	**10 mm (0.394 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	66 A	66 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor with ferrule with plastic collar	0.75 … 16 mm²
Fine-stranded conductor with ferrule without plastic collar	0.75 … 16 mm²
Fine-stranded conductor, with twin ferrule	0.75 … 6 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	1.2 x 1 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

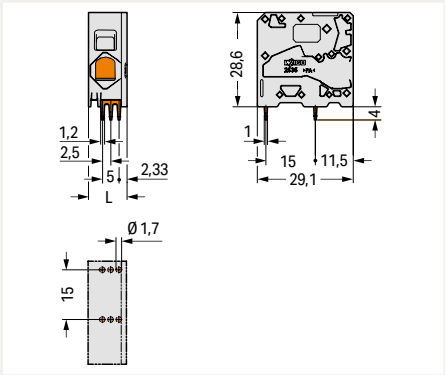
PCB Terminal Block ▸ 2636 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Modular Terminal Block ▸ Pin spacing: 10 mm (0.394 inch) ▸ Color: gray

Conductor entry angle to the PCB: 0°



Color	Item No.	PU
gray	2636-1101	100

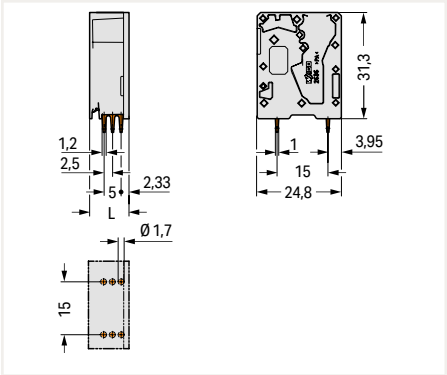


L = 11.6 mm

Conductor entry angle to the PCB: 90°



Color	Item No.	PU
gray	2636-3101	100



L = 11.6 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

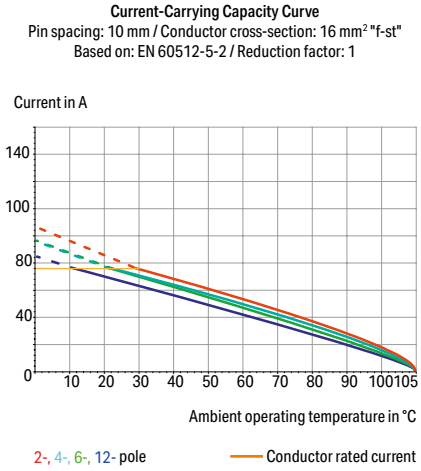
PCB Terminal Block ▸ 2636 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Terminal strip ▸ Pin spacing: 10 mm (0.394 inch) ▸ Color: gray

1



- PCB terminal blocks with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry



Electrical Data			
Pin spacing	**10 mm (0.394 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A
Approvals per		UL 1059	
Use Group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	66 A	66 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor with ferrule with plastic collar	0.75 … 16 mm²
Fine-stranded conductor with ferrule without plastic collar	0.75 … 16 mm²
Fine-stranded conductor, with twin ferrule	0.75 … 6 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	4 mm
Solder pin dimensions	1.2 x 1 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

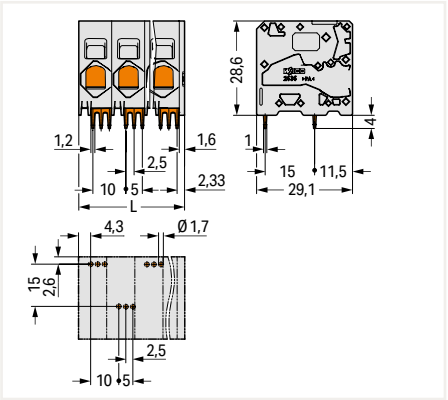
PCB Terminal Block ▸ 2636 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 16 mm² ▸ Terminal strip ▸ Pin spacing: 10 mm (0.394 inch) ▸ Color: gray

Conductor entry angle to the PCB: 0°



Pole No.	Item No.	PU
2	2636-1102/020-000	50
3	2636-1103/020-000	50
4	2636-1104/020-000	25
5	2636-1105/020-000	25
6	2636-1106/020-000	25
7	2636-1107/020-000	20
8	2636-1108/020-000	20
9	2636-1109/020-000	20
10	2636-1110/020-000	15
11	2636-1111/020-000	15
12	2636-1112/020-000	15

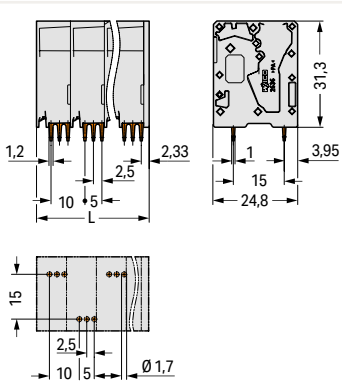


L = (pole no. - 1) x pin spacing + 11.6 mm

Conductor entry angle to the PCB: 90°



Pole No.	Item No.	PU
2	2636-3102/020-000	50
3	2636-3103/020-000	50
4	2636-3104/020-000	25
5	2636-3105/020-000	25
6	2636-3106/020-000	25
7	2636-3107/020-000	20
8	2636-3108/020-000	20
9	2636-3109/020-000	20
10	2636-3110/020-000	15
11	2636-3111/020-000	15
12	2636-3112/020-000	15



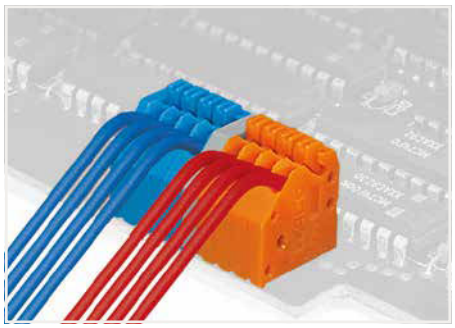
L = (pole no. - 1) x pin spacing + 11.6 mm

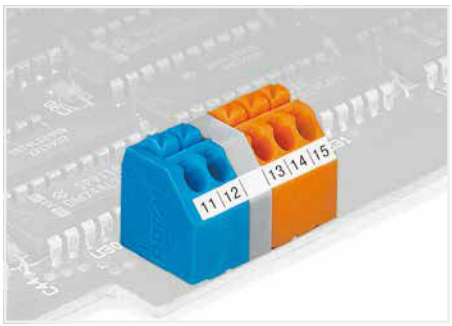
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

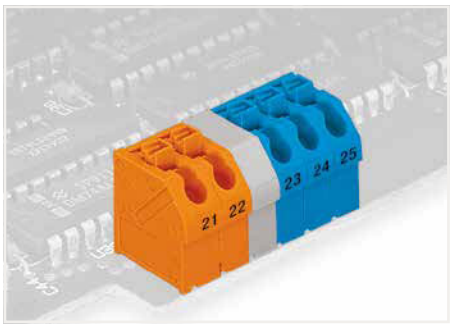
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

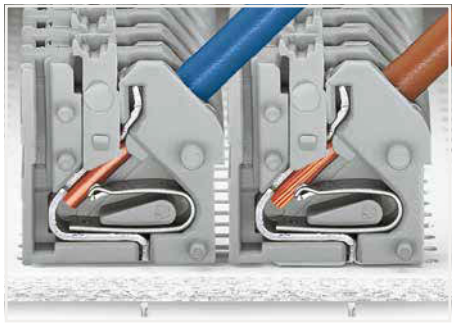
250 Series
Description and Installation







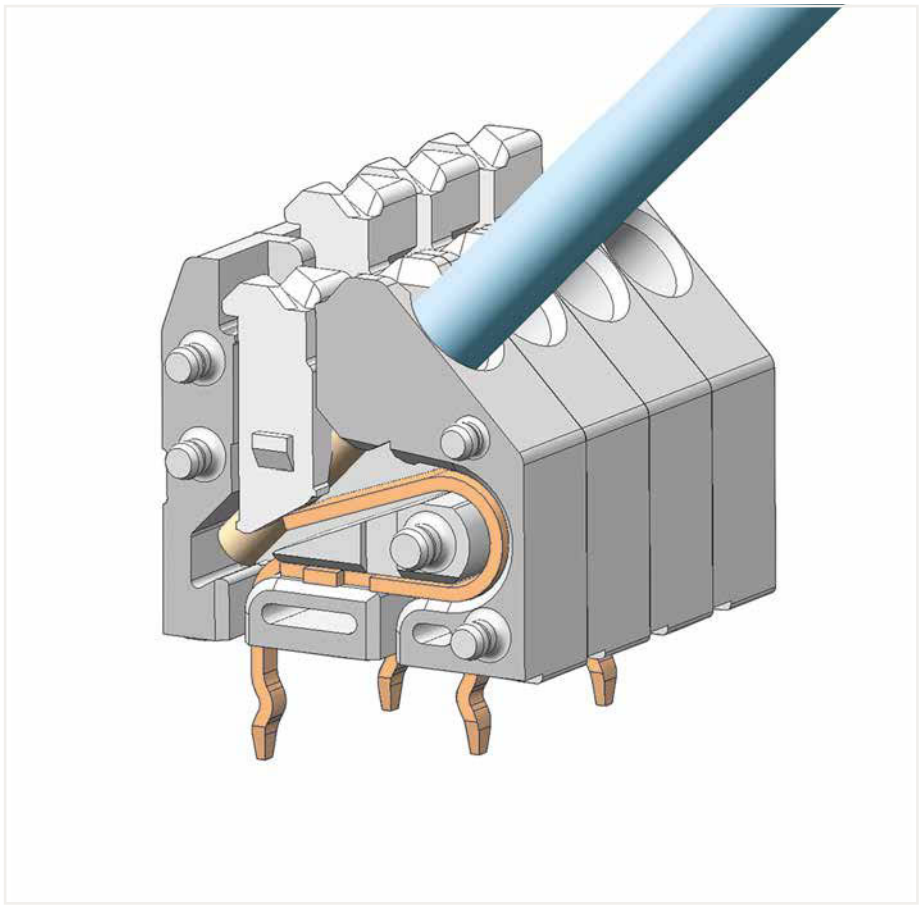
Labeling via self-adhesive strips or direct marking. Mixed-color terminal strips (with or without spacer) are available upon request.



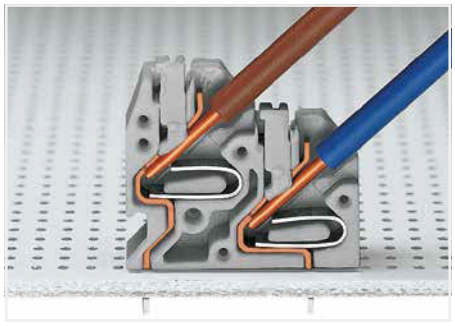
Space-saving wiring, 250 Series – 5 mm pin spacing.



Inserting solid conductors via push-in termination.
Inserting fine-stranded conductors via push-buttons,
250 Series – 3.5 mm pin spacing.



250 Series



Space-saving wiring – push-in termination of solid conductors.



Testing with 11 mm Ø test pin, on the conductor,
250 Series – 2.5 … 3.5 mm pin spacing.

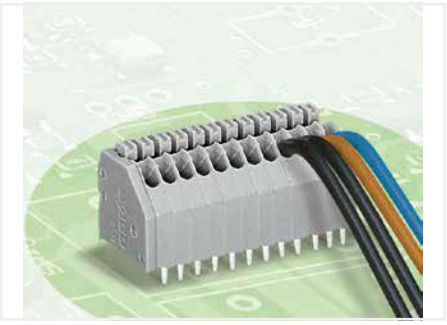


Testing with 2 mm Ø test plug, touch contact,
250 Series – 5 mm pin spacing.

PCB Terminal Block ▸ 250 Series

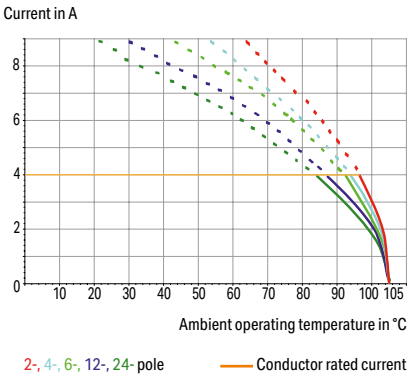
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, in line ▸ Pin spacing: 2.5 mm (0.098 inch) ▸ Color: gray

1



- Compact PCB terminal strips with push-buttons
- Push-in termination of solid conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring
- Custom color combinations
- Terminal strips also available with spacers upon request

Current-Carrying Capacity Curve
Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	2.5 mm (0.098 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	100 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	4 A	4 A	4 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.14 … 0.5 mm² / 24 … 20 AWG
Fine-stranded conductor	0.2 … 0.5 mm² / 24 … 20 AWG
Conductor diameter	0.4 … 0.8 mm / 24 … 20 AWG

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Copper alloy
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.75 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

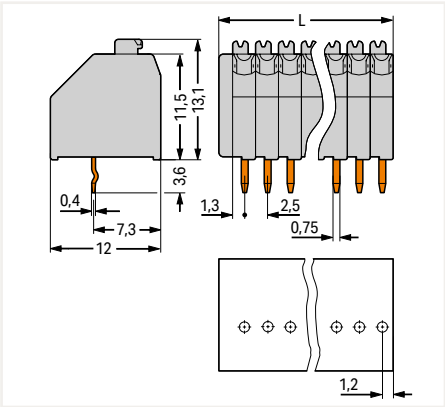
Marking	Page 832
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, in line ▸ Pin spacing: 2.5 mm (0.098 inch) ▸ Color: gray



Pole No.	Item No.	PU (SPU)
2	250-302	720 (180)
3	250-303	520 (130)
4	250-304	400 (100)
5	250-305	340 (85)
6	250-306	280 (70)
7	250-307	240 (60)
8	250-308	220 (55)
9	250-309	200 (50)
10	250-310	180 (45)
11	250-311	160 (40)
12	250-312	140 (35)
13	250-313	140 (35)
14	250-314	120 (30)
15	250-315	120 (30)
16	250-316	100 (25)
17	250-317	100 (25)
18	250-318	80 (20)
19	250-319	80 (20)
20	250-320	80 (20)
21	250-321	80 (20)
22	250-322	80 (20)
23	250-323	80 (20)
24	250-324	60 (15)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Terminal strips with spacers
- Direct marking

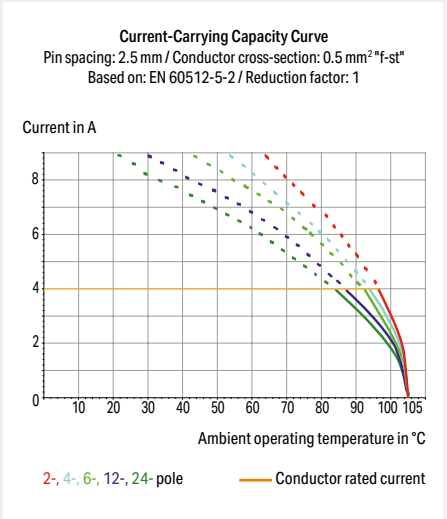
PCB Terminal Block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, staggered ▸ Color: gray

1



- Compact terminal strips with push-buttons
- Push-in termination for solid conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring
- Custom color combinations
- Terminal strips also available with spacers upon request



Electrical Data			
Pin spacing	2.5 mm (0.098 inch) / 2.54 mm (0.1 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	4 A	4 A	4 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	5 A	-	5 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	5 A	-	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.14 … 0.5 mm² / 24 … 20 AWG
Fine-stranded conductor	0.2 … 0.5 mm² / 24 … 20 AWG
Conductor diameter	0.4 … 0.8 mm / 24 … 20 AWG

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.75 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Marking	Page 832
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

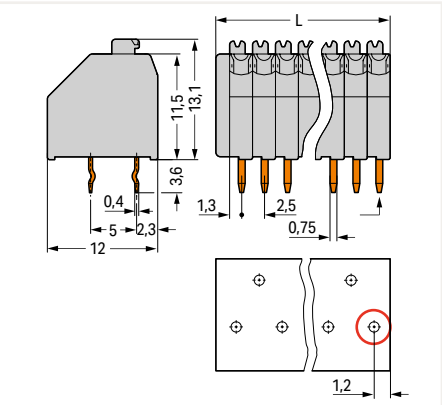
PCB Terminal Block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, staggered ▸ Color: gray

Pin spacing: 2.5 mm (0.098 inch)



Pole No.	Item No.	PU (SPU)
2	250-402	720 (180)
3	250-403	520 (130)
4	250-404	400 (100)
5	250-405	340 (85)
6	250-406	280 (70)
7	250-407	240 (60)
8	250-408	220 (55)
9	250-409	200 (50)
10	250-410	180 (45)
11	250-411	160 (40)
12	250-412	140 (35)
13	250-413	140 (35)
14	250-414	120 (30)
15	250-415	120 (30)
16	250-416	100 (25)
17	250-417	100 (25)
18	250-418	80 (20)
19	250-419	80 (20)
20	250-420	80 (20)
21	250-421	80 (20)
22	250-422	80 (20)
23	250-423	60 (15)
24	250-424	60 (15)

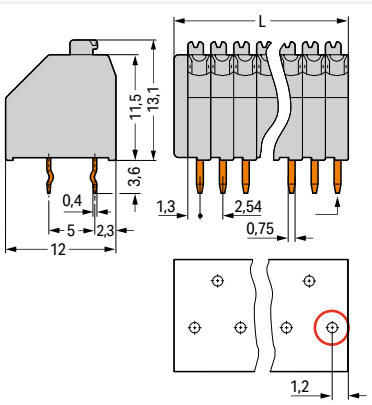


L = (pole no. x pin spacing) + 1.5 mm
First solder pin, front right (red circle)

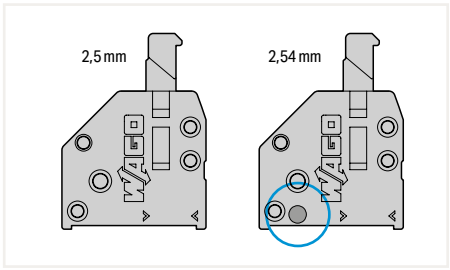
Pin spacing: 2.54 mm (0.1 inch)



Pole No.	Item No.	PU (SPU)
2	250-1402	720 (180)
3	250-1403	520 (130)
4	250-1404	400 (100)
5	250-1405	340 (85)
6	250-1406	280 (70)
7	250-1407	240 (60)
8	250-1408	200 (50)
9	250-1409	180 (45)
10	250-1410	160 (40)
11	250-1411	160 (40)
12	250-1412	140 (35)
13	250-1413	120 (30)
14	250-1414	120 (30)
15	250-1415	120 (30)
16	250-1416	100 (25)
17	250-1417	100 (25)
18	250-1418	100 (25)
19	250-1419	80 (20)
20	250-1420	80 (20)
21	250-1421	80 (20)
22	250-1422	80 (20)
23	250-1423	80 (20)
24	250-1424	60 (15)



L = (pole no. x pin spacing) + 1.5 mm
First solder pin, front right (red circle)



A groove at the back of the terminal strip differentiates between the two pin spacings.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

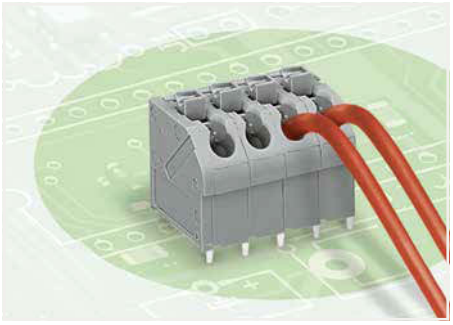
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Terminal strips with spacers
- Direct marking

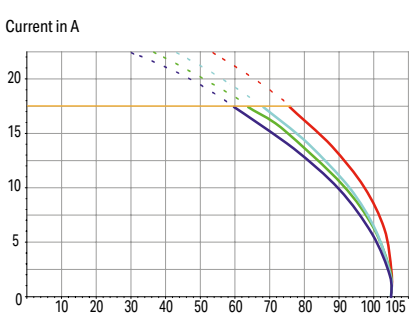
PCB Terminal Block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, in line ▸ Color: gray

1



- Compact terminal strips with push-buttons
- Push-in terminations of solid and ferruled conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring



Electrical Data									
Pin spacing	**3.5 mm (0.138 inch)**			**5 mm (0.197 inch)**			**7.5 mm (0.295 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	160 V	160 V	320 V	320 V	320 V	630 V	500 V	630 V	1000 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV
Rated current	8 A	8 A	8 A	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	5 A	-	5 A	2 A	-	2 A	2 A	-	2 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Conductor entry angle to the PCB	45°

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 832
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

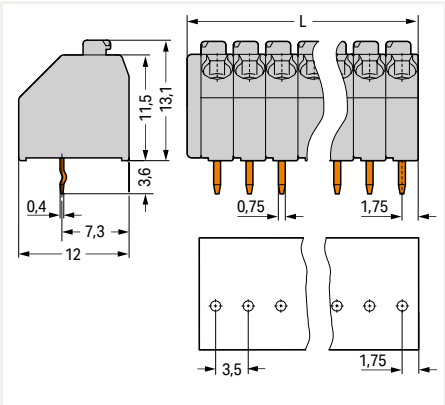
PCB Terminal Block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, in line ▸ Color: gray

Pin spacing: 3.5 mm (0.138 inch)



Pole No.	Item No.	PU (SPU)
2	250-102	560 (140)
3	250-103	400 (100)
4	250-104	300 (75)
5	250-105	240 (60)
6	250-106	200 (50)
7	250-107	180 (45)
8	250-108	160 (40)
9	250-109	140 (35)
10	250-110	120 (30)
11	250-111	120 (30)
12	250-112	100 (25)
13	250-113	100 (25)
14	250-114	80 (20)
15	250-115	80 (20)
16	250-116	80 (20)
17	250-117	60 (15)
18	250-118	60 (15)
19	250-119	60 (15)
20	250-120	60 (15)
21	250-121	60 (15)
22	250-122	60 (15)
23	250-123	60 (15)
24	250-124	40 (10)

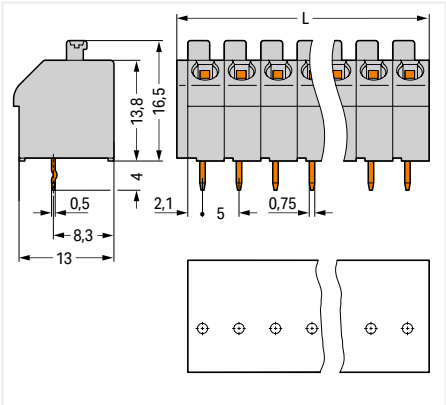


L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 5 mm (0.197 inch)



Pole No.	Item No.	PU (SPU)
2	250-502	400 (100)
3	250-503	280 (70)
4	250-504	220 (55)
5	250-505	180 (45)
6	250-506	140 (35)
7	250-507	120 (30)
8	250-508	100 (25)
9	250-509	100 (25)
10	250-510	80 (20)
11	250-511	80 (20)
12	250-512	60 (15)
13	250-513	60 (15)
14	250-514	60 (15)
15	250-515	60 (15)
16	250-516	40 (10)

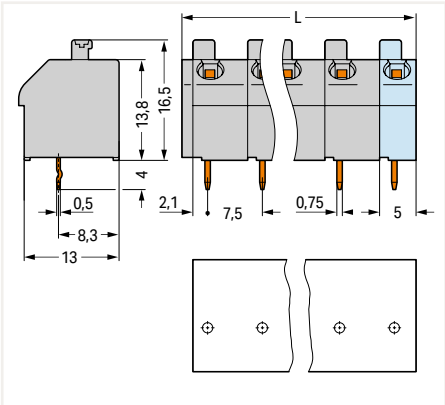


L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU (SPU)
2	250-602	340 (85)
3	250-603	200 (50)
4	250-604	160 (40)
5	250-605	120 (30)
6	250-606	100 (25)
7	250-607	80 (20)
8	250-608	60 (15)
9	250-609	60 (15)
10	250-610	60 (15)
11	250-611	40 (10)
12	250-612	40 (10)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

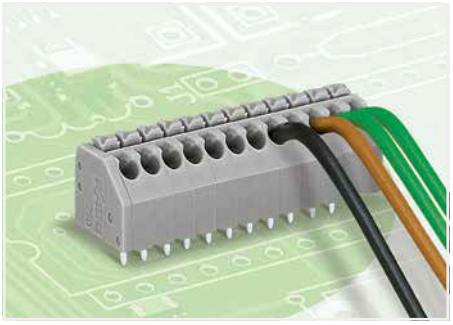
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

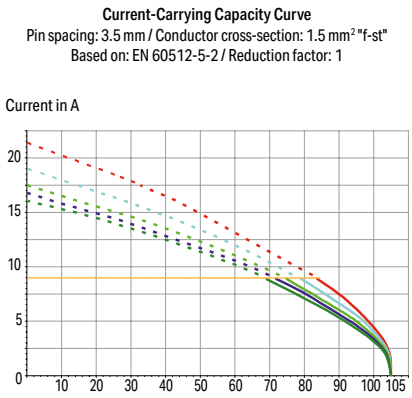
PCB Terminal Block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, staggered ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: gray

1



- Compact terminal strips with push-buttons
- Push-in terminations of solid and ferruled conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring
- Custom color combinations
- Terminal strips also available with spacers upon request



Electrical Data			
Pin spacing	3.5 mm (0.138 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	8 A	8 A	8 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	5 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.75 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

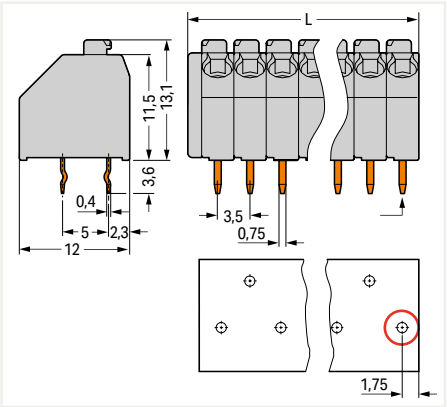
Ferrule	Page 847
Marking	Page 832
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, staggered ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: gray



Pole No.	Item No.	PU (SPU)
2	250-202	560 (140)
3	250-203	400 (100)
4	250-204	300 (75)
5	250-205	240 (60)
6	250-206	200 (50)
7	250-207	180 (45)
8	250-208	160 (40)
9	250-209	140 (35)
10	250-210	120 (30)
11	250-211	120 (30)
12	250-212	100 (25)
13	250-213	100 (25)
14	250-214	80 (20)
15	250-215	80 (20)
16	250-216	80 (20)
17	250-217	60 (15)
18	250-218	60 (15)
19	250-219	60 (15)
20	250-220	60 (15)
21	250-221	60 (15)
22	250-222	60 (15)
23	250-223	40 (10)
24	250-224	40 (10)



L = (pole no. x pin spacing) + 1.5 mm
First solder pin, front right (red circle)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Terminal strips with spacers
- Direct marking

Double-Deck PCB Terminal Block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, in line ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

1



- Space-saving, double-Deck terminal strips with push-buttons
- Push-in termination of solid and ferruled conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring

Electrical Data			
Pin spacing	**5 mm (0.197 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.75 … 1.5 mm² / …
Fine-stranded conductor with ferrule with plastic collar	0.5 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 1 mm²

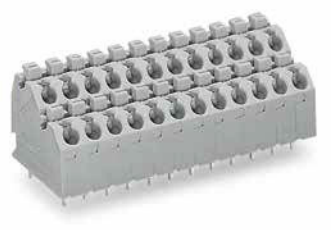
Material Data	
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

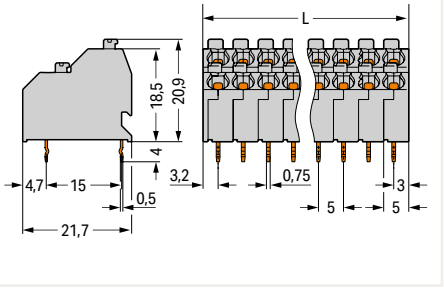
Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

Double-Deck PCB Terminal Block ▸ 250 Series

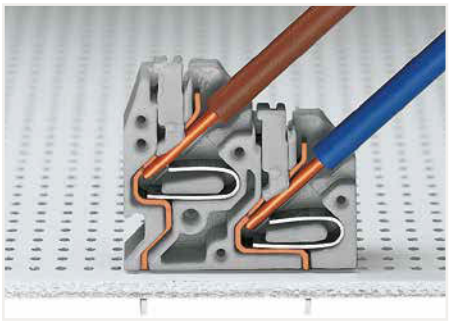
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, in line ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray



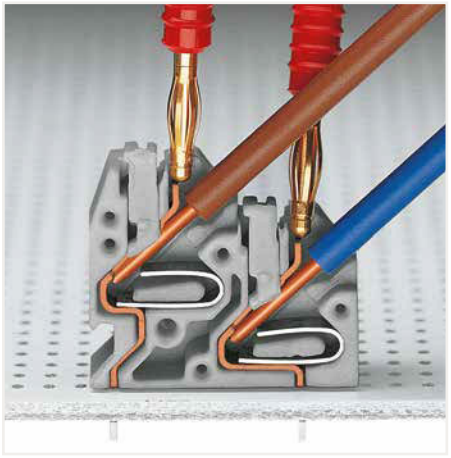
Pole No.	Item No.	PU (SPU)
2	250-702	264 (66)
3	250-703	180 (45)
4	250-704	132 (33)
6	250-706	84 (21)
8	250-708	72 (18)
10	250-710	48 (12)
12	250-712	48 (12)
16	250-716	36 (9)



L = (pole no. x pin spacing) + 1.2 mm



Space-saving wiring – push-in termination of solid conductors.



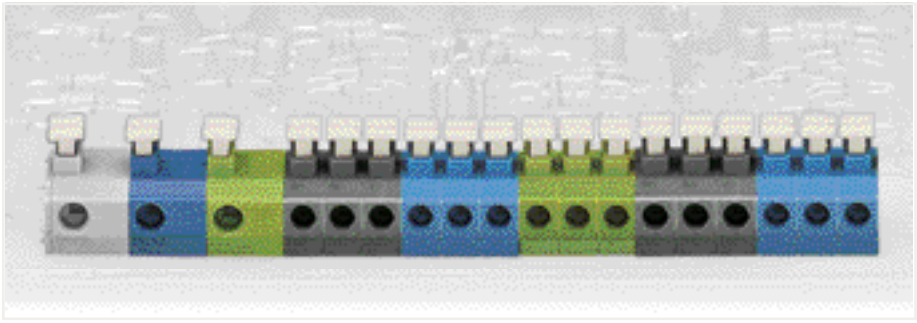
Testing with 2 mm Ø test plug – touch contact.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Direct marking

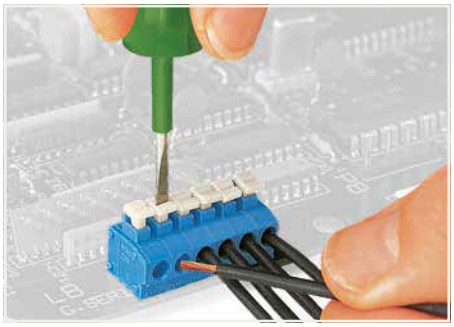
235 Series
Description and Installation



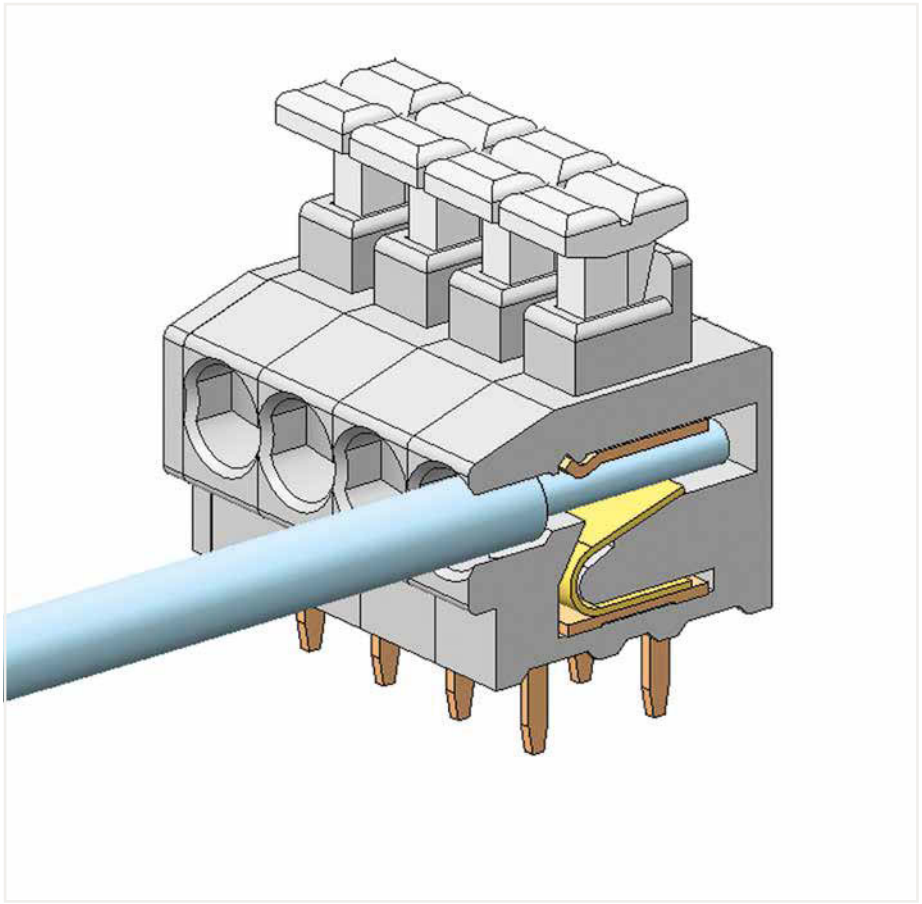
Combining terminal blocks with different housing colors and pin spacing.



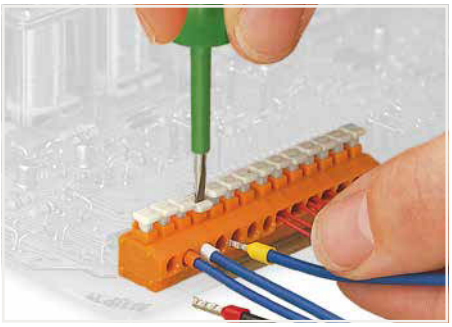
Inserting solid conductors via push-in termination.



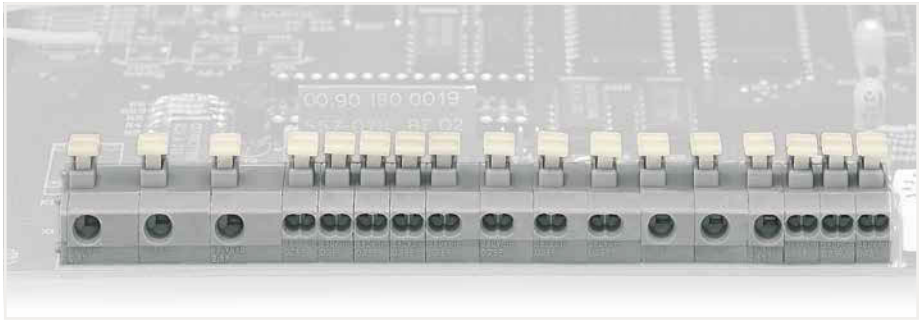
Inserting/removing fine-stranded conductors via push-button.



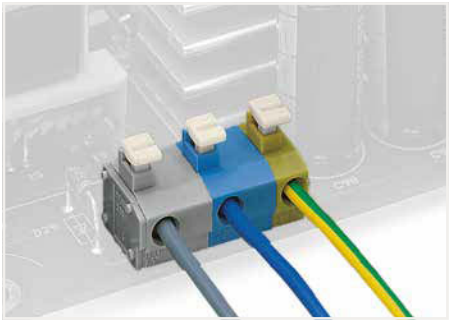
235 Series



Inserting/removing fine-stranded conductors with ferrules via push-button.



Combining 1- and 2-conductor terminal blocks with different pin spacing
2-conductor terminal blocks, see www.wago.com

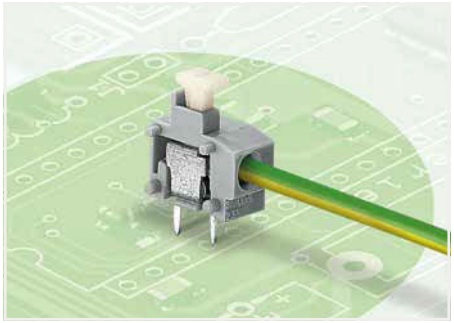


Application example: field-wiring terminal strip

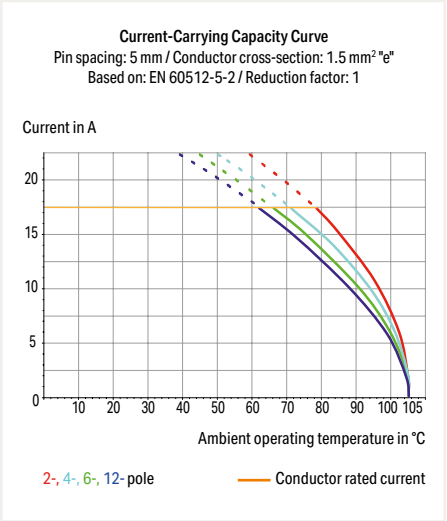
PCB Terminal Block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Modular terminal block

1



- Modular PCB terminal blocks with push-buttons for custom terminal strip assemblies
- Push-in terminations of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Set to metric or inch pin spacing by compressing terminal strips or pulling them apart



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A	17.5 A

Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	-	300 V	-	-	300 V	-	-
Rated current	15 A	-	-	15 A	-	-	15 A	-	-

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.2 … 1.5 mm² / 20 … 14 AWG
Fine-stranded conductor	0.75 … 1.5 mm² / 20 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	within the terminal block, in line
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.8 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

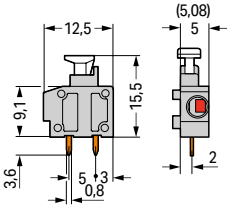
PCB Terminal Block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Modular terminal block

Pin spacing: 5/5.08 mm / 0.197/0.2 inch



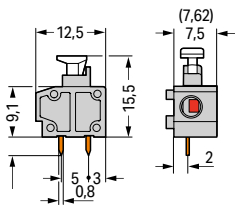
Color	Item No.	PU (SPU)
gray	235-401/331-000	800 (100)
blue	235-744/331-000	800 (100)
orange	235-746/331-000	800 (100)
white	235-745/331-000	800 (100)
black	235-748/331-000	800 (100)
yellow	235-741/331-000	800 (100)
light gray	235-743/331-000	800 (100)
light green	235-747/331-000	800 (100)
violet	235-749/331-000	800 (100)
red	235-740/331-000	800 (100)
dark gray	235-742/331-000	800 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



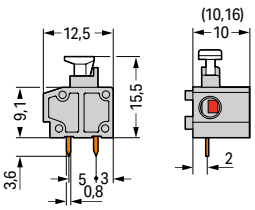
Color	Item No.	PU (SPU)
gray	235-501/331-000	600 (100)
blue	235-754/331-000	600 (100)
orange	235-756/331-000	600 (100)
black	235-758/331-000	600 (100)
light gray	235-753/331-000	600 (100)
light green	235-757/331-000	600 (100)
dark gray	235-752/331-000	600 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Color	Item No.	PU (SPU)
gray	235-801/331-000	400 (100)
blue	235-764/331-000	400 (100)
orange	235-766/331-000	400 (100)
light green	235-767/331-000	400 (100)
dark gray	235-762/331-000	400 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	235-100	2000 (100)
blue	235-400	2000 (100)
orange	235-600	2000 (100)
white	235-850	2000 (100)
black	235-500	2000 (100)
yellow	235-550	2000 (100)
light gray	235-300	2000 (100)
light green	235-700	2000 (100)
violet	235-650	2000 (100)
red	235-800	2000 (100)
dark gray	235-200	2000 (100)



intermediate plate; extends pin spacing; Pin spacing: 5/5.08 mm / 0.197/0.2 inch

Color	Item No.	PU (SPU)
gray	235-701	1000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

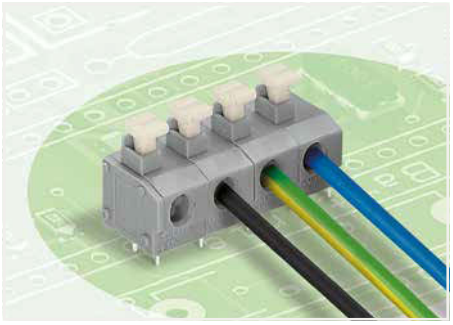
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other colors
- Versions for Ex i

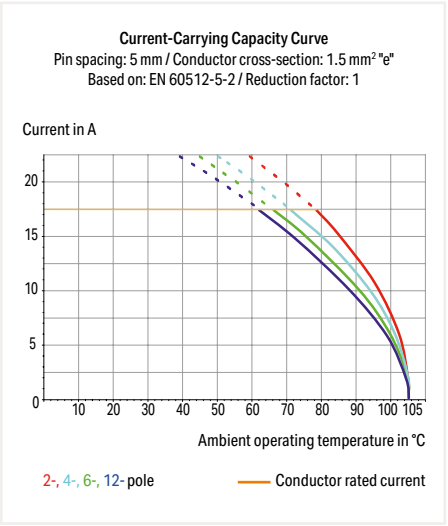
PCB Terminal Block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Terminal strip ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▸ Color: gray

1



- PCB terminal strips with push-buttons
- Push-in terminations of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Set to metric or inch pin spacing by compressing terminal strips or pulling them apart



Electrical Data			
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	-
Rated current	15 A	-	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.2 … 1.5 mm² / 20 … 14 AWG
Fine-stranded conductor	0.75 … 1.5 mm² / 20 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

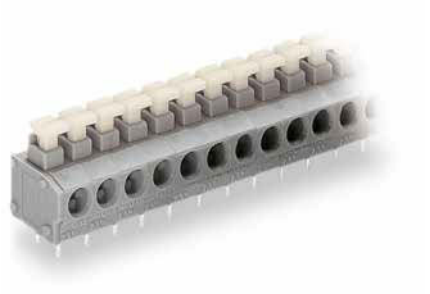
Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.8 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

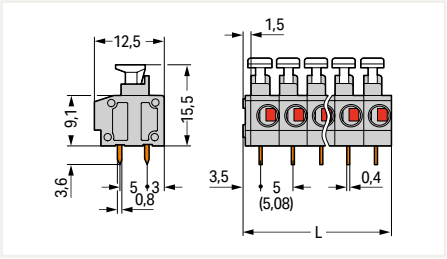
Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Terminal strip ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▸ Color: gray



Pole No.	Item No.	PU (SPU)
2	235-402/331-000	420 (105)
3	235-403/331-000	280 (70)
4	235-404/331-000	220 (55)
5	235-405/331-000	180 (45)
6	235-406/331-000	140 (35)
7	235-407/331-000	120 (30)
8	235-408/331-000	100 (25)
9	235-409/331-000	100 (25)
10	235-410/331-000	80 (20)
12	235-412/331-000	60 (15)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

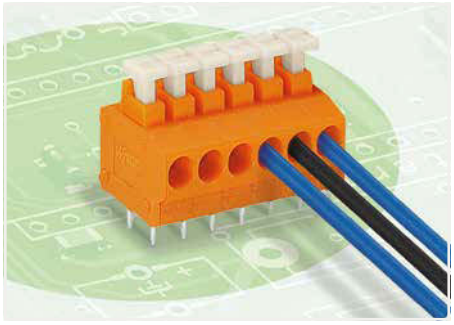
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- PCB terminal strips with 7.5/7.62 mm and 10/10.16 mm pin spacing
- Mixed-color terminal strips
- Direct marking

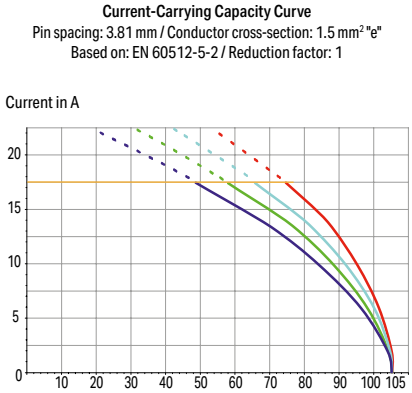
PCB Terminal Block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Modular Terminal Block ▸ Pin spacing: 3.81 mm (0.15 inch)

1



- Modular PCB terminal blocks with push-buttons for custom terminal strip assemblies
- Push-in terminations of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons



Electrical Data			
Pin spacing	3.81 mm (0.15 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	500 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	-
Rated current	10 A	-	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.75 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.8 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

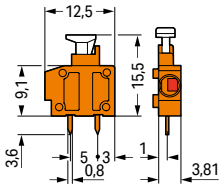
Ferrule	Page 847
Marking	Page 832
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Modular Terminal Block ▸ Pin spacing: 3.81 mm (0.15 inch)



Color	Item No.	PU (SPU)
gray	235-771	800 (100)
blue	235-774	800 (100)
orange	235-101	800 (100)
white	235-775	800 (100)
black	235-778	800 (100)
yellow	235-776	800 (100)
light green	235-777	800 (100)
red	235-770	800 (100)
dark gray	235-772	800 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	235-100	2000 (100)
blue	235-400	2000 (100)
orange	235-600	2000 (100)
white	235-850	2000 (100)
black	235-500	2000 (100)
yellow	235-550	2000 (100)
light green	235-700	2000 (100)
red	235-800	2000 (100)
dark gray	235-200	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

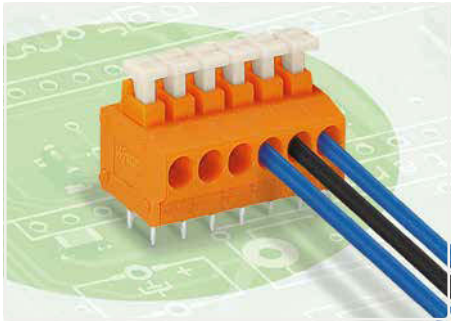
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other colors

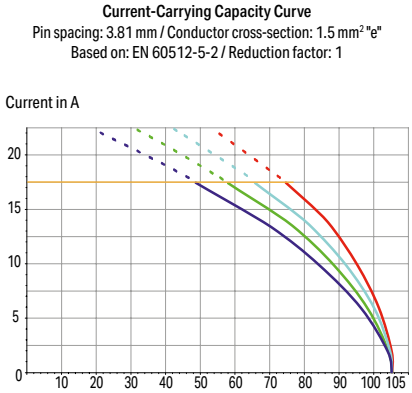
PCB Terminal Block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Terminal strip ▸ Pin spacing: 3.81 mm (0.15 inch) ▸ Color: orange

1



- PCB terminal strips with push-buttons
- Push-in terminations of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons



Electrical Data			
Pin spacing	3.81 mm (0.15 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	500 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	-
Rated current	10 A	-	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.75 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

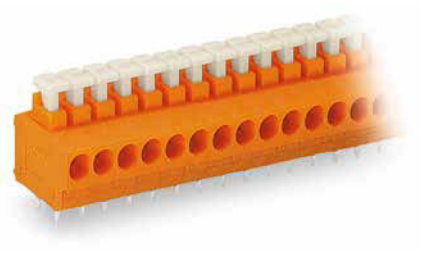
Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.6 mm
Solder pin dimensions	0.4 x 0.8 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

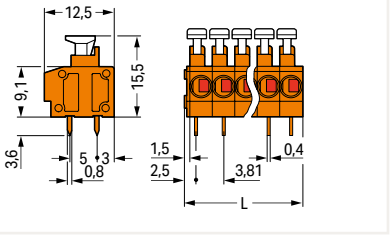
Ferrule	Page 847
Marking	Page 832
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 235 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Terminal strip ▸ Pin spacing: 3.81 mm (0.15 inch) ▸ Color: orange



Pole No.	Item No.	PU (SPU)
2	235-102	520 (130)
3	235-103	360 (90)
4	235-104	280 (70)
5	235-105	220 (55)
6	235-106	180 (45)
7	235-107	160 (40)
8	235-108	140 (35)
9	235-109	120 (30)
10	235-110	120 (30)
12	235-112	100 (25)



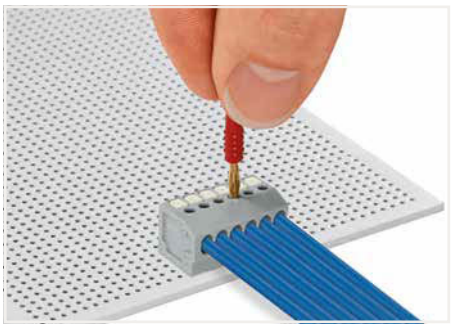
L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

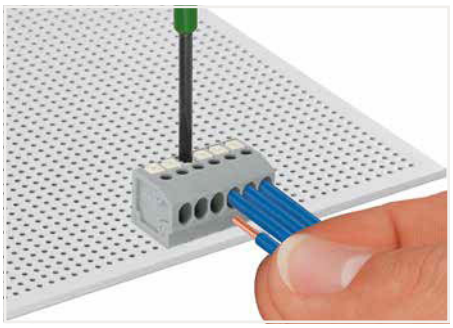
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

805 Series
Description and Installation



Testing with 2 mm Ø test plug.



Terminating solid conductors by simply pushing them in. Removing conductors and inserting fine-stranded conductors via push-buttons.



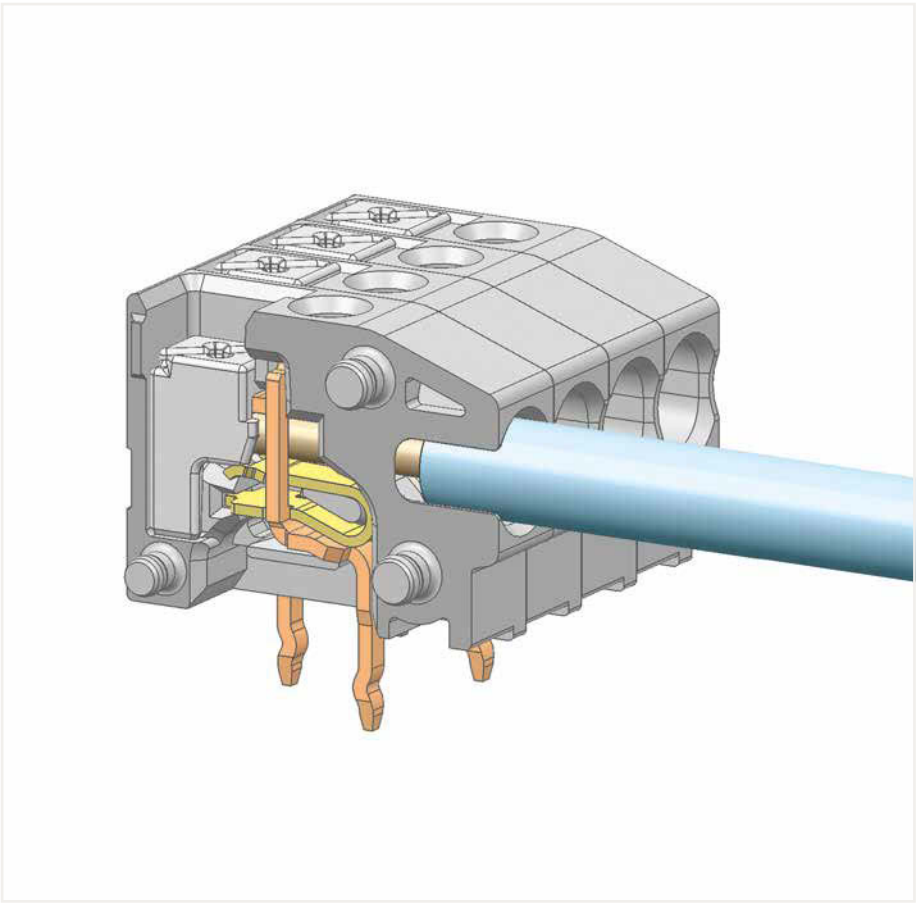
Mixed-color terminal strips are available upon request.



Terminal strips with spacers and enlarged conductor entry (5 mm pin spacing) are available upon request.

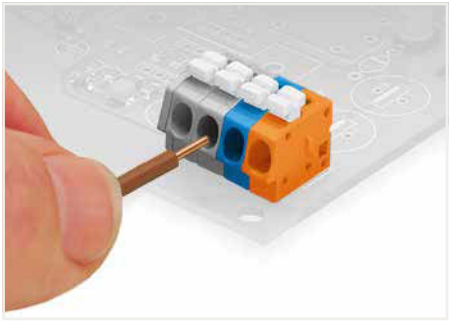


WAGO's 805 Series Terminal Strips provide "internal commoning" to meet requirements that ban routing the ground conductor over the board. This enables custom terminal strips to be commoned and marked at the factory upon request.

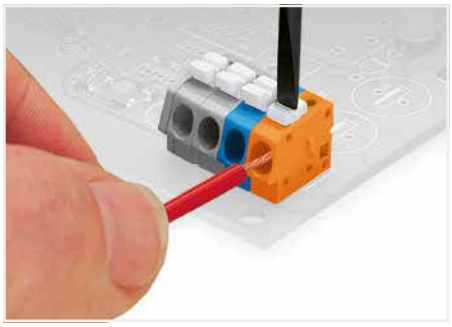


805 Series

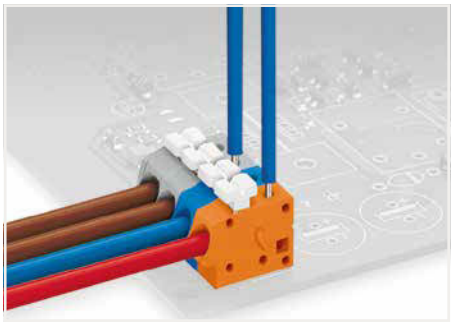
804 Series
Description and Installation



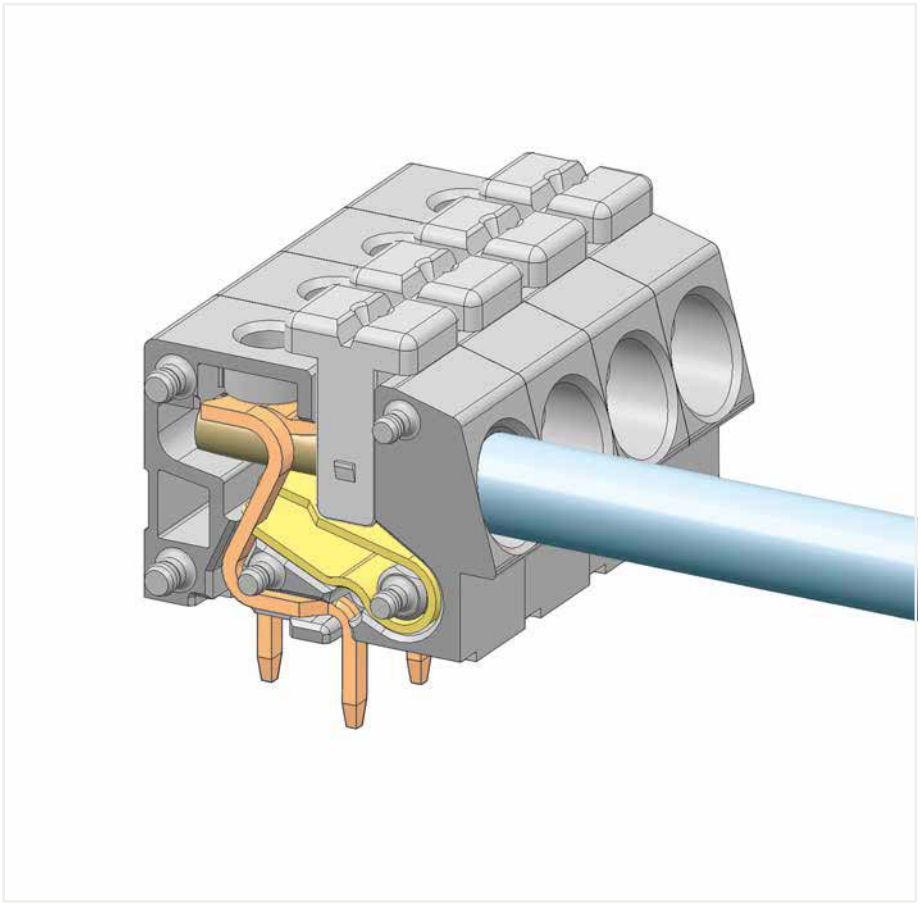
Terminating solid conductors: Simply push in stripped conductor until it hits backstop.



Inserting/removing fine-stranded conductors: Open the clamping unit via push-button and insert stripped conductor until it hits backstop.



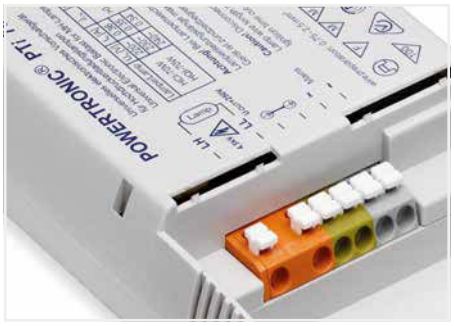
Testing with 1 mm Ø test pin – manual touch contact.

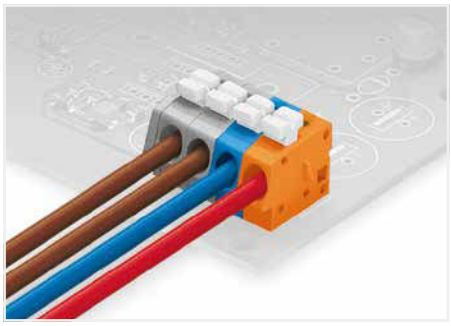


804 Series

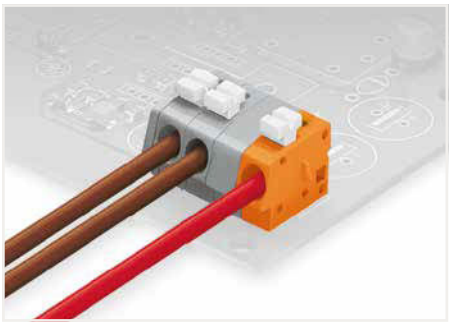


WAGO's 804 Series Terminal Strips provide "internal commoning" to meet requirements that ban routing the ground conductor over the board. This enables custom terminal strips to be commoned and marked at the factory upon request.





Mixed-color terminal strips are available upon request.



Terminal strips with spacer are available upon request.

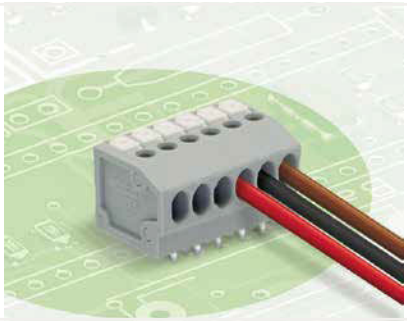


Labeling via self-adhesive marking strips or factory direct marking.

PCB Terminal Block ▸ 805 Series

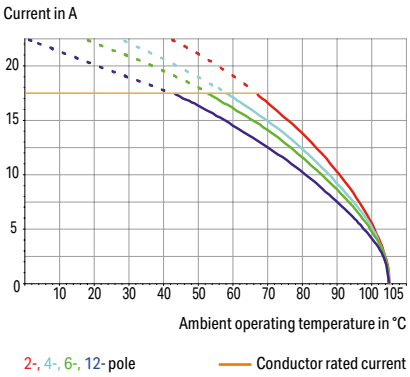
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, in line ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: gray

1



- PCB terminal strips with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Flush-mount push-buttons that close with minimal force for convenient termination/removal of fine-stranded conductors
- Convenient, tool-free operation
- Versions with/without test slots and spacers
- Versions available with custom internal commoning (factory assembly), e.g., commoning ground conductor

Current-Carrying Capacity Curve
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	3.5 mm (0.138 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	17.5 A	17.5 A	17.5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.2 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 832
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 805 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, in line ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: gray

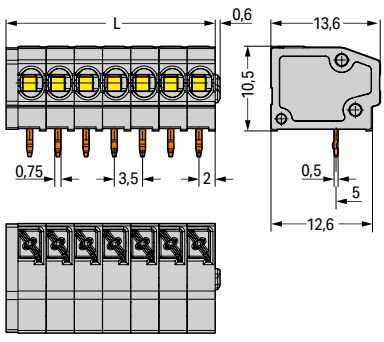
	Number of test slots: 1



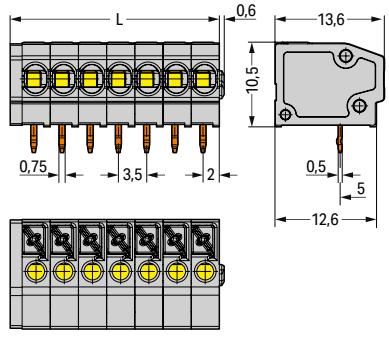


Pole No.	Item No.	PU (SPU)
2	805-352	600 (150)
3	805-353	420 (105)
4	805-354	300 (75)
5	805-355	260 (65)
6	805-356	220 (55)
7	805-357	180 (45)
8	805-358	160 (40)
9	805-359	140 (35)
10	805-360	120 (30)
11	805-361	100 (25)
12	805-362	100 (25)
13	805-363	100 (25)
14	805-364	100 (25)
15	805-365	80 (20)
16	805-366	80 (20)
17	805-367	80 (20)
18	805-368	60 (15)
19	805-369	60 (15)
20	805-370	60 (15)
21	805-371	60 (15)
22	805-372	60 (15)
23	805-373	60 (15)
24	805-374	40 (10)

Pole No.	Item No.	PU (SPU)
2	805-152	600 (150)
3	805-153	420 (105)
4	805-154	320 (80)
5	805-155	260 (65)
6	805-156	220 (55)
7	805-157	180 (45)
8	805-158	160 (40)
9	805-159	140 (35)
10	805-160	120 (30)
11	805-161	100 (25)
12	805-162	100 (25)
13	805-163	100 (25)
14	805-164	100 (25)
15	805-165	80 (20)
16	805-166	80 (20)
17	805-167	80 (20)
18	805-168	60 (15)
19	805-169	60 (15)
20	805-170	60 (15)
21	805-171	60 (15)
22	805-172	60 (15)
23	805-173	60 (15)
24	805-174	40 (10)



L = (pole no. x pin spacing) + 1.5 mm



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

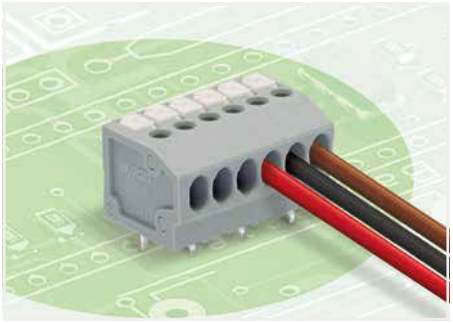
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

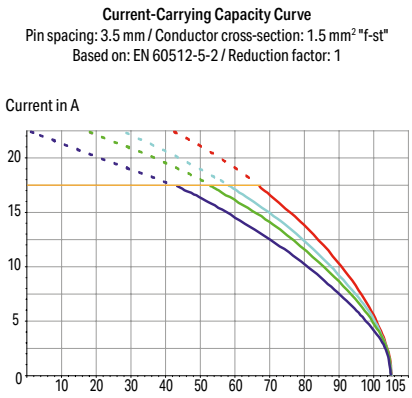
PCB Terminal Block ▸ 805 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, staggered ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: gray

1



- PCB terminal strips with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Flush-mount push-buttons that close with minimal force for convenient termination/removal of fine-stranded conductors
- Convenient, tool-free operation
- Versions with/without test slots and spacers
- Versions available with custom internal commoning (factory assembly), e.g., commoning ground conductor



Electrical Data			
Pin spacing	**3.5 mm (0.138 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	10 A	10 A	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	3.2 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

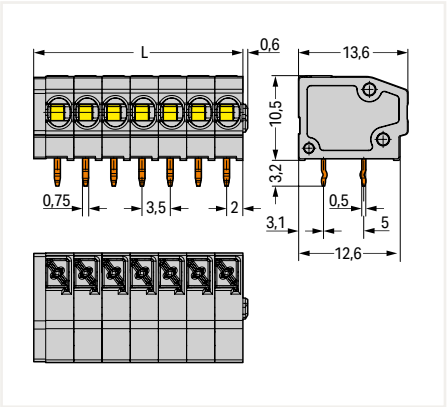
Ferrule	Page 847
Marking	Page 832
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 805 Series

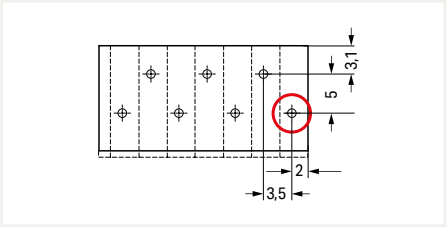
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, staggered ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: gray



Pole No.	Item No.	PU (SPU)	Pole No.	Item No.	PU (SPU)
2	805-302	580 (145)	14	805-314	100 (25)
3	805-303	420 (105)	15	805-315	80 (20)
4	805-304	320 (80)	16	805-316	80 (20)
5	805-305	260 (65)	17	805-317	80 (20)
6	805-306	220 (55)	18	805-318	60 (15)
7	805-307	180 (45)	19	805-319	60 (15)
8	805-308	160 (40)	20	805-320	60 (15)
9	805-309	140 (35)	21	805-321	60 (15)
10	805-310	120 (30)	22	805-322	60 (15)
11	805-311	100 (25)	23	805-323	60 (15)
12	805-312	100 (25)	24	805-324	40 (10)
13	805-313	100 (25)			



L = (pole no. x pin spacing) + 1.5 mm



First solder pin, front right (red circle)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

PCB Terminal Block ▸ 805 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Solder pin arrangement: Over the entire terminal strip, staggered ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: gray

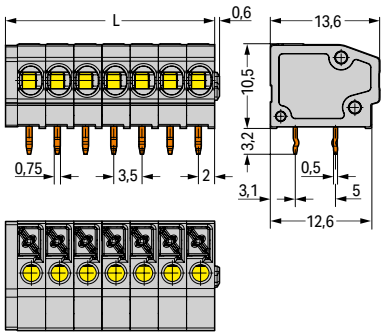
Number of test slots: 1

1

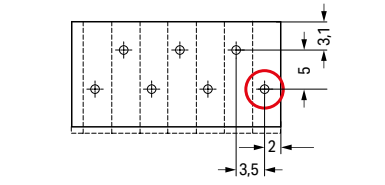


Pole No.	Item No.	PU (SPU)
2	805-102	580 (145)
3	805-103	420 (105)
4	805-104	320 (80)
5	805-105	260 (65)
6	805-106	220 (55)
7	805-107	180 (45)
8	805-108	160 (40)
9	805-109	140 (35)
10	805-110	120 (30)
11	805-111	100 (25)
12	805-112	100 (25)
13	805-113	100 (25)

Pole No.	Item No.	PU (SPU)
14	805-114	100 (25)
15	805-115	80 (20)
16	805-116	80 (20)
17	805-117	80 (20)
18	805-118	60 (15)
19	805-119	60 (15)
20	805-120	60 (15)
21	805-121	60 (15)
22	805-122	60 (15)
23	805-123	60 (15)
24	805-124	40 (10)



L = (pole no. x pin spacing) + 1.5 mm



First solder pin, front right (red circle)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

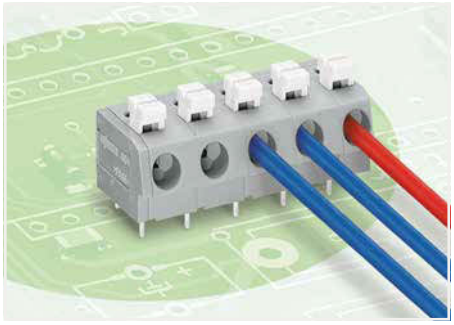
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

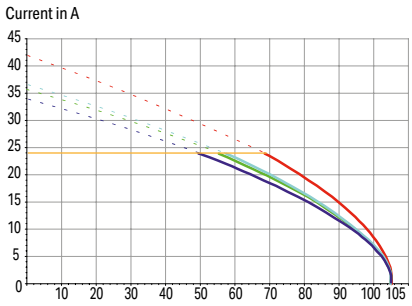
PCB Terminal Block ▸ 804 Series

Push-in CAGE CLAMP® ▸ 2.5 mm² ▸ Actuation type: Push-button ▸ Color: gray

1



- PCB terminal strips with Push-in CAGE CLAMP® connection and push-button actuation
- Push-in termination of solid and ferruled, fine-stranded conductors
- A large conductor entry accommodates conductors with a cross-section up to 12 AWG with an insulation diameter up to 4.2 mm
- Terminal strips with spacers to increase pin spacing
- Versions available with custom internal commoning (factory assembly), e.g., commoning ground conductor



Electrical Data						
Pin spacing	**5 mm (0.197 inch)**			**7.5 mm (0.295 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.25 … 2.5 mm² / 20 … 12 AWG
Fine-stranded conductor	0.25 … 2.5 mm² / 22 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	3.6 mm
Solder pin dimensions	0.8 x 0.6 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

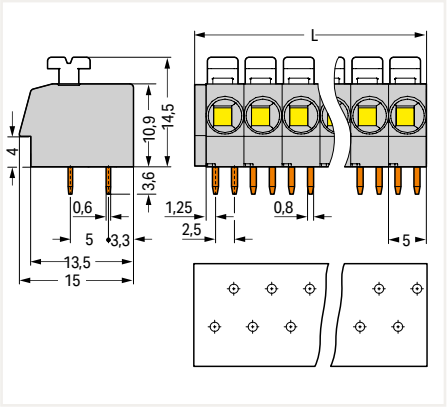
PCB Terminal Block ▸ 804 Series

Push-in CAGE CLAMP® ▸ 2.5 mm² ▸ Actuation type: Push-button ▸ Color: gray

Pin spacing: 5 mm (0.197 inch)

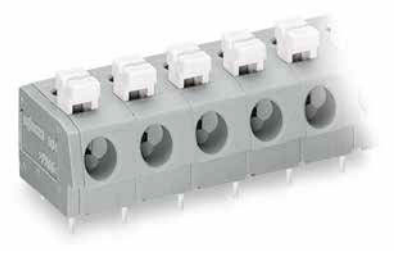


Pole No.	Item No.	PU (SPU)
2	804-102	420 (105)
3	804-103	300 (75)
4	804-104	220 (55)
5	804-105	180 (45)
6	804-106	140 (35)
7	804-107	120 (30)
8	804-108	120 (30)
9	804-109	100 (25)
10	804-110	80 (20)
11	804-111	80 (20)
12	804-112	80 (20)
13	804-113	60 (15)
14	804-114	60 (15)
15	804-115	60 (15)
16	804-116	60 (15)

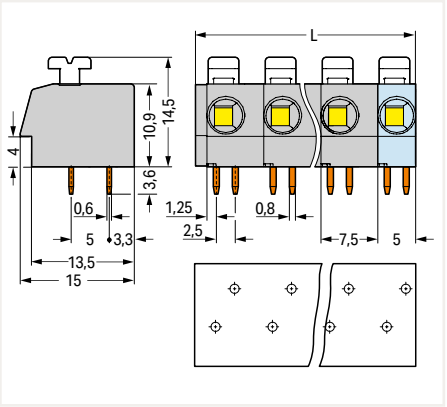


L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU (SPU)
2	804-302	340 (85)
3	804-303	220 (55)
4	804-304	160 (40)
5	804-305	120 (30)
6	804-306	100 (25)
7	804-307	80 (20)
8	804-308	80 (20)
9	804-309	60 (15)
10	804-310	60 (15)
11	804-311	60 (15)
12	804-312	40 (10)



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- 10 mm pin spacing version with spacers
- Direct marking
- Versions for Ex i

PCB Terminal Block ▸ 2604 Series

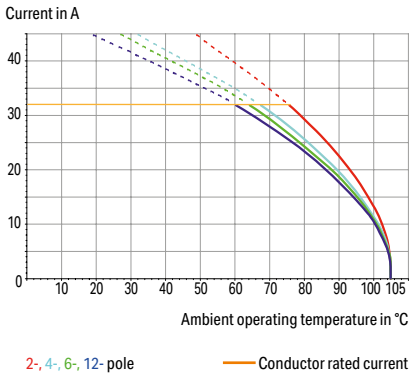
Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 4 mm² ▸ Modular Terminal Block ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

1



- PCB terminal blocks with lever-actuated Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 4 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	**5 mm (0.197 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	400 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	32 A	32 A	32 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 11 mm / 0.35 … 0.43 inch
Solid conductor	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor, with twin ferrule	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter (tolerance)	$1.3^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 847

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

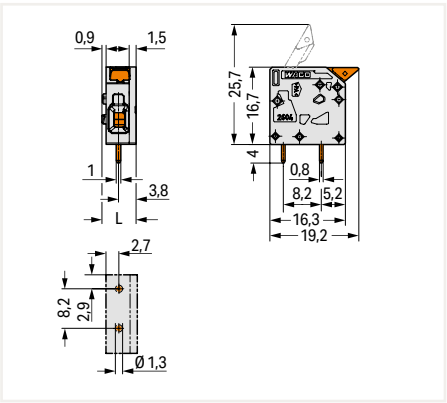
PCB Terminal Block ▸ 2604 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 4 mm² ▸ Modular Terminal Block ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

Conductor entry angle to the PCB: 0°



Color	Item No.	PU
gray	2604-1101	300

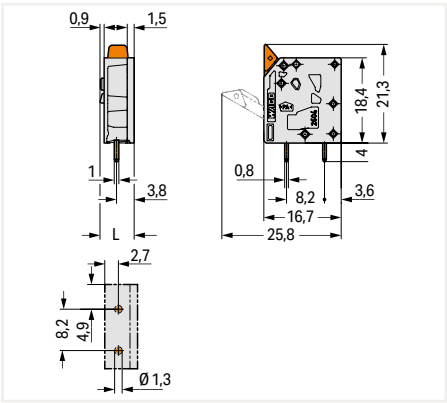


L = 7,4 mm

Conductor entry angle to the PCB: 90°



Color	Item No.	PU
gray	2604-3101	250



L = 7,4 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

PCB Terminal Block ▸ 2604 Series

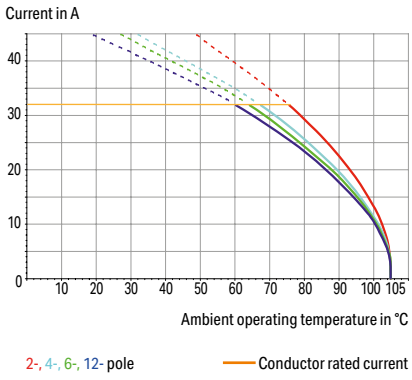
Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 4 mm² ▸ Terminal strip ▸ Color: gray

1



- PCB terminal blocks with lever-actuated Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 4 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data									
Pin spacing	**5 mm (0.197 inch)**			**7.5 mm (0.295 inch)**			**11.5 mm (0.453 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	400 V	630 V	630 V	630 V	1000 V	1000 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A	32 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	300 V	600 V	600 V	600 V	-
Rated current	20 A	-	10 A	20 A	20 A	5 A	20 A	20 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 11 mm / 0.35 … 0.43 inch
Solid conductor	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 4 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor, with twin ferrule	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1 mm
Drilled hole diameter (tolerance)	$1.3^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 847

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

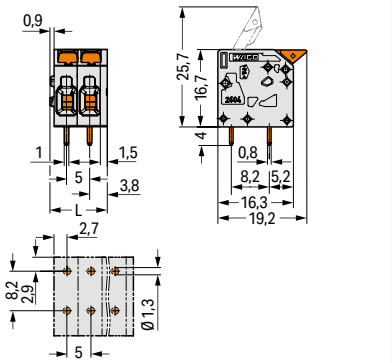
PCB Terminal Block ▸ 2604 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 4 mm² ▸ Terminal strip ▸ Color: gray

Conductor entry angle to the PCB: 0° ▸ Pin spacing: 5 mm (0.197 inch)



Pole No.	Item No.	PU
2	2604-1102	200
3	2604-1103	130
4	2604-1104	100
5	2604-1105	80
6	2604-1106	60
7	2604-1107	60
8	2604-1108	50
9	2604-1109	40
10	2604-1110	40
11	2604-1111	30
12	2604-1112	30

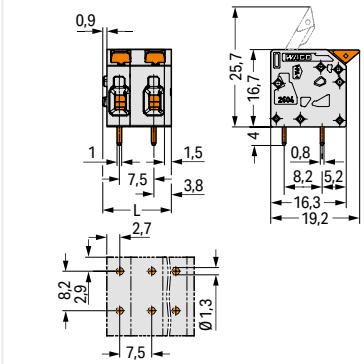


L = (pole no. - 1) x pin spacing + 7.4 mm

Conductor entry angle to the PCB: 0° ▸ Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU
2	2604-1302	150
3	2604-1303	100
4	2604-1304	70
5	2604-1305	60
6	2604-1306	45
7	2604-1307	40
8	2604-1308	35
9	2604-1309	30
10	2604-1310	25
11	2604-1311	25
12	2604-1312	25

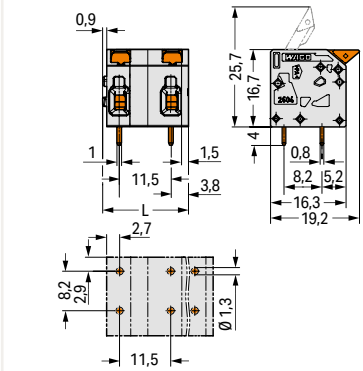


L = (pole no. - 1) x pin spacing + 7.4 mm

Conductor entry angle to the PCB: 0° ▸ Pin spacing: 11.5 mm (0.453 inch)



Pole No.	Item No.	PU
2	2604-1502	130
3	2604-1503	70
4	2604-1504	50
5	2604-1505	40
6	2604-1506	30
7	2604-1507	25
8	2604-1508	25
9	2604-1509	25
10	2604-1510	20
11	2604-1511	20
12	2604-1512	15



L = (pole no. - 1) x pin spacing + 7.4 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

PCB Terminal Block ▸ 2604 Series

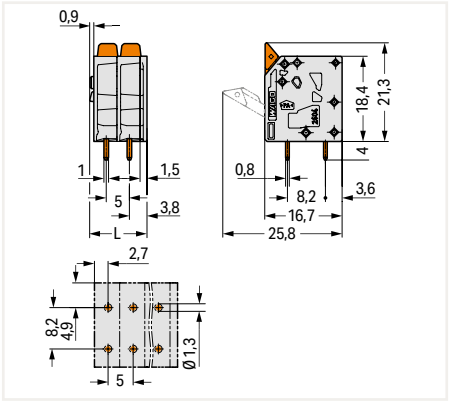
Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 4 mm² ▸ Terminal strip ▸ Color: gray

1

Conductor entry angle to the PCB: 90° ▸ Pin spacing: 5 mm (0.197 inch)



Pole No.	Item No.	PU
2	2604-3102	180
3	2604-3103	120
4	2604-3104	90
5	2604-3105	70
6	2604-3106	50
7	2604-3107	50
8	2604-3108	40
9	2604-3109	40
10	2604-3110	30
11	2604-3111	30
12	2604-3112	30

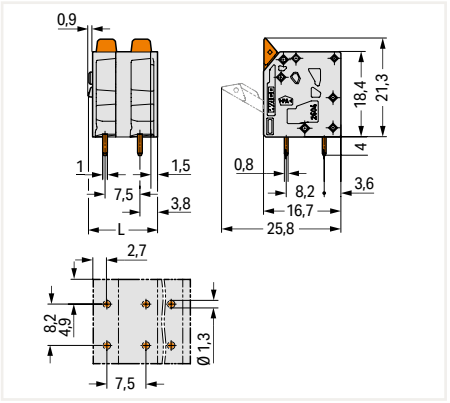


L = (pole no. - 1) x pin spacing + 7.4 mm

Conductor entry angle to the PCB: 90° ▸ Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU
2	2604-3302	150
3	2604-3303	100
4	2604-3304	70
5	2604-3305	50
6	2604-3306	45
7	2604-3307	40
8	2604-3308	30
9	2604-3309	30
10	2604-3310	25
11	2604-3311	25
12	2604-3312	25

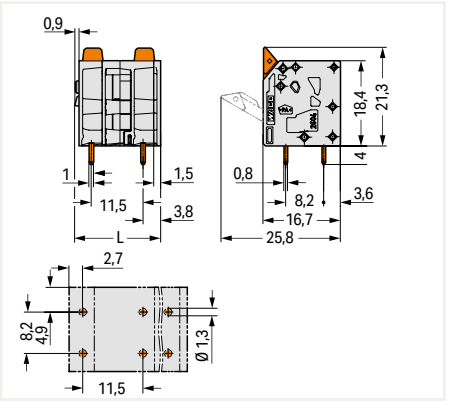


L = (pole no. - 1) x pin spacing + 7.4 mm

Conductor entry angle to the PCB: 90° ▸ Pin spacing: 11.5 mm (0.453 inch)



Pole No.	Item No.	PU
2	2604-3502	120
3	2604-3503	70
4	2604-3504	50
5	2604-3505	40
6	2604-3506	30
7	2604-3507	25
8	2604-3508	25
9	2604-3509	25
10	2604-3510	20
11	2604-3511	20
12	2604-3512	15



L = (pole no. - 1) x pin spacing + 7.4 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

PCB Terminal Block ▸ 2606 Series

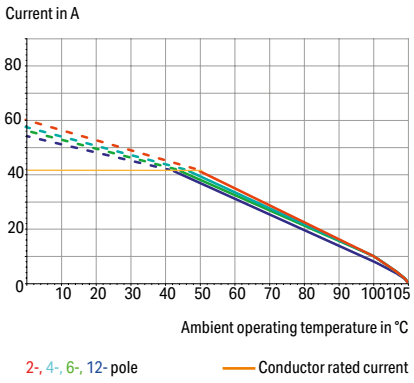
Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 10 mm² ▸ Modular Terminal Block ▸ Pin spacing: 7.5 mm (0.295 inch) ▸ Color: gray

1



- PCB terminal blocks with lever-actuated Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry

Current-Carrying Capacity Curve
Pin spacing: 7,5 mm / Conductor cross-section: 6 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	**7.5 mm (0.295 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	800 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	31 A	31 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	11 … 13 mm / 0.43 … 0.51 inch
Solid conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 6 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 6 mm²
Fine-stranded conductor, with twin ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	1.5 x 1.2 mm
Drilled hole diameter (tolerance)	$2^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 847

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

PCB Terminal Block ▸ 2606 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 10 mm² ▸ Modular Terminal Block ▸ Pin spacing: 7.5 mm (0.295 inch) ▸ Color: gray

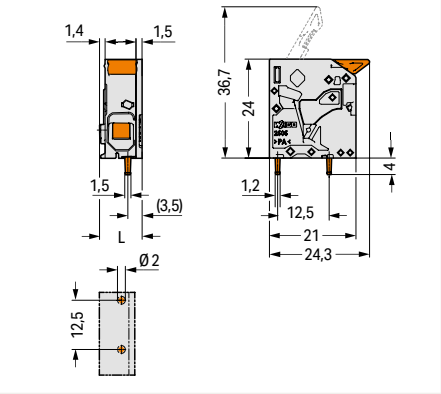
Conductor entry angle to the PCB: 0°	Conductor entry angle to the PCB: 90°



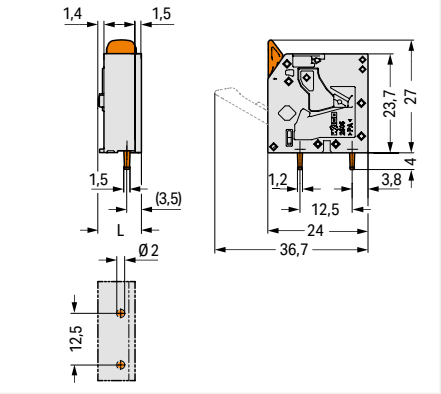


Color	Item No.	PU
gray	2606-1101	200

Color	Item No.	PU
gray	2606-3101	200



L = 10.35 mm



L = 10.35 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

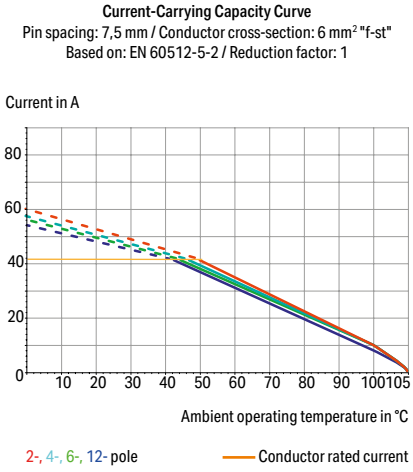
PCB Terminal Block ▸ 2606 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 10 mm² ▸ Terminal strip ▸ Pin spacing: 7.5 mm (0.295 inch) ▸ Color: gray

1



- PCB terminal blocks with lever-actuated Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry



Electrical Data			
Pin spacing	**7.5 mm (0.295 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	800 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	31 A	31 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	11 … 13 mm / 0.43 … 0.51 inch
Solid conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor	0.2 … 10 mm² / 24 … 8 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 6 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 6 mm²
Fine-stranded conductor, with twin ferrule	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	4 mm
Solder pin dimensions	1.5 x 1.2 mm
Drilled hole diameter (tolerance)	$2^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 847

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

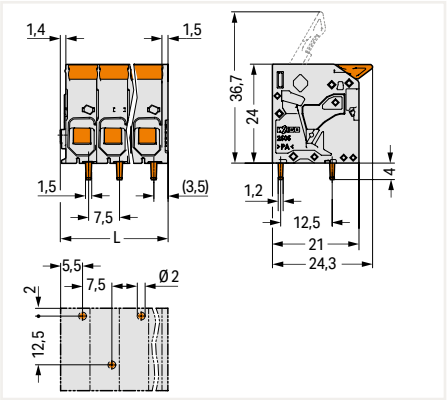
PCB Terminal Block ▸ 2606 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 10 mm² ▸ Terminal strip ▸ Pin spacing: 7.5 mm (0.295 inch) ▸ Color: gray

Conductor entry angle to the PCB: 0°



Pole No.	Item No.	PU
2	2606-1102/020-000	120
3	2606-1103/020-000	80
4	2606-1104/020-000	60
5	2606-1105/020-000	50
6	2606-1106/020-000	40
7	2606-1107/020-000	35
8	2606-1108/020-000	30
9	2606-1109/020-000	25
10	2606-1110/020-000	25
11	2606-1111/020-000	25
12	2606-1112/020-000	25

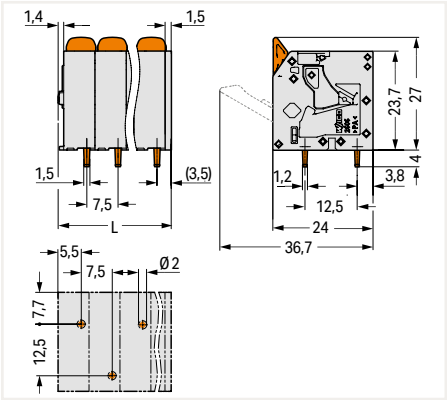


L = (pole no. - 1) x pin spacing + 10.35 mm

Conductor entry angle to the PCB: 90°



Pole No.	Item No.	PU
2	2606-3102/020-000	120
3	2606-3103/020-000	80
4	2606-3104/020-000	60
5	2606-3105/020-000	50
6	2606-3106/020-000	40
7	2606-3107/020-000	35
8	2606-3108/020-000	30
9	2606-3109/020-000	25
10	2606-3110/020-000	25
11	2606-3111/020-000	25
12	2606-3112/020-000	25



L = (pole no. - 1) x pin spacing + 10.35 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

PCB Terminal Block ▸ 2616 Series

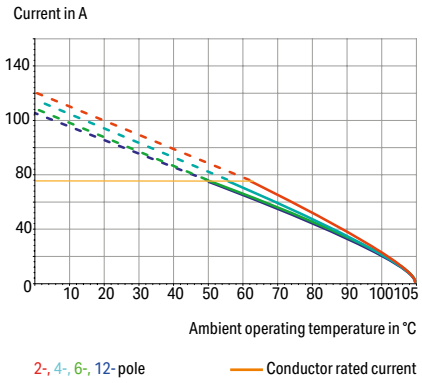
Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Modular Terminal Block ▸ Pin spacing: 10 mm (0.394 inch) ▸ Color: gray

1



- PCB terminal blocks with lever-actuated Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry

Current-Carrying Capacity Curve
Pin spacing: 10 mm / Conductor cross-section: 16 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	**10 mm (0.394 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	66 A	66 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor with ferrule with plastic collar	0.75 … 16 mm²
Fine-stranded conductor with ferrule without plastic collar	0.75 … 16 mm²
Fine-stranded conductor, with twin ferrule	0.75 … 6 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 847

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

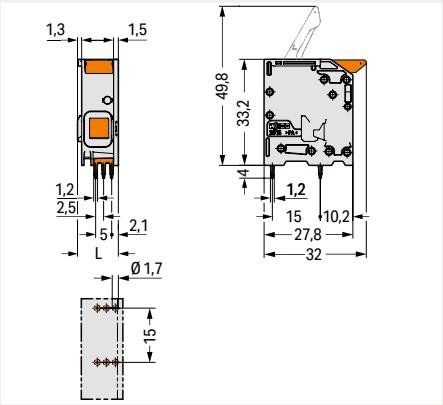
PCB Terminal Block ▸ 2616 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Modular Terminal Block ▸ Pin spacing: 10 mm (0.394 inch) ▸ Color: gray

Conductor entry angle to the PCB: 0°



Color	Item No.	PU
gray	2616-1101	100

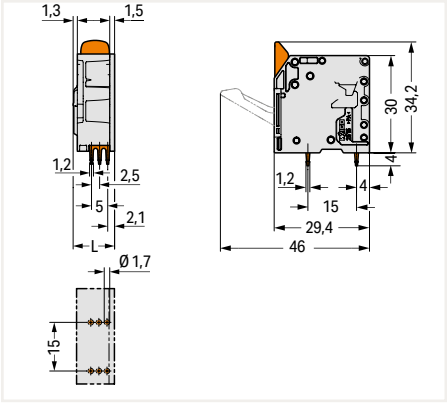


L = 12.8 mm

Conductor entry angle to the PCB: 90°



Color	Item No.	PU
gray	2616-3101	100



L = 12.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

PCB Terminal Block ▸ 2616 Series

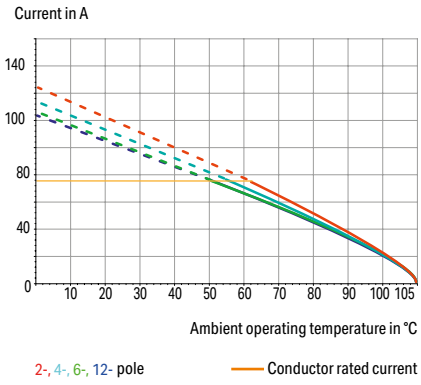
Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Terminal strip ▸ Pin spacing: 10 mm (0.394 inch) ▸ Color: gray

1



- PCB terminal blocks with lever-actuated Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry

Current-Carrying Capacity Curve
Pin spacing: 10 mm / Conductor cross-section: 16 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	**10 mm (0.394 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	1000 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	76 A	76 A	76 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	600 V	600 V	-
Rated current	66 A	66 A	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor with ferrule with plastic collar	0.75 … 16 mm²
Fine-stranded conductor with ferrule without plastic collar	0.75 … 16 mm²
Fine-stranded conductor, with twin ferrule	0.75 … 6 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	4 mm
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule Page 847

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

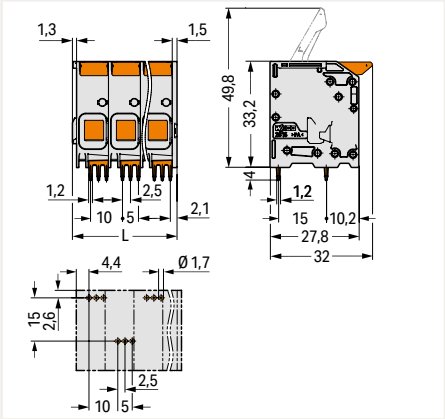
PCB Terminal Block ▸ 2616 Series

Push-in CAGE CLAMP® ▸ Actuation type: Lever ▸ 16 mm² ▸ Terminal strip ▸ Pin spacing: 10 mm (0.394 inch) ▸ Color: gray

Conductor entry angle to the PCB: 0°



Pole No.	Item No.	PU
2	2616-1102/020-000	50
3	2616-1103/020-000	40
4	2616-1104/020-000	25
5	2616-1105/020-000	25
6	2616-1106/020-000	20
7	2616-1107/020-000	20
8	2616-1108/020-000	15
9	2616-1109/020-000	15
10	2616-1110/020-000	15
11	2616-1111/020-000	10
12	2616-1112/020-000	10

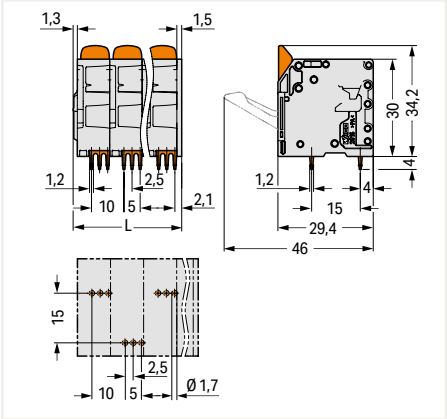


L = (pole no. - 1) x pin spacing + 12.8 mm

Conductor entry angle to the PCB: 90°



Pole No.	Item No.	PU
2	2616-3102/020-000	50
3	2616-3103/020-000	40
4	2616-3104/020-000	25
5	2616-3105/020-000	25
6	2616-3106/020-000	20
7	2616-3107/020-000	20
8	2616-3108/020-000	15
9	2616-3109/020-000	15
10	2616-3110/020-000	15
11	2616-3111/020-000	10
12	2616-3112/020-000	10



L = (pole no. - 1) x pin spacing + 12.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

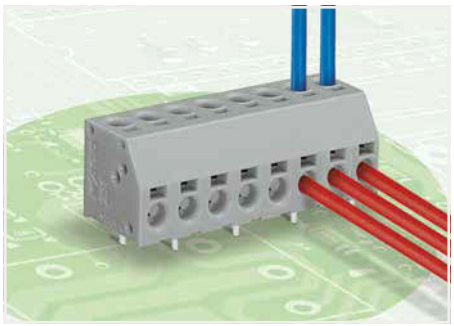
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking
- Other colors

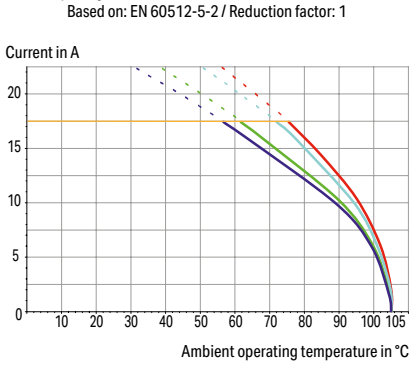
2-Conductor PCB Terminal Block ▸ 253 Series

PUSH WIRE® ▸ PUSH WIRE® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

1



- PCB terminal strips with PUSH WIRE® connection and screwdriver actuation
- Double-conductor connection provides top-entry (vertical) and/or side-entry (horizontal) wiring
- Push-in termination of solid conductors
- Double entries for power supply and potential distribution



Electrical Data			
Pin spacing	5 mm (0.197 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	8 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	8 A	-	8 A

Connection Data	
Connection type (1)	PUSH WIRE® connection
Connection technology	PUSH WIRE®
Number of connection points (connection type)	1
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Note (strip length)	7 … 8 mm / 0.28 … 0.31 in. (for wiring on both sides)
Conductor entry angle to the PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Connection type (2)	PUSH WIRE® connection
Connection technology 2	PUSH WIRE®
Number of connection points	1
Strip length (2)	8.5 … 9.5 mm / 0.33 … 0.37 inch
Note (strip length) 2	7 … 8 mm / 0.28 … 0.31 in. (for wiring on both sides)
Conductor entry angle to the PCB 2	90°
Solid conductor (2)	0.5 … 1.5 mm² / 20 … 16 AWG

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

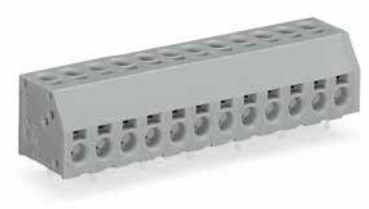
Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	3.6 mm
Solder pin dimensions	0.5 x 0.8 mm
Drilled hole diameter (tolerance)	1.1 (+0.1) mm

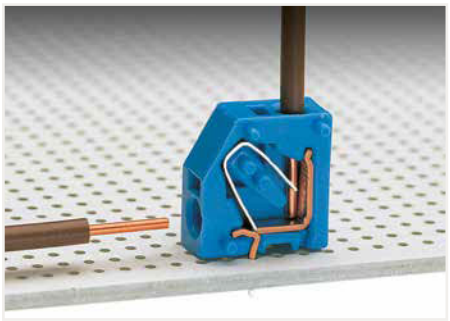
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Marking Page 833
Tools Page 838
Additional information, see "Technical Section"
Approvals and corresponding ratings, visit www.wago.com

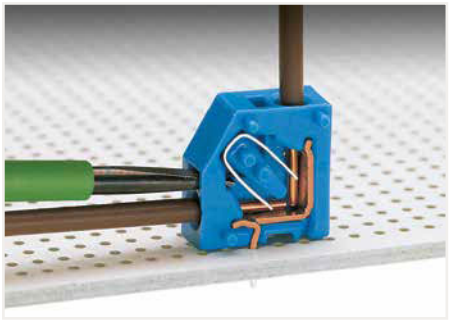
2-Conductor PCB Terminal Block ▸ 253 Series

PUSH WIRE® ▸ PUSH WIRE® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

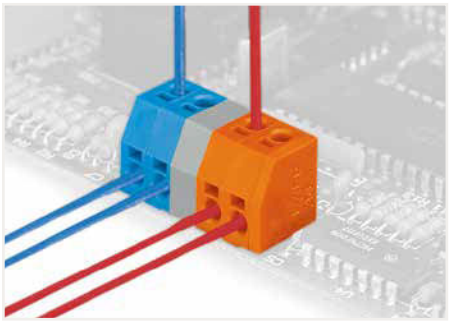




Inserting a conductor via push-in termination.

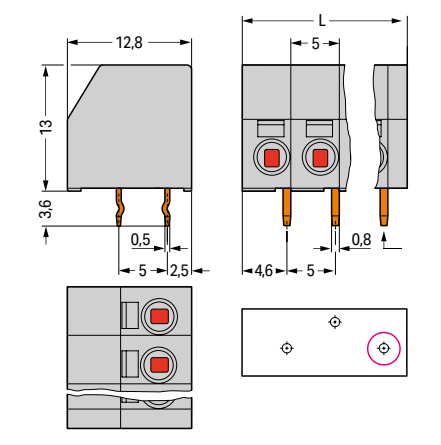


Removing a conductor via 2.5 mm screwdriver.



Mixed-color terminal strips (with or without spacer) are available upon request.

Pole No.	Item No.	PU (SPU)
2	253-102	400 (100)
3	253-103	280 (70)
4	253-104	220 (55)
5	253-105	160 (40)
6	253-106	140 (35)
7	253-107	120 (30)
8	253-108	100 (25)
9	253-109	100 (25)
10	253-110	80 (20)
11	253-111	80 (20)
12	253-112	60 (15)
13	253-113	60 (15)
14	253-114	60 (15)
15	253-115	60 (15)
16	253-116	40 (10)



L = (pole no. x pin spacing) + 2 mm
First solder pin, front right (red circle)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

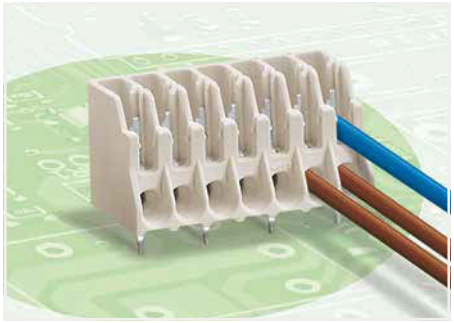
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

PCB Terminal Block ▸ 251 Series

PUSH WIRE® ▸ IDC connection ▸ Actuation type: Operating tool ▸ 1 mm² ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: white

1



- Compact Combi PCB terminal blocks – streamlined for automated wiring in the lighting industry
- Low conductor insertion forces
- PUSH WIRE® and IDC connections – ideal for automated wiring systems

Electrical Data				
Pin spacing	**3.5 mm (0.138 inch)**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	6 A	6 A	6 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	4 A	-	4 A	

Connection Data	
Connection technology	PUSH WIRE®
Number of connection points (connection type)	1
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.5 … 1 mm² / 20 … 18 AWG
Connection technology 2	IDC connection
Number of connection points	1
Conductor entry angle to the PCB 2	0 °
Solid conductor (2)	0.5 mm² / 20 AWG
Fine-stranded conductor (2)	0.75 mm² / 18 AWG

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	3.2 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Tools Page 838

Additional information, see “Technical Section”

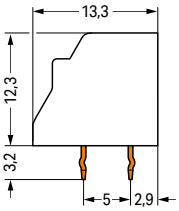
Approvals and corresponding ratings, visit www.wago.com

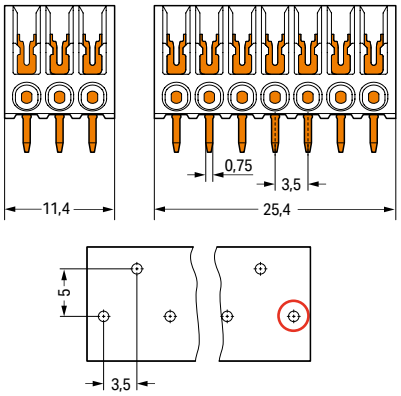
PCB Terminal Block ▸ 251 Series

PUSH WIRE® ▸ IDC connection ▸ Actuation type: Operating tool ▸ 1 mm² ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: white

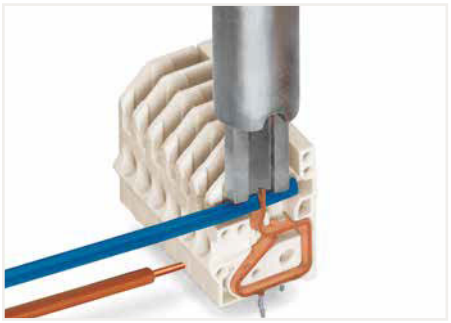


Pole No.	Item No.	PU (SPU)
3	251-303	420 (105)
4	251-304	320 (80)
6	251-306	200 (50)
7	251-307	180 (45)
8	251-308	160 (40)
10	251-310	120 (30)

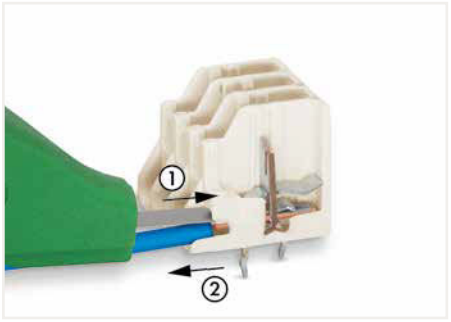




L = (pole no. x pin spacing) + 0.9 mm
Starting point is first solder pin, front right (red circle)



Conductor termination:
PUSH WIRE®: Simply push in conductor.
IDC: Push in conductor via 206-831 Operating Tool.



Conductor removal:
PUSH WIRE®: Twist conductor and pull out, or fully insert 206-830 Disconnection Tool over the conductor (1) and pull it out (2).

IDC: Pull up vertically on conductor to remove it (10x re-connection cycles possible when used properly – before re-using, cut off old contact point from conductor).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

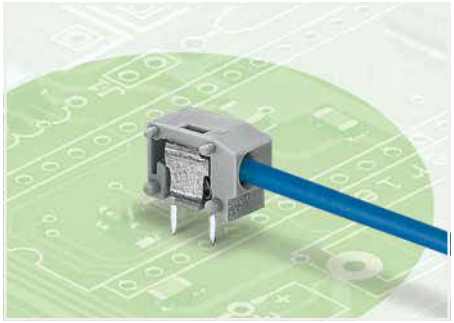
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- Other pole numbers
- Direct marking

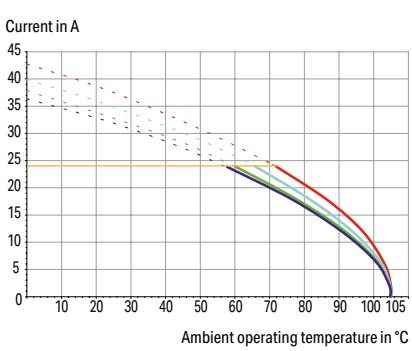
PCB Terminal Block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Modular Terminal Block ▸ 2.5 mm²

1



- Low-profile modular PCB terminal blocks with PUSH WIRE® connection for custom terminal strip assemblies
- Push-in termination for solid conductors
- Double solder pins for high mechanical stability
- Conductor removal via screwdriver (2.5 mm x 0.4 mm)
- Set to metric or inch pin spacing by compressing terminal strips or pulling them apart
- Also available with test slot



Electrical Data									
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**			**7.5/7.62 mm / 0.295/0.3 inch**			**10/10.16 mm / 0.394/0.4 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	-	300 V	-	-	300 V	-	-
Rated current	15 A	-	-	15 A	-	-	15 A	-	-

Connection Data	
Connection technology	PUSH WIRE®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.5 … 2.5 mm² / 20 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	3.6 mm
Solder pin dimensions	0.8 x 0.4 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

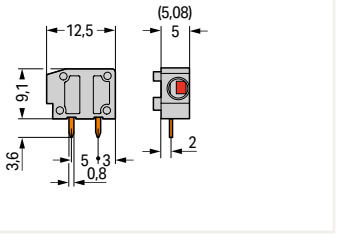
PCB Terminal Block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Modular Terminal Block ▸ 2.5 mm²

Pin spacing: 5/5.08 mm / 0.197/0.2 inch



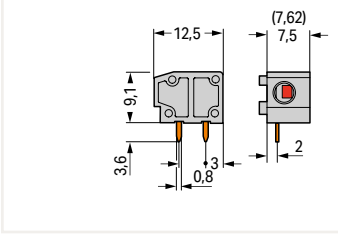
Color	Item No.	PU (SPU)
gray	235-401	800 (100)
blue	235-744	800 (100)
orange	235-746	800 (100)
light gray	235-743	800 (100)
light green	235-747	800 (100)
red	235-740	800 (100)
dark gray	235-742	800 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



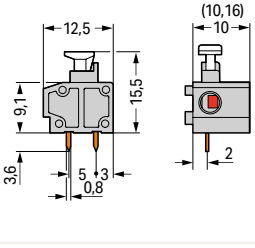
Color	Item No.	PU (SPU)
gray	235-501	600 (100)
blue	235-754	600 (100)
orange	235-756	600 (100)
light gray	235-753	600 (100)
light green	235-757	600 (100)
dark gray	235-752	600 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Color	Item No.	PU (SPU)
gray	235-801	400 (100)
orange	235-766	400 (100)
dark gray	235-762	400 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	235-100	2000 (100)
blue	235-400	2000 (100)
orange	235-600	2000 (100)
white	235-850	2000 (100)
black	235-500	2000 (100)
yellow	235-550	2000 (100)
light gray	235-300	2000 (100)
light green	235-700	2000 (100)
violet	235-650	2000 (100)
red	235-800	2000 (100)
dark gray	235-200	2000 (100)



intermediate plate; extends pin spacing; Pin spacing: 5/5.08 mm / 0.197/0.2 inch

Color	Item No.	PU (SPU)
gray	235-701	1000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

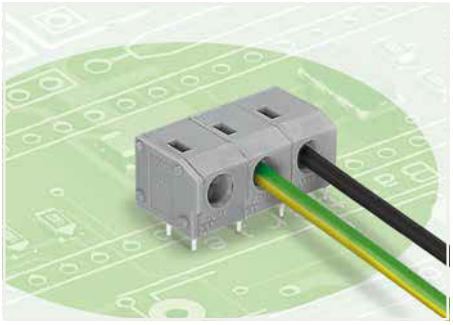
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other colors

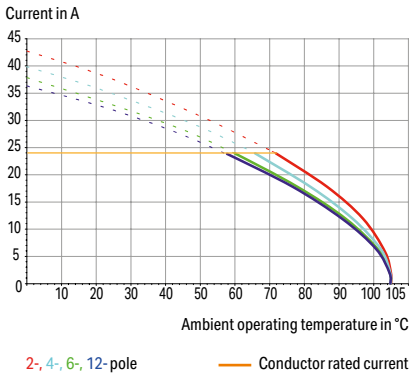
PCB Terminal Block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▸ Color: gray

1



- Low-profile modular PCB terminal blocks with PUSH WIRE® connection for custom terminal strip assemblies
- Push-in termination for solid conductors
- Double solder pins for high mechanical stability
- Conductor removal via screwdriver (2.5 mm x 0.4 mm)
- Set to metric or inch pin spacing by compressing terminal strips or pulling them apart



Electrical Data			
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	-
Rated current	15 A	-	-

Connection Data	
Connection technology	PUSH WIRE®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.5 … 2.5 mm² / 20 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

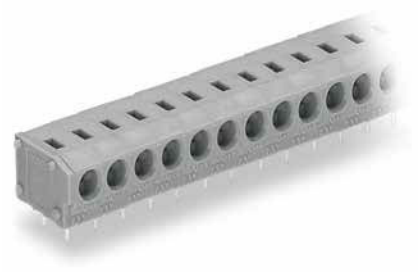
Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.6 mm
Solder pin dimensions	0.8 x 0.4 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▸ Color: gray



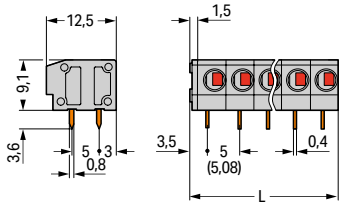


Inserting a solid conductor via push-in termination.



Removing conductor via (2.5 x 0.4) mm screwdriver.

Pole No.	Item No.	PU (SPU)
2	235-402	420 (105)
3	235-403	280 (70)
4	235-404	220 (55)
5	235-405	180 (45)
6	235-406	140 (35)
7	235-407	120 (30)
8	235-408	100 (25)
9	235-409	100 (25)
10	235-410	80 (20)
12	235-412	60 (15)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

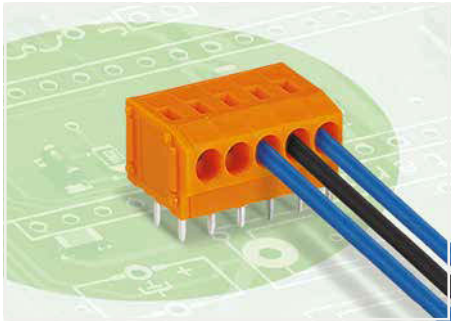
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- PCB terminal strips with 7.5/7.62 mm and 10/10.16 mm pin spacing
- Mixed-color terminal strips
- Direct marking

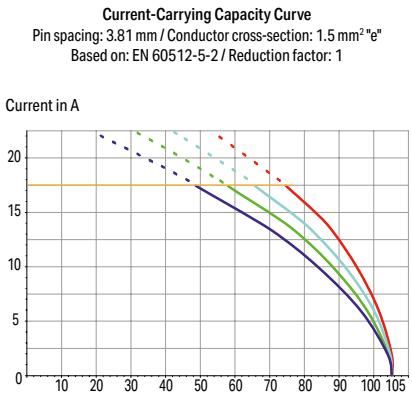
PCB Terminal Block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Modular Terminal Block ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm (0.15 inch) ▸ Color: orange

1



- Low-profile PCB terminal strips with PUSH WIRE® connection and screwdriver actuation
- Push-in termination of solid conductors
- Double solder pins for high mechanical stability
- Conductor removal via screwdriver (2.5 mm x 0.4 mm)



Electrical Data			
Pin spacing	**3.81 mm (0.15 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	500 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	-
Rated current	10 A	-	-

Connection Data	
Connection technology	PUSH WIRE®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.75 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 0.75 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	3.6 mm
Solder pin dimensions	0.8 x 0.4 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

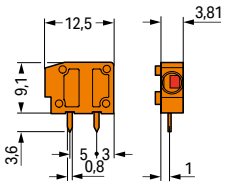
Ferrule	Page 847
Marking	Page 832
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Modular Terminal Block ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm (0.15 inch) ▸ Color: orange



Color	Item No.	PU (SPU)
orange	235-101/330-000	800 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	235-100	2000 (100)
blue	235-400	2000 (100)
orange	235-600	2000 (100)
white	235-850	2000 (100)
black	235-500	2000 (100)
yellow	235-550	2000 (100)
light gray	235-300	2000 (100)
light green	235-700	2000 (100)
violet	235-650	2000 (100)
red	235-800	2000 (100)
dark gray	235-200	2000 (100)



intermediate plate; extends pin spacing; Pin spacing: 5/5.08 mm / 0.197/0.2 inch

Color	Item No.	PU (SPU)
gray	235-701	1000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

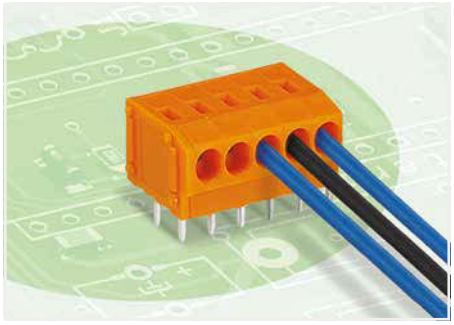
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other colors

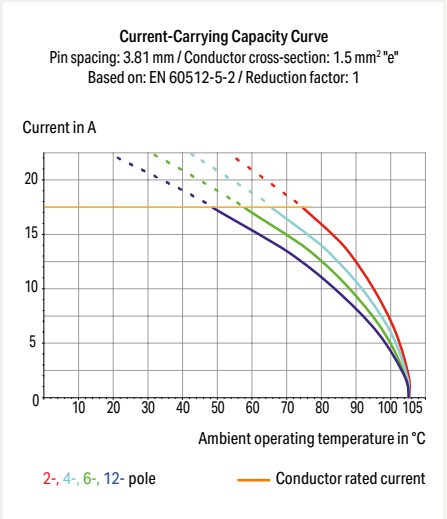
PCB Terminal Block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm (0.15 inch) ▸ Color: orange

1



- Low-profile PCB terminal strips with PUSH WIRE® connection and screwdriver actuation
- Push-in termination of solid conductors
- Double solder pins for high mechanical stability
- Conductor removal via screwdriver (2.5 mm x 0.4 mm)



Electrical Data			
Pin spacing	**3.81 mm (0.15 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	500 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	-
Rated current	10 A	-	-

Connection Data	
Connection technology	PUSH WIRE®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.75 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 0.75 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

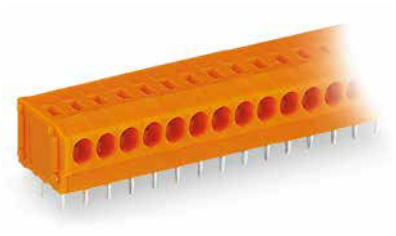
Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.6 mm
Solder pin dimensions	0.8 x 0.4 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 832
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 235 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.81 mm (0.15 inch) ▸ Color: orange



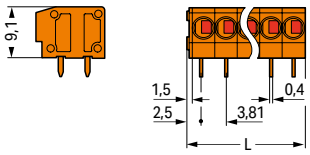


Inserting a solid conductor via push-in termination.



Removing conductor via (2.5 x 0.4) mm screwdriver.

Pole No.	Item No.	PU (SPU)
2	235-102/330-000	520 (130)
3	235-103/330-000	360 (90)
4	235-104/330-000	280 (70)
5	235-105/330-000	220 (55)
6	235-106/330-000	180 (45)
7	235-107/330-000	160 (40)
8	235-108/330-000	140 (35)
9	235-109/330-000	120 (30)
10	235-110/330-000	120 (40)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

254 Series
Description and Installation



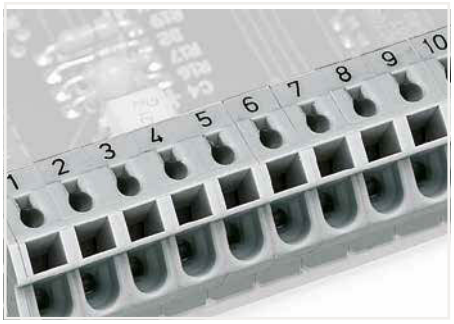
Inserting a solid conductors via push-in termination.



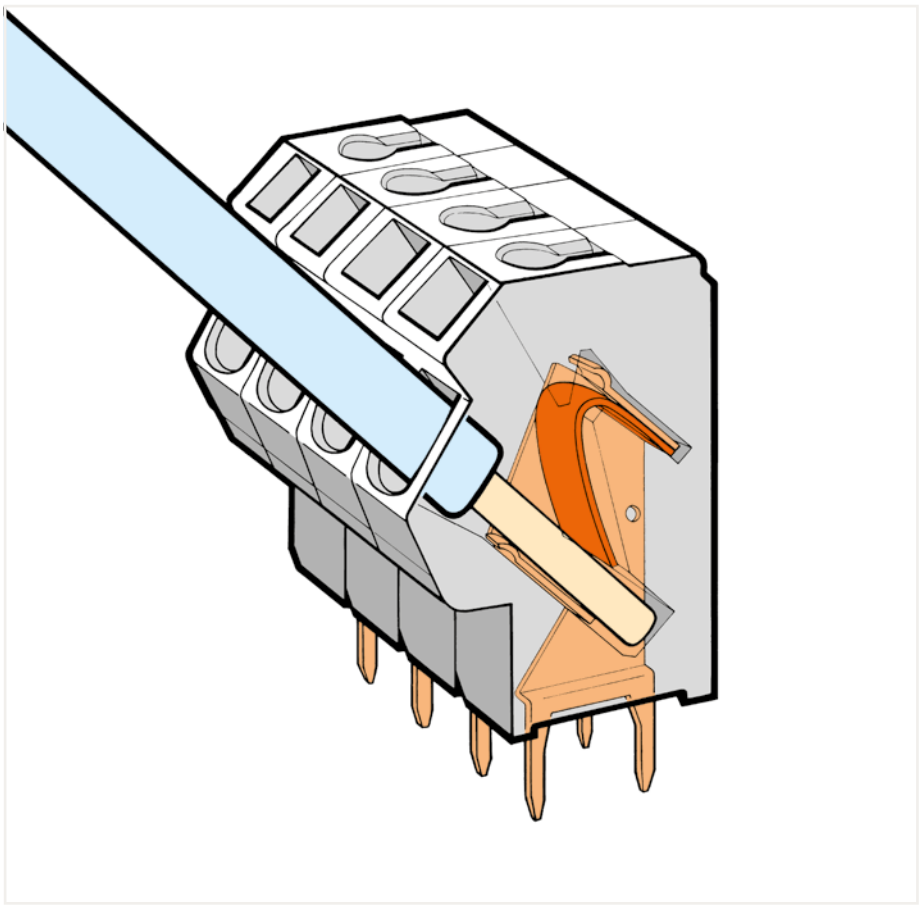
Inserting a tip-bonded conductor via screwdriver.



Labeling via self-adhesive marking strips.

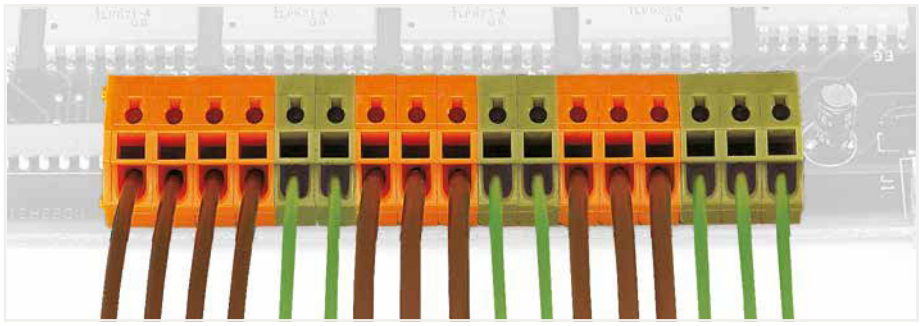


Labeling via factory direct marking.



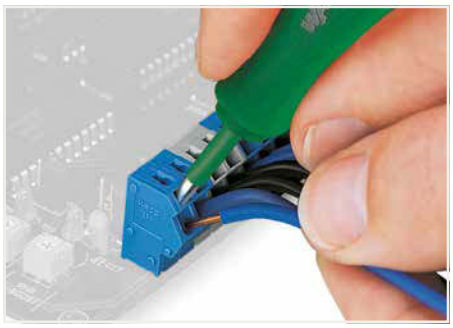


Application example: field-wiring terminal strip

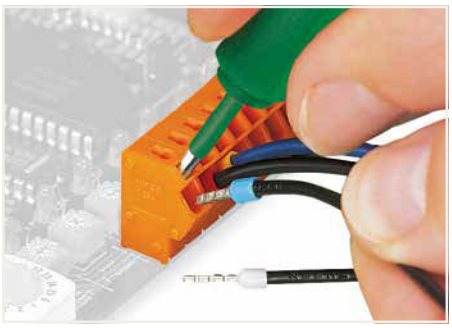


Mixed terminal strips can be assembled using different housing colors for the formation of groups.

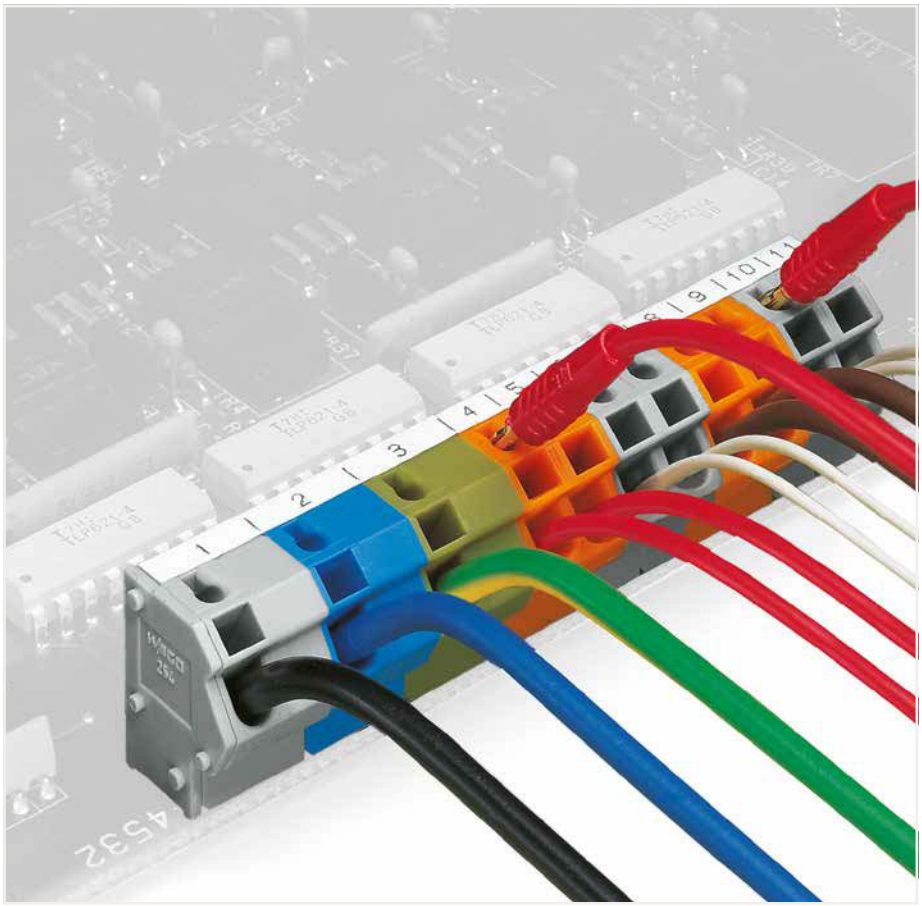
254 Series
Description and Installation



Removing a conductor.

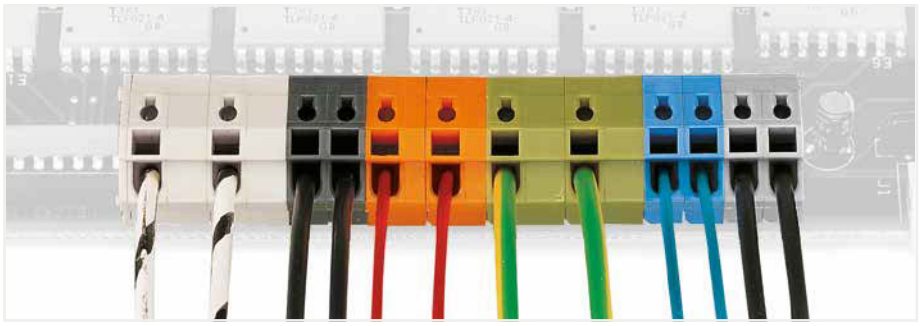


Inserting/removing a ferruled conductor.





Testing with 2 mm Ø test plug.



Mixed terminal strips can be assembled using different pin spacing and housing colors for the formation of groups.

PCB Terminal Block ▸ 254 Series

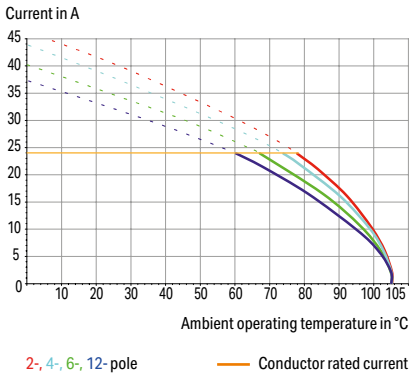
PUSH WIRE® ▸ Actuation type: Operating tool ▸ Modular Terminal Block ▸ 2.5 mm²

1



- Modular PCB terminal blocks with PUSH WIRE® connection and screwdriver actuation for custom terminal strip assemblies
- Push-in termination of solid and ferruled conductors
- Test socket for 2 mm Ø test plug
- Save space on the PCB, just 8.9 mm deep
- Also available with 2-conductor connection

Current-Carrying Capacity Curve
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "e"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data

Pin spacing	5/5.08 mm / 0.197/0.2 inch			7.5/7.62 mm / 0.295/0.3 inch			10/10.16 mm / 0.394/0.4 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A

Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Connection Data

Connection technology	PUSH WIRE®
Strip length	10 … 12 mm / 0.39 … 0.47 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.5 … 2.5 mm² / 20 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter (tolerance)	1.1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

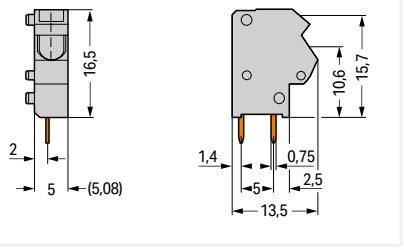
PCB Terminal Block ▸ 254 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Modular Terminal Block ▸ 2.5 mm²

Pin spacing: 5/5.08 mm / 0.197/0.2 inch



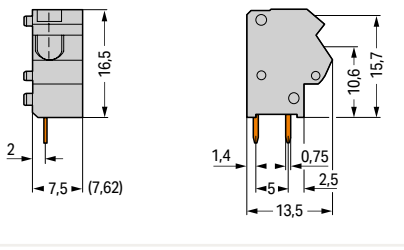
Color	Item No.	PU (SPU)
gray	254-451	500 (100)
blue	254-844	500 (100)
orange	254-846	500 (100)
light gray	254-843	500 (100)
light green	254-847	500 (100)
dark gray	254-842	500 (100)



Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch



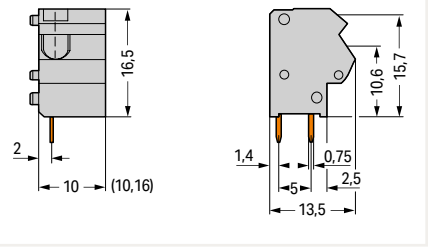
Color	Item No.	PU (SPU)
gray	254-551	400 (100)
blue	254-854	400 (100)
orange	254-856	400 (100)
light gray	254-853	400 (100)
light green	254-857	400 (100)
dark gray	254-852	400 (100)



Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Color	Item No.	PU (SPU)
gray	254-651	300 (100)
blue	254-864	300 (100)
orange	254-866	300 (100)
light gray	254-863	300 (100)
light green	254-867	300 (100)
dark gray	254-862	300 (100)



Accessories; for all products on this page



End plate; 1 mm; snap-on type

Color	Item No.	PU (SPU)
gray	254-100	2000 (100)
blue	254-400	2000 (100)
orange	254-600	2000 (100)
light gray	254-300	2000 (100)
light green	254-700	2000 (100)
dark gray	254-200	2000 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

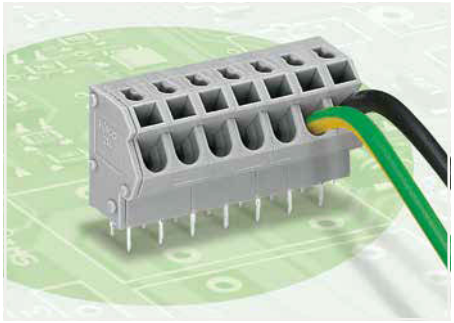
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other colors
- Versions for Ex i

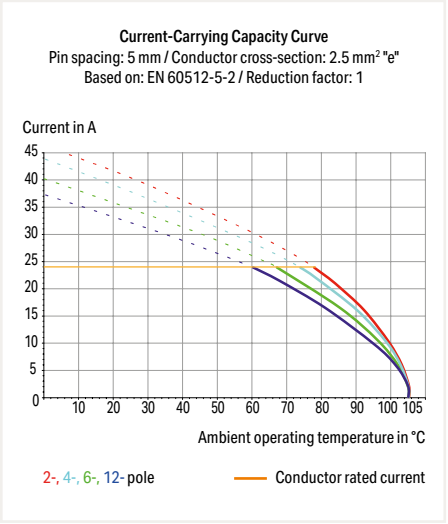
PCB Terminal Block ▸ 254 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: gray

1



- PCB terminal strips with PUSH WIRE® connection and screwdriver actuation
- Push-in termination of solid and ferruled conductors
- Test socket for 2 mm Ø test plug
- Save space on the PCB, just 8.9 mm deep
- Also available with 2-conductor connection



Electrical Data									
Pin spacing	**5/5.08 mm / 0.197/0.2 inch**			**7.5/7.62 mm / 0.295/0.3 inch**			**10/10.16 mm / 0.394/0.4 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	500 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A	24 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	PUSH WIRE®
Strip length	10 … 12 mm / 0.39 … 0.47 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.5 … 2.5 mm² / 20 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter (tolerance)	1.1 (+ 0.1) mm

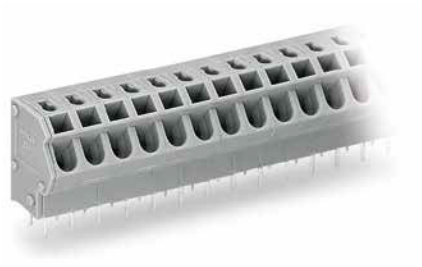
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

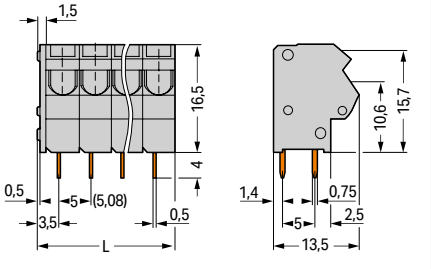
PCB Terminal Block ▸ 254 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 2.5 mm² ▸ Color: gray

Pin spacing: 5/5.08 mm / 0.197/0.2 inch

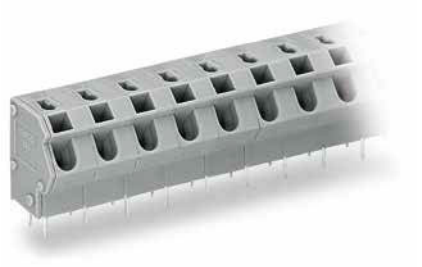


Pole No.	Item No.	PU (SPU)
2	254-452	420 (105)
3	254-453	280 (70)
4	254-454	220 (55)
5	254-455	180 (45)
6	254-456	140 (35)
7	254-457	120 (30)
8	254-458	100 (25)
9	254-459	100 (25)
10	254-460	80 (20)
12	254-462	80 (20)
16	254-466	60 (15)
24	254-474	40 (10)

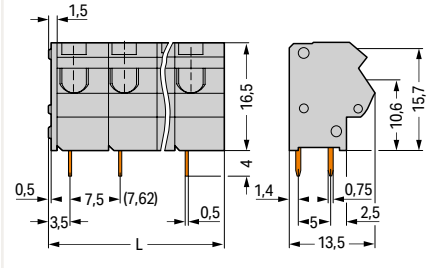


L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 7.5/7.62 mm / 0.295/0.3 inch

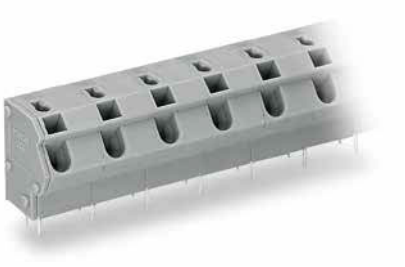


Pole No.	Item No.	PU (SPU)
2	254-552	280 (70)
3	254-553	200 (50)
4	254-554	140 (35)
5	254-555	120 (30)
6	254-556	100 (25)
7	254-557	80 (20)
8	254-558	80 (20)
9	254-559	60 (15)
10	254-560	60 (15)
12	254-562	40 (10)

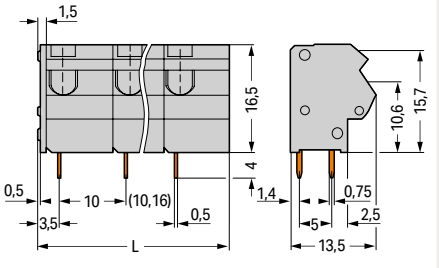


L = (pole no. x pin spacing) + 1.5 mm

Pin spacing: 10/10.16 mm / 0.394/0.4 inch



Pole No.	Item No.	PU (SPU)
2	254-652	200 (50)
3	254-653	160 (40)
4	254-654	100 (25)
5	254-655	80 (20)
6	254-656	80 (20)
7	254-657	60 (15)
8	254-658	60 (15)
9	254-659	40 (10)
10	254-660	40 (10)
12	254-662	40 (10)



L = (pole no. x pin spacing) + 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

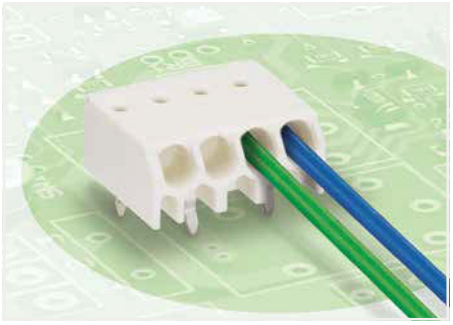
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking
- Versions for Ex i

PCB Terminal Block ▸ 744 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: white

1



- PCB terminal blocks with PUSH WIRE® connection
- Push-in termination of solid conductors – low insertion forces
- Just 6.6 mm tall
- Conductor removal via disconnection tool or by twist and pull

Electrical Data			
Pin spacing	**3.5 mm (0.138 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	2 A	2 A	2 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	6 A	-	6 A

Connection Data	
Connection technology	PUSH WIRE®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin dimensions	0.35 x 0.9 mm
Drilled hole diameter (tolerance)	$1.1^{(-0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Tools Page 840

Additional information, see “Technical Section”

Approvals and corresponding ratings, visit www.wago.com

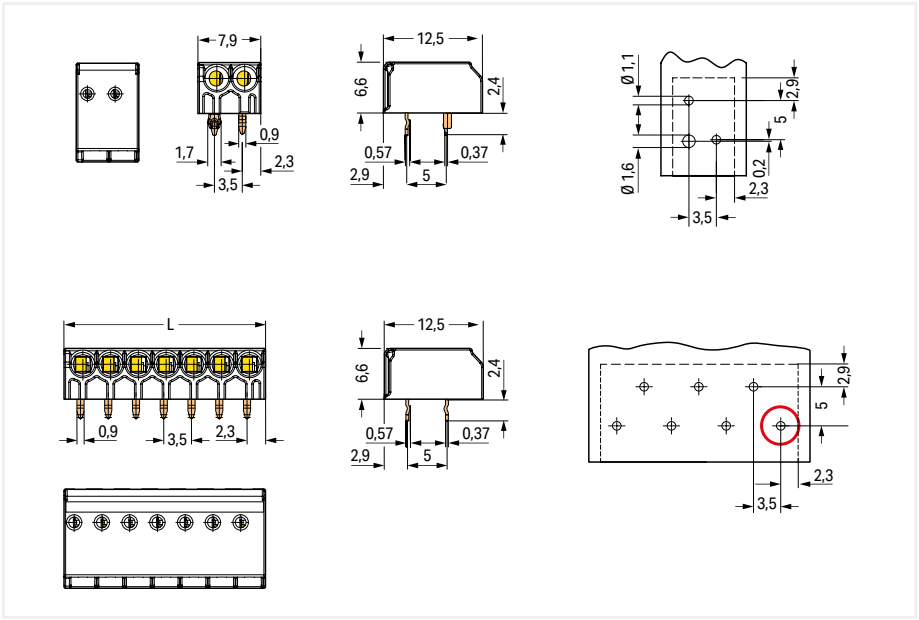
PCB Terminal Block ▸ 744 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: white

Solder pin length: 2.4 mm



Pole No.	Item No.	PU
2	744-392/364-000	1500
3	744-303/364-000	1000
4	744-304/364-000	800
6	744-306/364-000	500
7	744-307/364-000	300
8	744-308/364-000	300
10	744-310/364-000	200



PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

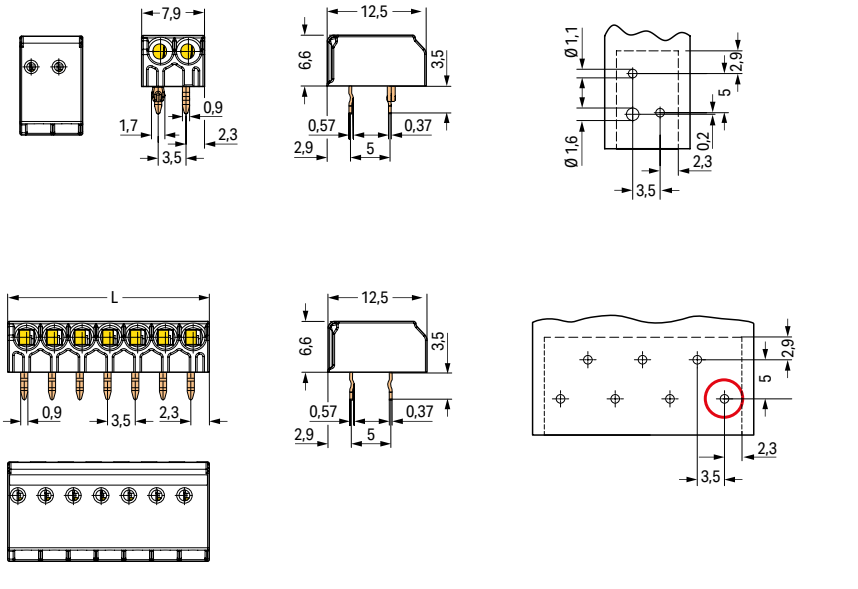
PCB Terminal Block ▸ 744 Series

PUSH WIRE® ▸ Actuation type: Operating tool ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: white

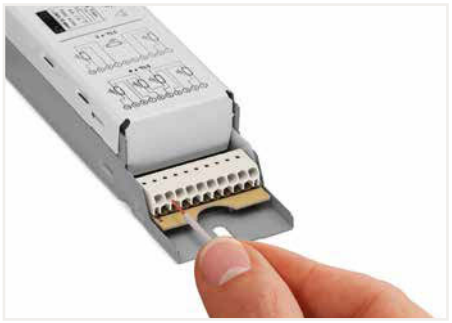
Solder pin length: 3.5 mm



Pole No.	Item No.	PU
2	744-392	1500
3	744-303	1000
4	744-304	800
6	744-306	500
7	744-307	300
8	744-308	300
10	744-310	200



2-pole version with additional anti-rotating pin
For 3 poles and more, L = (pole no. x pin spacing) + 0.9 mm
First solder pin, front right (red circle)



Inserting a conductor via push-in termination.



Removing a conductor via 1.0 mm Ø disconnection tool (206-840).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

PCB Terminal Block ▸ 735 Series
PUSH WIRE® ▸ Actuation type: Push-button ▸ 1.5 mm²

1



- Compact PCB terminal blocks with push-buttons and PUSH WIRE® connection
- Top-of-unit, push-button actuation and conductor termination save space on the PCB
- Push-in termination of solid conductors
- Terminal blocks can be arranged side-by-side without loss of poles.

Electrical Data

Color	orange			gray		
Pin spacing	3.81 mm / 0.15 inch			5 mm / 0.197 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A	10 A	10 A	10 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A

Connection Data

Connection technology	PUSH WIRE®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 1 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.5 mm
Solder pin dimensions	0.4 x 0.9 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

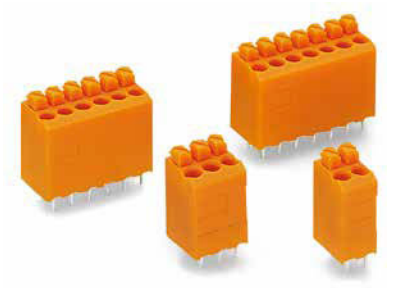
Environmental Requirements

Limit temperature range	-60 … +105 °C

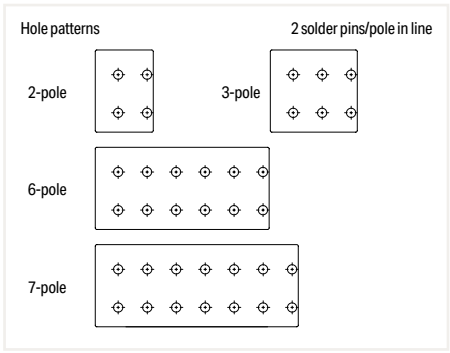
Ferrule	Page 847
Marking	Page 832
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

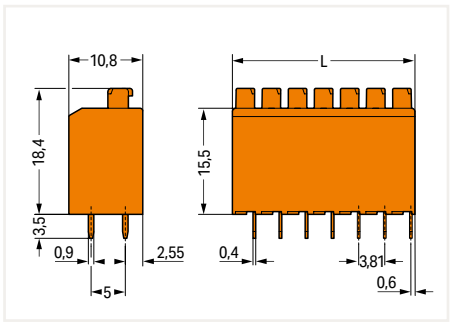
PCB Terminal Block ▸ 735 Series
PUSH WIRE® ▸ Actuation type: Push-button ▸ 1.5 mm²

Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange



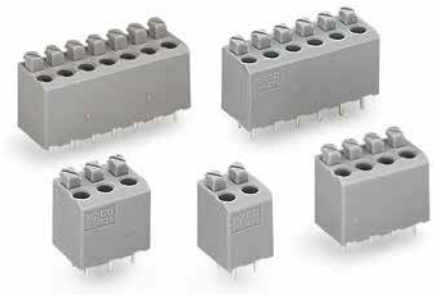
Pole No.	Item No.	PU (SPU)
2	735-122	660 (165)
3	735-123	440 (110)
6	735-126	220 (55)
7	735-127	180 (45)



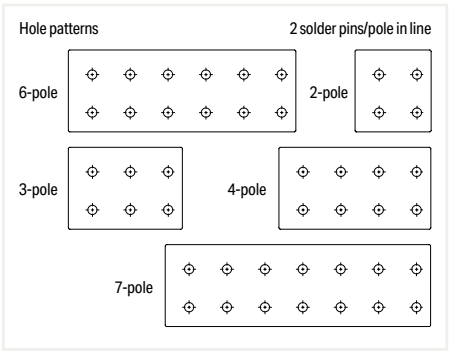


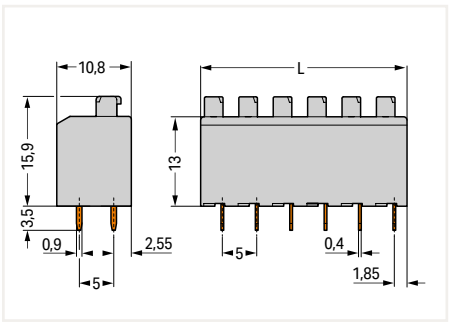
L (2-pole): 7.62 mm, L (3-pole): 11.43 mm
L (6-pole): 22.86 mm, L (7-pole): 26.67 mm

Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

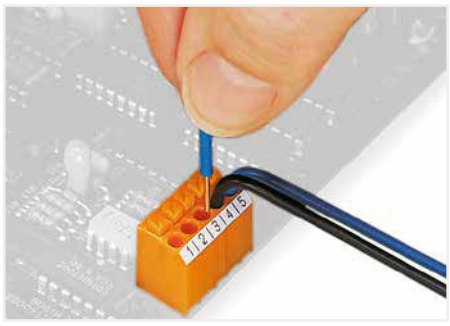


Pole No.	Item No.	PU (SPU)
2	735-302	500 (125)
3	735-303	320 (80)
4	735-304	240 (60)
6	735-306	160 (40)
7	735-307	140 (35)

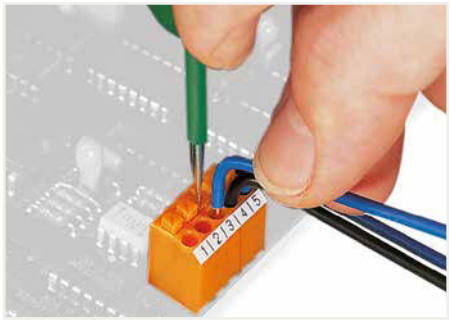




L (2-pole): 10 mm, L (3-pole): 15 mm
L (4-pole): 20 mm, L (6-pole): 30 mm
L (7-pole): 35 mm



Inserting a solid conductor via push-in termination.



Removing a conductor via push-button.



Terminal blocks can be arranged side-by-side without loss of poles.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:
- Direct marking

PCB Terminal Block ▸ 735 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ Compact terminal block variant: Spacer width: 1 x pin spacing ▸ 1.5 mm²

1



- Compact PCB terminal blocks with push-buttons and PUSH WIRE® connection
- Top-of-unit, push-button actuation and conductor termination save space on the PCB
- Push-in termination of solid conductors
- Terminal blocks can be arranged side-by-side without loss of poles.

Electrical Data

Color	orange			gray		
Pin spacing	3.81 mm / 0.15 inch			5 mm / 0.197 inch		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	500 V	630 V	1000 V	320 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV	4 kV	8 kV	8 kV
Rated current	10 A	10 A	10 A	10 A	10 A	10 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A

Connection Data

Connection technology	PUSH WIRE®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 1 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.5 mm
Solder pin dimensions	0.4 x 0.9 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 832
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

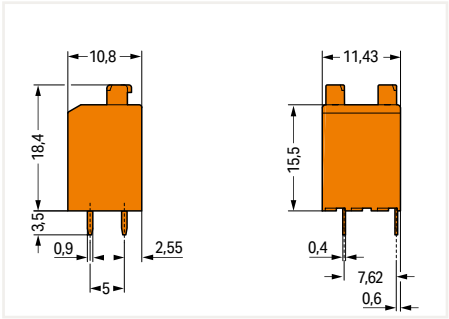
PCB Terminal Block ▸ 735 Series

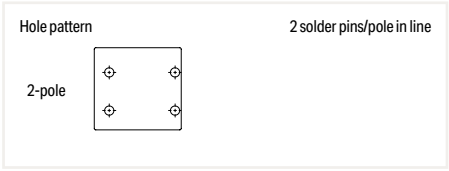
PUSH WIRE® ▸ Actuation type: Push-button ▸ Compact terminal block variant: Spacer width: 1 x pin spacing ▸ 1.5 mm²

Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange



Color	Pole No.	Item No.	PU (SPU)
orange	2	735-123/001-000	440 (110)

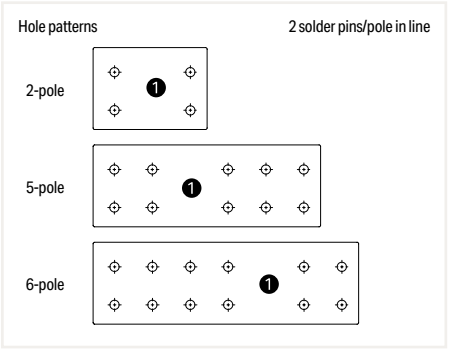




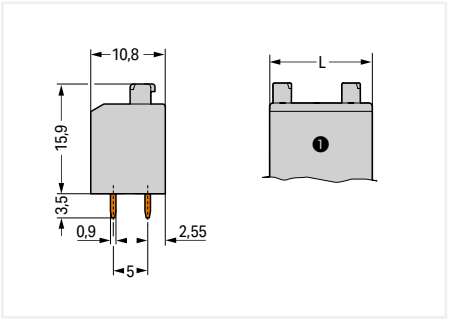
Pin spacing: 5 mm / 0.197 inch ▸ Color: gray



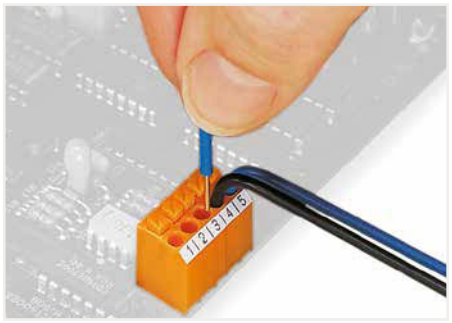
Pole No.	Item No.	PU (SPU)
2	735-303/001-000	320 (80)
5	735-306/003-000	160 (40)
6	735-307/001-000	140 (35)



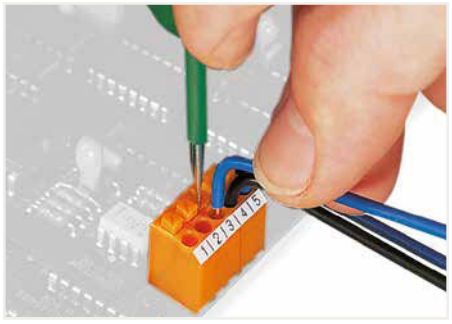
(1) Spacer: 1 x pin spacing



L (2-pole): 15 mm
L (5-pole): 30 mm
L (6-pole): 35 mm



Inserting a solid conductor via push-in termination.



Removing a conductor via push-button.



Terminal blocks can be arranged side-by-side without loss of poles.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Direct marking

PCB Terminal Block ▸ 735 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ Compact terminal block variant: Spacer width: 2 x pin spacing ▸ 1.5 mm²

1



- Compact PCB terminal blocks with push-buttons and PUSH WIRE® connection
- Top-of-unit, push-button actuation and conductor termination save space on the PCB
- Push-in termination of solid conductors
- Terminal blocks can be arranged side-by-side without loss of poles.

Electrical Data						
Color	**orange**			**gray**		
Pin spacing	**3.81 mm / 0.15 inch**			**5 mm / 0.197 inch**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A	10 A	10 A	10 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	PUSH WIRE®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 1 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.5 mm
Solder pin dimensions	0.4 x 0.9 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 832
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

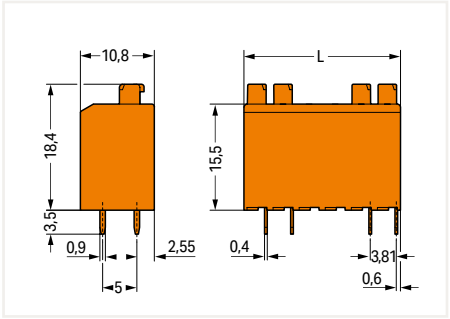
PCB Terminal Block ▸ 735 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ Compact terminal block variant: Spacer width: 2 x pin spacing ▸ 1.5 mm²

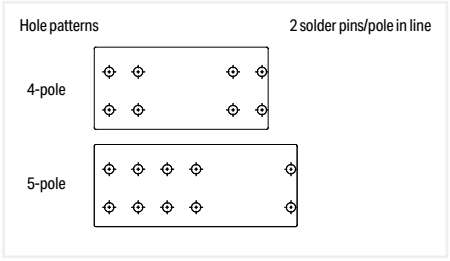
Pin spacing: 3.81 mm / 0.15 inch ▸ Color: orange



Pole No.	Item No.	PU (SPU)
4	735-126/001-000	220 (55)
5	735-127/001-000	180 (45)



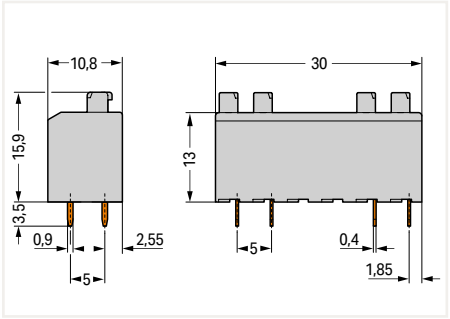
L (4-pole): 22.86 mm
L (5-pole): 26.67 mm

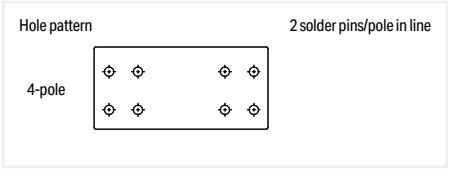


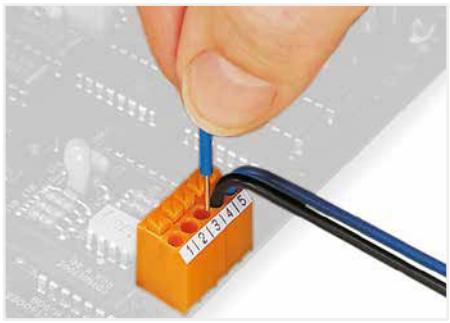
Pin spacing: 5 mm / 0.197 inch ▸ Color: gray



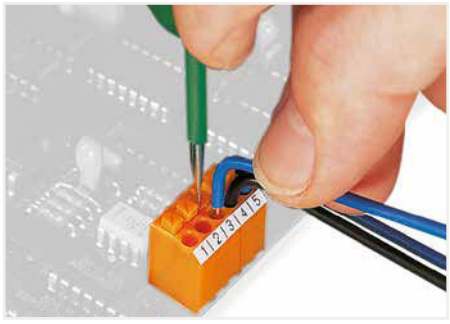
Color	Pole No.	Item No.	PU (SPU)
gray	4	735-306/001-000	160 (40)







Inserting a solid conductor via push-in termination.



Removing a conductor via push-button.



Terminal blocks can be arranged side-by-side without loss of poles.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Direct marking

PCB Terminal Block ▸ 735 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ Compact terminal block variant: Spacer width: 3 x pin spacing ▸ 1.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray

1



- Compact PCB terminal blocks with push-buttons and PUSH WIRE® connection
- Top-of-unit, push-button actuation and conductor termination save space on the PCB
- Push-in termination of solid conductors
- Terminal blocks can be arranged side-by-side without loss of poles.

Electrical Data			
Pin spacing	**5 mm / 0.197 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	PUSH WIRE®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	90°
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 1 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.5 mm
Solder pin dimensions	0.4 x 0.9 mm
Drilled hole diameter (tolerance)	$1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

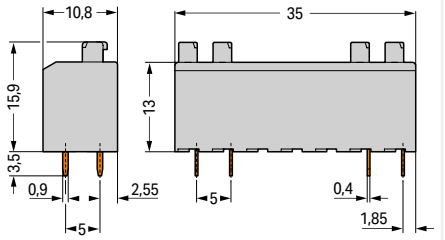
Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

PCB Terminal Block ▸ 735 Series

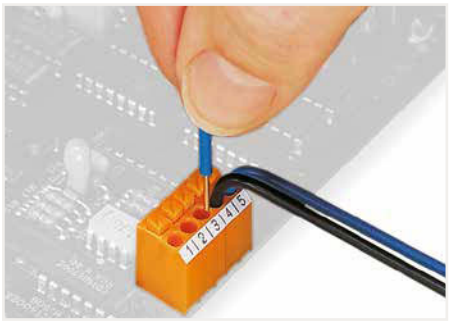
PUSH WIRE® ▸ Actuation type: Push-button ▸ Compact terminal block variant: Spacer width: 3 x pin spacing ▸ 1.5 mm² ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: gray



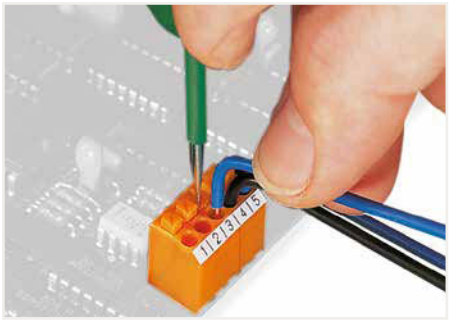
Color	Pole No.	Item No.	PU (SPU)
gray	4	735-307/002-000	140 (35)







Inserting a solid conductor via push-in termination.



Removing a conductor via push-button.



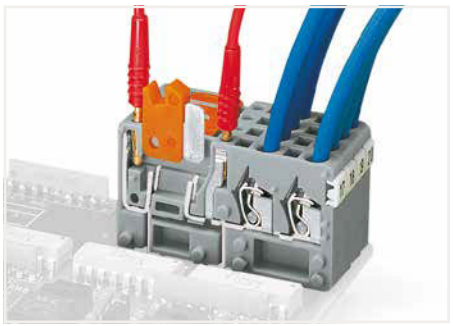
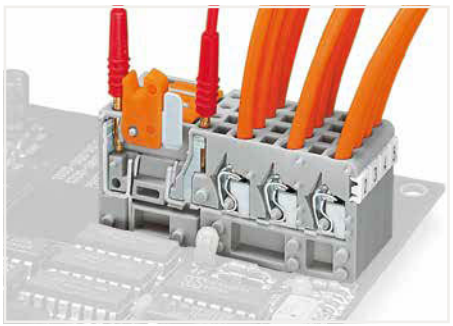
Terminal blocks can be arranged side-by-side without loss of poles.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Direct marking

742 Series
Description and Installation

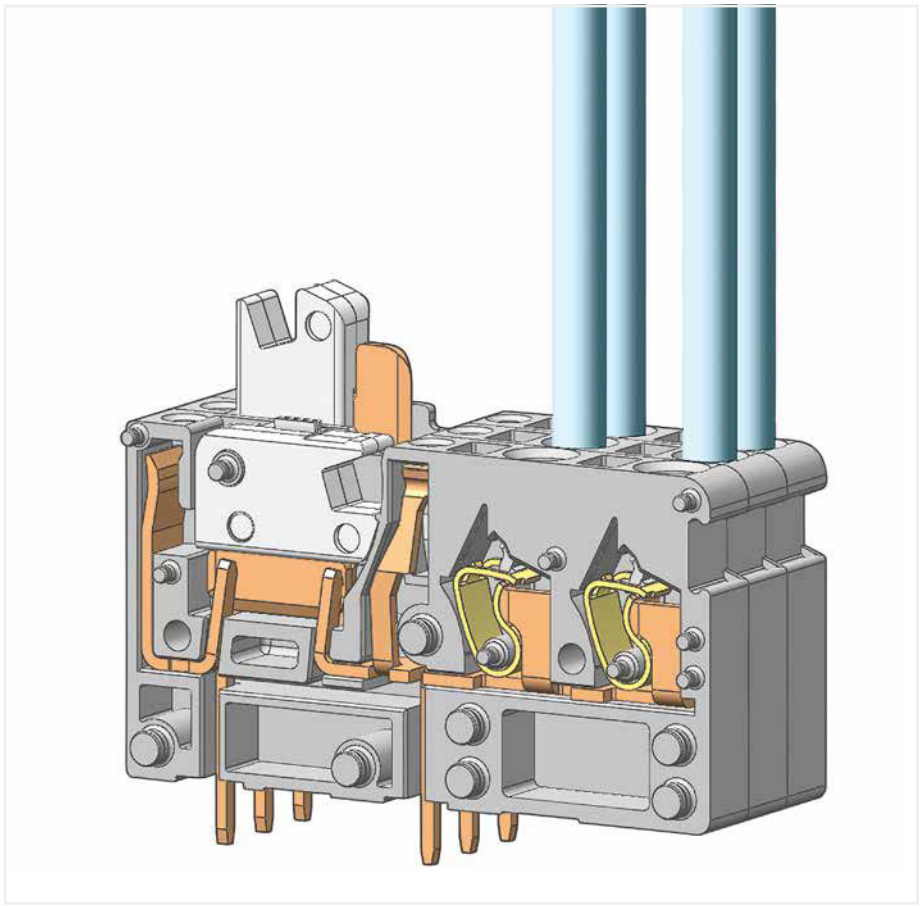
Testing all PCB disconnect terminal blocks via 2 mm or 2.3 mm Ø test plugs.

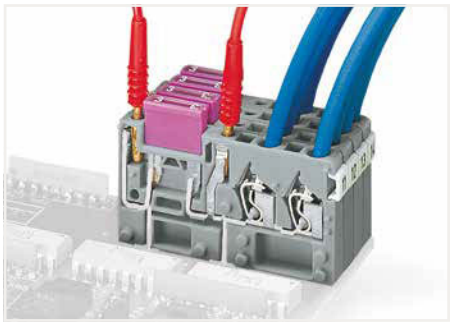


Opening a knife disconnect.



Distributing potentials via 3-conductor terminal blocks.

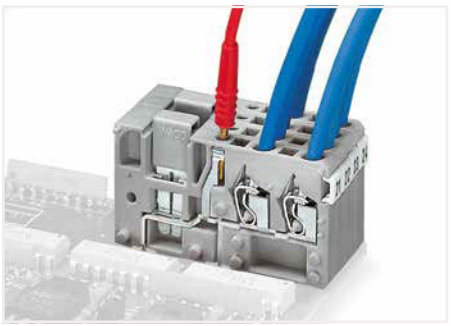


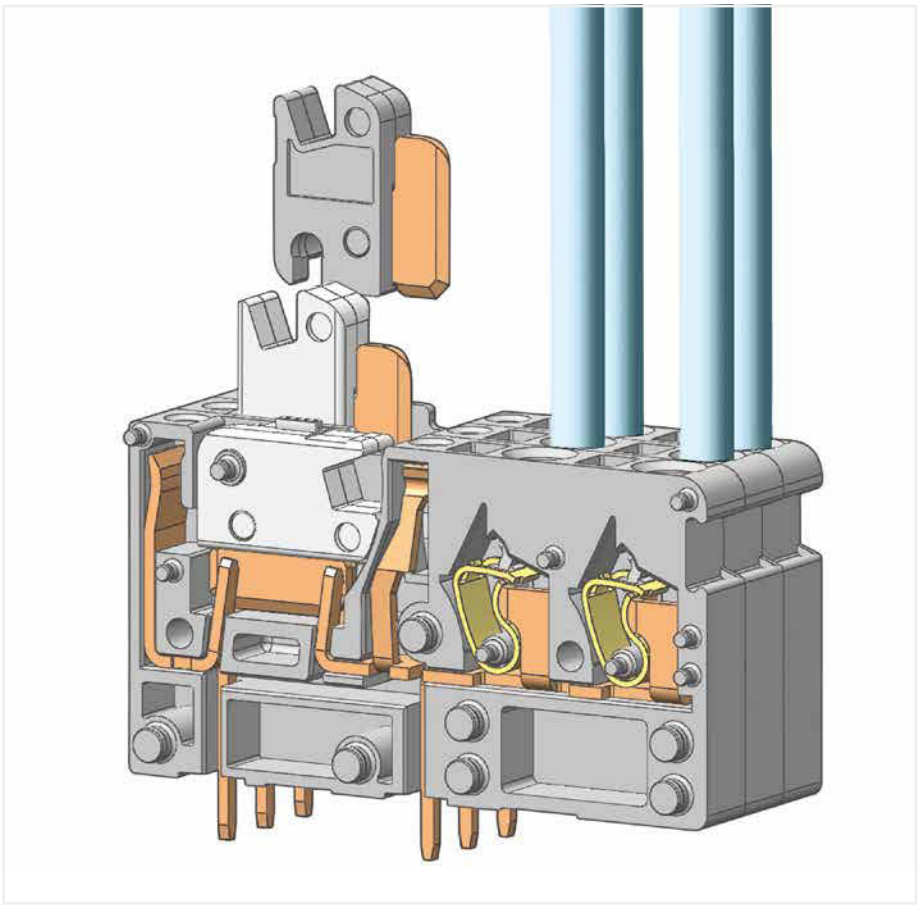

Testing all PCB fuse terminal blocks via 2 mm or 2.3 mm Ø test plugs.

742 Series
Description and Installation





Testing all PCB terminal blocks via 2 mm or 2.3 mm Ø test plugs.



Disconnect terminal blocks with removable knife disconnect are available upon request.



Mixed-color terminal strips are available upon request.



Mixed-color knife disconnect/test terminal strips are available upon request.



Commoning with adjacent jumpers – push jumpers down until fully inserted.



Inserting a fuse.



Custom PCB terminal strips are available upon request.

Modular PCB Terminal Block ▸ 742 Series

Disconnect/test block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

1



- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP®
- Power circuit disconnection via knife disconnect, e.g., for regular testing and measuring
- Test sockets on both sides of knife disconnect for 2.0 mm or 2.3 mm Ø test plugs
- 2- and 3-conductor PCB terminal blocks for distributing potentials independently of PCB
- Versions with removable knife disconnects available upon request

Electrical Data						
Pin spacing	**5 mm (0.197 inch)**			**5 mm (0.197 inch)**		
Number of connection points	**1**			**2 / 3**		
Conductor entry angle to the PCB	**60°**			**90°**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length (No. of connection points: 1)	8 … 9 mm / 0.31 … 0.35 inch
Strip length (No. of connection points: 2/3)	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

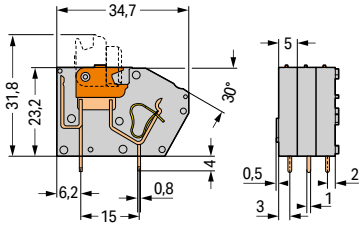
Modular PCB Terminal Block ▸ 742 Series

Disconnect/test block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

Conductor entry angle to the PCB: 60° ▸ Number of connection points: 1



Color	Item No.	PU (SPU)
gray	742-101	384 (96)



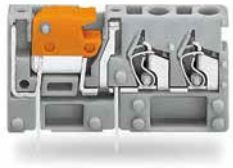
Item-Specific Accessories



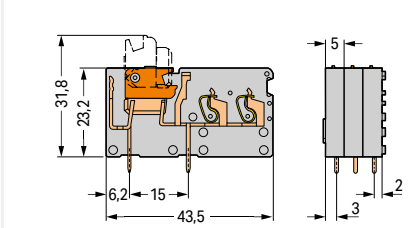
End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-100	300 (100)

Conductor entry angle to the PCB: 90° ▸ Number of connection points: 2



Color	Item No.	PU
gray	742-151	200



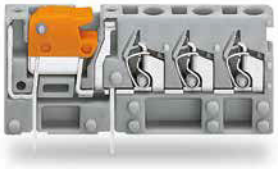
Item-Specific Accessories



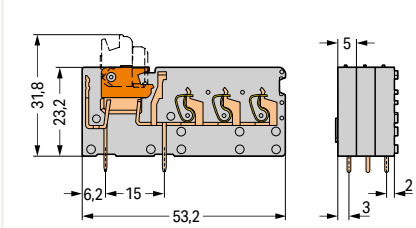
End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-150	300 (100)

Conductor entry angle to the PCB: 90° ▸ Number of connection points: 3



Color	Item No.	PU
gray	742-153	100



Item-Specific Accessories



End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-152	300 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Modular PCB Terminal Block ▸ 742 Series

Disconnect/test block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Color: orange

1



- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP®
- Power circuit disconnection via knife disconnect, e.g., for regular testing and measuring
- Test sockets on both sides of knife disconnect for 2.0 mm or 2.3 mm Ø test plugs
- 2- and 3-conductor PCB terminal blocks for distributing potentials independently of PCB
- Versions with removable knife disconnects available upon request

Electrical Data						
Pin spacing	**5.08 mm (0.2 inch)**			**5.08 mm (0.2 inch)**		
Number of connection points	**1**			**2 / 3**		
Conductor entry angle to the PCB	**60°**			**90°**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length (No. of connection points: 1)	8 … 9 mm / 0.31 … 0.35 inch
Strip length (No. of connection points: 2/3)	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

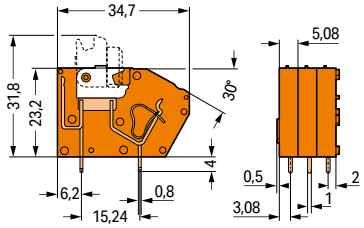
Modular PCB Terminal Block ▸ 742 Series

Disconnect/test block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Color: orange

Conductor entry angle to the PCB: 60° ▸ Number of connection points: 1



Color	Item No.	PU (SPU)
orange	742-106	384 (96)



Item-Specific Accessories



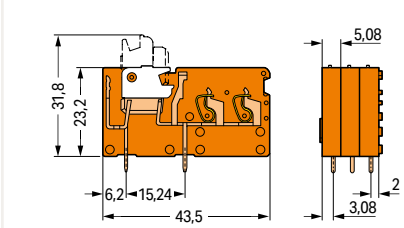
End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-600	300 (100)

Conductor entry angle to the PCB: 90° ▸ Number of connection points: 2



Color	Item No.	PU
orange	742-156	200



Item-Specific Accessories



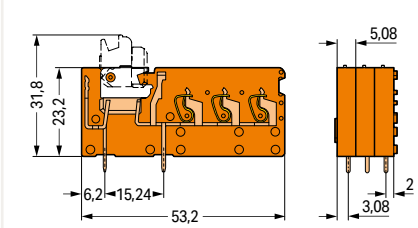
End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-650	300 (100)

Conductor entry angle to the PCB: 90° ▸ Number of connection points: 3



Color	Item No.	PU
orange	742-158	100



Item-Specific Accessories



End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-651	300 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Modular PCB Terminal Block ▸ 742 Series

Commoning option ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch)

1



- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP®
- Adjacent jumpers for multiplying and distributing potentials
- Disconnect and fuse PCB terminal blocks can be combined to form complex function assemblies
- Test socket for 2.0 mm and 2.3 mm Ø test plugs

Electrical Data

Pin spacing	5 mm (0.197 inch)			5 mm (0.197 inch)		
Number of connection points	1			2		
Conductor entry angle to the PCB	60°			90°		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	10 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length (No. of connection points: 1)	8 … 9 mm / 0.31 … 0.35 inch
Strip length (No. of connection points: 2/3)	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Ferrule	Page 847
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Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

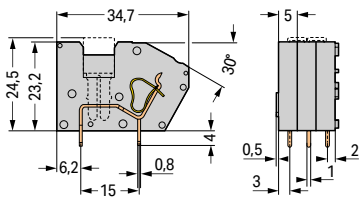
Modular PCB Terminal Block ▸ 742 Series

Commoning option ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch)

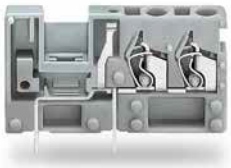
Conductor entry angle to the PCB: 60° ▸ Number of connection points: 1



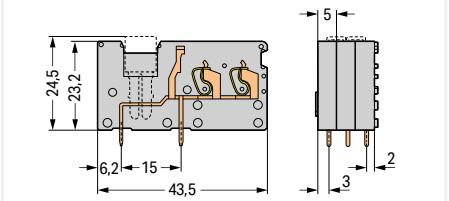
Color	Item No.	PU
gray	742-121	300
blue	742-124	300
green-yellow	742-128	300



Conductor entry angle to the PCB: 90° ▸ Number of connection points: 2



Color	Item No.	PU
green-yellow, blue, gray	742-178	200
gray	742-171	200
blue	742-174	200



Item-Specific Accessories



End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-100	300 (100)
blue	742-400	300 (100)
green-yellow	742-800	300 (100)

Item-Specific Accessories



End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-150	300 (100)
blue	742-450	300 (100)
green-yellow	742-850	300 (100)

Accessories; for all products on this page



Adjacent jumper, 5 mm, Rated current 24 A

Color	Item No.	PU (SPU)
gray	280-402	200 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Modular PCB Terminal Block ▸ 742 Series

Commoning option ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Color: orange

1



- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP®
- Adjacent jumpers for multiplying and distributing potentials
- Disconnect and fuse PCB terminal blocks can be combined to form complex function assemblies
- Test socket for 2.0 mm and 2.3 mm Ø test plugs

Electrical Data						
Pin spacing	**5.08 mm (0.2 inch)**			**5.08 mm (0.2 inch)**		
Number of connection points	**1**			**2**		
Conductor entry angle to the PCB	**60°**			**90°**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length (No. of connection points: 1)	8 … 9 mm / 0.31 … 0.35 inch
Strip length (No. of connection points: 2/3)	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

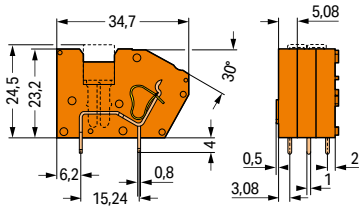
Modular PCB Terminal Block ▸ 742 Series

Commoning option ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Color: orange

Conductor entry angle to the PCB: 60° ▸ Number of connection points: 1



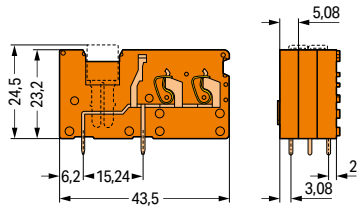
Color	Item No.	PU
orange	742-126	300



Conductor entry angle to the PCB: 90° ▸ Number of connection points: 2



Color	Item No.	PU
orange	742-176	200



Item-Specific Accessories



End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-600	300 (100)

Item-Specific Accessories



End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-650	300 (100)

Accessories; for all products on this page



Adjacent jumper, 5 mm, Rated current 24 A

Color	Item No.	PU (SPU)
gray	280-402	200 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Modular PCB Terminal Block ▸ 742 Series

Fuse terminal block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

1



- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP®
- Quick, easy replacement of mini-automotive blade-style fuses in the event of a fault
- Test sockets on both sides of fuse for 2.0 mm or 2.3 mm Ø test plugs
- Observe protection against direct contact for voltages of 42 V and higher!
- 2- and 3-conductor PCB terminal blocks for distributing potentials independently of PCB

Electrical Data						
Pin spacing	**5 mm (0.197 inch)**			**5 mm (0.197 inch)**		
Number of connection points	**1**			**2 / 3**		
Conductor entry angle to the PCB	**60°**			**90°**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	-	-	-	-	-	-
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length (No. of connection points: 1)	8 … 9 mm / 0.31 … 0.35 inch
Strip length (No. of connection points: 2/3)	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

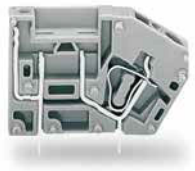
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

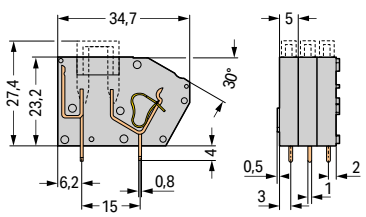
Modular Modular PCB Terminal Block ▸ 742 Series

Fuse terminal block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

Conductor entry angle to the PCB: 60° ▸ Number of connection points: 1



Color	Item No.	PU
gray	742-111	300



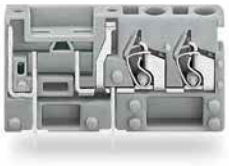
Item-Specific Accessories



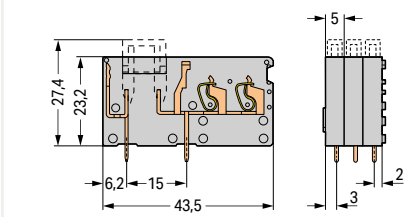
End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-100	300 (100)

Conductor entry angle to the PCB: 90° ▸ Number of connection points: 2



Color	Item No.	PU
gray	742-161	200



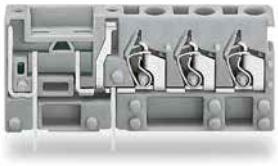
Item-Specific Accessories



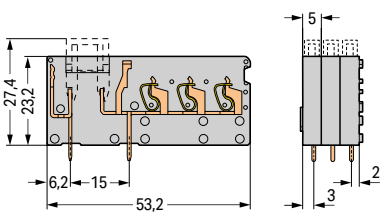
End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-150	300 (100)

Conductor entry angle to the PCB: 90° ▸ Number of connection points: 3



Color	Item No.	PU
gray	742-163	100



Item-Specific Accessories



End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
gray	742-152	300 (100)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Modular PCB Terminal Block ▸ 742 Series

Fuse terminal block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Color: orange

1



- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP®
- Quick, easy replacement of mini-automotive blade-style fuses in the event of a fault
- Test sockets on both sides of fuse for 2.0 mm or 2.3 mm Ø test plugs
- Observe protection against direct contact for voltages of 42 V and higher!
- 2- and 3-conductor PCB terminal blocks for distributing potentials independently of PCB

Electrical Data						
Pin spacing	**5.08 mm (0.2 inch)**			**5.08 mm (0.2 inch)**		
Number of connection points	**1**			**2 / 3**		
Conductor entry angle to the PCB	**60°**			**90°**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	320 V	320 V	630 V	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV	4 kV	4 kV	4 kV
Rated current	-	-	-	-	-	-
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	10 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length (No. of connection points: 1)	8 … 9 mm / 0.31 … 0.35 inch
Strip length (No. of connection points: 2/3)	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	4 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 830
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

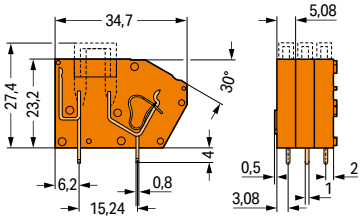
Modular PCB Terminal Block ▸ 742 Series

Fuse terminal block ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Color: orange

Conductor entry angle to the PCB: 60° ▸ Number of connection points: 1



Color	Item No.	PU
orange	742-116	300



Item-Specific Accessories



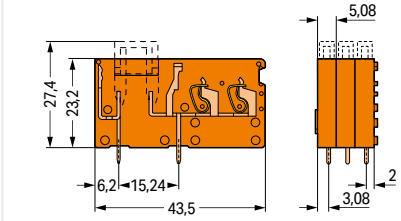
End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-600	300 (100)

Conductor entry angle to the PCB: 90° ▸ Number of connection points: 2



Color	Item No.	PU
orange	742-166	200



Item-Specific Accessories



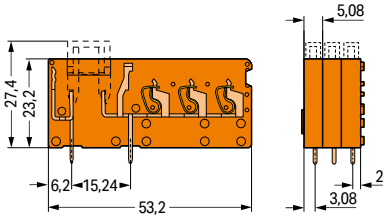
End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-650	300 (100)

Conductor entry angle to the PCB: 90° ▸ Number of connection points: 3



Color	Item No.	PU
orange	742-168	100



Item-Specific Accessories



End plate; 1.5 mm; snap-on type

Color	Item No.	PU (SPU)
orange	742-651	300 (100)

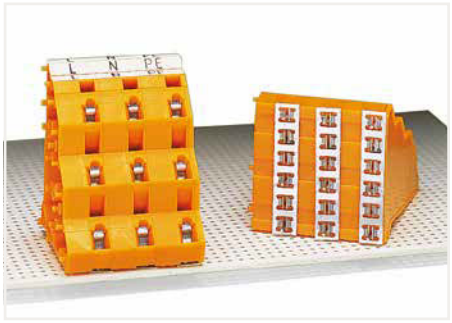
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Commoning Strips for PCB Terminal Strips 236, 255, 256, 257, 736, 737 and 738 Series



Horizontal commoning:
Connect adjacent potentials, e.g., as:
- "–" strip in connection modules for actuators with higher switching power
- Ground commoning strip for applications where the ground conductor shall not be looped over PCB tracks (max. short-time withstand current: 70 A/mm² for one second – observe the normative requirements of the end application!)

Note: Interruption of horizontal commoning reduces spacing to the adjacent solder pins.



Vertical commoning (only for 736 and 737 Series starting from 7.5 mm/0.295 inch pin spacing):
Connect the (in-line) solder pins of a PCB terminal block to one potential, e.g., as:
- 3-conductor supply and distribution PCB terminal block (up to 10 A)
- Intelligent circuit modifications without changing the track layout are also possible.

WAGO's commoning strips allow PCB terminal strips to be commoned to suit customer requirements. Due to the many combination possibilities, the commoning strips can only be fitted onto the solder pins at the factory. Please refer to the order form on pages 1.70 and 1.71.

Furthermore, these commoning strips allow terminal blocks of a same potential to be created.

Commoning strips are available for the following pin spacing:
- 5 mm, 5.08 mm (up to 20 poles)
- 7.5 mm, 7.62 mm (up to 16 poles)
- 10 mm, 10.16 mm (up to 12 poles)

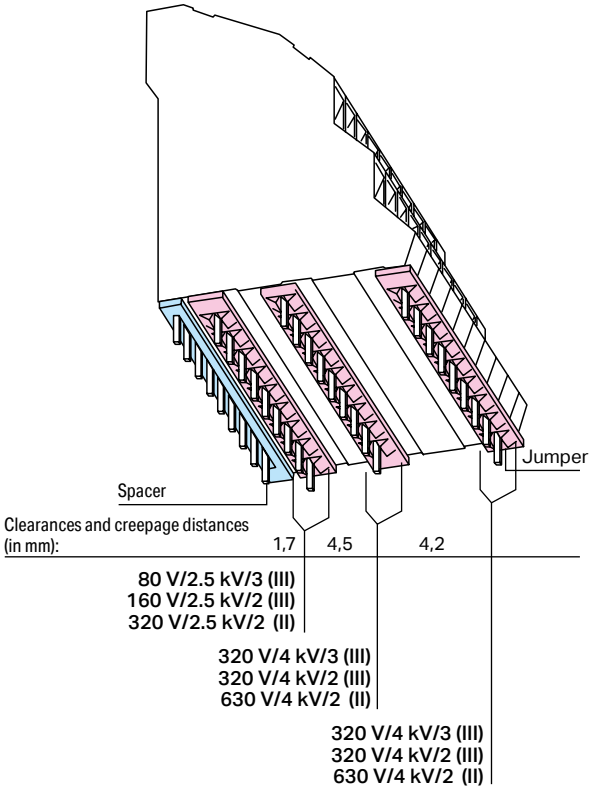
A spacer provides height compensation for the solder pins that are not commoned.

Technical Information on "Commoned PCB Terminal Strips"

Use of commoning strips must account for both the specific conditions of the planned application, as well as relevant standards for the normal operating conditions in which operational failures (can) occur.

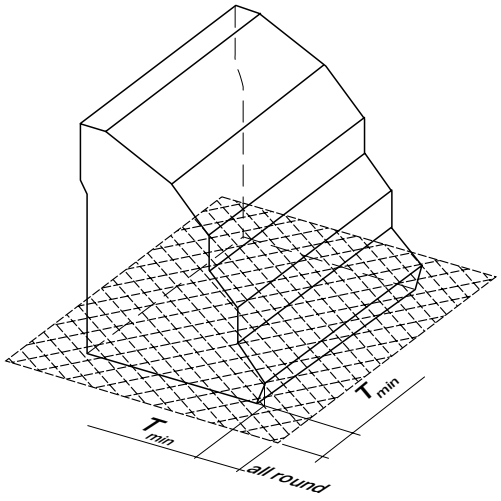
Horizontal commoning

(236, 255, 256, 257, 736, 737, 738 Series)



- Pin spacing combination is only possible with 5 mm, 5.08 mm, 10 mm and 10.16 mm.
- In-line or staggered arrangement of solder pins (736, 737, 738 Series).
- 236 Series: Versions with only one solder pin cannot be commoned.
- In case of different potentials within one level, ensure that at least one interim terminal block must remain uncommoned in order to maintain the necessary creepage distances and clearances (see also the ordering example).

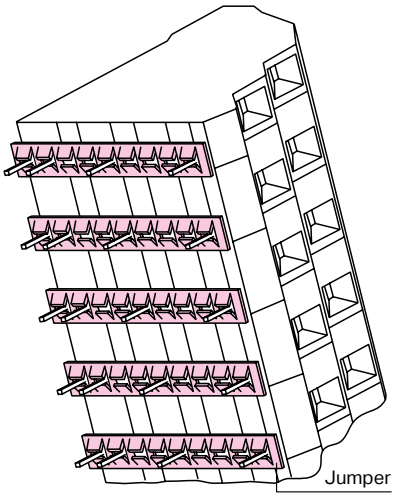
Distances to adjacent potentials

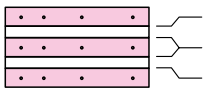


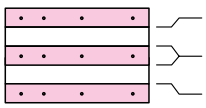
Recommendation: T_{min} = 5 mm

Please note that the distance between the commoning strips and adjacent potentials must comply with requirements for the end application as specified in the relevant standard.

Vertical commoning (only possible with 736/737 Series Multilevel PCB Terminal Blocks)



Pin spacing: 7.5 mm, 7.62 mm	Creepage distance (in mm):	Clearance (in mm):	Voltage:
	1.7 1.7	1.7 1.7	80 V/2.5 kV/3 (III) 160 V/2.5 kV/2 (III) 320 V/2.5 kV/2 (II)

Pin spacing: 10 mm, 10.16 mm	Creepage distance (in mm):	Clearance (in mm):	Voltage:
	4.2 4.2	4.2 4.2	320 V/4 kV/3 (III) 320 V/4 kV/2 (III) 630 V/4 kV/2 (II)

- Not possible with 5 mm and 5.08 mm pin spacing
- Solder pins always arranged in line

Order Form "Commoned PCB Terminal Strips"

236, 255, 256, 257, 736
737, 738 Series

Company:

Drawing No.:

WAGO Item No.:

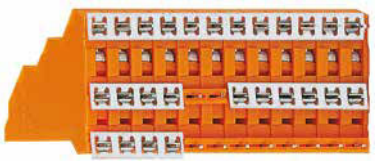
Change				
	5			
	4			
	3			
	2			
	1			
Original		Change Note	Date	Name

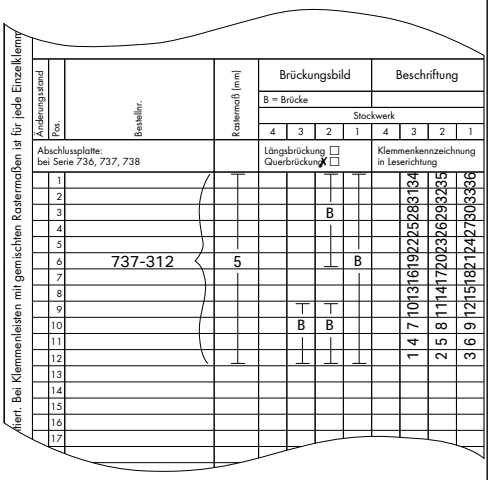
Page of

Release Note:

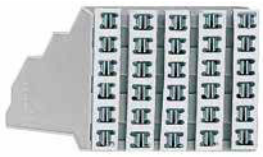
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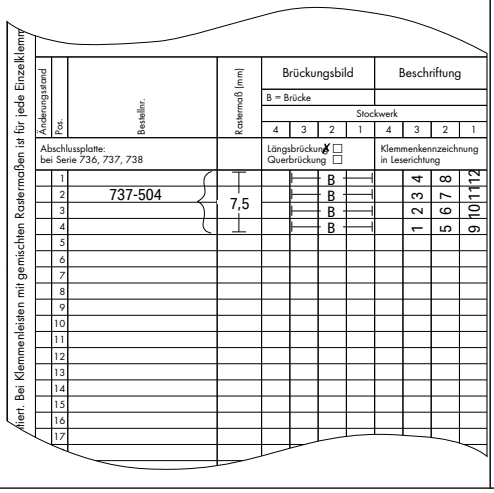
Ordering example: **Horizontal commoning**





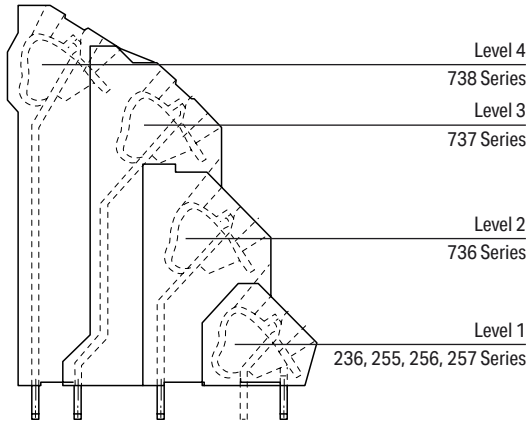
Ordering example: **Vertical commoning**





Spacers are always installed at the factory. For mixed-pin-spacing terminal strips, enter the pin spacing, not the item number of each individual terminal block.

Terminal strip design



Item Changed	Item Position	Item No.	Pin Spacing (mm)	Commoning B = Jumper Level 4	3	2	1	Marking Level 4	3	2	1
End plate: for 736, 737, 738 Series				Vertical commoning ☐ Horizontal commoning ☐				Terminal block marking in read direction			
	1										
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										
	10										
	11										
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	31										
	32										
	33										
End plate: for 236, 255, 256, 257 Series											

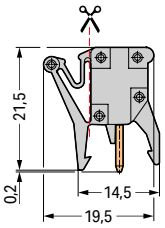
Test Plug Adapters for 255, 256 and 257 Series PCB Terminal Blocks



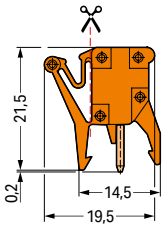


Test plug adapter; 1-pole; with socket for 2 mm and 2.3 mm Ø test plugs; modular; gray		
Pin spacing	Item No.	PU (SPU)
5 mm / 0.197 inch	249-110	100 (25)
7.5 mm / 0.295 inch	249-112	100 (25)
10 mm / 0.394 inch	249-114	100 (25)

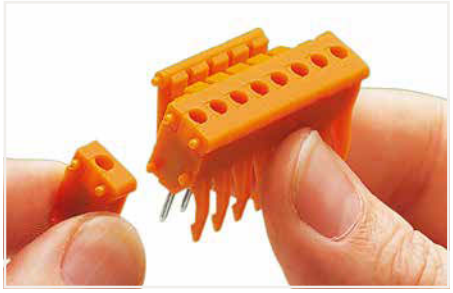
Test plug adapter; 1-pole; with socket for 2 mm and 2.3 mm Ø test plugs; modular; orange		
Pin spacing	Item No..	PU (SPU)
5.08 mm / 0.2 inch	249-111	100 (25)
7.62 mm / 0.3 inch	249-113	100 (25)
10.16 mm / 0.4 inch	249-115	100 (25)



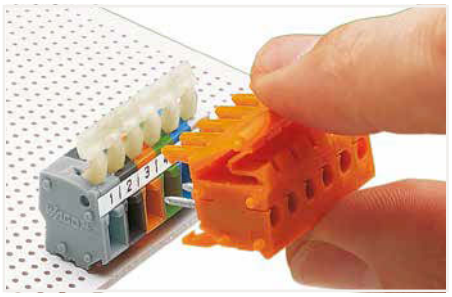
Cutting mark for separating the retaining clip and its snap-in mounting foot



Cutting mark for separating the retaining clip and its snap-in mounting foot

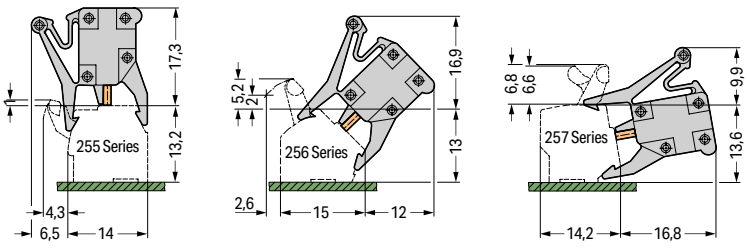


Assembling a multipole test plug adapter.



Inserting a 6-pole test plug adapter into a terminal strip.

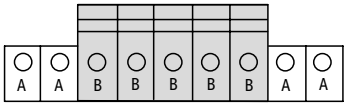
Electrical Data			
	Pin Spacing: 5/5.08 mm (0.197/0.2 inch)	Pin Spacing: 7.5/7.62 mm (0.295/0.3 inch)	Pin Spacing: 10/10.16 mm (0.394/0.4 inch)
Ratings per	IEC/EN 60664-1	IEC/EN 60664-1	IEC/EN 60664-1
Overvoltage category	III	III	III
Pollution degree	2	2	2
Rated voltage	320 V	320 V	320 V
Rated impulse voltage	4 kV	4 kV	4 kV



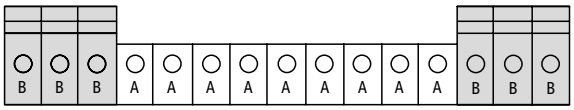


Testing a wired PCB terminal strip.

Adapters with snap-in mounting foot cut off assembled on both ends (7 to 9 poles)



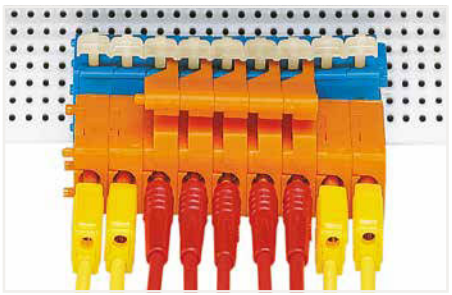
Adapters with snap-in mounting foot cut off in center position (10 to 15 poles)



For lengths longer than 7 poles, the snap-in mounting foot with retaining clip should be cut off (see example below).

Adapters A:
Snap-in mounting foot with retaining clip cut off

Adapters B:
Standard version



9-pole test plug adapter with cut-off snap-in mounting feet and retaining clips on both ends

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Comb-Style Jumper Bars for 745, 2706 and 2716 Series PCB Terminal Blocks







5 mm (0.197 inch) pin spacing; for 745 Series – 4 mm²		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-181	250 (50)
2-way	745-182	250 (50)
3-way	745-183	250 (50)
4-way	745-184	200 (50)
5-way	745-185	200 (50)
10-way	745-180	200 (50)

7.5 mm (0.295 inch) pin spacing; for 745 Series – 6 mm² and 2706 Series		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-381	250 (50)
2-way	745-382	250 (50)
3-way	745-383	250 (50)
4-way	745-384	200 (50)
5-way	745-385	200 (50)
10-way	745-380	200 (50)

10 mm (0.394 inch) pin spacing; for 745 Series – 16 mm² and 2716 Series		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-581	400 (50)
2-way	745-582	400 (50)
3-way	745-583	300 (50)
4-way	745-584	200 (50)
5-way	745-585	200 (50)

7.5 mm (0.295 inch) pin spacing; for 745 Series – 4 mm²		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-191	250 (50)
2-way	745-192	250 (50)
3-way	745-193	250 (50)
4-way	745-194	200 (50)
5-way	745-195	200 (50)
10-way	745-190	200 (50)

10 mm (0.394 inch) pin spacing; for 745 Series – 6 mm² and 2706 Series		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-391	250 (50)
2-way	745-392	250 (50)
3-way	745-393	250 (50)
4-way	745-394	200 (50)
5-way	745-395	200 (50)
10-way	745-390	200 (50)

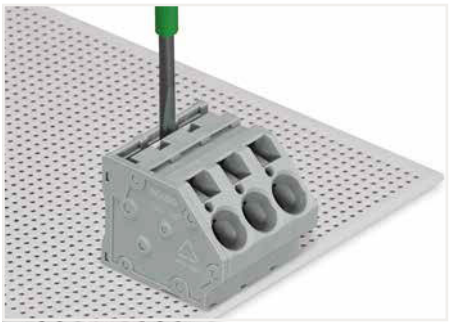
15 mm (0.591 inch) pin spacing; for 745 Series – 16 mm² and 2716 Series		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-631	200 (50)
2-way	745-632	200 (50)
3-way	745-633	200 (50)
4-way	745-634	200 (50)
5-way	745-635	200 (50)

10 mm (0.394 inch) pin spacing; for 745 Series – 4 mm²		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-281	250 (50)
2-way	745-282	250 (50)
3-way	745-283	250 (50)
4-way	745-284	200 (50)
5-way	745-285	200 (50)
10-way	745-280	150 (50)

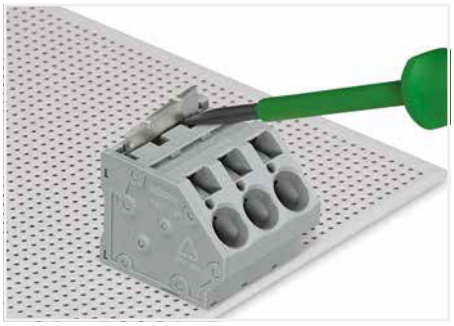
20 mm (0.787 inch) pin spacing; for 745 Series – 16 mm² and 2716 Series		
Jumper Type	Item No.	PU (SPU)
1 to 3	745-681	300 (50)
2-way	745-682	400 (50)
3-way	745-683	200 (50)
4-way	745-684	200 (50)
5-way	745-685	200 (50)



Inserting a comb-style jumper bar.



Push jumper bar down firmly using a screwdriver until it hits the backstop – 745 Series.

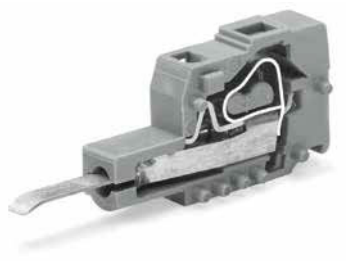


To remove the jumper bar, lift it up using a screwdriver – 745 Series.

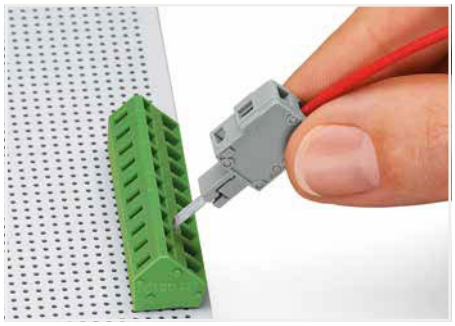
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Test Plug Modules; A-Type Contact; for 236, 736, 737 and 738 Series PCB Terminal Blocks
(Testing unwired terminal blocks)

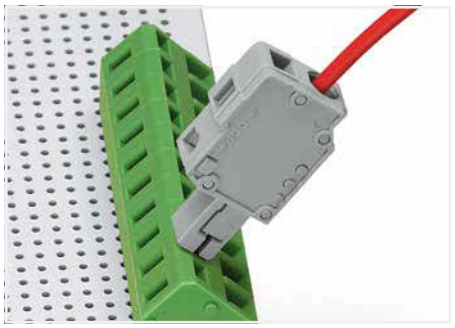
1







Inserting a test plug module into the operating slot.



Unwired terminal strip with inserted test plug module



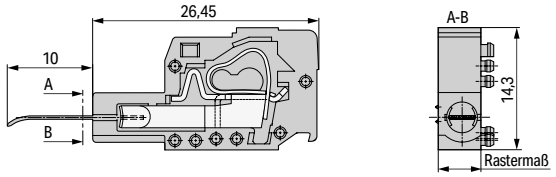
Contact type A:
Testing only when unwired.

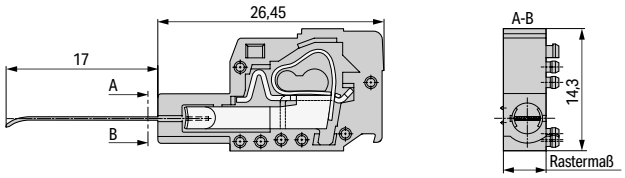
Test plug module; with 10 mm contact lug; for 236 Series; snaps together; gray		
Pin spacing	Item No.	PU (SPU)
5 mm / 0.197 inch	231-127	100
7.5 mm / 0.295 inch	231-161	100

Test plug module; with 10 mm contact lug; for 236 Series; snaps together; orange		
Pin spacing	Item No.	PU (SPU)
5.08 mm / 0.2 inch	231-128	100
7.62 mm / 0.3 inch	231-125	100

Test plug module; with 17 mm contact lug; for 280, 736, 737, 738 and 780 Series; snaps together; gray		
Pin spacing	Item No.	PU (SPU)
5 mm / 0.197 inch	231-126	100

Test plug module; with 17 mm contact lug; for 280, 736, 737, 738 and 780 Series; snaps together; orange		
Pin spacing	Item No.	PU (SPU)
5.08 mm / 0.2 inch	231-426	100





Electrical Data		
Ratings per	IEC/EN 60664-1	
Overvoltage category	III	
Pollution degree	2	
Rated voltage (III/2)	250 V*	
Rated surge voltage (III / 2)	2.5 kV	
Rated current	0.5 A	

End plate	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG

*(III / 2) ≙ Overvoltage category III / Pollution degree 2

Accessories; for all products on this page





End plate		
Color	Item No.	PU (SPU)
gray	231-100	200

End plate		
Color	Item No.	PU (SPU)
orange	231-300	200

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

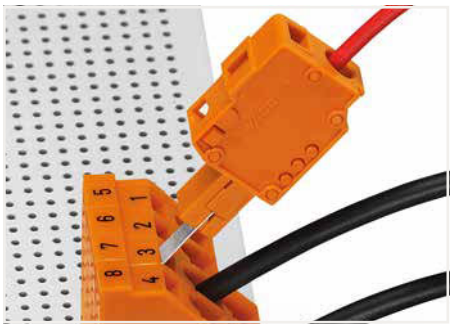
Test Plug Modules; B-Type Contact, for 736, 737 and 738 Series PCB Terminal Blocks
(Testing wired terminal blocks with 0.75 …1.5 mm² "f-st" or 0.5 mm² "sol." conductors)







Inserting a test plug module into the operating slot.



Wired terminal strip with inserted test plug module

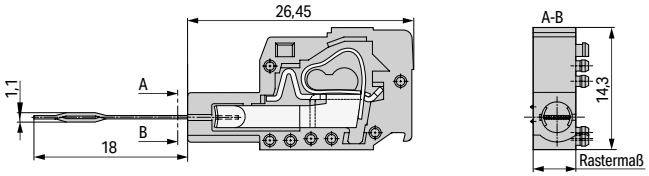


Contact type B:
Testing only when wired –
0.75 … 1.5 mm² "f-st" or 0.5 mm² "sol."

Test plug module, with 18 mm contact lug, for 280, 736, 737, 738 and 780 Series, snaps together, gray		
Pin spacing	Item No.	PU (SPU)
5 mm / 0.197 inch	231-155	100

Test plug module, with 18 mm contact lug, for 736, 737 and 738 Series, snaps together, orange		
Pin spacing	Item No.	PU (SPU)
5.08 mm / 0.2 inch	231-455	100

Prüfsteckermodul; mit Kontaktzunge 18 mm; für Serien 736 und 737; anreihbar; grau		
Pin spacing	Item No.	PU (SPU)
7.5 mm / 0.295 inch	231-456	100



Electrical Data		
Ratings per	IEC/EN 60664-1	
Overvoltage category	III	
Pollution degree	2	
Rated voltage (III/2)	250 V*	
Rated surge voltage (III / 2)	2.5 kV	
Rated current	0.5 A	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG

*(III / 2) ≙ Overvoltage category III / Pollution degree 2

Accessories; for all products on this page

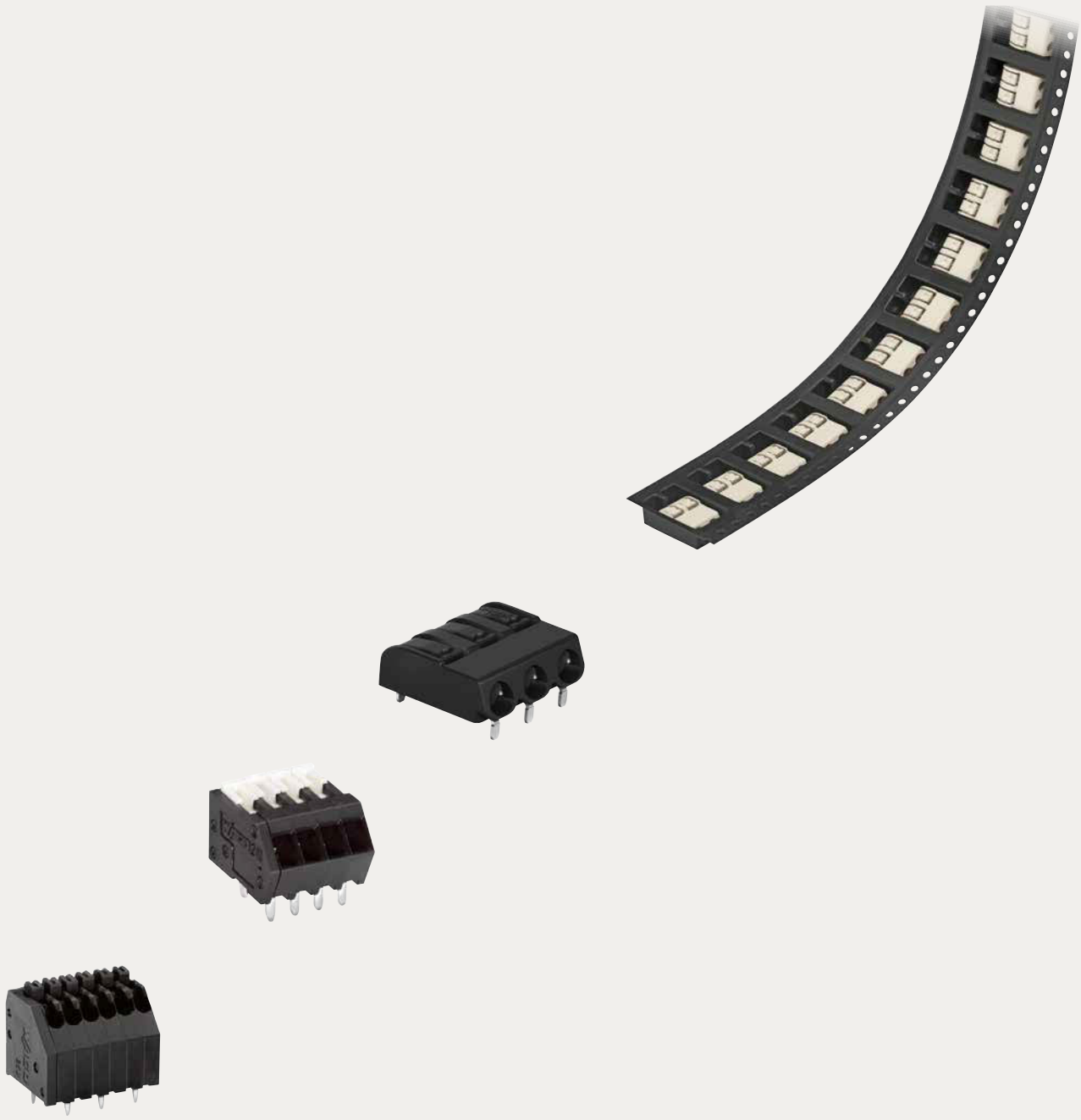


End plate		
Color	Item No.	PU (SPU)
gray	231-100	200



End plate		
Color	Item No.	PU (SPU)
orange	231-300	200

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm



WAGO THR PCB Terminal Blocks

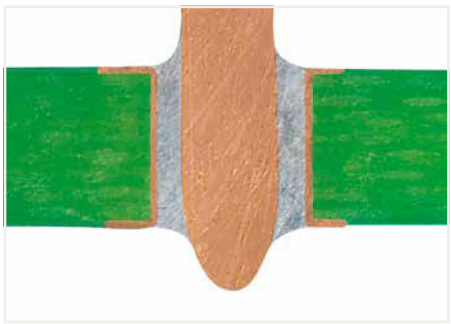
WAGO THR PCB Terminal Blocks

		Nominal Cross-Section	Series	Page
	THR PCB Terminal Blocks ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	0.75 mm² 1.5 mm²	2060 2061	260 266
	THR PCB Terminal Blocks ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	1.5; 2.5 mm²	250	276
	THR PCB Terminal Blocks ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	1.5 mm²	805	280
	THR PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	2.5 mm²	236	282
	THR PCB Terminal Blocks ▸ Actuation type: Confirmation slide switch ▸ CAGE CLAMP®	2.5 mm²	218	284
	Accessories for THR PCB Terminal Blocks			288
	Accessories and Tools			829

THR (Through-Hole Reflow) Soldering Process

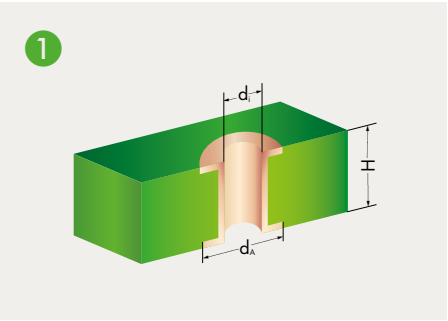


By using high-temperature-resistant plastic and a streamlined pin design, WAGO's THR male headers and PCB terminal blocks meet requirements for SMT process capability while maintaining the necessary stability. Both headers and terminal blocks are simply pushed into the solder paste-filled PCB holes and then soldered along with the SMT components via reflow soldering. The previous wave soldering process is no longer necessary. The result is a perfect connection – both mechanically and electrically.



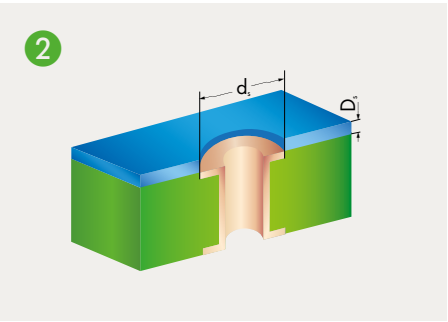


Terminal strips with an additional suction pad in tape-and-reel packaging per IEC 60286-3
WAGO recommends both a temperature profile that adheres to EN 61760-1 and the use of forced convection ovens for processing THR components.



Metal-plated PCB bore hole

Series	d_i (mm)	d_A (mm)	H (mm)	d_s (mm)	D_s (µm)	d (mm)	L (mm)
218	$1.1^{+0.1}$	1.9	< 2	1.8	150	0.9	2.8
231 (1 x 1 mm)	$1.4^{+0.1}$	2.5	< 2	2.4	150	1.2	2.4
231 (1.2 x 1.2 mm)	$1.7^{+0.1}$	2.8	< 2	2.7	150	1.5	2.4
236	$1.1^{+0.1}$	2.2	< 2	2.1	150	0.9	3.6
250	$1.1^{+0.1}$	2.0	< 2	1.9	150	0.9	3.6
713	$1.2^{+0.1}$	1.9	< 2	1.8	150	1.0	2.4
733	$1.2^{+0.1}$	1.9	< 2	1.8	150	1.0	2.4
734	$1.4^{+0.1}$	2.5	< 2	2.4	150	1.2	2.4
2060 THR	$1.5^{+0.1}$	2.4	< 2	2.3	150	1.25	2.4
2061 THR	$1.5^{+0.1}$	2.4	< 2	2.3	150	1.25	1.5 / 2.4

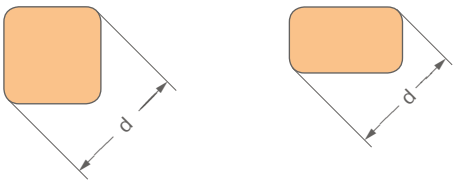


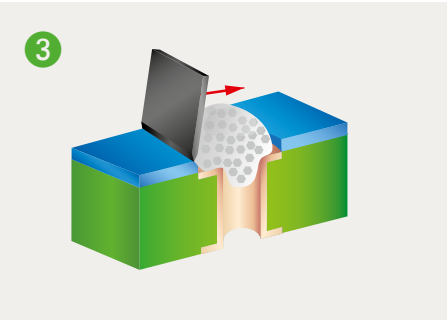
SMD positioning pattern

d_i: Plated through-hole diameter
d_A: Outer diameter of metal-plated PCB hole*
H: PCB thickness
d_s: Pattern hole diameter
D_s: Pattern thickness
d: Pin diagonal
L: Pin length

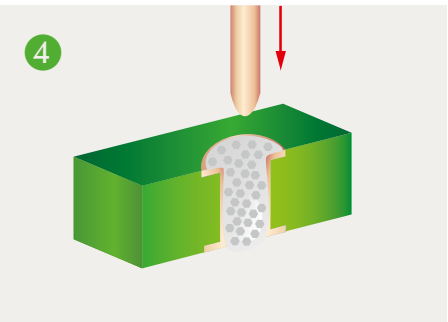
* When laying out the metal-plated bore holes, the clearance and creepage distance requirements – as specified in the equipment standards – must be considered.

Solder pin form

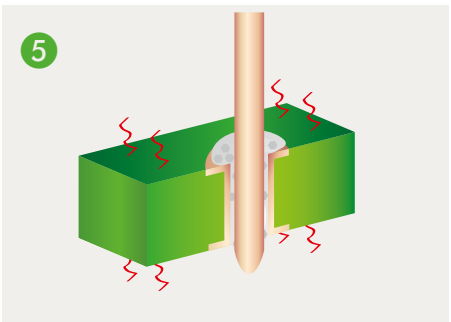




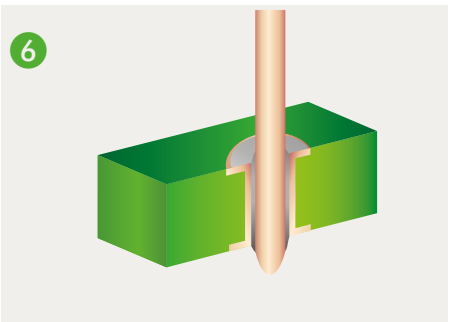
Solder paste application



Component assembly, automatic/by hand



Reflow soldering process



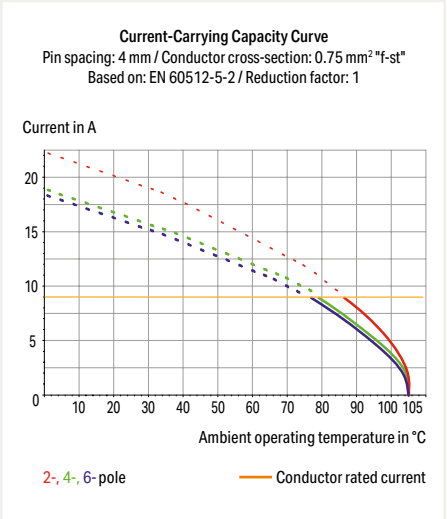
THR soldering joint

THR PCB Terminal Block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Pin spacing: 4 mm (0.157 inch) ▸ Solder pin length: 2.4 mm



- THR PCB terminal blocks with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering



Electrical Data			
Pin spacing	**4 mm (0.157 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	9 A	9 A	9 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	9 A		

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.34 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 0.75 mm
Plated through-hole diameter (THR)	1.5 (+ 0.1) mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application note:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for stencil:
150 µm material thickness The stencil hole diameter is identical to the outer diameter of the metal-plated PCB hole.

THR-soldering process	Page 258
Ferrule	Page 847
Tools	Page 289
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

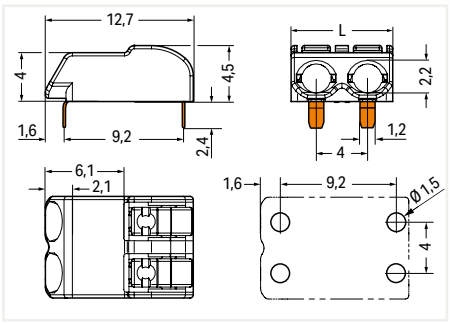
THR PCB Terminal Block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Pin spacing: 4 mm (0.157 inch) ▸ Solder pin length: 2.4 mm

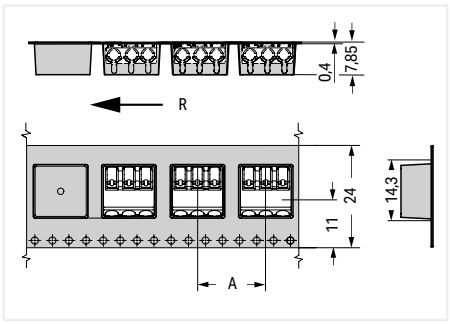
Color: white



Pole No.	Item No.	PU (SPU)
1	2060-1451/998-404	10800 (1200)



L = (pole no. x pin spacing) – 0.1 mm

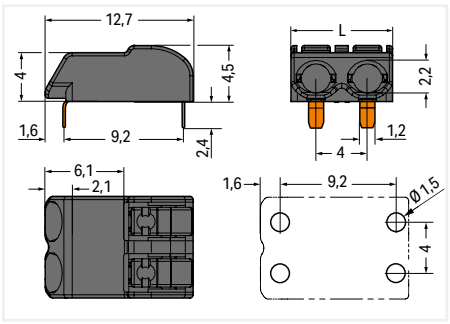


R = Feed direction
A = (pole no. x pin spacing) + 4 mm

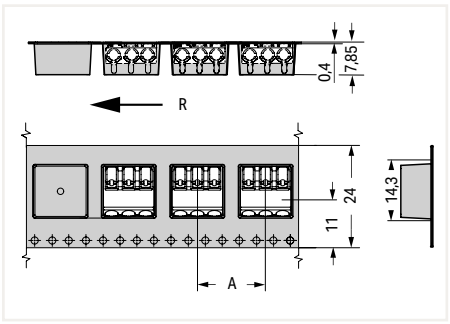
Color: black



Pole No.	Item No.	PU (SPU)
1	2060-1471/998-404	10800 (1200)



L = (pole no. x pin spacing) – 0.1 mm



R = Feed direction
A = (pole no. x pin spacing) + 4 mm



Insert solid conductors via push-in termination.



Insert/remove fine-stranded conductors by lightly pressing on push-button (e.g., via 206-860 Operating Tool).

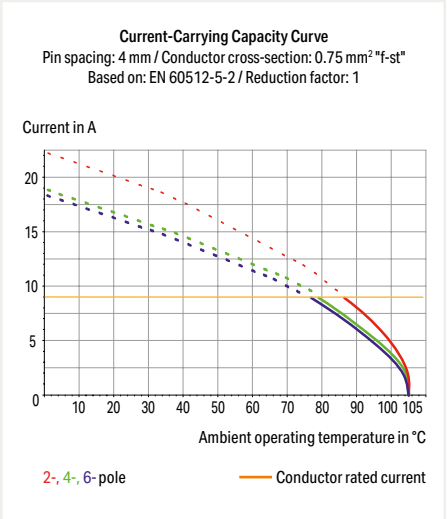
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

THR PCB Terminal Block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Pin spacing: 4 mm (0.157 inch) ▸ Solder pin length: 2.4 mm



- THR PCB terminal blocks with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering



Electrical Data			
Pin spacing	**4 mm (0.157 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	9 A	9 A	9 A
Approvals per	UL 1977		
Rated voltage	320 V		
Rated current	9 A		

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.34 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 0.75 mm
Plated through-hole diameter (THR)	1.5 (+ 0.1) mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application note:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for stencil:
150 µm material thickness The stencil hole diameter is identical to the outer diameter of the metal-plated PCB hole.

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Tools	Page 289
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

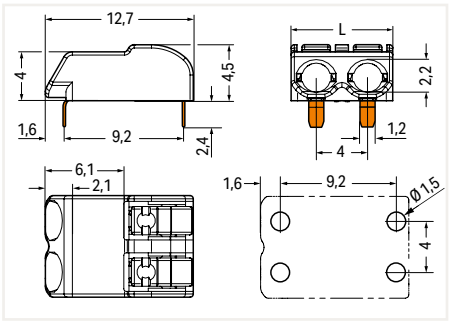
THR PCB Terminal Block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Pin spacing: 4 mm (0.157 inch) ▸ Solder pin length: 2.4 mm

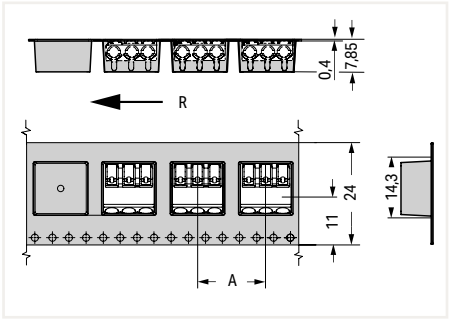
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Pole No.	Item No.	PU (SPU)
2	2060-1452/998-404	6750 (750)
3	2060-1453/998-404	4950 (550)



L = (pole no. x pin spacing) – 0.1 mm

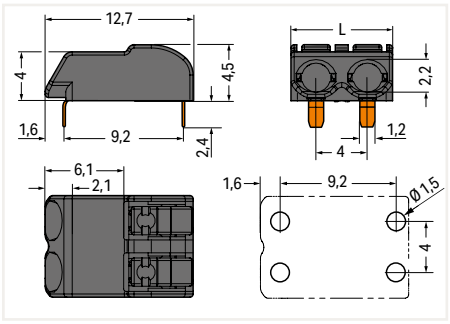


R = Feed direction
A = (pole no. x pin spacing) + 4 mm

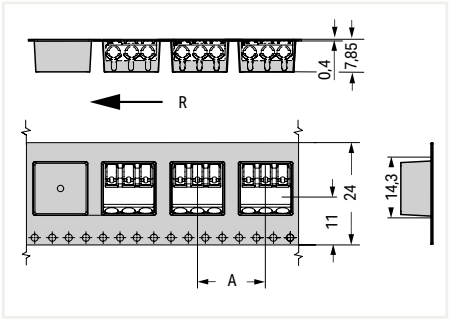
Color: black



Pole No.	Item No.	PU (SPU)
2	2060-1472/998-404	6750 (750)
3	2060-1473/998-404	4950 (550)



L = (pole no. x pin spacing) – 0.1 mm



R = Feed direction
A = (pole no. x pin spacing) + 4 mm



Insert solid conductors via push-in termination.



Insert/remove fine-stranded conductors by lightly pressing on push-button (e.g., via 206-860 Operating Tool).

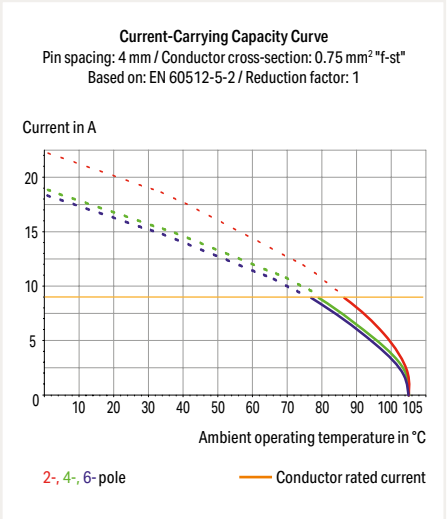
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

THR PCB Terminal Block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Pin spacing: 8 mm (0.314 inch) ▸ Solder pin length: 2.4 mm



- THR PCB terminal blocks with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering



Electrical Data

Pin spacing	8 mm (0.314 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	400 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	9 A	9 A	9 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.34 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 0.34 mm²

Material Data

Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 0.75 mm
Plated through-hole diameter (THR)	1.5 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

Application note:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.
Recommendation for stencil:
150 µm material thickness The stencil hole diameter is identical to the outer diameter of the metal-plated PCB hole.

Recommendation for stencil:
150 µm material thickness The stencil hole diameter is identical to the outer diameter of the metal-plated PCB hole.

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Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

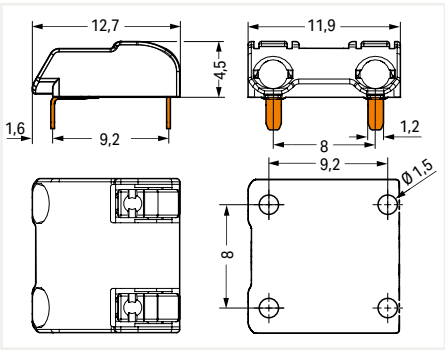
THR PCB Terminal Block ▸ 2060 Series

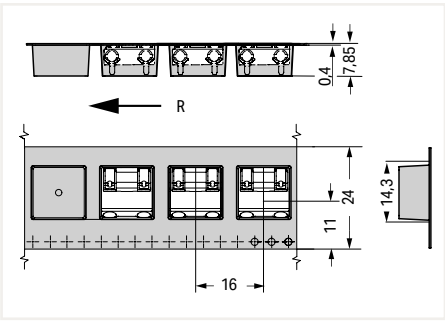
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm² ▸ Pin spacing: 8 mm (0.314 inch) ▸ Solder pin length: 2.4 mm

Color: white



Pole No.	Item No.	PU (SPU)
2	2060-1852/998-404	4950 (550)



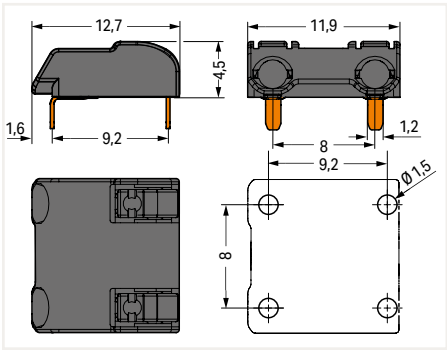


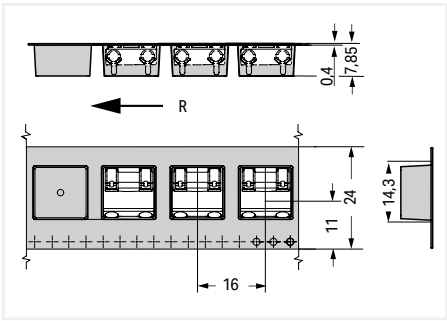
R = Feed direction

Color: black



Pole No.	Item No.	PU (SPU)
2	2060-1872/998-404	4950 (550)





R = Feed direction



Insert solid conductors via push-in termination.



Insert/remove fine-stranded conductors by lightly pressing on push-button (e.g., via 206-860 Operating Tool).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

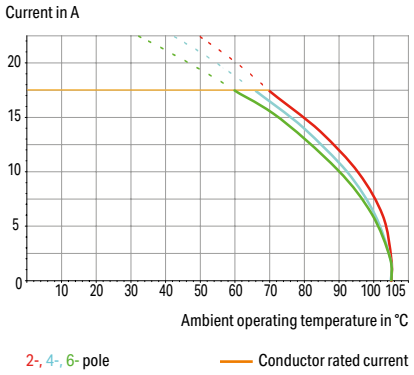
THR PCB Terminal Block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm (0.24 inch) ▸ Solder pin length: 1.5 mm



- THR PCB terminal blocks with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Push-buttons simplify insertion/removal of all conductor types
- Just 5.6 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering
- Assemble terminal blocks without pole loss

Current-Carrying Capacity Curve
Pin spacing: 6 mm / Conductor cross-section: 1.5 mm² "e"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	**6 mm (0.24 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	600 V	-	600 V
Rated current	10 A	-	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 10 mm / 0.28 … 0.39 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 0.75 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 0.75 mm²

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	1.5 mm
Solder pin dimensions	1.2 x 0.35 mm
Plated through-hole diameter (THR)	1.5 (+ 0.1) mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application note:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for stencil:
150 µm material thickness The stencil hole diameter is identical to the outer diameter of the metal-plated PCB hole.

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Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

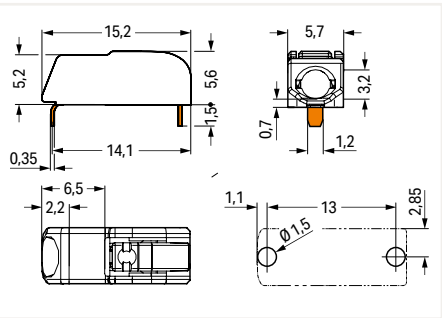
THR PCB Terminal Block ▸ 2061 Series

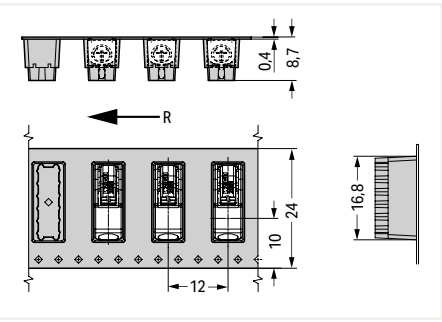
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm (0.24 inch) ▸ Solder pin length: 1.5 mm

Color: white



Pole No.	Item No.	PU (SPU)
1	2061-1641/998-404	5760 (640)

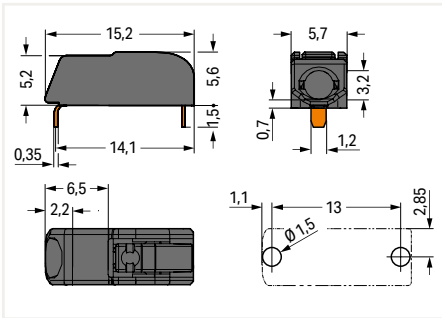


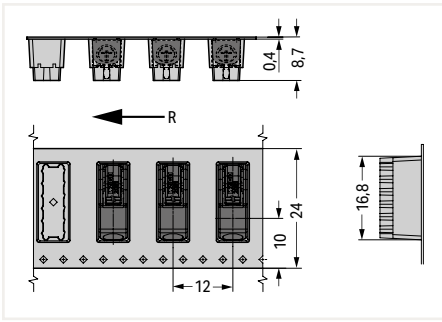


Color: black



Pole No.	Item No.	PU (SPU)
1	2061-1661/998-404	5760 (640)





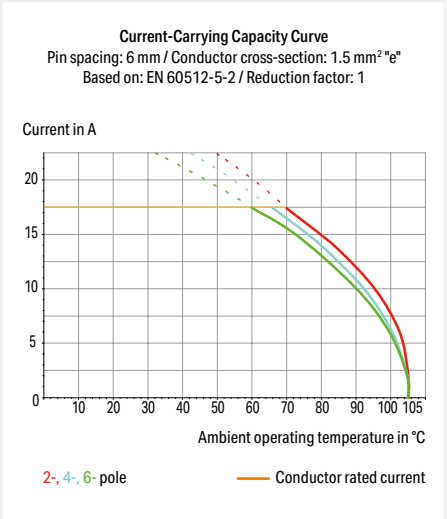
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

THR PCB Terminal Block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm (0.24 inch) ▸ Solder pin length: 1.5 mm



- THR PCB terminal blocks with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Push-buttons simplify insertion/removal of all conductor types
- Just 5.6 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering
- Assemble terminal blocks without pole loss



Electrical Data			
Pin spacing	**6 mm (0.24 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 10 mm / 0.28 … 0.39 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 0.75 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 0.75 mm²

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	1.5 mm
Solder pin dimensions	1.2 x 0.35 mm
Plated through-hole diameter (THR)	1.5 (+ 0.1) mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application note:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for stencil:
150 µm material thickness The stencil hole diameter is identical to the outer diameter of the metal-plated PCB hole.

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Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

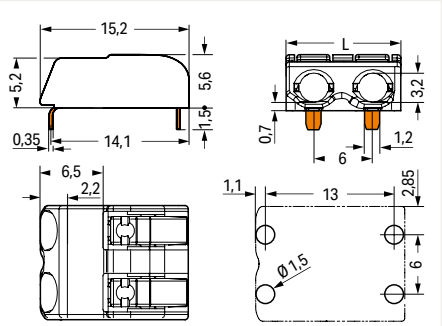
THR PCB Terminal Block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm (0.24 inch) ▸ Solder pin length: 1.5 mm

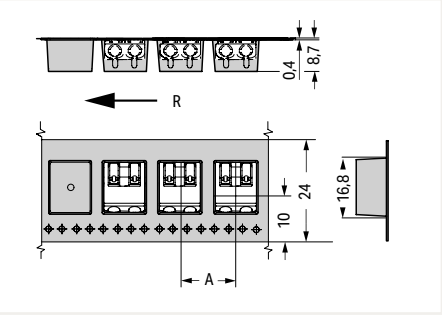
Color: white



Pole No.	Item No.	PU (SPU)
2	2061-1642/998-404	4320 (480)
3	2061-1643/998-404	2880 (320)



L = (pole no. x pin spacing) – 0.3 mm

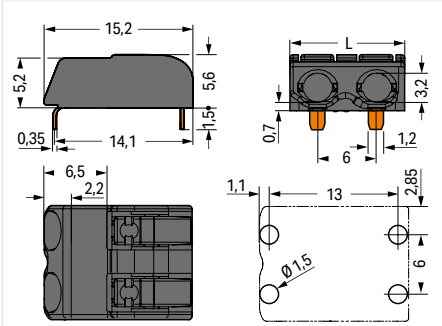


R = Feed direction
A = 12 mm (1-pole)
A = 16 mm (2-pole)
A = 22 mm (3-pole)

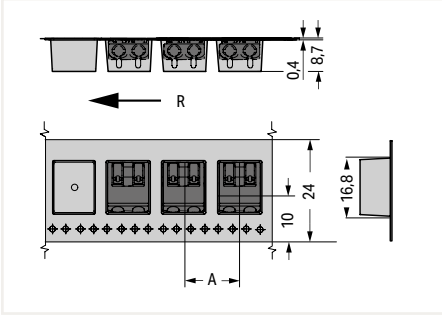
Color: black



Pole No.	Item No.	PU (SPU)
2	2061-1662/998-404	4320 (480)
3	2061-1663/998-404	2880 (320)



L = (pole no. x pin spacing) – 0.3 mm



R = Feed direction
A = 12 mm (1-pole)
A = 16 mm (2-pole)
A = 22 mm (3-pole)

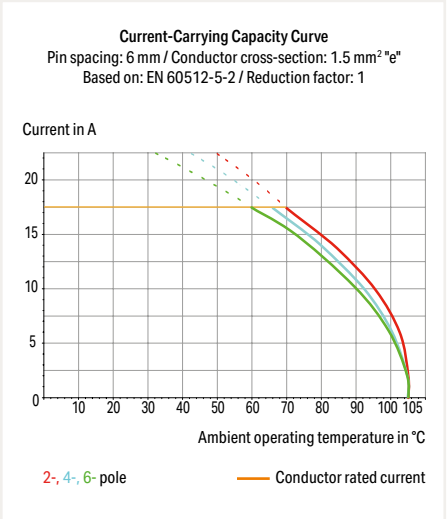
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

THR PCB Terminal Block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm (0.24 inch) ▸ Solder pin length: 2.4 mm



- THR PCB terminal blocks with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Push-buttons simplify insertion/removal of all conductor types
- Just 5.6 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering
- Assemble terminal blocks without pole loss



Electrical Data			
Pin spacing	**6 mm (0.24 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	600 V	-	600 V
Rated current	10 A	-	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 10 mm / 0.28 … 0.39 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 0.75 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 0.75 mm²

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	within the terminal block, in line
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 0.35 mm
Plated through-hole diameter (THR)	1.5 (+ 0.1) mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application note:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for stencil:
150 µm material thickness The stencil hole diameter is identical to the outer diameter of the metal-plated PCB hole.

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Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

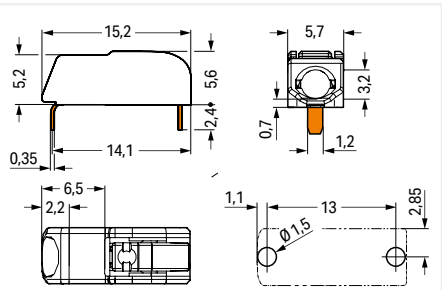
THR PCB Terminal Block ▸ 2061 Series

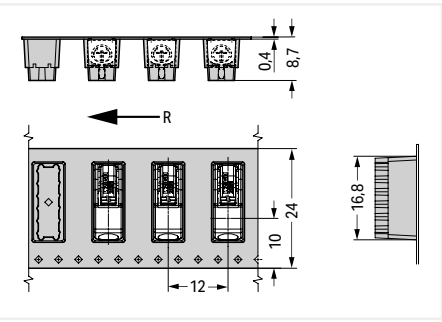
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm (0.24 inch) ▸ Solder pin length: 2.4 mm

Color: white



Pole No.	Item No.	PU (SPU)
1	2061-1601/998-404	5760 (640)

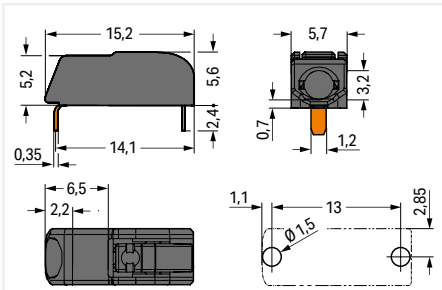


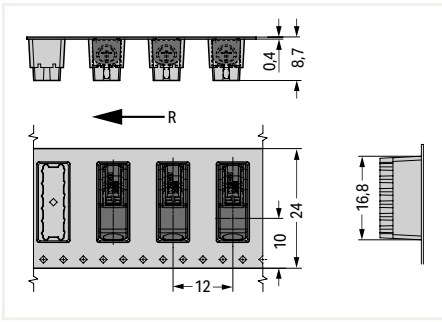


Color: black



Pole No.	Item No.	PU (SPU)
1	2061-1621/998-404	5760 (640)





PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

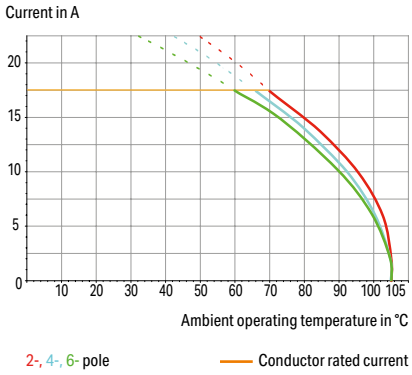
THR PCB Terminal Block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm (0.24 inch) ▸ Solder pin length: 2.4 mm



- THR PCB terminal blocks with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Push-buttons simplify insertion/removal of all conductor types
- Just 5.6 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering
- Assemble terminal blocks without pole loss

Current-Carrying Capacity Curve
Pin spacing: 6 mm / Conductor cross-section: 1.5 mm² "e"
Based on: EN 60512-5-2 / Reduction factor: 1



Electrical Data			
Pin spacing	**6 mm (0.24 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 10 mm / 0.28 … 0.39 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 0.75 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 0.75 mm²

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 0.35 mm
Plated through-hole diameter (THR)	1.5 (+ 0.1) mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application note:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for stencil:
150 µm material thickness The stencil hole diameter is identical to the outer diameter of the metal-plated PCB hole.

THR-soldering process	Page 258
Ferrule	Page 847
Tools	Page 289
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

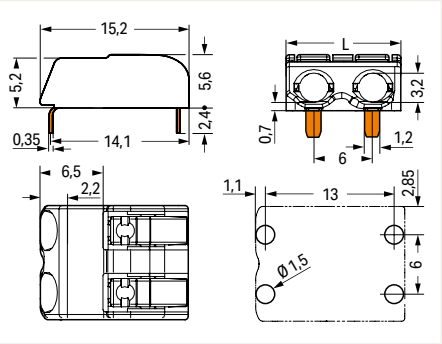
THR PCB Terminal Block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 1.5 mm² ▸ Pin spacing: 6 mm (0.24 inch) ▸ Solder pin length: 2.4 mm

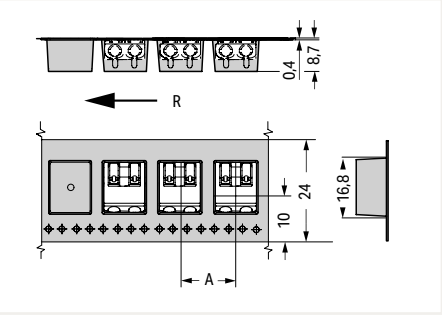
Color: white



Pole No.	Item No.	PU (SPU)
2	2061-1602/998-404	4320 (480)
3	2061-1603/998-404	2880 (320)



L = (pole no. x pin spacing) – 0.3 mm

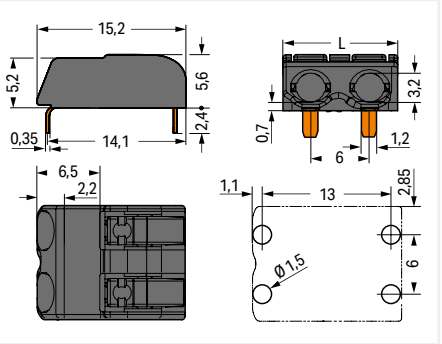


R = Feed direction
A = 12 mm (1-pole)
A = 16 mm (2-pole)
A = 22 mm (3-pole)

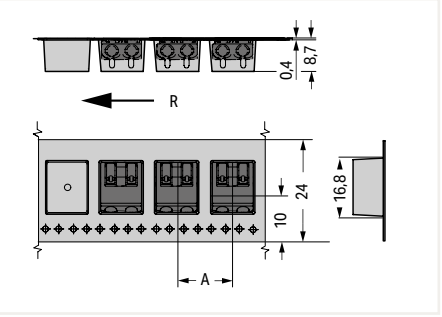
Color: black



Pole No.	Item No.	PU (SPU)
2	2061-1622/998-404	4320 (480)
3	2061-1623/998-404	2880 (320)



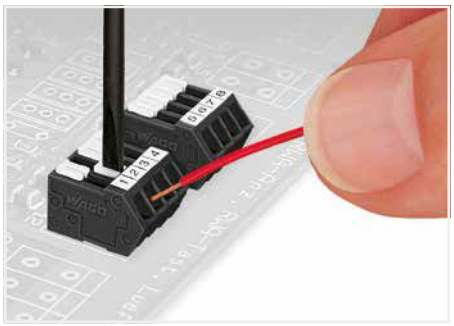
L = (pole no. x pin spacing) – 0.3 mm



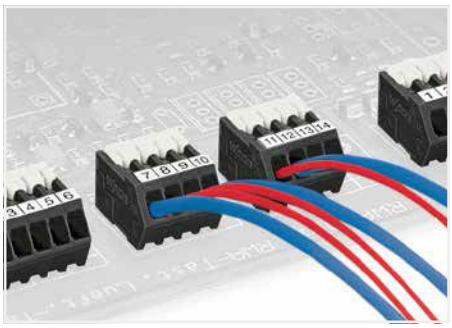
R = Feed direction
A = 12 mm (1-pole)
A = 16 mm (2-pole)
A = 22 mm (3-pole)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

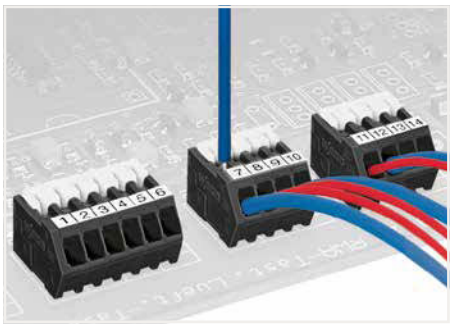
218 Series
Description and Installation



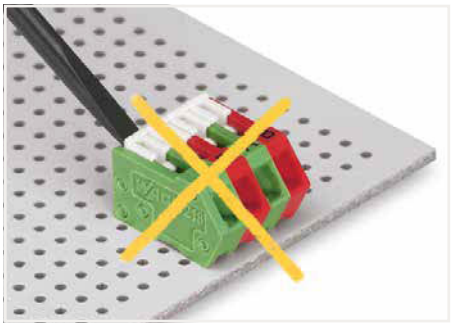
Terminating stranded conductors in confined spaces requires a great deal of patience, unless you use the new 218 Series PCB Terminal Strips. The clamping units of these strips can be held open during termination process via integrated locking slide.



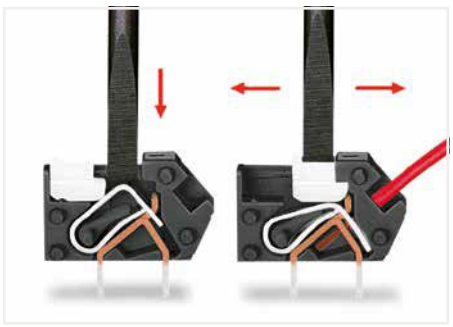
Terminating 0.75 mm² (18 AWG) conductors is possible; however, insulation diameter allows only every other clamping unit to be terminated with this conductor size.



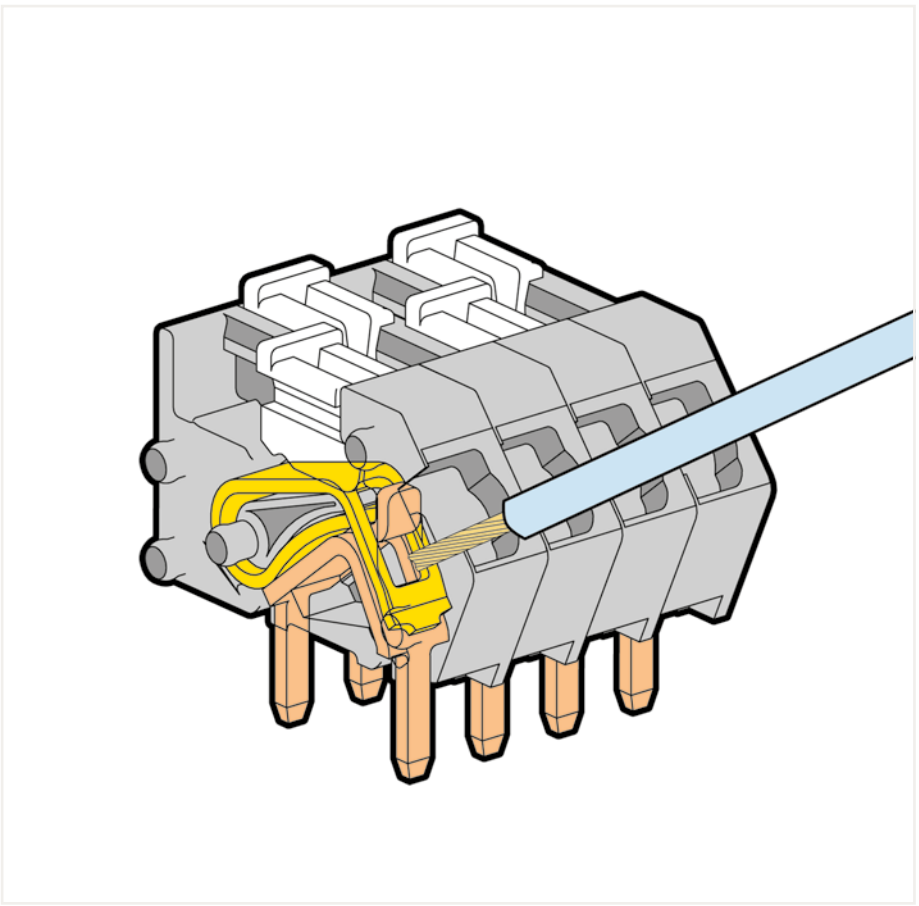
Testing directly on the clamping spring.



Incorrect – do not operate the locking slides from the back.



Conductor termination: To momentarily open the clamping unit, use screwdriver and then insert a stripped conductor. To open clamping unit for an extended period, move locking slide toward conductor entry hole. Then fully insert stripped conductor and move locking slide back to original position (also possible to perform with fingernail).

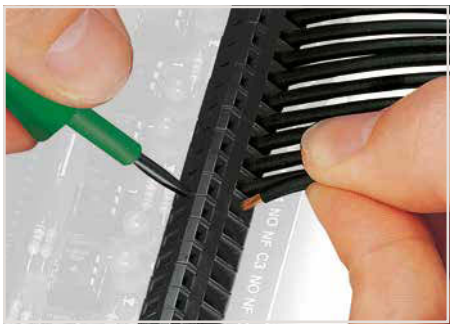


218 Series

236 and 250 Series
Description and Installation



Inserting a conductor via 3.5 mm screwdriver.
Screwdriver actuation parallel to conductor entry.



Inserting a conductor via 3.5 mm screwdriver.
Screwdriver actuation perpendicular to conductor entry.



Inserting a conductor via operating tool.



Inserting solid conductors via push-in termination.
Inserting fine-stranded conductors via push-buttons,
250 Series – 3.5 mm pin spacing.



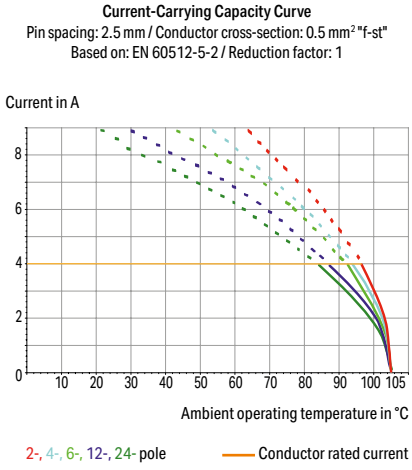
Testing with 11 mm Ø test pin, on the conductor,
250 Series – 2.5 … 3.5 mm pin spacing.

THR PCB Terminal Block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ Terminal strip ▸ 0.5 mm² ▸ Pin spacing: 2.5 mm (0.098 inch) ▸ Color: black



- Cost-effective integration of high-temperature resistant THR terminal strips into SMT reflow soldering processes
- Push-in termination of solid and ferruled conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring



Electrical Data			
Pin spacing	**2.5 mm (0.098 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	250 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	4 A	4 A	4 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	5 A	-	5 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	5 A	-	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.14 … 0.5 mm² / 24 … 20 AWG
Fine-stranded conductor	0.2 … 0.5 mm² / 24 … 20 AWG
Conductor diameter	0.4 … 0.8 mm / 24 … 20 AWG

Material Data	
Material group	III a
Insulating material	Polyamide 46 (PA 46)
Flammability class per UL94	V2
Clamping spring material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	2.4 mm
Solder pin dimensions	0.4 x 0.75 mm
Plated through-hole diameter (THR)	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +115 °C

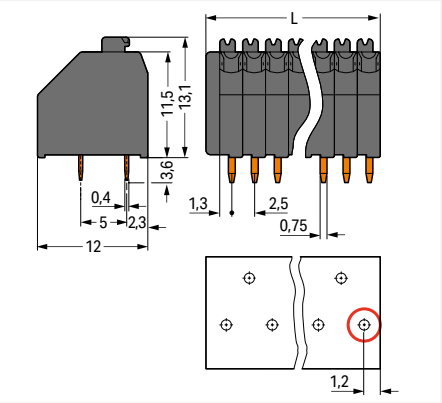
THR-soldering process	Page 258
Marking	Page 832
Testing and measuring	Page 854
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Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

THR PCB Terminal Block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ Terminal strip ▸ 0.5 mm² ▸ Pin spacing: 2.5 mm (0.098 inch) ▸ Color: black



Pole No.	Item No.	PU (SPU)
2	250-402/350-604	720 (180)
3	250-403/350-604	520 (130)
4	250-404/350-604	400 (100)
5	250-405/350-604	340 (85)
6	250-406/350-604	280 (70)
7	250-407/350-604	240 (60)
8	250-408/350-604	220 (55)



L = (pole no. x pin spacing) + 1.5 mm
First solder pin, front right (red circle)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

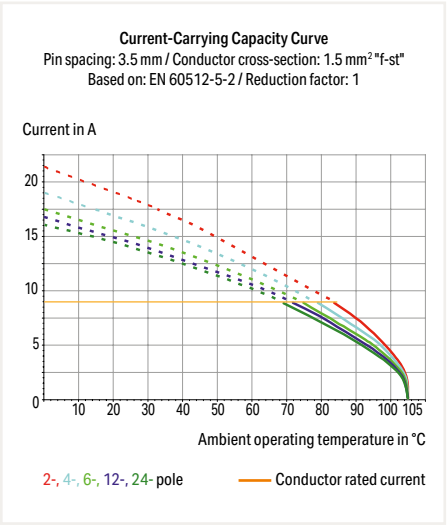
- Other pole numbers
- Direct marking

THR PCB Terminal Block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: black



- Cost-effective integration of high-temperature resistant THR terminal strips into SMT reflow soldering processes
- Versions with suction pads are available in tape-and-reel packaging for automated assembly
- Push-in termination of solid and ferruled conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring



Electrical Data			
Pin spacing	3.5 mm (0.138 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	320 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	8 A	8 A	8 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	5 A	-	5 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8.5 … 9.5 mm / 0.33 … 0.37 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1 mm²

Material Data	
Material group	III a
Insulating material	Polyamide 46 (PA 46)
Flammability class per UL94	V2
Clamping spring material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	2.4 mm
Solder pin dimensions	0.4 x 0.75 mm
Plated through-hole diameter (THR)	1 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +115 °C

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Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

THR PCB Terminal Block ▸ 250 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ Terminal strip ▸ 1.5 mm² ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Color: black

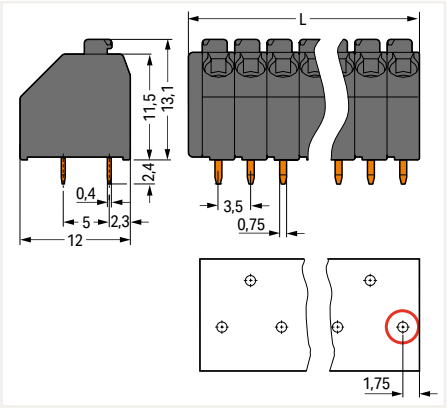
Suitable for automated assembly



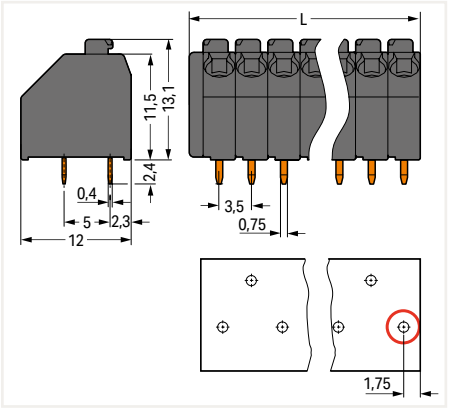


Pole No.	Item No.	PU (SPU)
2	250-202/353-604	560 (140)
3	250-203/353-604	400 (100)
4	250-204/353-604	300 (75)
5	250-205/353-604	240 (60)
6	250-206/353-604	200 (50)
7	250-207/353-604	180 (45)
8	250-208/353-604	160 (40)

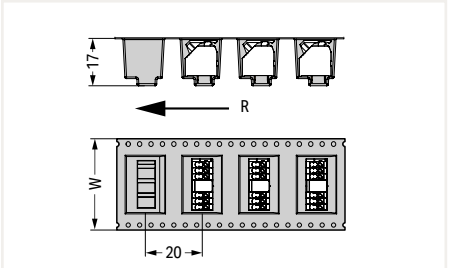
Pole No.	Tape width	Item No.	PU
2	24 mm	250-202/353-604/997-404	160
3	24 mm	250-203/353-604/997-404	160
4	32 mm	250-204/353-604/997-405	160
5	32 mm	250-205/353-604/997-405	160
6	44 mm	250-206/353-604/997-406	160
7	44 mm	250-207/353-604/997-406	160
8	44 mm	250-208/353-604/997-406	160



L = (pole no. x pin spacing) + 1.5 mm
First solder pin, front right (red circle)



L = (pole no. x pin spacing) + 1.5 mm
First solder pin, front right (red circle)



W= Tape width
R = Feed direction

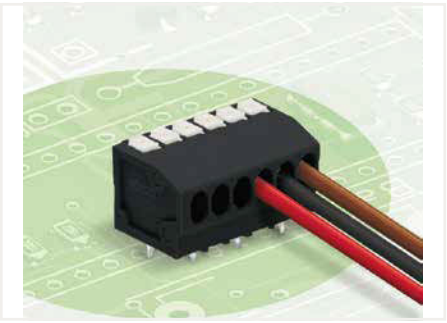
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

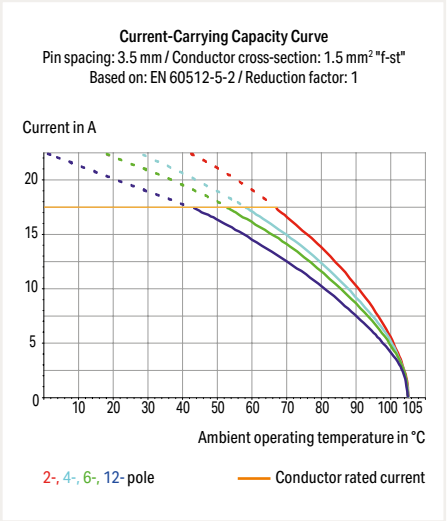
- Other pole numbers
- Direct marking

THR PCB Terminal Block ▸ 805 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ Terminal strip ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ 1.5 mm² ▸ Color: black



- THR PCB terminal strips with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled, fine-stranded conductors
- Flush-mount push-buttons that close with minimal force for convenient termination/removal of fine-stranded conductors
- Convenient, tool-free operation



Electrical Data			
Pin spacing	**3.5 mm (0.138 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	320 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1 mm²

Material Data	
Material group	III a
Insulating material	Polyamide 46 (PA 46)
Flammability class per UL94	V2
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, staggered
Solder pin length	2.2 mm
Solder pin dimensions	0.5 x 0.75 mm
Plated through-hole diameter (THR)	1.1 (+ 0.1) mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

THR-soldering process	Page 258
Ferrule	Page 847
Marking	Page 832
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

THR PCB Terminal Block ▸ 805 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ Terminal strip ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ 1.5 mm² ▸ Color: black

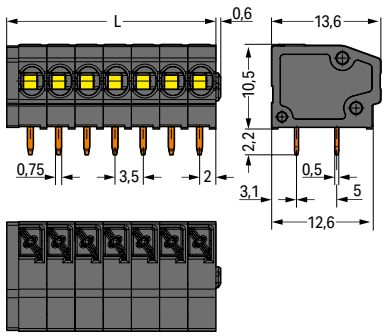
Suitable for automated assembly



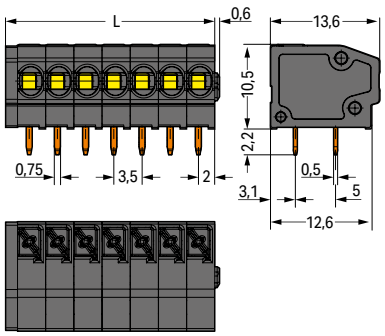


Pole No.	Item No.	PU (SPU)
2	805-302/200-604	580 (145)
3	805-303/200-604	420 (105)
4	805-304/200-604	320 (80)
5	805-305/200-604	260 (65)
6	805-306/200-604	220 (55)
7	805-307/200-604	180 (45)
8	805-308/200-604	160 (40)

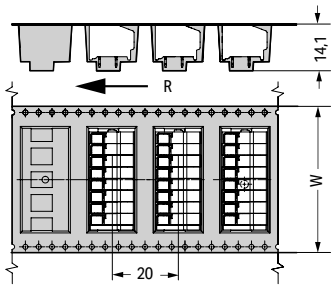
Pole No.	Tape width	Item No.	PU
2	24 mm	805-302/200-604/997-404	160
3	32 mm	805-303/200-604/997-405	160
4	32 mm	805-304/200-604/997-405	160
5	32 mm	805-305/200-604/997-405	160
6	44 mm	805-306/200-604/997-406	160
7	44 mm	805-307/200-604/997-406	160
8	44 mm	805-308/200-604/997-406	160



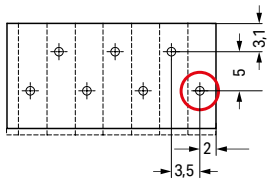
L = (pole no. x pin spacing) + 1.5 mm



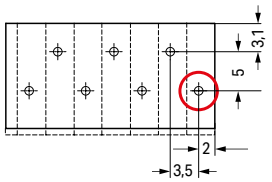
L = (pole no. x pin spacing) + 1.5 mm



R = Feed direction
W= Tape width



First solder pin, front right (red circle)

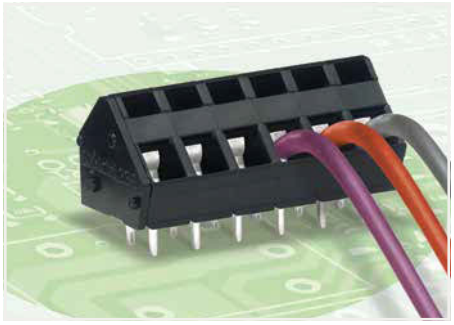


First solder pin, front right (red circle)

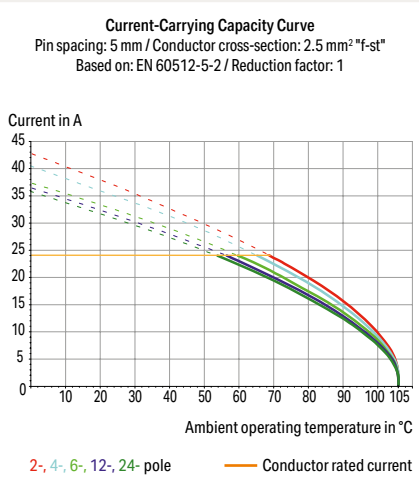
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

THR PCB Terminal Block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Terminal strip ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: black



- PCB terminal strips made of high-temperature resistant plastic are suitable for SMT reflow soldering
- Double solder pins for high mechanical stability



Electrical Data			
Pin spacing	**5 mm / 0.197 inch**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	200 V	320 V	320 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	24 A	24 A	24 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	45°
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	12 AWG: THHN, THWN

Material Data	
Material group	III a
Insulating material	Polyamide 46 (PA 46)
Flammability class per UL94	V2
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	3.6 mm
Solder pin dimensions	0.7 x 0.7 mm
Plated through-hole diameter (THR)	1.1 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +115 °C

THR-soldering process	Page 258
Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 288
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

THR PCB Terminal Block ▸ 236 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Terminal strip ▸ Pin spacing: 5 mm / 0.197 inch ▸ Color: black

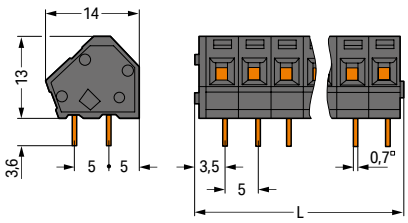
Suitable for automated assembly



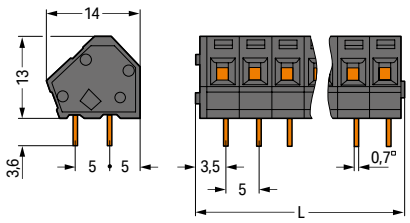


Pole No.	Item No.	PU (SPU)
2	236-402/334-604	420 (105)
3	236-403/334-604	280 (70)
4	236-404/334-604	220 (55)
5	236-405/334-604	180 (45)
6	236-406/334-604	140 (35)

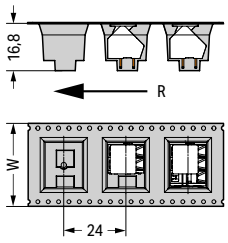
Pole No.	Tape width	Item No.	PU
2	32 mm	236-402/334-604/997-405	140
3	32 mm	236-403/334-604/997-405	140
4	44 mm	236-404/334-604/997-406	140
5	44 mm	236-405/334-604/997-406	140
6	44 mm	236-406/334-604/997-406	140



L = (pole no. x pin spacing) + 2.3 mm



L = (pole no. x pin spacing) + 2.3 mm



W= Tape width
R = Feed direction

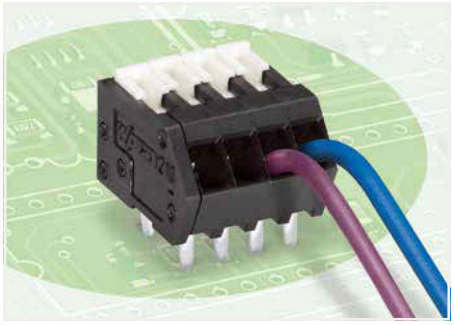
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

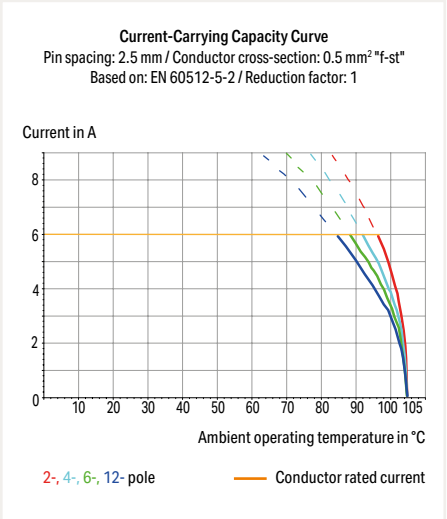
- Other pole numbers
- Direct marking

THR PCB Terminal Block ▸ 218 Series

CAGE CLAMP® ▸ Actuation type: Locking slide ▸ 0.5 mm² ▸ Terminal strip ▸ Color: black



- Terminal strips are just 8.1mm high and feature an innovative, locking slide-actuated CAGE CLAMP®
- Several clamping units can be held open simultaneously
- Easy termination of stranded conductors in tight spaces (e.g., bus connectors)



Electrical Data			
Pin spacing	2.5 mm (0.098 inch) / 2.54 mm (0.1 inch)		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	32 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	6 A	6 A	6 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	40°
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 mm²
Note (conductor cross-section)	Terminating 0.75 mm²/18 AWG conductors is possible; however insulation diameter allows only every other clamping unit to be terminated with this conductor size.

Material Data	
Material group	III a
Insulating material	Polyamide 46 (PA 46)
Flammability class per UL94	V2
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	2.8 mm
Solder pin dimensions	0.5 x 0.75 mm
Plated through-hole diameter (THR)	1.1 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +115 °C

THR-soldering process	Page 258
Ferrule	Page 847
Marking	Page 832
Testing and measuring	Page 854
Tools	Page 838
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

THR PCB Terminal Block ▸ 218 Series

CAGE CLAMP® ▸ Actuation type: Locking slide ▸ 0.5 mm² ▸ Terminal strip ▸ Color: black

Pin spacing: 2.5 mm (0.098 inch)

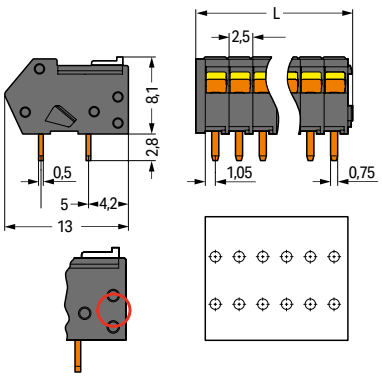


Suitable for automated assembly

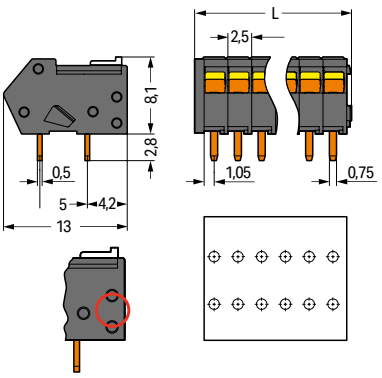


Pole No.	Item No.	PU (SPU)
2	218-102/000-604	1000 (100)
3	218-103/000-604	1000 (100)
4	218-104/000-604	500 (100)
5	218-105/000-604	500 (100)
6	218-106/000-604	280 (70)
7	218-107/000-604	240 (60)

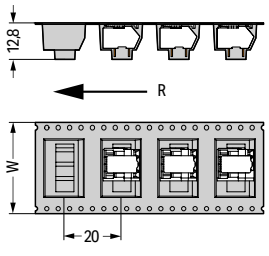
Pole No.	Tape width	Item No.	PU
2	16 mm	218-102/000-604/997-403	250
3	32 mm	218-103/000-604/997-405	250
4	32 mm	218-104/000-604/997-405	250
5	32 mm	218-105/000-604/997-405	250
6	32 mm	218-106/000-604/997-405	250
7	32 mm	218-107/000-604/997-405	250



L = (pole no. x pin spacing) + 1.5 mm
A groove at the back of the terminal strip differentiates between the two pin spacings (red circle).



L = (pole no. x pin spacing) + 1.5 mm
A groove at the back of the terminal strip differentiates between the two pin spacings (red circle).



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking

THR PCB Terminal Block ▸ 218 Series

CAGE CLAMP® ▸ Actuation type: Locking slide ▸ 0.5 mm² ▸ Terminal strip ▸ Color: black

2

Pin spacing: 2.54 mm (0.1 inch)

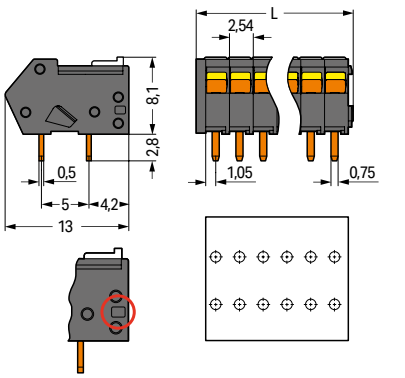
Suitable for automated assembly



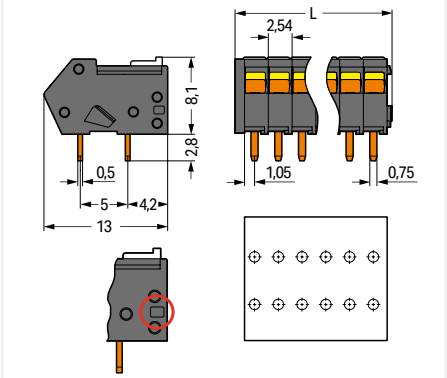


Pole No.	Item No.	PU (SPU)
2	218-502/000-604	1000 (100)
3	218-503/000-604	1000 (100)
4	218-504/000-604	500 (100)
5	218-505/000-604	500 (100)
6	218-506/000-604	280 (70)
7	218-507/000-604	240 (60)

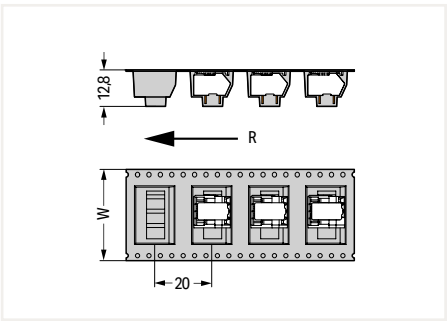
Pole No.	Tape width	Item No.	PU
2	16 mm	218-502/000-604/997-403	250
3	32 mm	218-503/000-604/997-405	250
4	32 mm	218-504/000-604/997-405	250
5	32 mm	218-505/000-604/997-405	250
6	32 mm	218-506/000-604/997-405	250
7	32 mm	218-507/000-604/997-405	250



L = (pole no. x pin spacing) + 1.5 mm
A groove at the back of the terminal strip differentiates between the two pin spacings (red circle).



L = (pole no. x pin spacing) + 1.5 mm
A groove at the back of the terminal strip differentiates between the two pin spacings (red circle).



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

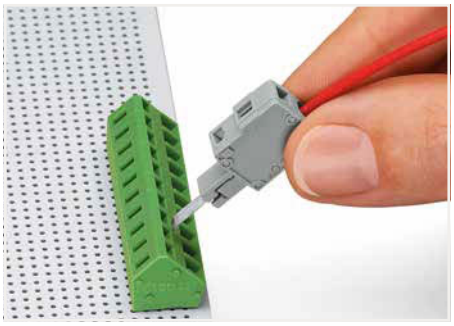
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking

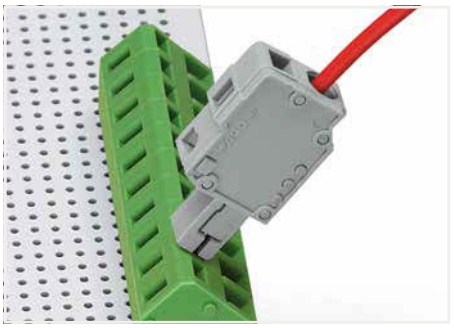
Test Plug Modules, A-Type Contact, for 236 Series PCB Terminal Blocks
(Testing unwired terminal blocks)







Inserting a test plug module into the operating slot.



Unwired terminal strip with inserted test plug module

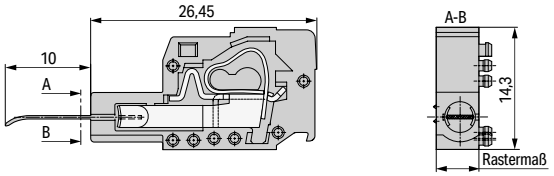


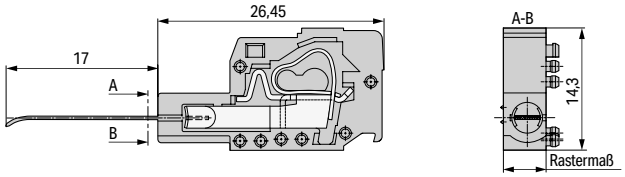
Contact type A:
Testing only when unwired.

Test plug module, with 10 mm contact lug, for 236 Series, snaps together, gray		
Pin spacing	Item No.	PU (SPU)
5 mm / 0.197 inch	231-127	100
7.5 mm / 0.295 inch	231-161	100

Test plug module, with 10 mm contact lug, for 236 Series, snaps together, orange		
Pin spacing	Item No.	PU (SPU)
5.08 mm / 0.2 inch	231-128	100
7.62 mm / 0.3 inch	231-125	100

Dimensions (in mm):





Electrical Data		
Ratings per	IEC/EN 60664-1	
Overvoltage category	III	
Pollution degree	2	
Rated voltage (III/2)	250 V*	
Rated surge voltage (III / 2)	2.5 kV	
Rated current	0.5 A	

End plate	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG

*(III / 2) ≙ Overvoltage category III / Pollution degree 2

Accessories; for all products on this page





End plate		
Color	Item No.	PU (SPU)
gray	231-100	200

End plate		
Color	Item No.	PU (SPU)
orange	231-300	200

Operating Tools





Operating tool for 2059, 2060 and 2061 Series		
Series	**Item No.**	PU (SPU)
2060	**206-860**	5
2061	**206-861**	5

Operating tool, insulated, for 2059, 2060 and 2061 Series		
Series	**Item No.**	PU (SPU)
2060	**2060-189**	300 (50)
2061	**2061-189**	300 (50)



Inserting/removing fine-stranded conductors by lightly pressing on a push-button.



WAGO SMD PCB Terminal Blocks

WAGO SMD PCB Terminal Blocks

		Nominal Cross-Section	Series	Page
	SMD PCB Terminal Blocks ▸ Actuation type: Push-button ▸ PUSH WIRE®	0.34 mm²	2059	292
	SMD PCB Terminal Blocks ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	0.75 mm²	2060	296
	SMD PCB Terminal Blocks ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	1.5 mm²	2061	302
	SMD PCB Terminal Blocks ▸ Actuation type: Push-in ▸ PUSH WIRE®	0.75 mm²	2065	306
	SMD PCB Terminal Blocks ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	0.75 mm²	2065	308
	Through-Board-SMD PCB Terminal Blocks ▸ ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP®	0.75 mm²	2070	310
	Board-to-Board Links for SMD PCB Terminal Blocks	0.5 mm²	2059	316
		0.75 mm²	2060	318
		1.5 mm²	2061	320
	Accessories for SMD PCB Terminal Blocks			322
	Accessories and Tools			829

SMD PCB Terminal Block ▸ 2059 Series

PUSH WIRE® ▸ Pin spacing: 3 mm (0.118 inch) ▸ Actuation type: Operating tool ▸ 0.34 mm²



- SMD PCB terminal blocks with PUSH WIRE® connection technology
- Push-in termination of solid conductors
- Easy conductor removal, e.g., via operating tool
- Just 2.7 mm tall
- Assemble terminal blocks without pole loss
- Available in tape-and-reel packaging for automated assembly

3

Electrical Data				
Pin spacing	**3 mm (0.118 inch)**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	63 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	3 A	3 A	3 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	3 A			

Connection Data	
Connection technology	PUSH WIRE®
Strip length	4 … 5.5 mm / 0.16 … 0.22 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.14 … 0.34 mm² / 26 … 22 AWG
Note (conductor cross-section)	For conductors that are not rigid enough, the clamping unit must be opened using an operating tool. No reconnection of smaller conductor cross-sections (0.5 mm² / 20 AWG)
Strip length (2)	6 … 7.5 mm / 0.24 … 0.3 inch
Solid conductor (2)	0.5 mm² / 20 AWG
Note (conductor cross-section) 2	No reconnection of smaller conductor cross-sections (0.5 mm² / 20 AWG)

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application note:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for SMD stencil:
Material thickness, 150 µm. Pattern layout identical to solder pad layout.

General accessory	Page 317
Tools	Page 322
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

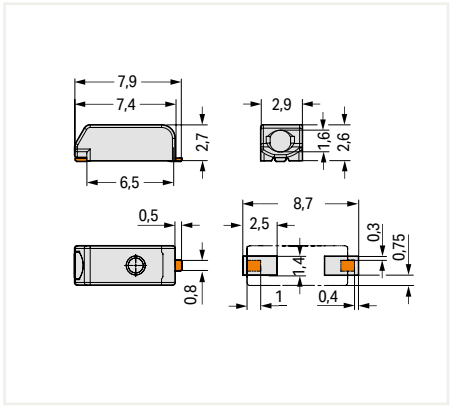
SMD PCB Terminal Block ▸ 2059 Series

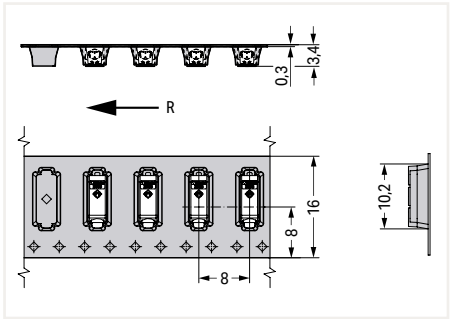
PUSH WIRE® ▸ Pin spacing: 3 mm (0.118 inch) ▸ Actuation type: Operating tool ▸ 0.34 mm²

Color: white



Pole No.	Item No.	PU (SPU)
1	2059-301/998-403	31800 (2650)



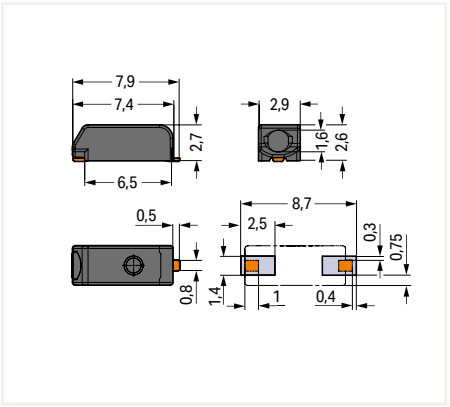


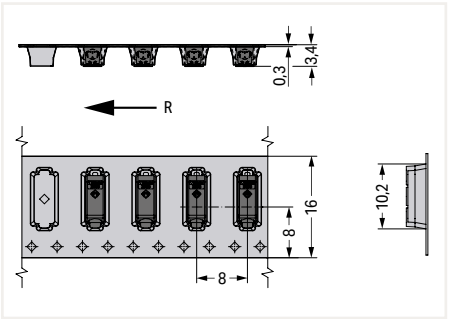
R = Feed direction

Color: black



Pole No.	Item No.	PU (SPU)
1	2059-321/998-403	31800 (2650)





R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB Terminal Block ▸ 2059 Series

PUSH WIRE® ▸ Pin spacing: 3 mm (0.118 inch) ▸ Actuation type: Operating tool ▸ 0.34 mm²



- SMD PCB terminal blocks with PUSH WIRE® connection technology
- Push-in termination of solid conductors
- Easy conductor removal, e.g., via operating tool
- Just 2.7 mm tall
- Assemble terminal blocks without pole loss
- Available in tape-and-reel packaging for automated assembly

3

Electrical Data				
Pin spacing	**3 mm (0.118 inch)**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	63 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	3 A	3 A	3 A	
Approvals per	UL 1977			
Rated voltage	250 V			
Rated current	3 A			

Connection Data	
Connection technology	PUSH WIRE®
Strip length	4 … 5.5 mm / 0.16 … 0.22 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.14 … 0.34 mm² / 26 … 22 AWG
Note (conductor cross-section)	For conductors that are not rigid enough, the clamping unit must be opened using an operating tool. No reconnection of smaller conductor cross-sections (0.5 mm² / 20 AWG)
Strip length (2)	6 … 7.5 mm / 0.24 … 0.3 inch
Solid conductor (2)	0.5 mm² / 20 AWG
Note (conductor cross-section) 2	No reconnection of smaller conductor cross-sections (0.5 mm² / 20 AWG)

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application note:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for SMD stencil:
Material thickness, 150 µm. Pattern layout identical to solder pad layout.

General accessory	Page 317
Tools	Page 322
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

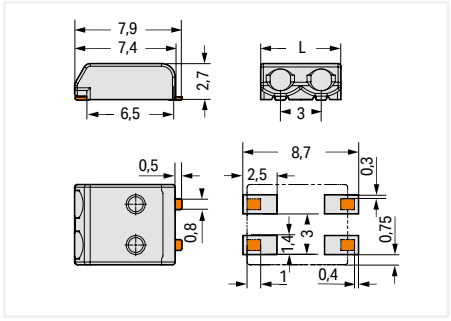
SMD PCB Terminal Block ▸ 2059 Series

PUSH WIRE® ▸ Pin spacing: 3 mm (0.118 inch) ▸ Actuation type: Operating tool ▸ 0.34 mm²

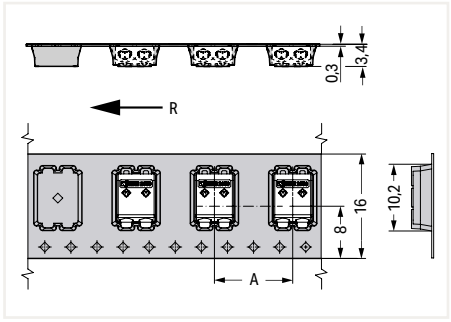
Color: white



Pole No.	Item No.	PU (SPU)
2	2059-302/998-403	21000 (1750)
3	2059-303/998-403	21000 (1750)



L = (pole no. x pin spacing) – 0.1 mm

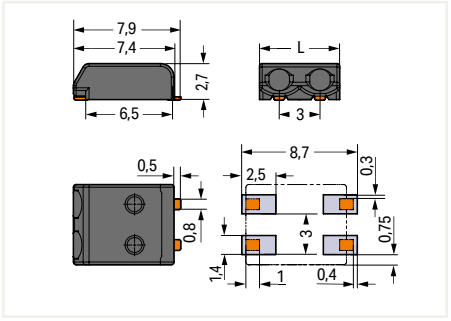


R = Feed direction
A = 12 mm (2- and 3-pole)

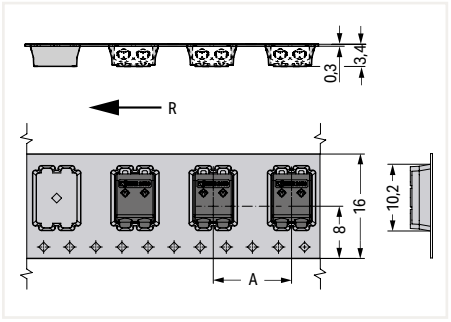
Color: black



Pole No.	Item No.	PU (SPU)
2	2059-322/998-403	21000 (1750)
3	2059-323/998-403	21000 (1750)



L = (pole no. x pin spacing) – 0.1 mm



R = Feed direction
A = 12 mm (2- and 3-pole)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

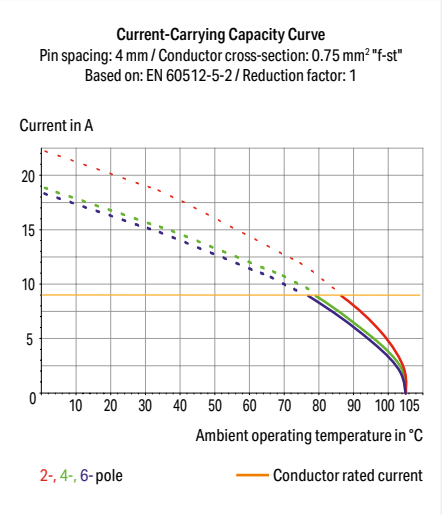
SMD PCB Terminal Block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 4 mm (0.157 inch) ▸ Actuation type: Push-button ▸ 0.75 mm²



- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly

3



Electrical Data			
Pin spacing	**4 mm (0.157 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	9 A	9 A	9 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	9 A		

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 9 mm / 0.28 … 0.35 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.34 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application note:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for SMD stencil:
Material thickness, 150 µm. Pattern layout identical to solder pad layout.

Ferrule	Page 847
General accessory	Page 319
Tools	Page 322
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

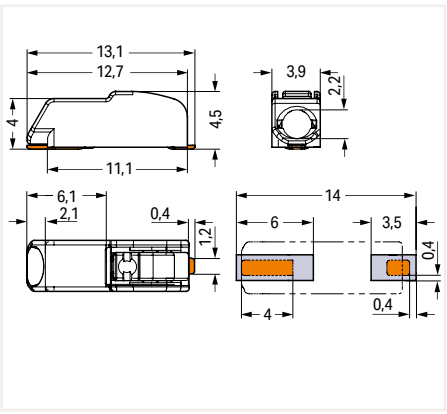
SMD PCB Terminal Block ▸ 2060 Series

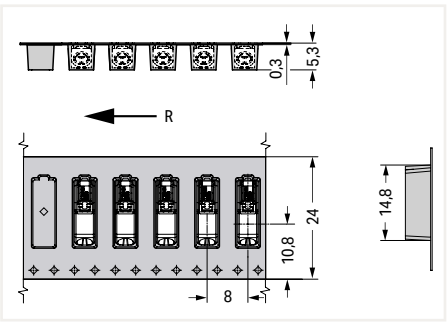
Push-in CAGE CLAMP® ▸ Pin spacing: 4 mm (0.157 inch) ▸ Actuation type: Push-button ▸ 0.75 mm²

Color: white



Pole No.	Item No.	PU (SPU)
1	2060-451/998-404	13500 (1500)



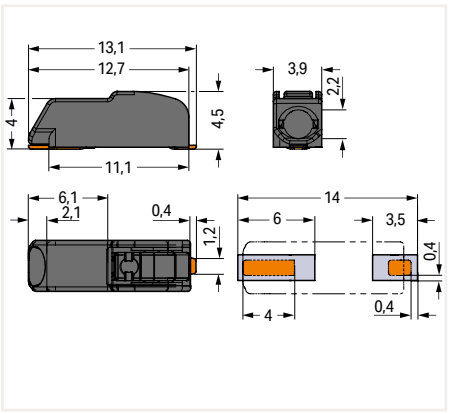


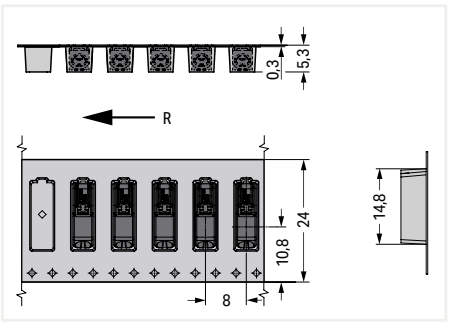
R = Feed direction

Color: black



Pole No.	Item No.	PU (SPU)
1	2060-471/998-404	13500 (1500)





R = Feed direction



Insert solid conductors via push-in termination.



Insert/remove fine-stranded conductors by lightly pressing on push-button (e.g., via 206-860 Operating Tool).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

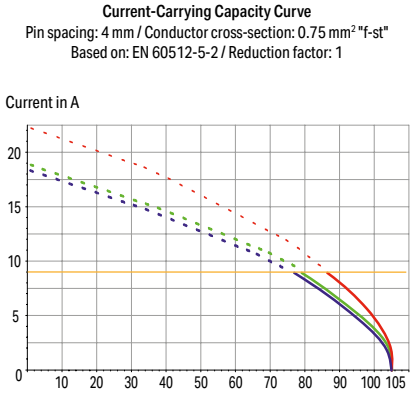
SMD PCB Terminal Block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 4 mm (0.157 inch) ▸ Actuation type: Push-button ▸ 0.75 mm²



- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly

3



Electrical Data			
Pin spacing	**4 mm (0.157 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	63 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	9 A	9 A	9 A
Approvals per	UL 1977		
Rated voltage	320 V		
Rated current	9 A		

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 9 mm / 0.28 … 0.35 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.34 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application note:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for SMD stencil:
Material thickness, 150 µm. Pattern layout identical to solder pad layout.

Ferrule	Page 847
General accessory	Page 319
Tools	Page 322
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

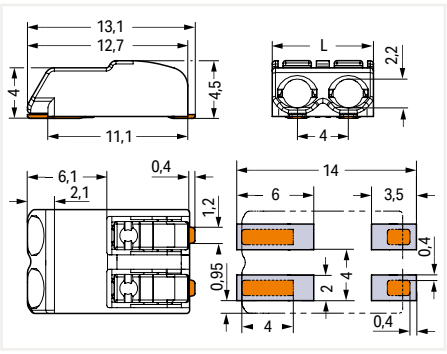
SMD PCB Terminal Block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 4 mm (0.157 inch) ▸ Actuation type: Push-button ▸ 0.75 mm²

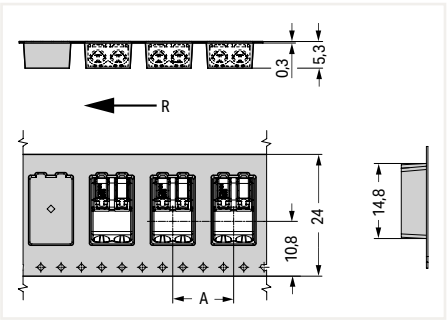
Color: white



Pole No.	Item No.	PU (SPU)
2	2060-452/998-404	9000 (1000)
3	2060-453/998-404	6750 (750)



L = (pole no. x pin spacing) – 0.1 mm

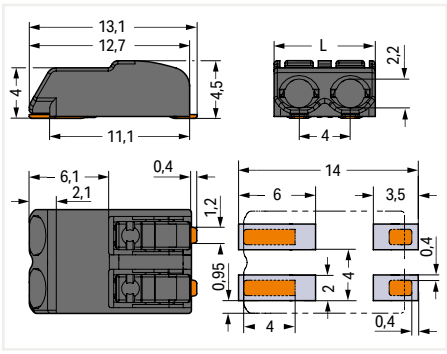


R = Feed direction
A = (pole no. x pin spacing) + 4 mm

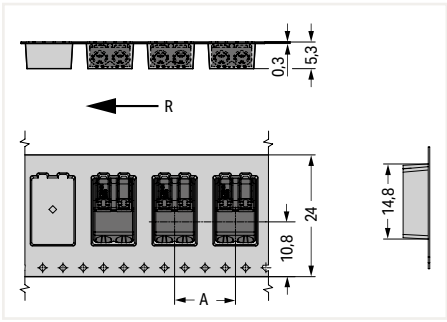
Color: black



Pole No.	Item No.	PU (SPU)
2	2060-472/998-404	9000 (1000)
3	2060-473/998-404	6750 (750)



L = (pole no. x pin spacing) – 0.1 mm



R = Feed direction
A = (pole no. x pin spacing) + 4 mm



Insert solid conductors via push-in termination.



Insert/remove fine-stranded conductors by lightly pressing on push-button (e.g., via 206-860 Operating Tool).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

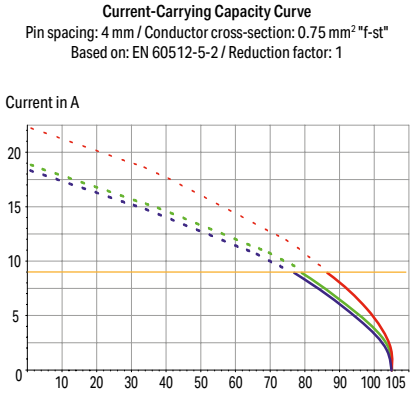
SMD PCB Terminal Block ▸ 2060 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 8 mm (0.314 inch) ▸ Actuation type: Push-button ▸ 0.75 mm²



- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- 8 mm pin spacing version for higher-rated voltages
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Height of just 4.5 mm minimizes on-board LED shadowing
- Available in tape-and-reel packaging for automated assembly

3



Electrical Data			
Pin spacing	**8 mm (0.314 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	400 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	9 A	9 A	9 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	9 A		

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 9 mm / 0.28 … 0.35 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.34 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application note:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for SMD stencil:
Material thickness, 150 µm. Pattern layout identical to solder pad layout.

Ferrule	Page 847
General accessory	Page 319
Tools	Page 322
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

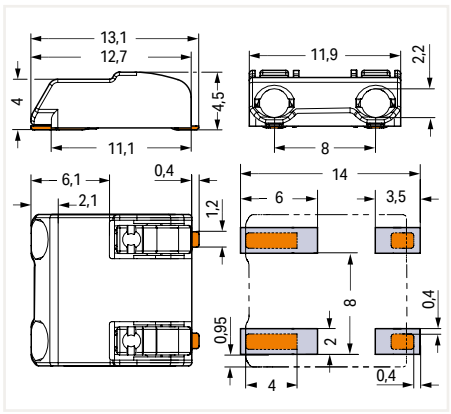
SMD PCB Terminal Block ▸ 2060 Series

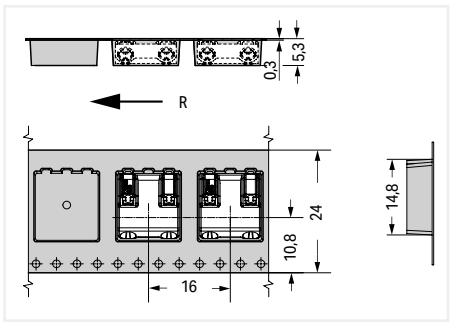
Push-in CAGE CLAMP® ▸ Pin spacing: 8 mm (0.314 inch) ▸ Actuation type: Push-button ▸ 0.75 mm²

Color: white



Pole No.	Item No.	PU (SPU)
2	2060-852/998-404	6750 (750)



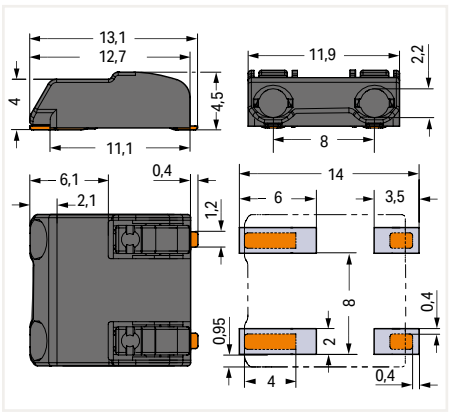


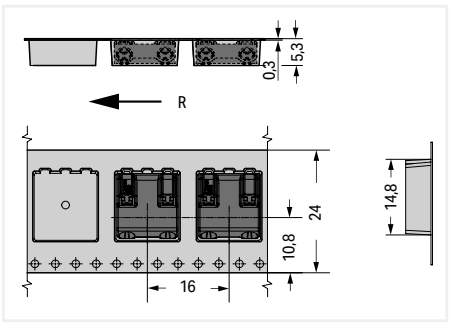
R = Feed direction

Color: black



Pole No.	Item No.	PU (SPU)
2	2060-872/998-404	6750 (750)





R = Feed direction



Insert solid conductors via push-in termination.



Insert/remove fine-stranded conductors by lightly pressing on push-button (e.g., via 206-860 Operating Tool).

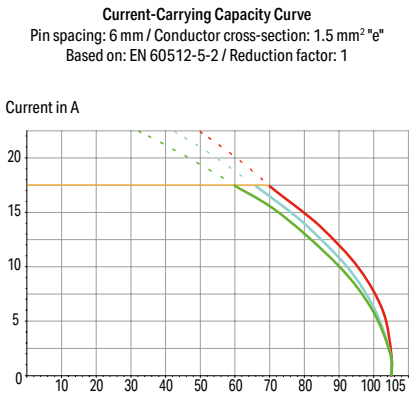
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB Terminal Block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6 mm (0.24 inch) ▸ Actuation type: Push-button ▸ 1.5 mm²



- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection and push-buttons
- Just 5.6 mm tall
- Push-in termination of solid and ferruled conductors
- Push-buttons simplify insertion/removal of all conductor types
- Available in tape-and-reel packaging for automated assembly



Electrical Data			
Pin spacing	**6 mm (0.24 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	600 V	-	600 V
Rated current	10 A	-	5 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 10 mm / 0.28 … 0.39 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 0.75 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 0.75 mm²

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for SMD stencil:
Material thickness, 150 µm. Pattern layout identical to solder pad layout.

Ferrule	Page 847
General accessory	Page 321
Tools	Page 322
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

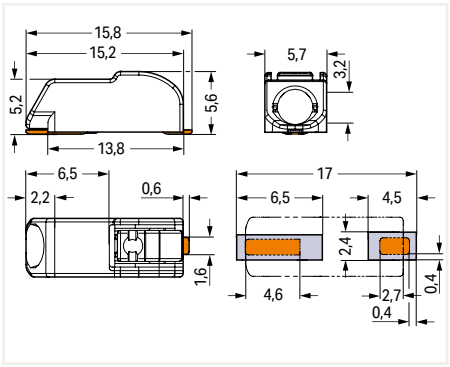
SMD PCB Terminal Block ▸ 2061 Series

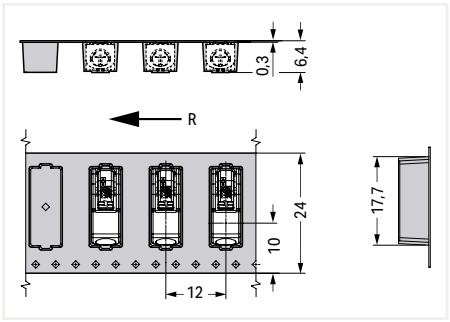
Push-in CAGE CLAMP® ▸ Pin spacing: 6 mm (0.24 inch) ▸ Actuation type: Push-button ▸ 1.5 mm²

Color: white



Pole No.	Item No.	PU (SPU)
1	2061-601/998-404	8100 (900)



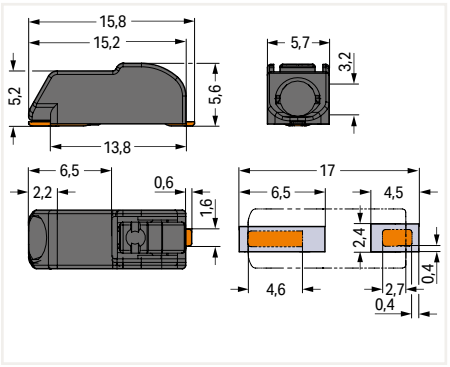


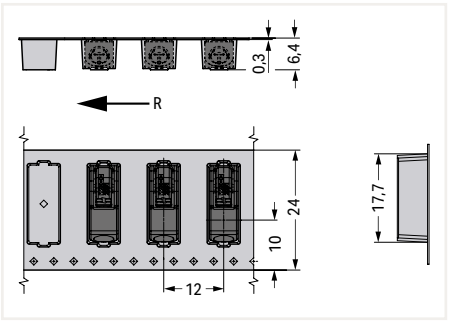
R = Feed direction

Color: black



Pole No.	Item No.	PU (SPU)
1	2061-621/998-404	8100 (900)





R = Feed direction

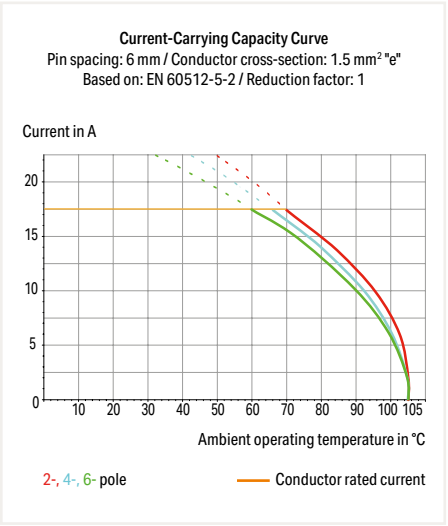
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB Terminal Block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6 mm (0.24 inch) ▸ Actuation type: Push-button ▸ 1.5 mm²



- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection and push-buttons
- Just 5.6 mm tall
- Push-in termination of solid and ferruled conductors
- Push-buttons simplify insertion/removal of all conductor types
- Available in tape-and-reel packaging for automated assembly



Electrical Data			
Pin spacing	**6 mm (0.24 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	17.5 A	17.5 A	17.5 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7 … 10 mm / 0.28 … 0.39 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor	0.5 … 1.5 mm² / 20 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 0.75 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 0.75 mm²

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Application notes:
Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for SMD stencil:
Material thickness, 150 µm. Pattern layout identical to solder pad layout.

Ferrule	Page 847
General accessory	Page 321
Tools	Page 322
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

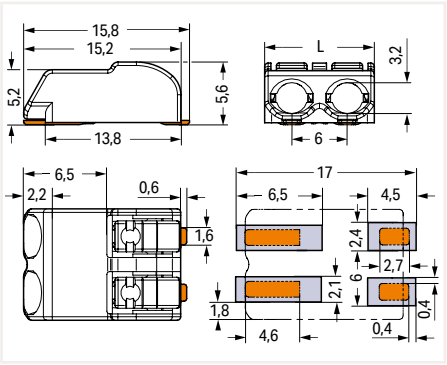
SMD PCB Terminal Block ▸ 2061 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6 mm (0.24 inch) ▸ Actuation type: Push-button ▸ 1.5 mm²

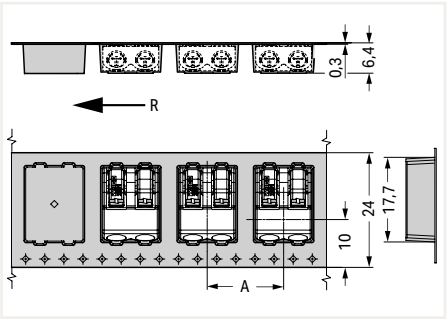
Color: white



Pole No.	Item No.	PU (SPU)
2	2061-602/998-404	6300 (700)
3	2061-603/998-404	4050 (450)



L = (pole no. x pin spacing) – 0.3 mm

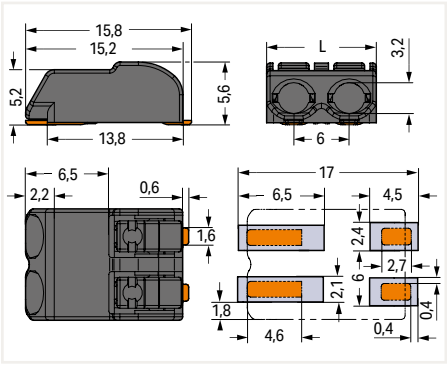


R = Feed direction
A = 12 mm (1-pole)
A = 16 mm (2-pole)
A = 22 mm (3-pole)

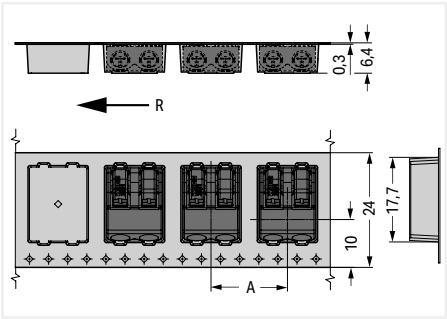
Color: black



Pole No.	Item No.	PU (SPU)
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3	2061-623/998-404	4050 (450)



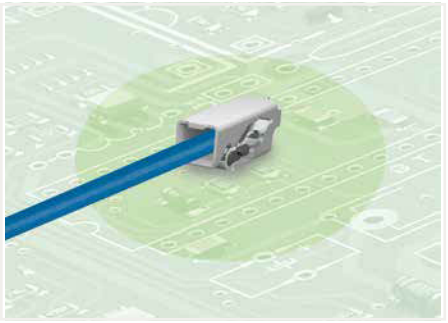
L = (pole no. x pin spacing) – 0.3 mm



R = Feed direction
A = 12 mm (1-pole)
A = 16 mm (2-pole)
A = 22 mm (3-pole)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB Terminal Block ▸ 2065 Series
PUSH WIRE® ▸ Actuation type: Push-in ▸ 0.75 mm²



- SMD PCB terminal block with PUSH WIRE® connection technology
- Push-in termination of solid conductors
- Just 2.7 mm tall
- Available in tape-and-reel packaging for automated assembly

3

Electrical Data			
Pin spacing	**6 mm (0.236 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	9 A	9 A	9 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	9 A		

Connection Data	
Connection technology	PUSH WIRE®
Strip length	7.5 … 9.5 mm / 0.3 … 0.37 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG

Material Data	
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +120 °C

The layout must meet the requirements of the insulation coordination standard EN/IEC 60664-1 and applicable end product standards.

NOTE: Terminal block without insulation housing! Protection against accidental contact must be provided at voltages higher than low voltages(e.g., SELV/PELV) for the relevant application.

Additional information, see “Technical Section”

Approvals and corresponding ratings, visit www.wago.com

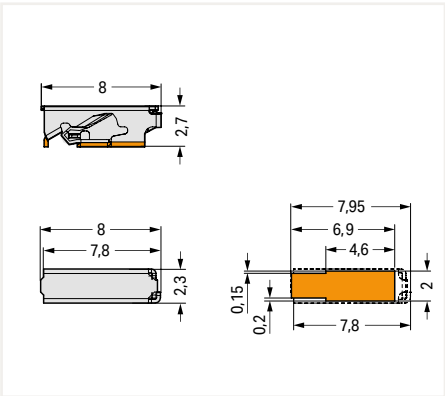
SMD PCB Terminal Block ▸ 2065 Series
PUSH WIRE® ▸ Actuation type: Push-in ▸ 0.75 mm²

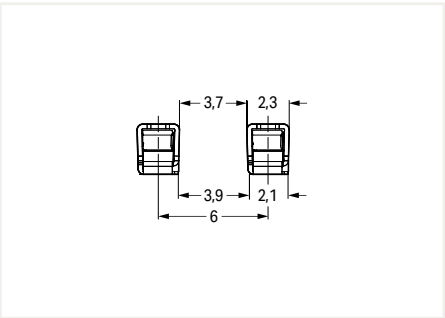


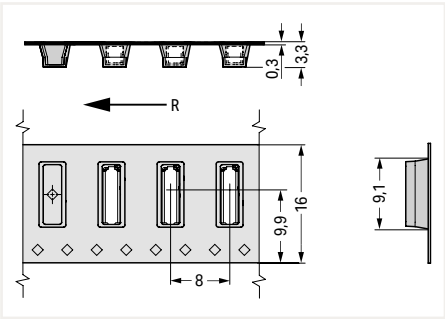


PUSH WIRE® version without push-button: Even more space savings when using exclusively solid conductors.

Pole No.	Item No.	PU (SPU)
1	2065-101/998-403	31800 (2650)





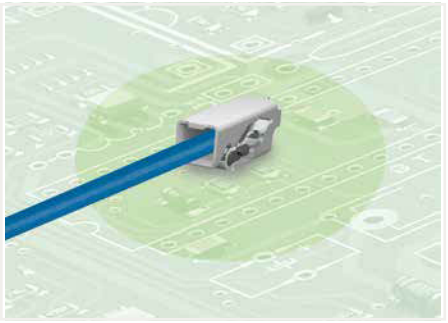


R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

SMD PCB Terminal Block ▸ 2065 Series

Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm²



- SMD PCB terminal block with Push-in CAGE CLAMP® connection technology and push-button
- Push-in termination of solid conductors Convenient termination/removal of fine-stranded conductors via operating tool
- Just 2.7 mm tall
- Available in tape-and-reel packaging for automated assembly
- PUSH WIRE® version without push-button available (only for solid conductors)

3

Electrical Data			
Pin spacing	**6.5 mm (0.256 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	9 A	9 A	9 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	9 A		

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	7.5 … 9.5 mm / 0.3 … 0.37 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG

Material Data	
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +120 °C

The layout must meet the requirements of the insulation coordination standard EN/IEC 60664-1 and applicable end product standards.

NOTE: Terminal block without insulation housing! Protection against accidental contact must be provided at voltages higher than low voltages(e.g., SELV/PELV) for the relevant application.

Tools Page 323

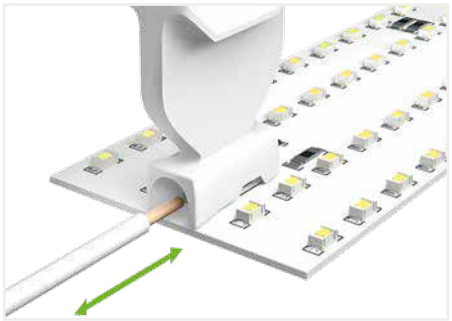
Additional information, see “Technical Section”

Approvals and corresponding ratings, visit www.wago.com

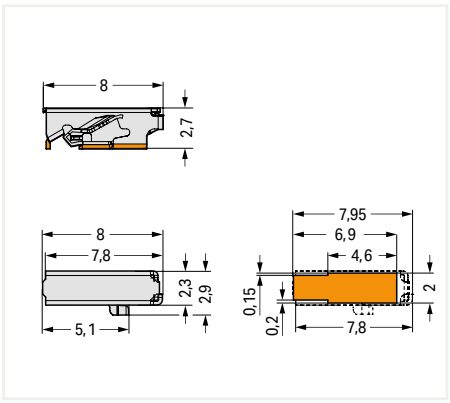
SMD PCB Terminal Block ▸ 2065 Series
Push-in CAGE CLAMP® ▸ Actuation type: Push-button ▸ 0.75 mm²

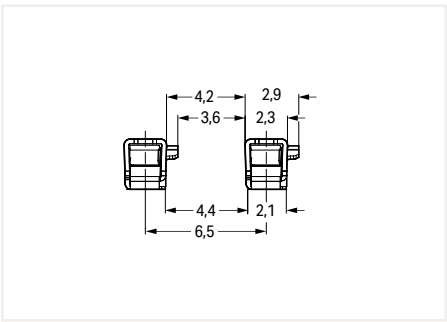


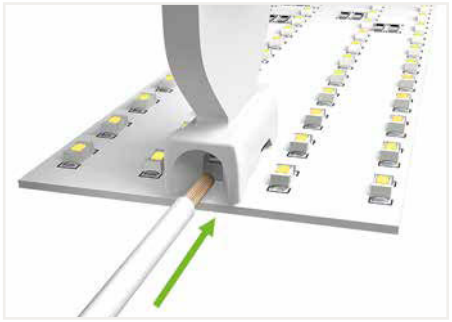
Pole No.	Item No.	PU (SPU)
1	2065-100/998-403	31800 (2650)



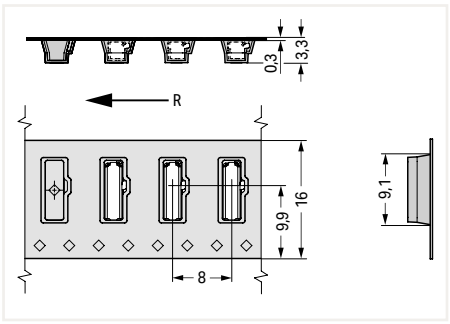
Push-in CAGE CLAMP® version: Insert fine-stranded conductors – and remove all conductors – via operating tool. Solid conductors can be terminated by simply pushing them in.







The operating tools funneled conductor entry accurately guides the conductor into the terminal block.

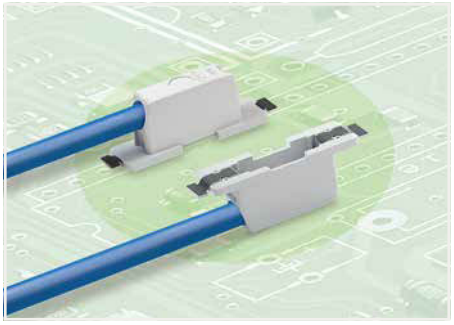


R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Through-Board SMD PCB Terminal Block ▸ 2070 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm (0.256 inch) ▸ Actuation type: Operating tool ▸ 0.75 mm² ▸ Color: white



- SMD PCB terminal block with Push-in CAGE CLAMP® connection for back-side wiring of LED modules
- Low profile of just 1.1 mm on the module's front side
- Connect solid conductors via push-in termination
- Insert fine-stranded conductors and remove all conductors via operating tool

3

Electrical Data				
Pin spacing	**6.5 mm (0.256 inch)**			
Electrical Data for FR4 PCB Type				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	9 A	9 A	9 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	9 A			
Electrical Data for Metal-Core PCBs				
Ratings according to 2	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	200 V	320 V	500 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	9 A	9 A	9 A	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8 … 10 mm / 0.31 … 0.39 inch
Conductor entry angle to the PCB	0°
Solid conductor	0.2 … 0.75 mm² / 24 … 18 AWG
Fine-stranded conductor	0.2 … 0.75 mm² / 24 … 18 AWG

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Tools Page 322

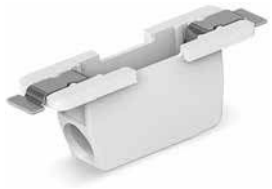
Additional information, see "Technical Section"

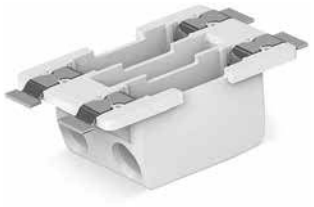
Approvals and corresponding ratings, visit www.wago.com

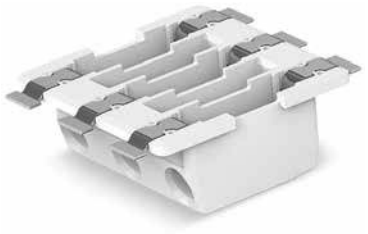
Through-Board SMD PCB Terminal Block ▸ 2070 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm (0.256 inch) ▸ Actuation type: Operating tool ▸ 0.75 mm² ▸ Color: white

without Cover ▸ Pole No.: 1	without Cover ▸ Pole No.: 2	without Cover ▸ Pole No.: 3



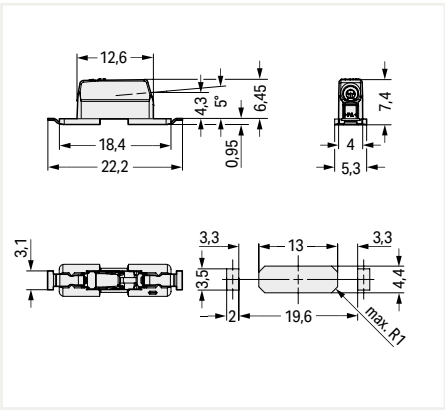


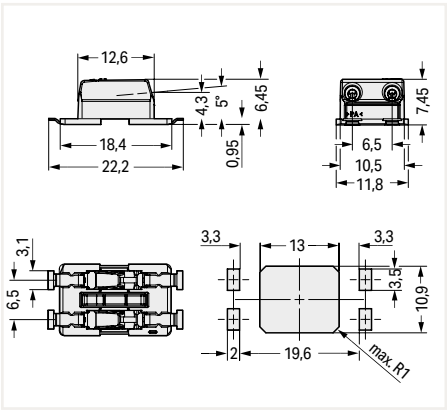


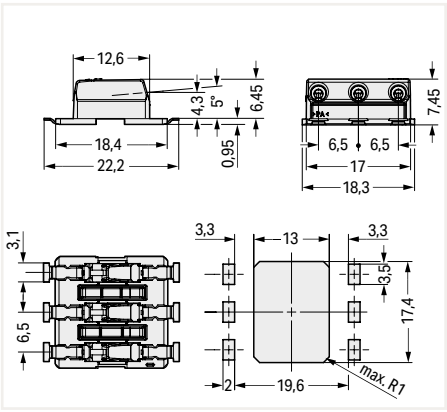
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	2070-451/998-406	4770 (954)

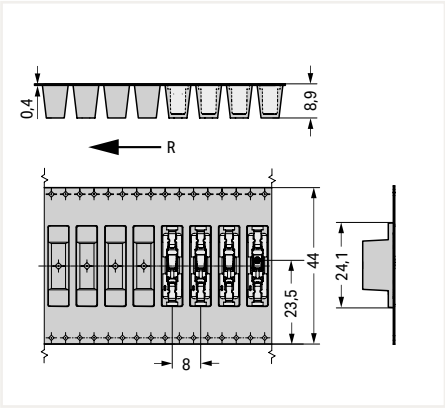
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	2070-452/998-406	2385 (477)

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	2070-453/998-406	1590 (318)

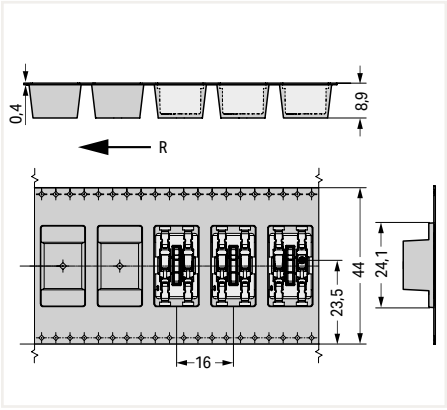




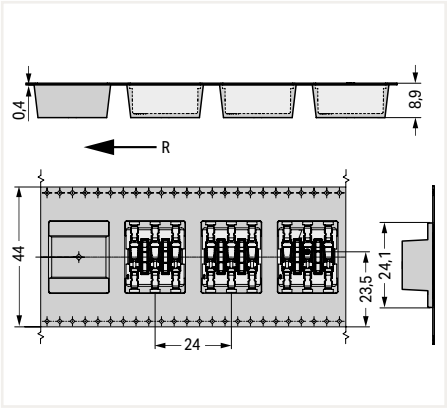




R = Feed direction



R = Feed direction



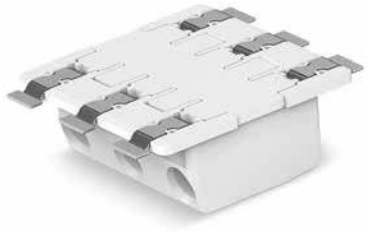
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Through-Board SMD PCB Terminal Block ▸ 2070 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm (0.256 inch) ▸ Actuation type: Operating tool ▸ 0.75 mm² ▸ Color: white

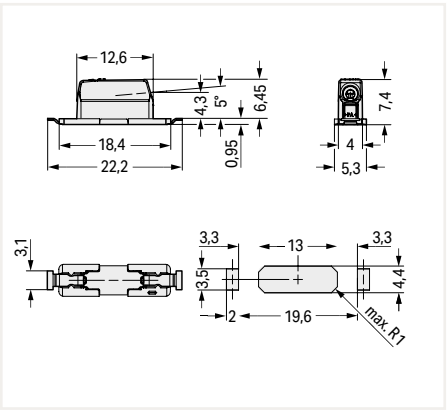
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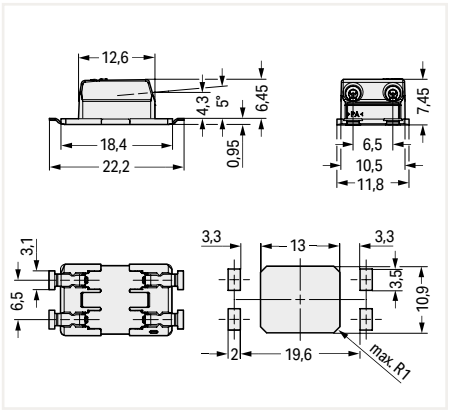
with Cover ▸ Pole No.: 1	with Cover ▸ Pole No.: 2	with Cover ▸ Pole No.: 3
		

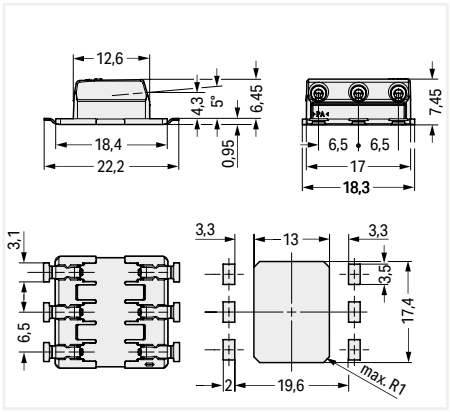
Item No.	PU (SPU)
2070-461/998-406	4770 (954)

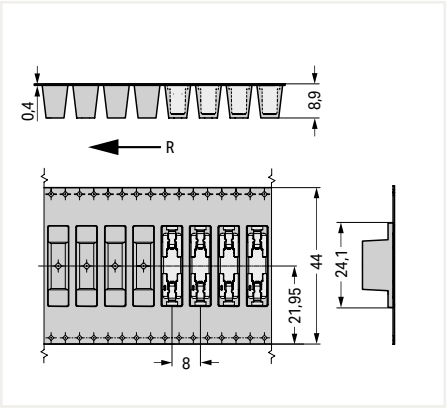
Item No.	PU (SPU)
2070-462/998-406	2385 (477)

Item No.	PU (SPU)
2070-463/998-406	1590 (318)









R = Feed direction

R = Feed direction

R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Through-Board SMD PCB Terminal Block ▸ 2070 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm (0.256 inch) ▸ Actuation type: Operating tool ▸ 0.75 mm² ▸ Color: white

with Cover ▸ Marking: + ▸ Pole No.: 1	with Cover ▸ Marking: + - ▸ Pole No.: 2	with Cover ▸ Marking: + - plain ▸ Pole No.: 3



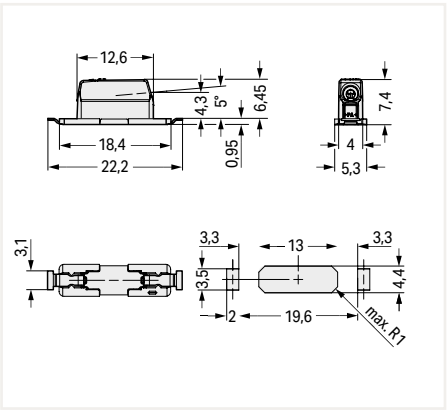


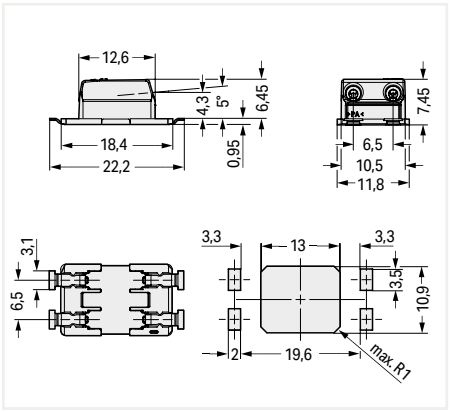


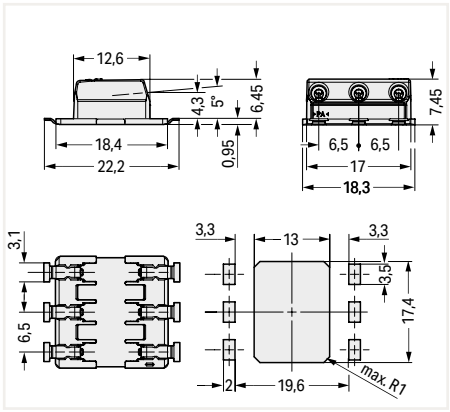
Item No.	PU (SPU)
2070-521/998-406	4770 (954)

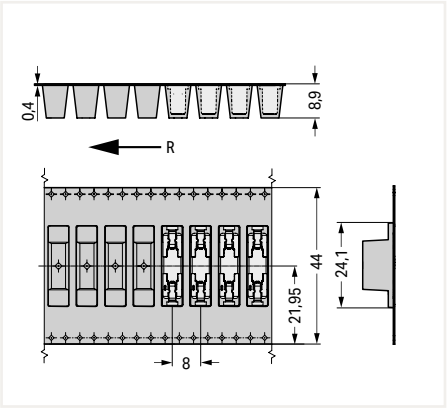
Item No.	PU (SPU)
2070-522/998-406	2385 (477)

Item No.	PU (SPU)
2070-523/998-406	1590 (318)









R = Feed direction

R = Feed direction

R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Through-Board SMD PCB Terminal Block ▸ 2070 Series

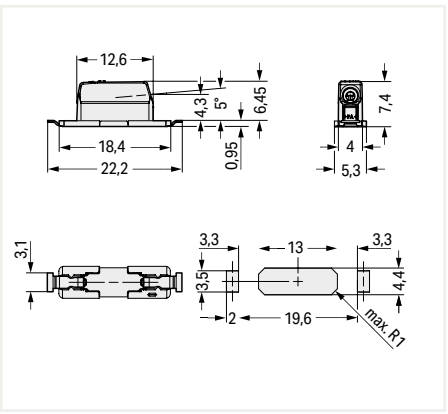
Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm (0.256 inch) ▸ Actuation type: Operating tool ▸ 0.75 mm² ▸ Color: white

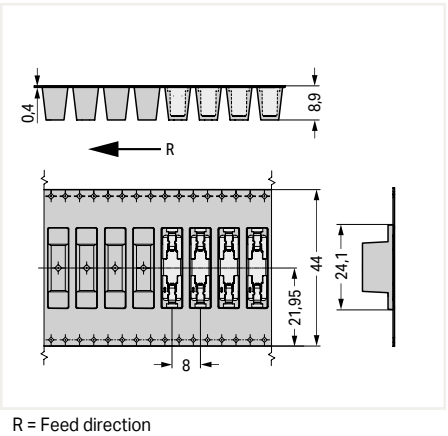
3

with Cover ▸ Marking: - ▸ Pole No.: 1



Item No.	PU (SPU)
2070-541/998-406	4770 (954)



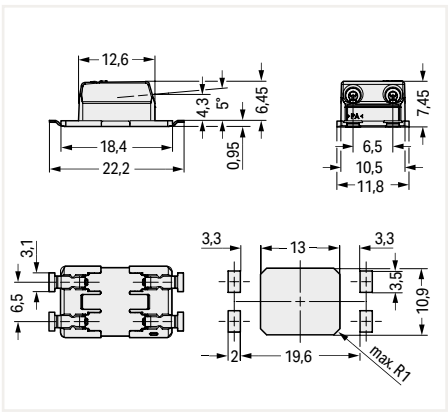


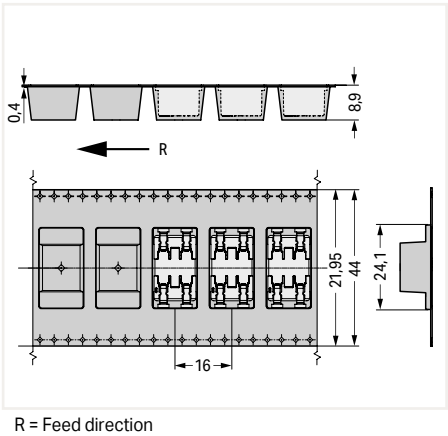
R = Feed direction

with Cover ▸ Marking: - + ▸ Pole No.: 2



Item No.	PU (SPU)
2070-542/998-406	2385 (477)



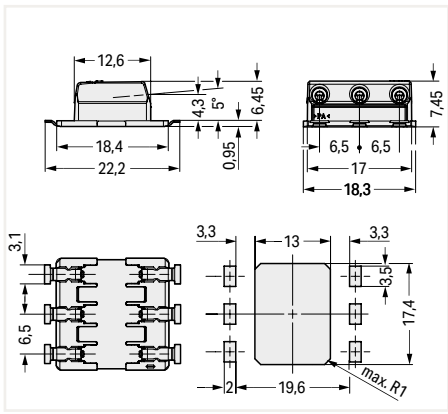


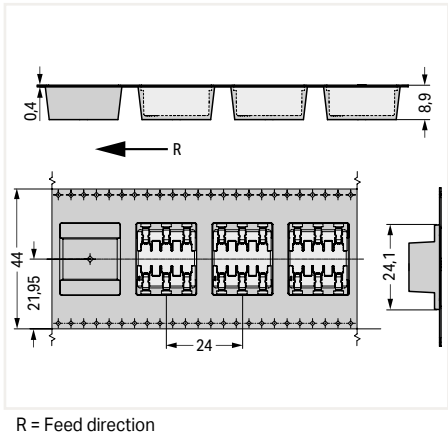
R = Feed direction

with Cover ▸ Marking: plain - + ▸ Pole No.: 3



Item No.	PU (SPU)
2070-543/998-406	1590 (318)



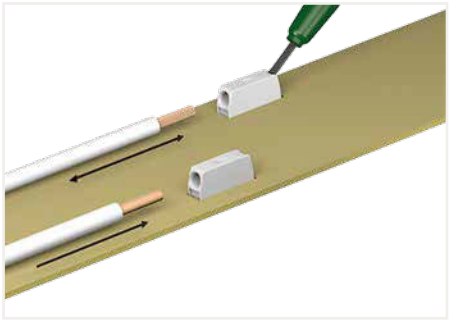


R = Feed direction

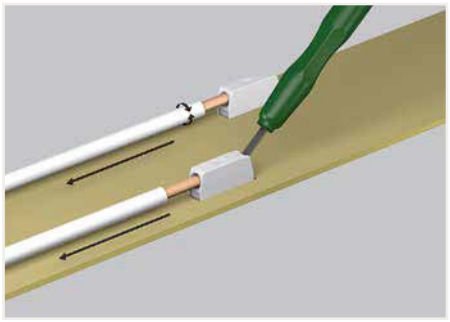
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Through-Board SMD PCB Terminal Block ▸ 2070 Series

Push-in CAGE CLAMP® ▸ Pin spacing: 6.5 mm (0.256 inch) ▸ Actuation type: Operating tool ▸ 0.75 mm² ▸ Color: white



Insert fine-stranded conductors – and remove conductors – via operating tool. Solid conductors can also be terminated by simply pushing them in.

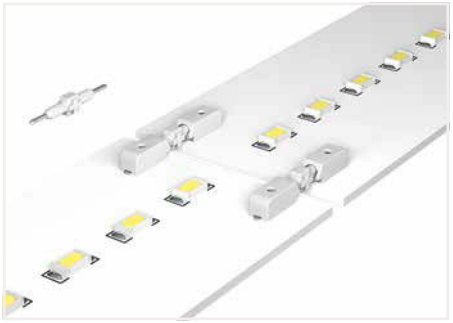


Use an operating tool or simply „twist and pull“ to remove solid conductors.



Shift wiring to the back of the LED module via 2070 Series SMD PCB Terminal Blocks.

Board-to-Board Link for SMD PCB Terminal Blocks; 0.5 mm²
Pin Spacing: 3 mm ▶ 2059 Series



- Board-to-board links simplify LED module assembly
- Easy push-in connection and disconnection

3

Electrical Data for Pin Spacing 3 mm / 0.118 inch				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	63 V	160 V	320 V	
Rated surge voltage	2.5 kV	2.5 kV	2.5 kV	
Rated Current	3 A	3 A	3 A	

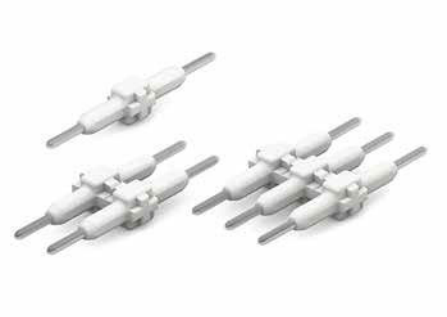
Material Data	
Material group	I
Insulation material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Limit temperature range	-60 … 105 °C
Contact material	Copper alloy
Contact Plating	Silver-plated

Additional information, see “Technical Section”

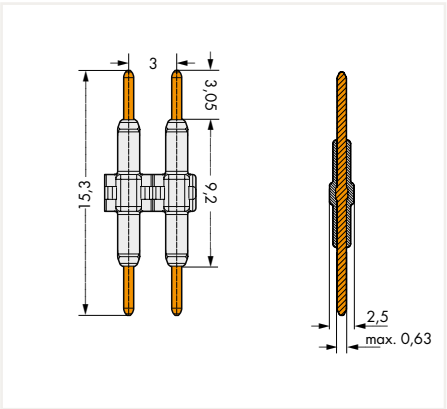
Approvals and corresponding ratings,
visit www.wago.com

Board-to-Board Link for SMD PCB Terminal Blocks; 0.5 mm²
Pin Spacing: 3 mm ▸ 2059 Series

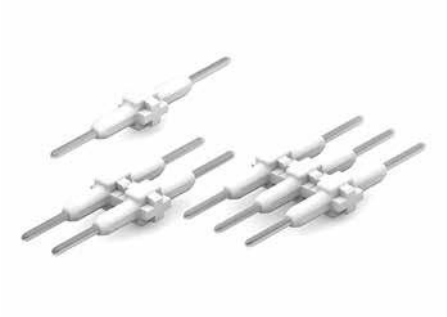
Pin length: 15.3 mm



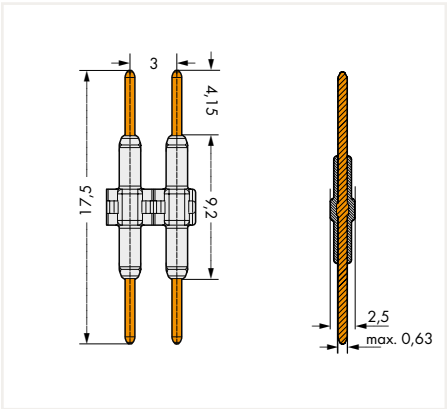
Pole No.	Item No.	PU
1	2059-901	1500
2	2059-902	500
3	2059-903	375
4	2059-904	250



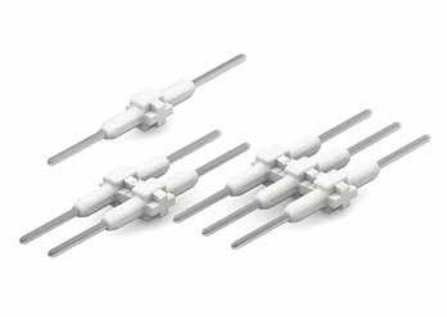
Pin length: 17.5 mm



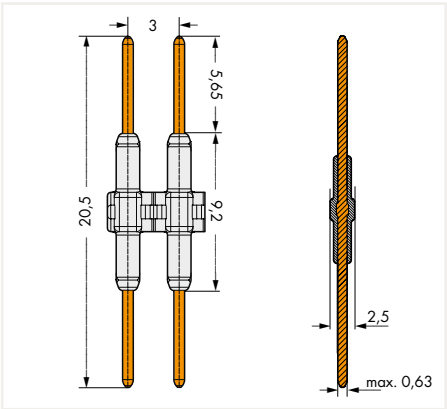
Pole No.	Item No.	PU
1	2059-901/018-000	1500
2	2059-902/018-000	500
3	2059-903/018-000	375
4	2059-904/018-000	250

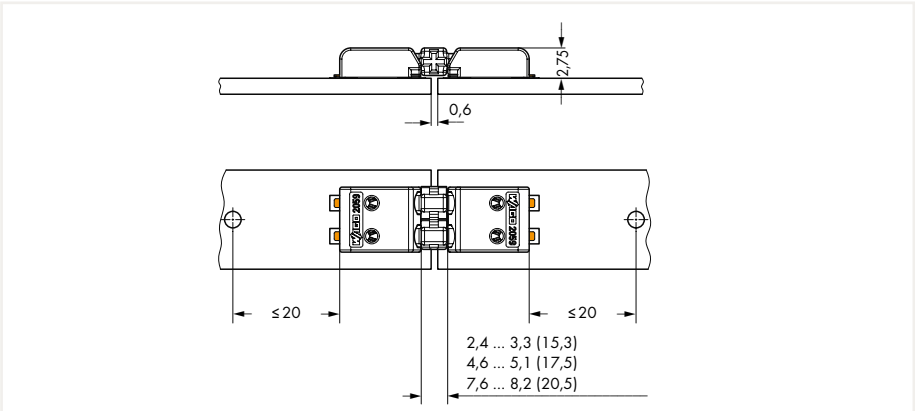


Pin length: 20.5 mm



Pole No.	Item No.	PU
1	2059-901/021-000	1500
2	2059-902/021-000	500
3	2059-903/021-000	375
4	2059-904/021-000	250



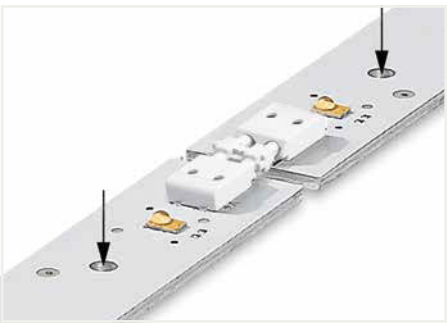




Inserting a board-to-board link into the terminal block.



Assembly: Place PCBs on a flat surface and connect terminal blocks on adjoining PCBs via board-toboard link. Disassembly: Pull PCBs apart (max. 10 mating cycles).



The PCBs must be secured.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Board-to-Board Links for SMD PCB Terminal Blocks with Push-Buttons; 0.75 mm²
2060 Series



- Board-to-board links simplify in-line assembly of LED modules
- Easy push-in connection and disconnection without push-button actuation

3

Electrical Data

	Pin Spacing: 4 mm (0.157 in)			Pin Spacing: 8 mm (0.314 in)		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Nominal voltage	63 V	160 V	320 V	400 V	630 V	1000 V
Rated surge voltage	2.5 kV	2.5 kV	2.5 kV	6 kV	6 kV	6 kV
Rated current	9 A	9 A	9 A	9 A	9 A	9 A
Approvals per	UL 1977			UL 1977		
Rated voltage (UL)	250 V			600 V		
Rated current (UL)	9 A			9 A		

Material Data

Material group	I
Insulation material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Limit temperature range	-60 … 105 °C
Contact material	Copper alloy
Contact plating	Silver-plated

Additional information, see “Technical Section”

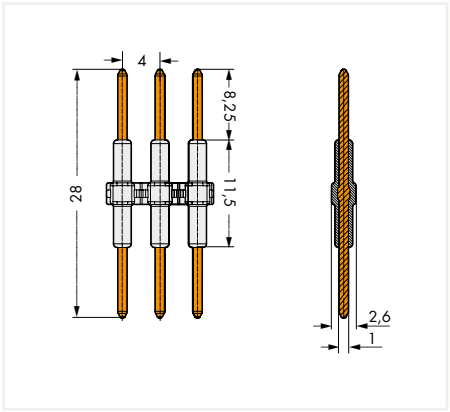
Approvals and corresponding ratings, visit www.wago.com

Board-to-Board Links for SMD PCB Terminal Blocks with Push-Buttons; 0.75 mm²
2060 Series

Pin Spacing: 4 mm (0.157 in)



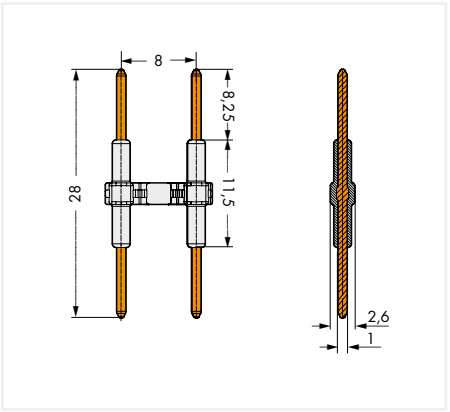
Pole No.	Item No.	PU
1	2060-951/028-000	1500
2	2060-952/028-000	500
3	2060-953/028-000	375
4	2060-954/028-000	250

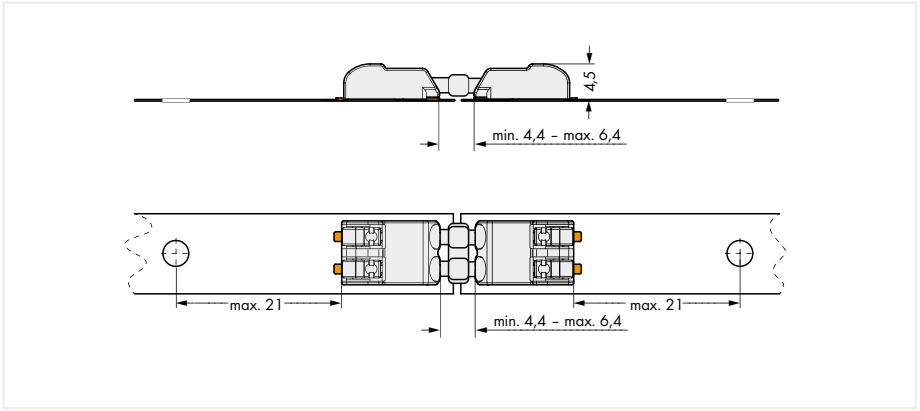


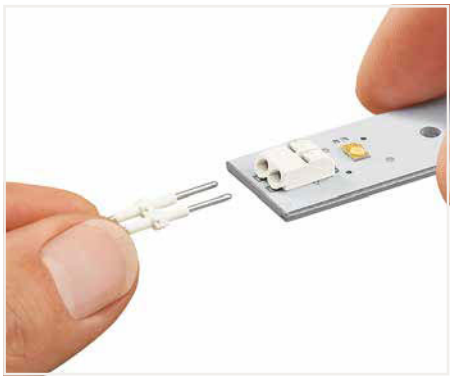
Pin Spacing: 8 mm (0.314 in)



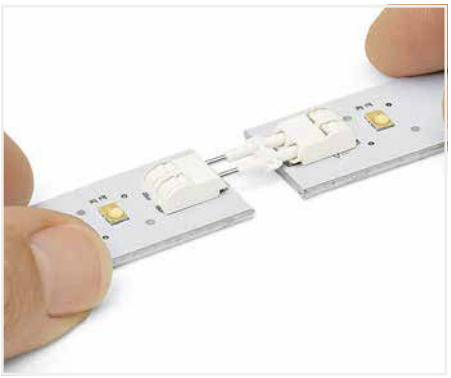
Pole No.	Item No.	PU
2	2060-962/028-000	375



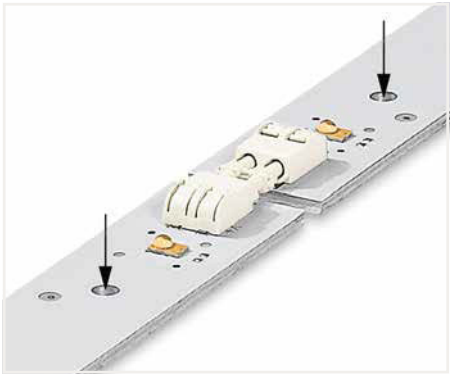




Inserting a board-to-board link into the terminal block.



Assembly: Place PCBs on a flat surface and connect terminal blocks on adjoining PCBs via board-to-board link.
Disassembly: Pull PCBs apart
(max. 10 mating cycles).



The PCBs must be secured.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Board-to-Board Link for SMD PCB Terminal Blocks with Push-Buttons

1.5 mm² ▶ Pin Spacing: 6 mm / 0.236 inch ▶ 2061 Series



- Board-to-board links simplify LED module assembly
- Easy push-in connection and disconnection without push-button actuation

3

Electrical Data for Pin Spacing 6 mm / 0.236 inch				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Nominal voltage	250 V	320 V	630 V	
Rated surge voltage	4 kV	4 kV	4 kV	
Rated current	9 A	9 A	9 A	

Material Data	
Material group	I
Insulation material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Limit temperature range	-60 … 105 °C
Contact material	Copper alloy
Contact Plating	Silver-plated

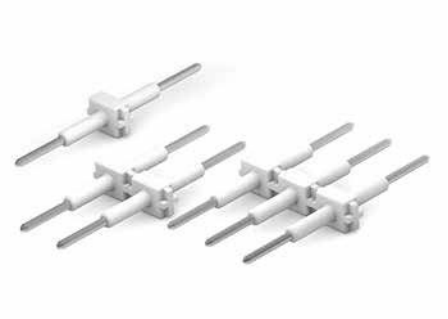
Additional information, see “Technical Section”

Approvals and corresponding ratings,
visit www.wago.com

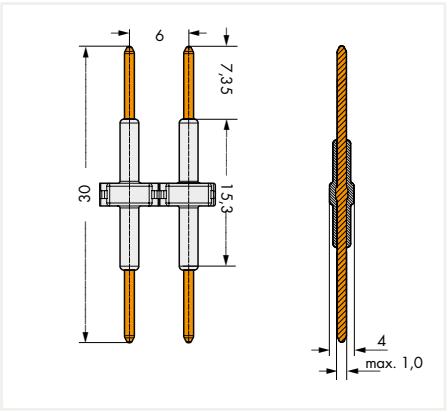
Board-to-Board Link for SMD PCB Terminal Blocks with Push-Buttons

1.5 mm² ▶ Pin Spacing: 6 mm ▶ 2061 Series

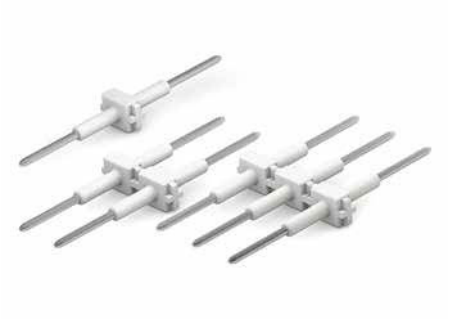
Pin length: 30 mm



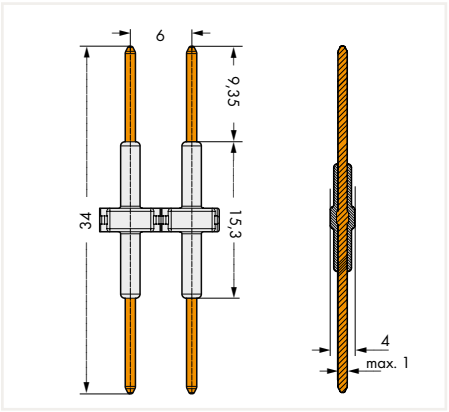
Pole No.	Item No.	PU
1	2061-901	700
2	2061-902	300
3	2061-903	200
4	2061-904	100

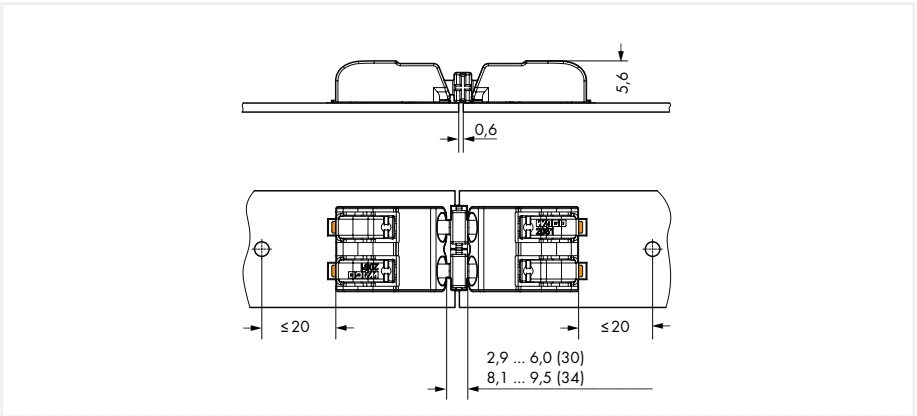


Pin length: 34 mm



Pole No.	Item No.	PU
1	2061-901/034-000	700
2	2061-902/034-000	300
3	2061-903/034-000	200
4	2061-904/034-000	100



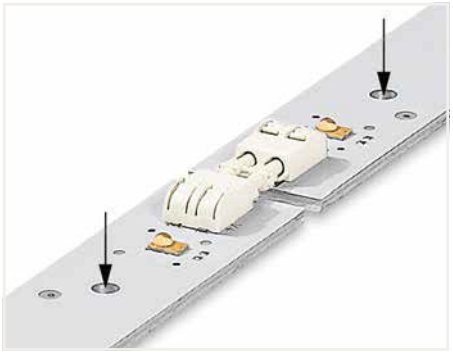




Inserting a board-to-board link into the terminal block.



Assembly: Place PCBs on a flat surface and connect terminal blocks on adjoining PCBs via board-toboard link.
Disassembly: Pull PCBs apart
(max. 10 mating cycles).



The PCBs must be secured.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Operating Tools



Operating tool		
Series	**Item No.**	PU
2059	**206-859**	5
2060	**206-860**	5
2061	**206-861**	5



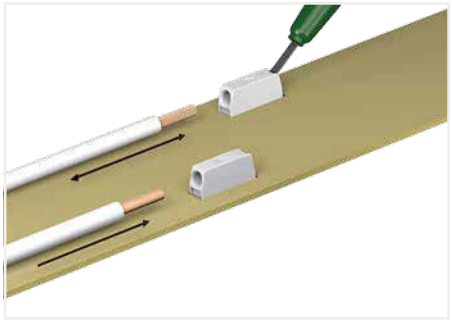
Operating tool		
Series	**Item No.**	PU
2070	**2070-400**	1



Operating tool; insulated		
Series	**Item No.**	PU (SPU)
2059	**2059-189**	600 (50)
2060	**2060-189**	300 (50)
2061	**2061-189**	300 (50)



Inserting/removing fine-stranded conductors by lightly pressing on a push-button.



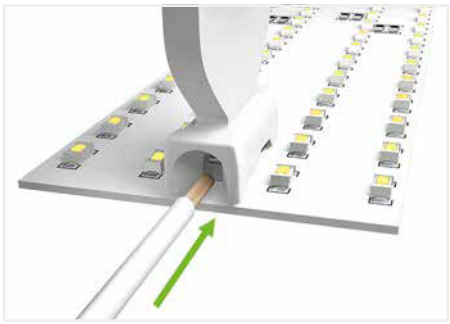
Insert fine-stranded conductors – and remove conductors – via operating tool. Solid conductors can

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

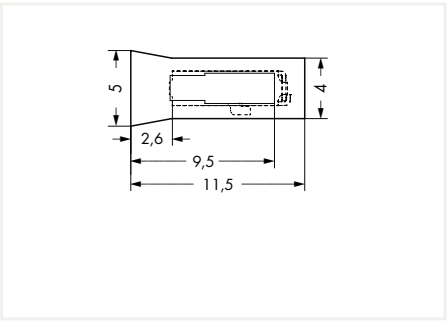
Operating Tools



Operating tool; insulated		
Series	**Item No.**	PU (SPU)
2065	**2065-189**	600 (50)

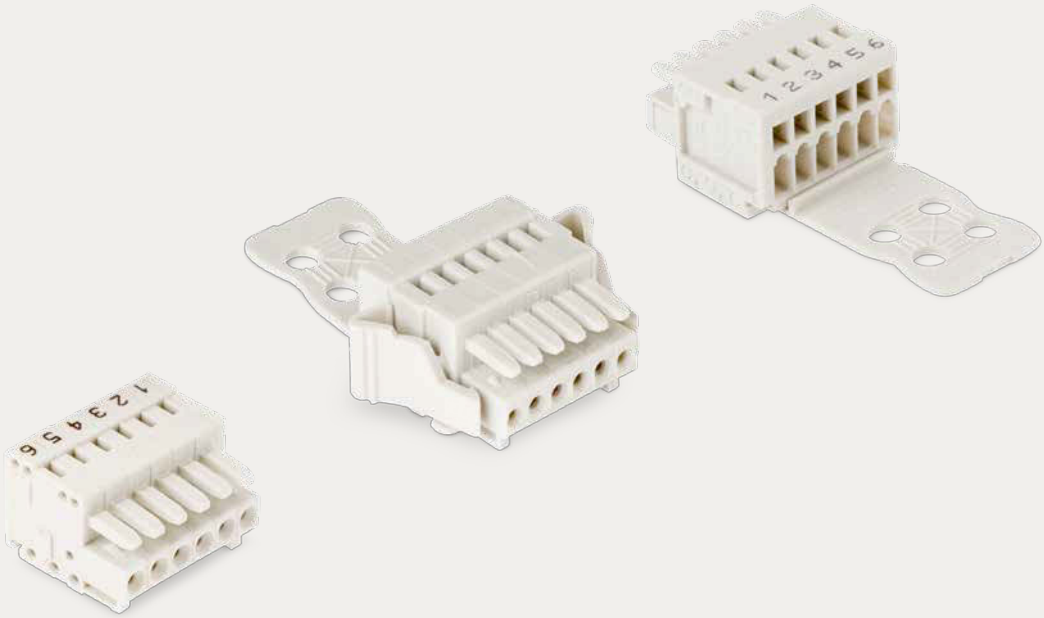


The operating tool's funneled conductor entry accurately guides the conductor into the terminal block



Required area for operating tool

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm



WAGO *MULTI CONNECTION SYSTEM* MICRO

WAGO *MULTI CONNECTION SYSTEM* MICRO
Pin Spacing: 2.5 mm / Nominal Cross-Section: 0.5 mm²

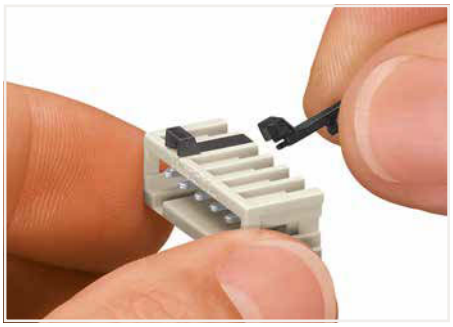
		Page
	*MCS* MICRO 1-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	328
	*MCS* MICRO 1-Conductor Male Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	330
	*MCS* MICRO THT Male Headers	332
	THR Male Headers	336
	*MCS* MICRO Accessories	342
	Accessories and Tools	829

4

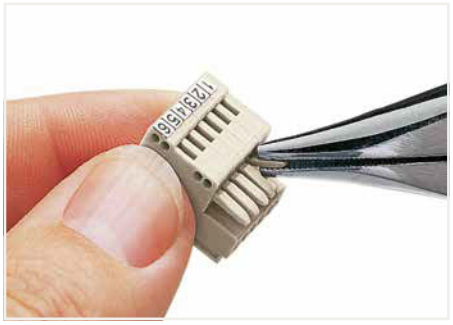
MCS MICRO
Description and Installation



Male headers and female connectors are 100 % protected against mismating.
Only mating halves with the same pole number can be connected.



Coding a male header – fitting coding key(s).



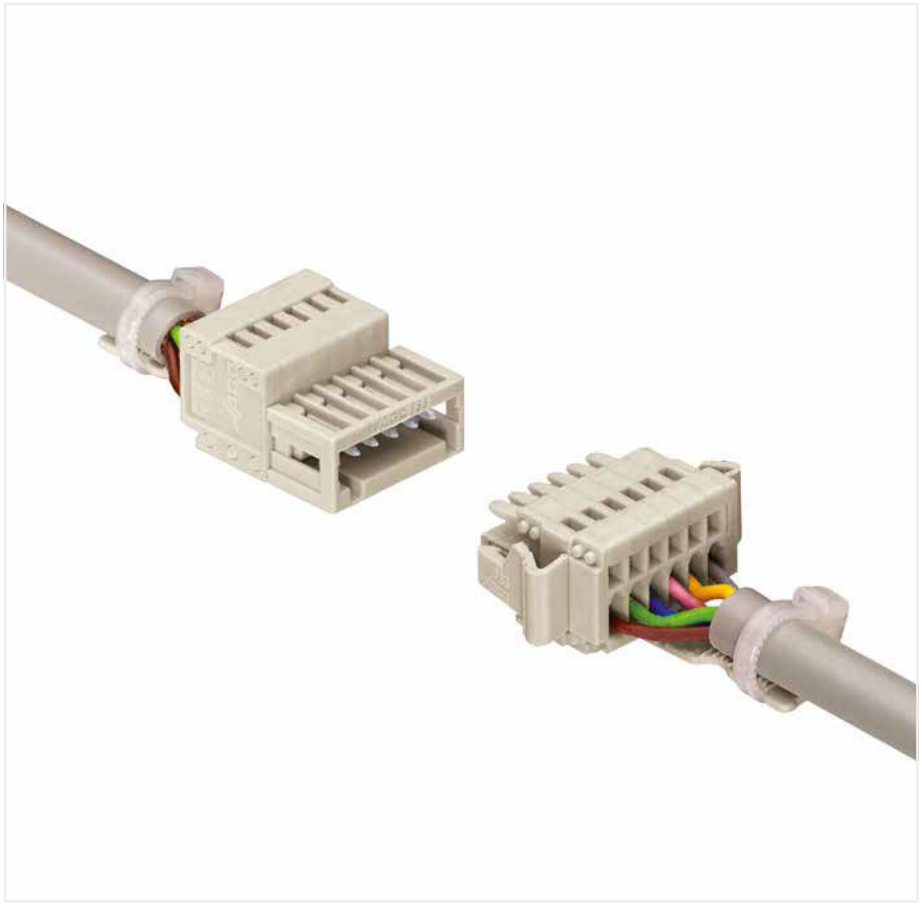
Coding a female connector – removing coding finger(s).



Wire-to-wire connection of single conductors



THR male headers for reflow soldering in SMT applications



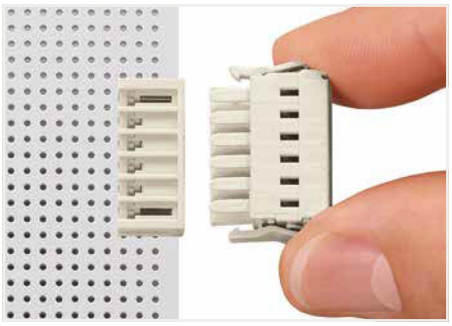
Wire-to-wire connection of multi-core cables
Plug-in connection using strain relief plates and locking levers



Tape-and-reel packaging for THR male headers



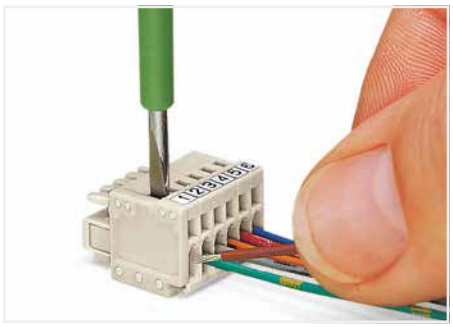
Locking levers prevent accidental disconnection.



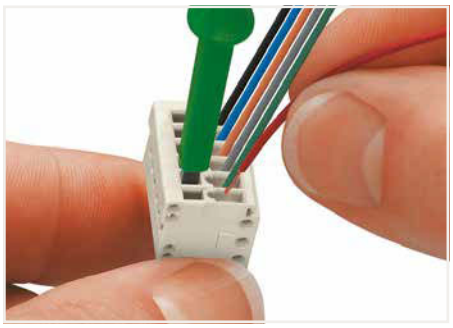
Locking levers prevent accidental disconnection.

CAGE CLAMP®

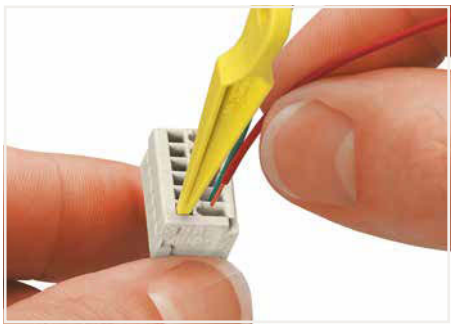
MCS MICRO
Description and Installation



Inserting a conductor via (2.5 x 0.4) mm screwdriver. Operation is performed perpendicular to conductor entry.

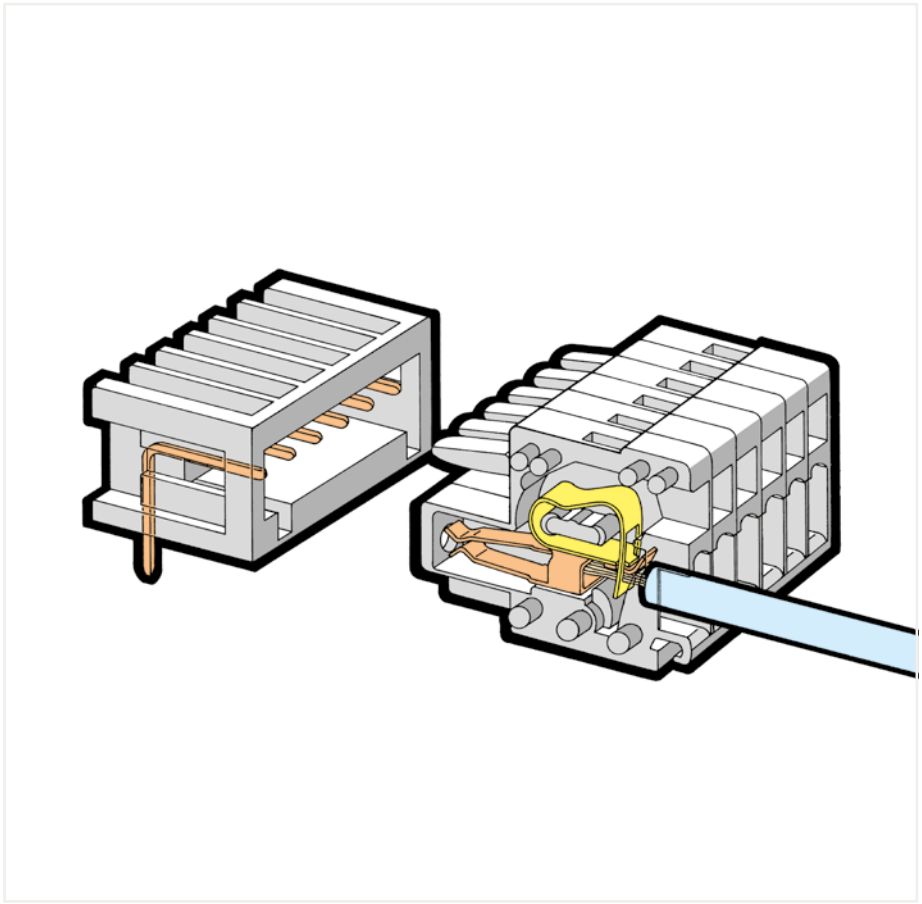


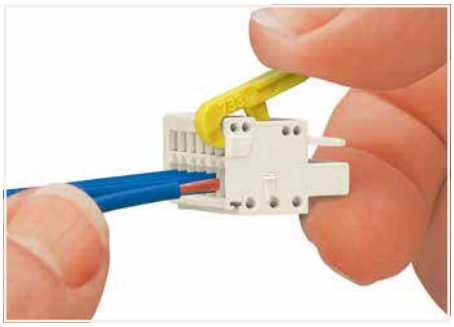
Inserting a conductor via screwdriver (233-335) – CAGE CLAMP® actuation parallel to conductor entry.



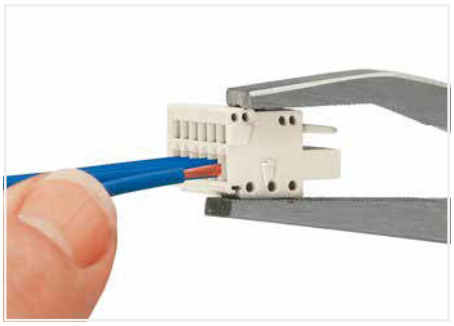
Inserting a conductor via 233-331 Operating Tool. Operation is performed parallel to conductor entry.

4





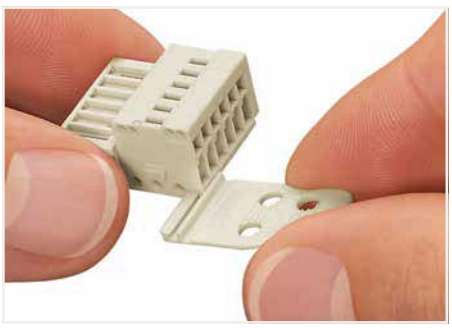
Marking via self-adhesive strips or factory direct marking



Inserting a conductor via 210-251 Operating Tool.



Marking via self-adhesive strips or factory direct marking



Strain relief plates for factory or in-the-field assembly.



Testing via 1 mm Ø test pin (735-500) – touch contact.

1-Conductor Female Connector ▸ *MCS* MICRO ▸ 733 Series

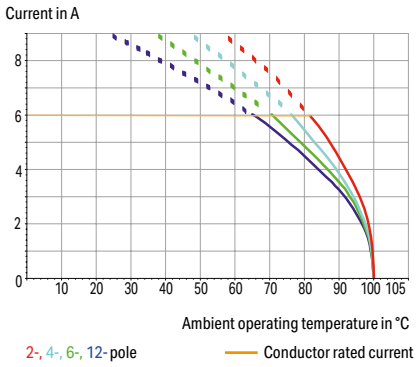
Pin spacing: 2.5 mm (0.098 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Strain relief plates for factory and in-the-field assembly
- 100 % protected against mismating
- Coding via coding fingers

4

Derating Curve
1-conductor female connector (733-102) with THT male header (733-332)
Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	100 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	6 A	6 A	6 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.34 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 0.34 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Marking	Page 832
Strain relief	Page 343
Testing and measuring	Page 854
Tools	Page 342, 838
Direct marking	Page 340
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MICRO ▸ 733 Series

Pin spacing: 2.5 mm (0.098 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

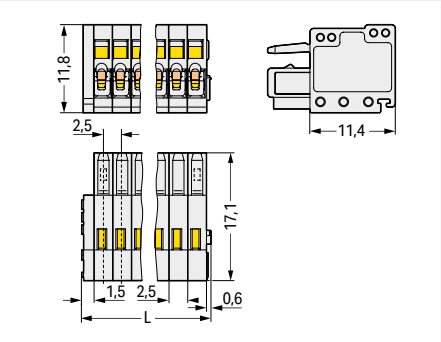
	Locking of plug-in connection: locking lever



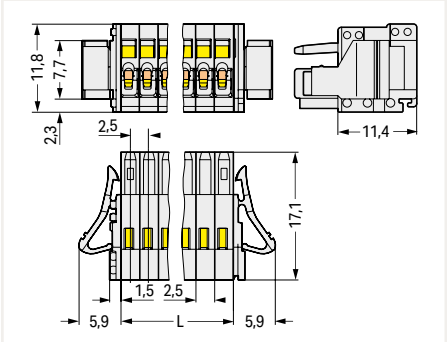


Pole No.	Item No.	PU
2	733-102	200
3	733-103	200
4	733-104	200
5	733-105	100
6	733-106	100
7	733-107	100
8	733-108	100
9	733-109	100
10	733-110	100
12	733-112	50

Pole No.	Item No.	PU
2	733-102/037-000	100
3	733-103/037-000	100
4	733-104/037-000	100
5	733-105/037-000	100
6	733-106/037-000	100
7	733-107/037-000	50
8	733-108/037-000	50
9	733-109/037-000	50
10	733-110/037-000	50
12	733-112/037-000	50



L = (pole no. x pin spacing) + 2.1 mm



L = pole no. x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Male Connector ▸ *MCS* MICRO ▸ 733 Series

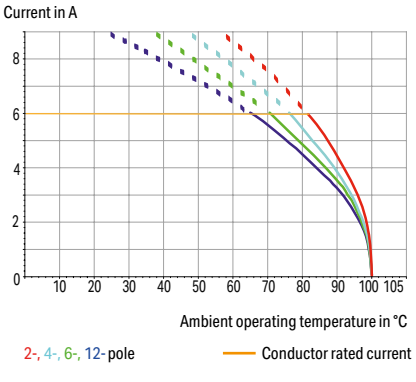
Pin spacing: 2.5 mm (0.098 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire connections
- 100 % protected against mismating
- Coding via coding fingers

4

Derating Curve
1-conductor female connector (733-102) with THT male header (733-202)
Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	100 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	6 A	6 A	6 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.34 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 0.34 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

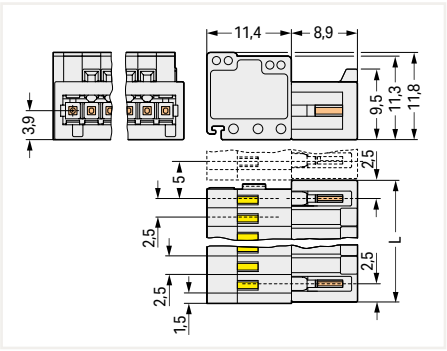
Coding	Page 342
Ferrule	Page 847
Strain relief	Page 343
Testing and measuring	Page 854
Tools	Page 342
Direct marking	Page 340
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Male Connector ▸ *MCS* MICRO ▸ 733 Series

Pin spacing: 2.5 mm (0.098 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray



Pole No.	Item No.	PU
2	733-202	200
3	733-203	200
4	733-204	200
5	733-205	100
6	733-206	100
7	733-207	100
8	733-208	100
9	733-209	100
10	733-210	100
12	733-212	50



L = (pole no. + 1) x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT Male Header ▸ *MCS* MICRO ▸ 733 Series

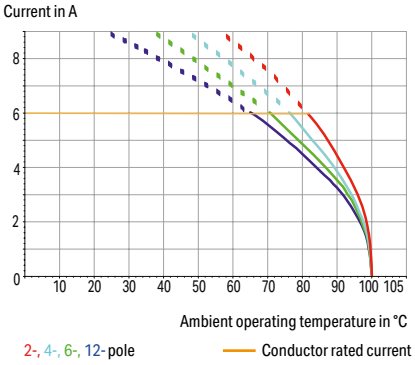
Pin spacing: 2.5 mm (0.098 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 100 % protected against mismating; only mating halves with the same number of poles can be connected together
- Coding via coding fingers

4

Derating Curve
1-conductor female connector (733-102) with
THT male header (733-362)
Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	80 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	6 A	6 A	6 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	4 A	-	-	

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	0.8 x 0.8 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 342

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

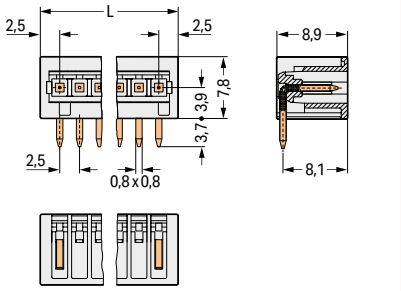
THT Male Header ▸ *MCS* MICRO ▸ 733 Series

Pin spacing: 2.5 mm (0.098 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: light gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	733-362	200
3	733-363	200
4	733-364	200
5	733-365	200
6	733-366	200
7	733-367	200
8	733-368	200
9	733-369	200
10	733-370	200
12	733-372	100

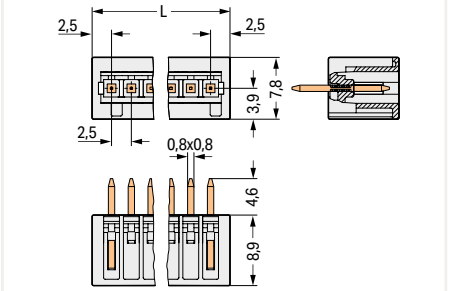


L = (pole no. + 1) x pin spacing

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	733-332	200
3	733-333	200
4	733-334	200
5	733-335	200
6	733-336	200
7	733-337	200
8	733-338	200
9	733-339	200
10	733-340	200
12	733-342	100



L = (pole no. + 1) x pin spacing

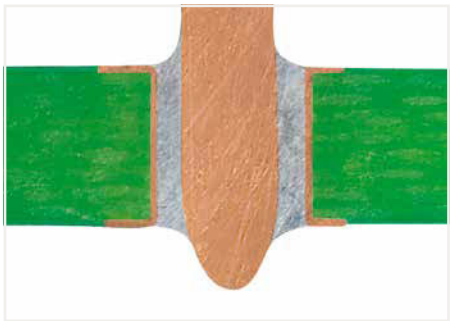
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THR (Through-Hole Reflow) Soldering Process





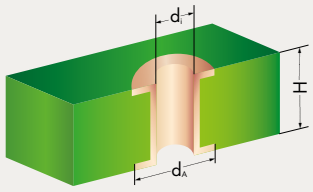
By using high-temperature-resistant plastic and a streamlined pin design, WAGO's THR male headers and PCB terminal blocks meet requirements for SMT process capability while maintaining the necessary stability. Both headers and terminal blocks are simply pushed into the solder paste-filled PCB holes and then soldered along with the SMT components via reflow soldering. The previous wave soldering process is no longer necessary. The result is a perfect connection – both mechanically and electrically.



Terminal strips with an additional suction pad in tape-and-reel packaging per IEC 60286-3
WAGO recommends both a temperature profile that adheres to EN 61760-1 and the use of forced convection ovens for processing THR components.

4

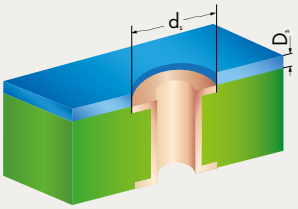
1



Metal-plated PCB bore hole

Series	d_i (mm)	d_A (mm)	H (mm)	d_s (mm)	D_s (µm)	d (mm)	L (mm)
218	$1{,}1^{+0{,}1}$	1,9	< 2	1,8	150	0,9	2,8
231 (1 x 1 mm)	$1{,}4^{+0{,}1}$	2,5	< 2	2,4	150	1,2	2,4
231 (1,2 x 1,2 mm)	$1{,}7^{+0{,}1}$	2,8	< 2	2,7	150	1,5	2,4
236	$1{,}1^{+0{,}1}$	2,2	< 2	2,1	150	0,9	3,6
250	$1{,}1^{+0{,}1}$	2,0	< 2	1,9	150	0,9	3,6
713	$1{,}2^{+0{,}1}$	1,9	< 2	1,8	150	1,0	2,4
733	$1{,}2^{+0{,}1}$	1,9	< 2	1,8	150	1,0	2,4
734	$1{,}4^{+0{,}1}$	2,5	< 2	2,4	150	1,2	2,4
2060 THR	$1{,}5^{+0{,}1}$	2,4	< 2	2,3	150	1,25	2,4
2061 THR	$1{,}5^{+0{,}1}$	2,4	< 2	2,3	150	1,25	1,5 / 2,4

2

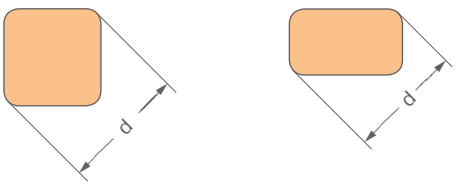


SMD positioning pattern

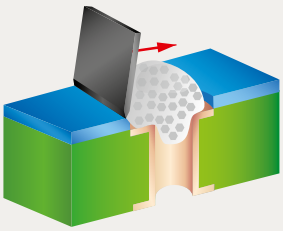
d_i: Plated through-hole diameter
d_A: Outer diameter of metal-plated PCB hole*
H: PCB thickness
d_s: Pattern hole diameter
D_s: Pattern thickness
d: Pin diagonal
L: Pin length

* When laying out the metal-plated bore holes, the clearance and creepage distance requirements – as specified in the equipment standards – must be considered.

Soldering pin form

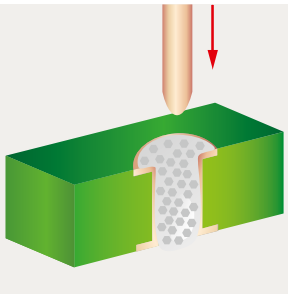


3



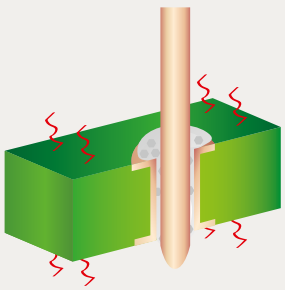
Solder paste application

4



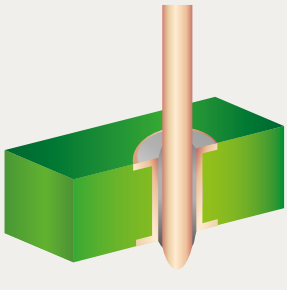
Component assembly, automatic/by hand

5



Reflow soldering process

6



THR soldering joint

THR Male Header ▸ *MCS* MICRO ▸ 733 Series

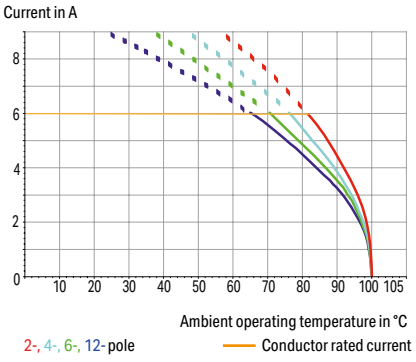
Pin spacing: 2.5 mm (0.098 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Optimal thermal penetration via pin enclosure design provides lower soldering temperatures
- 100 % protected against mismating
- Coding via coding fingers

4

Derating Curve
1-conductor female connector (733-102) with
THR male header (733-332/105-604)
Pin spacing: 2.5 mm / Conductor cross-section: 0.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	80 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	6 A	6 A	6 A	

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin length	2.4 mm
Solder pin dimensions	0.8 x 0.8 mm
Plated through-hole diameter (THR)	1.2 (+ 0.1) mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR-soldering process	Page 334
Coding	Page 342
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

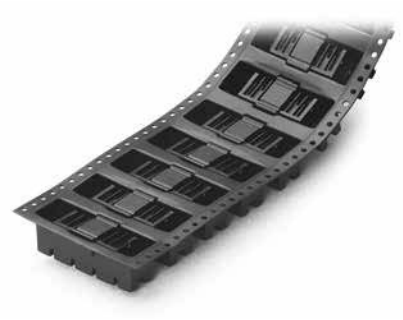
THR Male Header ▸ *MCS* MICRO ▸ 733 Series

Pin spacing: 2.5 mm (0.098 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Mating direction to the PCB: 0 °

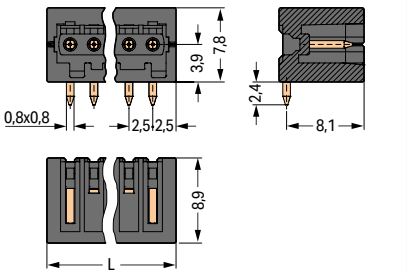
Suitable for automated assembly



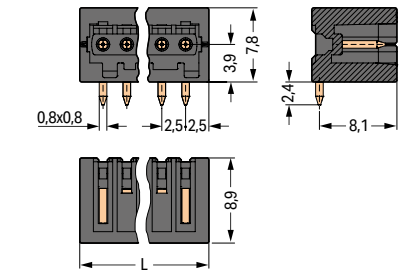


Pole No.	Item No.	PU
2	733-362/105-604	200
3	733-363/105-604	200
4	733-364/105-604	200
5	733-365/105-604	200
6	733-366/105-604	200
7	733-367/105-604	200
8	733-368/105-604	200
9	733-369/105-604	200
10	733-370/105-604	200
12	733-372/105-604	100

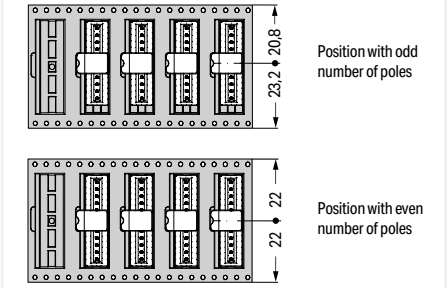
Pole No.	Item No.	PU
2	733-362/105-604/997-406	300
3	733-363/105-604/997-406	300
4	733-364/105-604/997-406	300
5	733-365/105-604/997-406	300
6	733-366/105-604/997-406	300
7	733-367/105-604/997-406	300
8	733-368/105-604/997-406	300
9	733-369/105-604/997-406	300
10	733-370/105-604/997-406	300
12	733-372/105-604/997-406	300



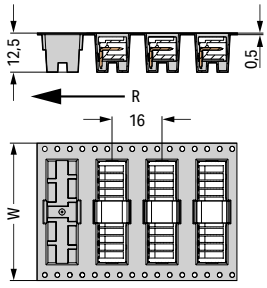
L = (pole no. + 1) x pin spacing



L = (pole no. + 1) x pin spacing



Pin position in tape-and-reel packaging



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

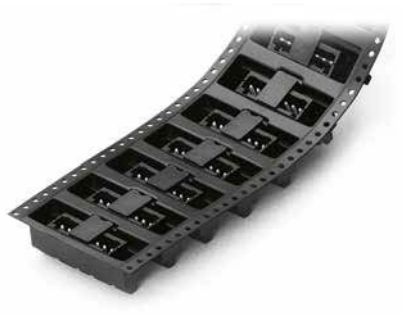
THR Male Header ▸ *MCS* MICRO ▸ 733 Series

Pin spacing: 2.5 mm (0.098 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Mating direction to the PCB: 90 °

Suitable for automated assembly

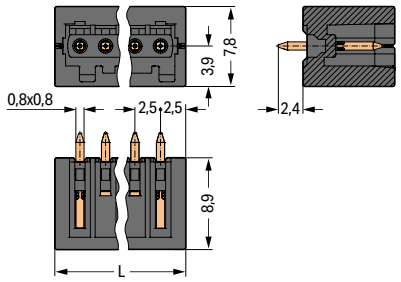




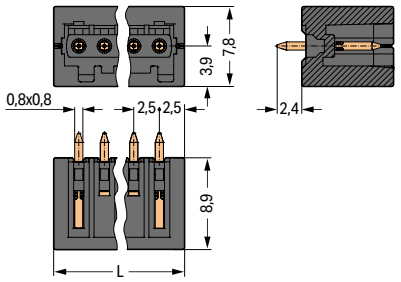
4

Pole No.	Item No.	PU
2	733-332/105-604	200
3	733-333/105-604	200
4	733-334/105-604	200
5	733-335/105-604	200
6	733-336/105-604	200
7	733-337/105-604	200
8	733-338/105-604	200
9	733-339/105-604	200
10	733-340/105-604	200
12	733-342/105-604	100

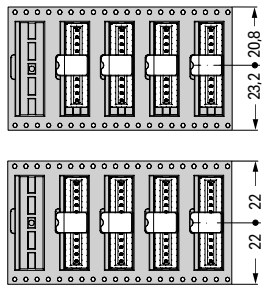
Pole No.	Item No.	PU
2	733-332/105-604/997-446	290
3	733-333/105-604/997-446	290
4	733-334/105-604/997-446	290
5	733-335/105-604/997-446	290
6	733-336/105-604/997-446	290
7	733-337/105-604/997-446	290
8	733-338/105-604/997-446	290
9	733-339/105-604/997-446	290
10	733-340/105-604/997-446	290
12	733-342/105-604/997-446	290



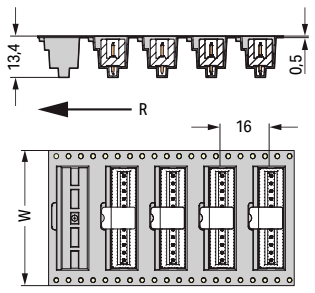
L = (pole no. + 1) x pin spacing



L = (pole no. + 1) x pin spacing



Pin position in tape-and-reel packaging



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

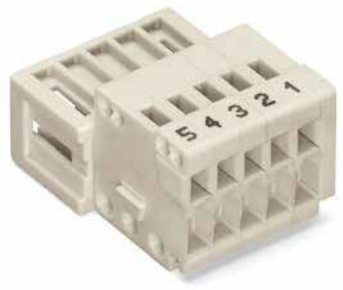
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

Direct Marking
MCS MICRO







4

The pole numbers of male and female connectors for CAGE CLAMP® termination can be marked via factory direct marking.

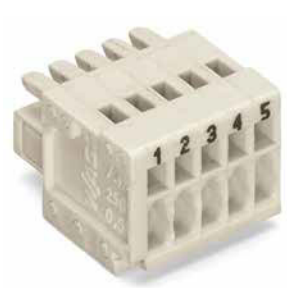
Two standard marking orientations are available:
1. Marking perpendicular to conductor entry
2. Marking parallel to conductor entry

Other customized marking options are available upon request.

Direct marking is not suitable for MCS PCB male headers. WAGO recommends pole marking on the PCB for these headers.

Direct marking of female connectors, perpendicular to conductor entry, 1 ... pole no., item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-cond. female connector,5-pole, light gray	**733-105/000-047**
1-cond. female connector, with locking levers, 5-pole, light gray	**733-105/037-047**
1-cond. female connector, with strain relief plate, 5-pole, light gray	**733-105/033-047**
1-cond. female connector, with locking levers and strain relief plate, 5-pole, light gray	**733-105/037-047/033-000**

Direct marking of male connectors, perpendicular to conductor entry, pole no. ... 1, item no. suffix.: /. . . - 044	
Version	**Item No. Example**
1-cond. male connector, 5-pole, light gray	**733-205/000-044**
1-cond. male connector, with strain relief plate, 5-pole, light gray	**733-205/033-044**





Direct marking of female connectors, parallel to conductor entry, 1 ... pole no., item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
1-cond. female connector, 5-pole, light gray	**733-105/000-9037**
1-cond. female connector, with locking levers, 5-pole, light gray	**733-105/037-9037**
1-cond. female connector, with strain relief plate, 5-pole, light gray	**733-105/033-9037**
1-cond. female connector, with locking levers and strain relief plate, 5-pole, light gray	**733-105/037-9037/033-000**

Direct marking of male connectors, parallel to conductor entry, pole no. ... 1, item no. suffix.: /. . . - 9034	
Version	**Item No. Example**
1-cond. male connector, 5-pole, light gray	**733-205/000-9034**
1-cond. male connector, with strain relief plate, 5-pole, light gray	**733-205/033-9034**

Operating Tools and Coding Keys
MCS MICRO



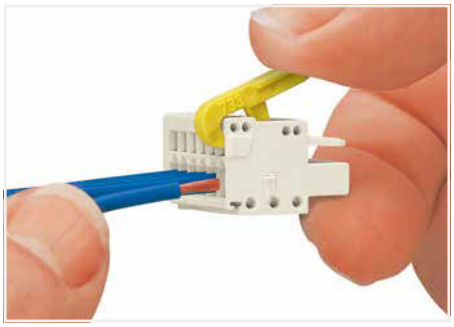


4

Operating lever for male and female connectors with CAGE CLAMP® connection; 2.5 mm pin spacing		
Color	Item No.	PU (SPU)
natural	733-130	100 (25)
yellow	733-191	100 (25)

Coding key for male headers		
Color	Item No.	PU (SPU)
white	733-330	100
lack*	733-331	100

*suitable for THR soldering



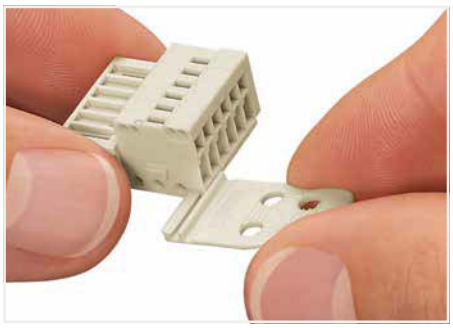
Inserting a conductor via operating lever.



Coding a male header via snap-on coding keys.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Strain Relief Plates
MCS MICRO



Strain relief plate for in-the-field assembly





4

Strain relief plate, for in-the-field assembly; for male and female connectors with CAGE CLAMP® connection; light gray

Pole No.	Width	Item No.	PU (SPU)
2 … 4	6 mm	734-127	100 (25)
5 … 9	12.5 mm	734-128	100 (25)
10 … 12	25 mm	734-129	100 (25)

Strain relief plate; pre-assembled; for male and female connectors with CAGE CLAMP® connection; light gray

Pole No.	Width	Item No. Suffix *
2 … 4	6 mm	. . . /032-000
5 … 9	12.5 mm	. . . /033-000
10 … 12	25 mm	. . . /034-000

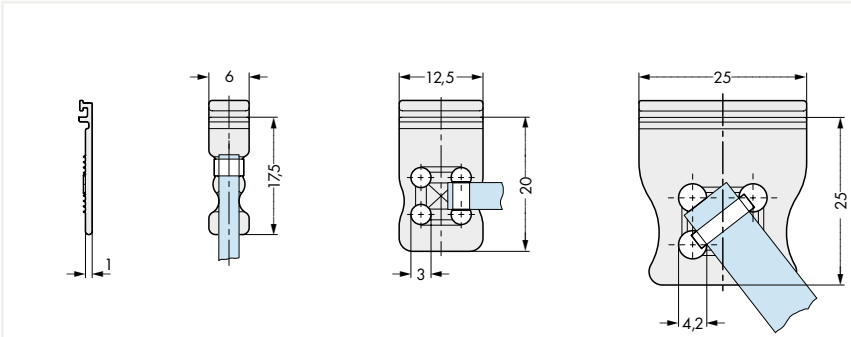
*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.



Strain relief plate; for factory assembly;
1-conductor female connector;
2.5 mm pin spacing; light gray; 2-pole,
with strain relief plate (733-102/032-000)



Strain relief plate; for factory assembly;
1-conductor female connector;
2.5 mm pin spacing; light gray; 12-pole;
with strain relief plate (733-112/034-000)



The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways. The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

Cable ties and binding tools are not offered by WAGO.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm



WAGO *MULTI CONNECTION SYSTEM*
MINI

WAGO *MULTI CONNECTION SYSTEM* MINI
Pin Spacing: 3.5 mm, 3.81 mm ▶ 1.5 mm²

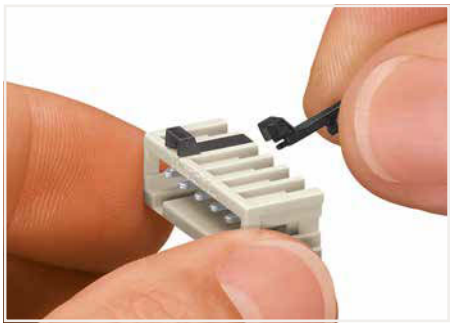
		Pin Spacing	Page
	*MCS* MINI 1-Conductor Female Connectors ▶ Actuation type: Operating tool ▶ CAGE CLAMP®	3.5 mm 3.81 mm	348 378
	*MCS* MINI 1-Conductor Female Connectors ▶ Actuation type: Push-button▶ CAGE CLAMP®	3.5 mm 3.81 mm	352 382
	*MCS* MINI 1-Conductor Male Connectors ▶ Actuation type: Operating tool ▶ CAGE CLAMP®	3.5 mm 3.81 mm	356 386
	*MCS* MINI 2-Conductor Combi Strips ▶ Actuation type: Operating tool ▶ CAGE CLAMP®	3.5 mm	360
	*MCS* MINI THT Female Headers	3.5 mm 3.81 mm	364 390
	*MCS* MINI THT Male Headers THR Male Headers	3.5 mm 3.81 mm 3.5 mm 3.81 mm	368 394 374 398
	*MCS* MINI Accessories Accessories and Tools		406 829

5

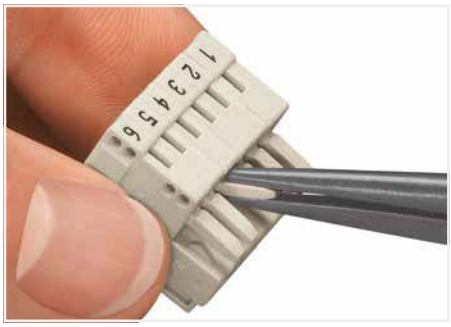
MCS MINI
Description and Installation



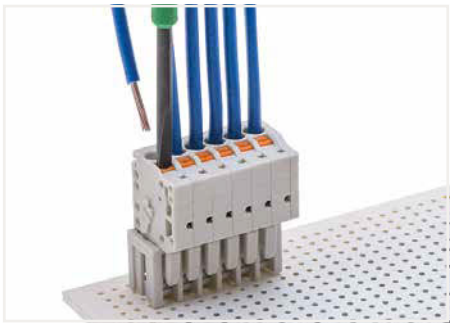
Coding a THT double-deck male header – lower level.



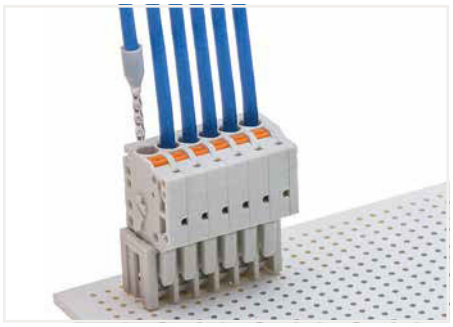
Coding a male header – fitting coding key(s).



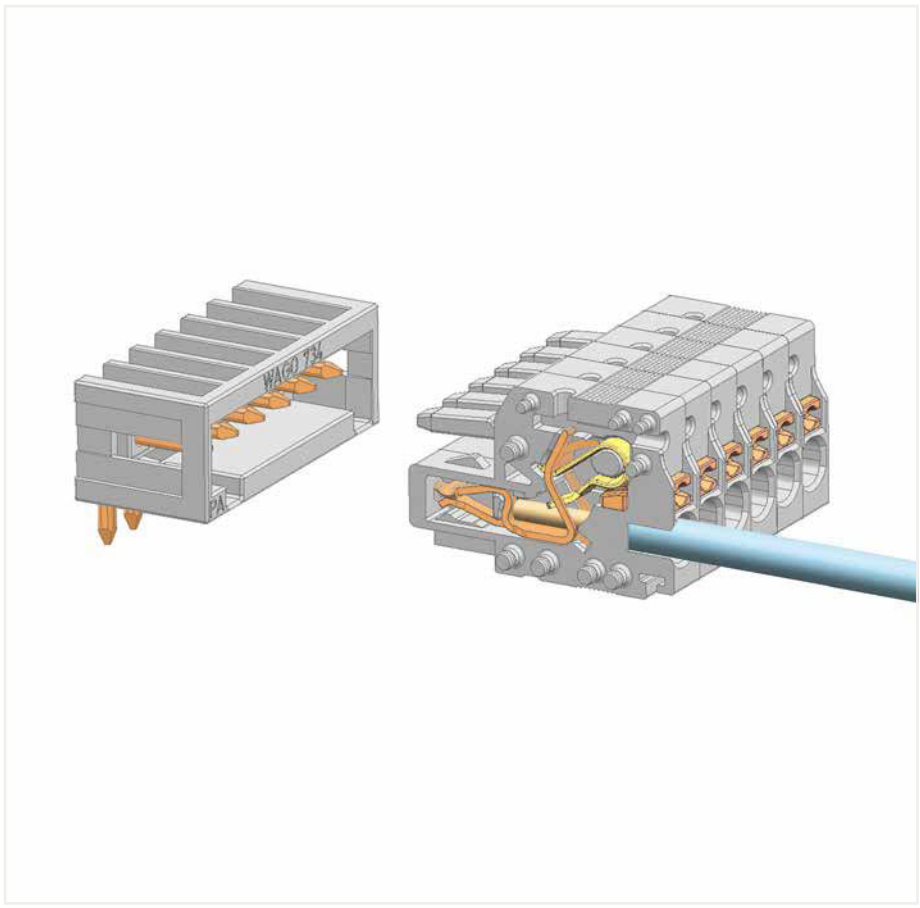
Coding a female connector – removing coding finger(s).



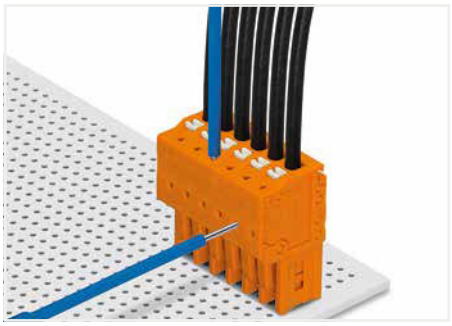
Inserting a fine stranded conductor into Push-in CAGE CLAMP® unit via push-button.



Solid and ferruled conductors are terminated by simply pushing them into unit.



Pin spacing: 3.5 mm and 3.81 mm, Push-in CAGE CLAMP®



Testing via 1 mm Ø test pin (735-500).
Push-in CAGE CLAMP® termination – parallel to conductor entry



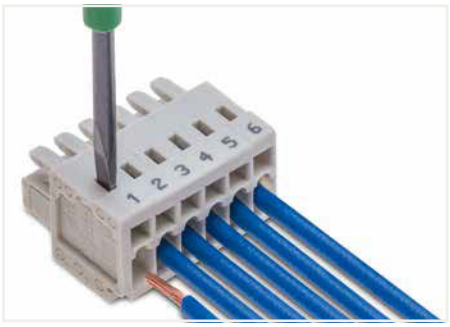
Labeling via direct marking or self-adhesive strips.



Strain relief housing for 734 Series Male and Female Connectors with CAGE CLAMP® connection.

CAGE CLAMP®

MCS MINI
Description and Installation



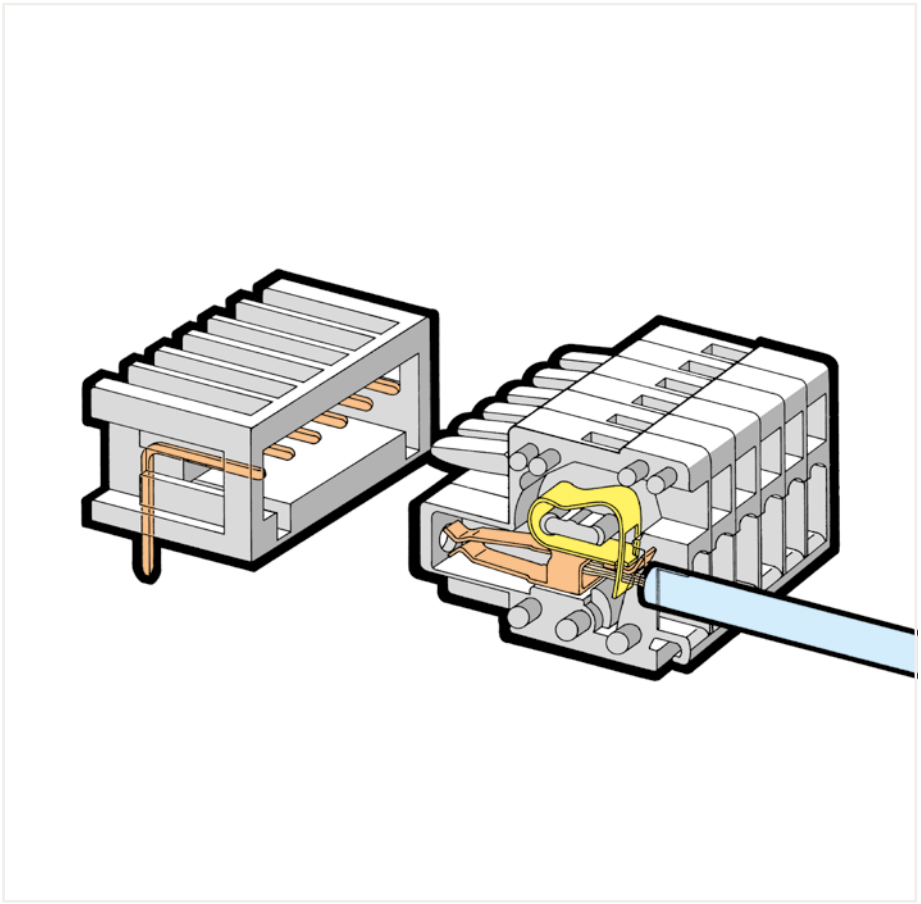
Inserting a conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



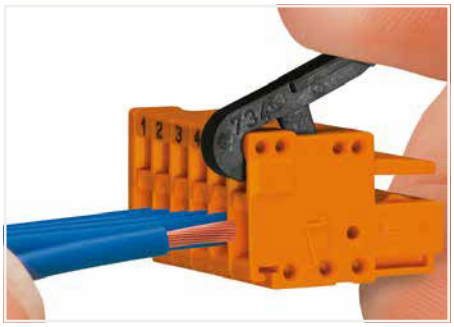
Inserting a conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.



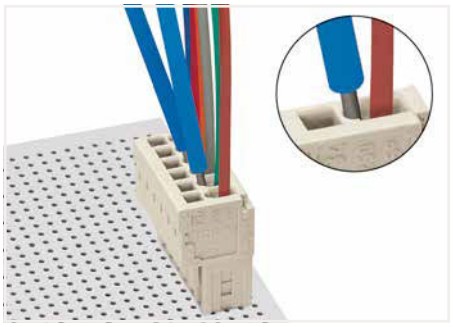
Inserting a conductor into CAGE CLAMP® unit via operating tool (210-251 or 210-250).



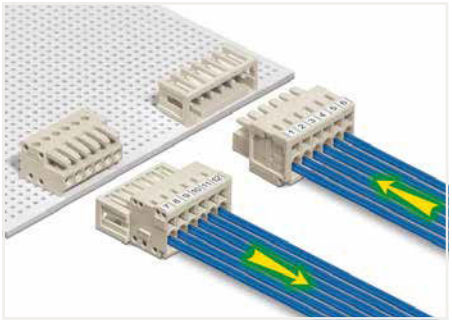
Pin spacing: 3.5 mm and 3.81 mm, CAGE CLAMP®



Inserting a conductor into CAGE CLAMP® unit via operating lever (734-191).



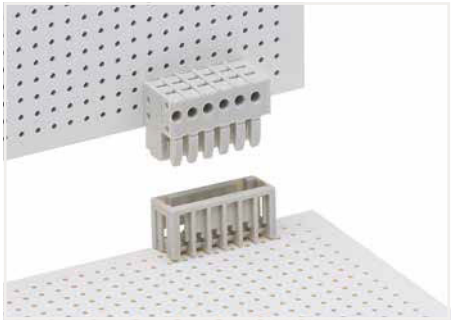
Testing via 1 mm Ø test pin (735-500) – CAGE CLAMP® connection – touch contact.



Easy-to-identify PCB inputs and outputs



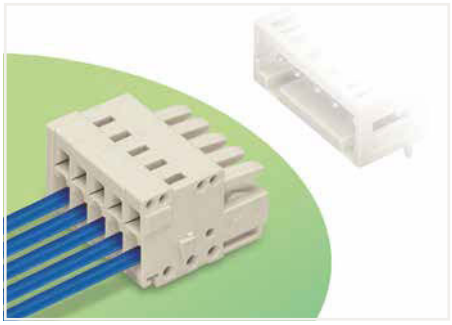
Wire-to-wire connection of single conductors



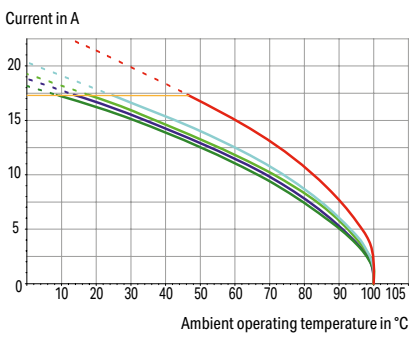
Board-to-board connection – male header with straight solder pins and female header with angled solder pins

1-Conductor Female Connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Strain relief plates and housings for field assembly
- 100 % protected against mismating
- Coding via coding fingers



5

Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	Terminating 1.5 mm² conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row.

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Insulation stop	Page 407
Marking	Page 832
Mounting	Page 542
Strain relief	Page 409, 410
Testing and measuring	Page 854
Tools	Page 406, 410
Direct marking	Page 402
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

	Locking of plug-in connection: locking lever	Locking of plug-in connection: Screw flange



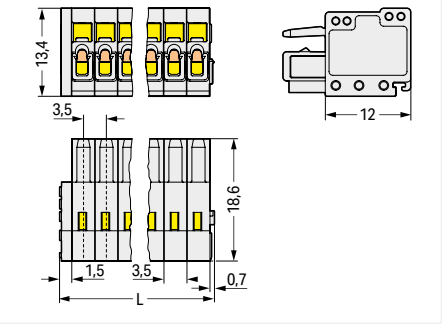




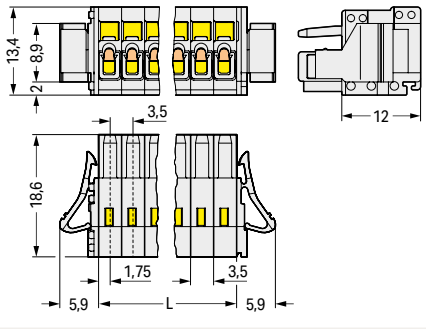
Pole No.	Item No.	PU
2	734-102	200
3	734-103	200
4	734-104	100
5	734-105	100
6	734-106	100
7	734-107	100
8	734-108	50
9	734-109	50
10	734-110	50
11	734-111	50
12	734-112	50
13	734-113	50
14	734-114	50
16	734-116	25
18	734-118	25
20	734-120	25
24	734-124	25

Pole No.	Item No.	PU
2	734-102/037-000	100
3	734-103/037-000	100
4	734-104/037-000	100
5	734-105/037-000	50
6	734-106/037-000	50
7	734-107/037-000	50
8	734-108/037-000	50
9	734-109/037-000	50
10	734-110/037-000	50
11	734-111/037-000	50
12	734-112/037-000	50
13	734-113/037-000	25
14	734-114/037-000	25
16	734-116/037-000	25
18	734-118/037-000	25
20	734-120/037-000	25
24	734-124/037-000	10

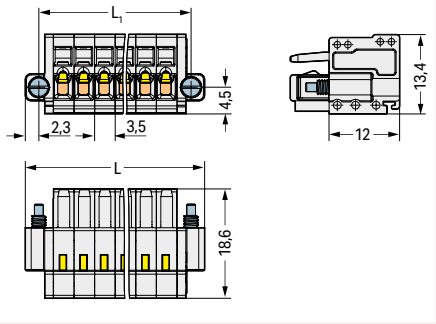
Pole No.	Item No.	PU
2	734-102/107-000	100
3	734-103/107-000	100
4	734-104/107-000	100
5	734-105/107-000	50
6	734-106/107-000	50
7	734-107/107-000	50
8	734-108/107-000	50
9	734-109/107-000	50
10	734-110/107-000	50
11	734-111/107-000	50
12	734-112/107-000	50
13	734-113/107-000	25
14	734-114/107-000	25
16	734-116/107-000	25
18	734-118/107-000	25
20	734-120/107-000	25
24	734-124/107-000	10



L = (pole no. x pin spacing) + 2.2 mm



L = pole no. x pin spacing



L = (pole no. x pin spacing) + 9.5 mm
L_1 = (pole no. x pin spacing) + 4.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

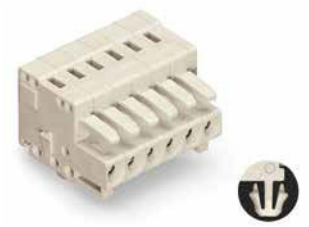
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

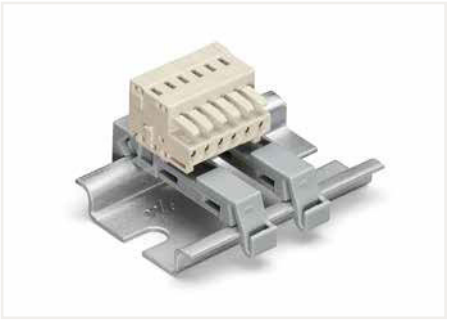
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Female Connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

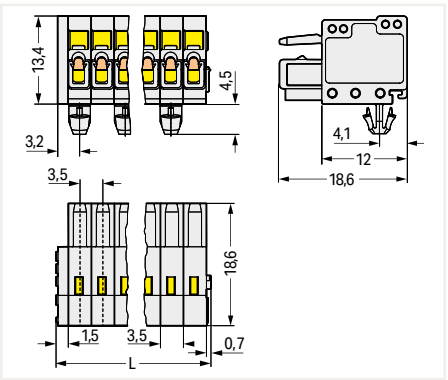
Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



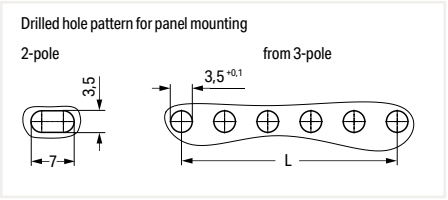


Using two DIN-35 rail mounting adapters (209-137) for 3 or more poles. Distance between two mounting adapters: maximum 7 poles.

Pole No.	Item No.	PU
2	734-102/008-000	200
3	734-103/008-000	200
4	734-104/008-000	100
5	734-105/008-000	100
6	734-106/008-000	100
7	734-107/008-000	50
8	734-108/008-000	50
9	734-109/008-000	50
10	734-110/008-000	50
11	734-111/008-000	50
12	734-112/008-000	50
13	734-113/008-000	50
14	734-114/008-000	50
16	734-116/008-000	25
18	734-118/008-000	25
20	734-120/008-000	25
24	734-124/008-000	25



L = (pole no. x pin spacing) + 2.2 mm



Even pole numbers: L = (pole no. – 2) x pin spacing
Odd pole numbers: L = (pole no. – 1) x pin spacing

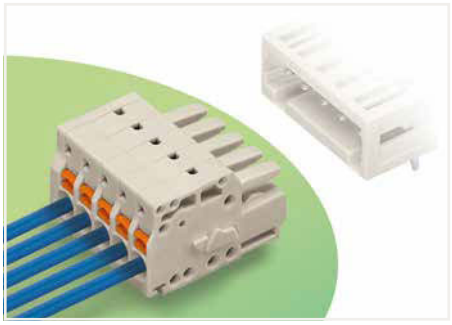
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

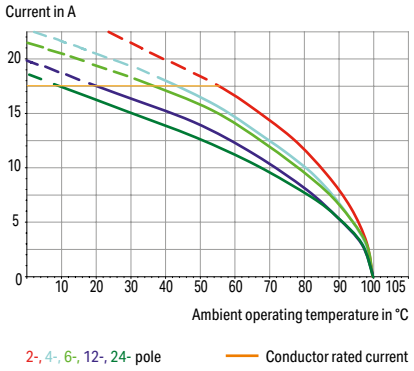
1-Conductor Female Connector ▸ *MCS* MINI ▸ 2734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Color: light gray



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Simple, push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- 100 % protected against mismating
- Coding via coding fingers

Derating Curve
1-conductor female connector (2734-102) with THT male header (734-132)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.75 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Mounting	Page 537, 837
Strain relief	Page 409
Tools	Page 406, 838
Direct marking	Page 402
Cutout dimensions	Page 404
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MINI ▸ 2734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Color: light gray

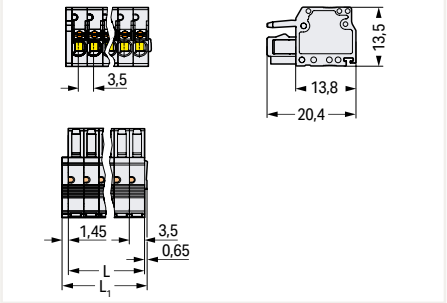
	Locking of plug-in connection: locking lever	Locking of plug-in connection: Screw flange





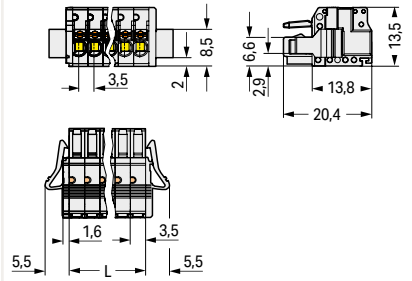


Pole No.	Item No.	PU
2	2734-102	200
3	2734-103	200
4	2734-104	100
5	2734-105	100
6	2734-106	100
7	2734-107	100
8	2734-108	50
9	2734-109	50
10	2734-110	50
11	2734-111	50
12	2734-112	50
13	2734-113	50
14	2734-114	50
16	2734-116	25
18	2734-118	25
20	2734-120	25
24	2734-124	25



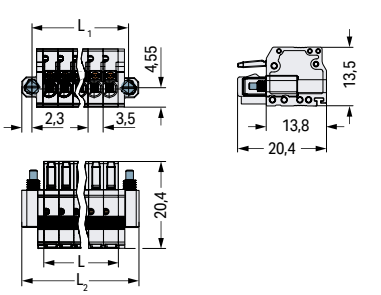
L = pole no. x pin spacing
L_1 = (pole no. x pin spacing) + 2.1 mm

Pole No.	Item No.	PU
2	2734-102/037-000	100
3	2734-103/037-000	100
4	2734-104/037-000	100
5	2734-105/037-000	50
6	2734-106/037-000	50
7	2734-107/037-000	50
8	2734-108/037-000	50
9	2734-109/037-000	50
10	2734-110/037-000	50
11	2734-111/037-000	50
12	2734-112/037-000	50
13	2734-113/037-000	25
14	2734-114/037-000	25
16	2734-116/037-000	25
18	2734-118/037-000	25
20	2734-120/037-000	25
24	2734-124/037-000	10



L = pole no. x pin spacing

Pole No.	Item No.	PU
2	2734-102/107-000	100
3	2734-103/107-000	100
4	2734-104/107-000	100
5	2734-105/107-000	50
6	2734-106/107-000	50
7	2734-107/107-000	50
8	2734-108/107-000	50
9	2734-109/107-000	50
10	2734-110/107-000	50
11	2734-111/107-000	50
12	2734-112/107-000	50
13	2734-113/107-000	25
14	2734-114/107-000	25
16	2734-116/107-000	25
18	2734-118/107-000	25
20	2734-120/107-000	25
24	2734-124/107-000	10



L = pole no. x pin spacing
L_1 = (pole no. x pin spacing) + 4.9 mm
L_2 = (pole no. x pin spacing) + 9.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

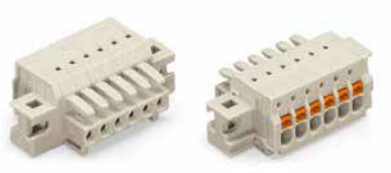
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

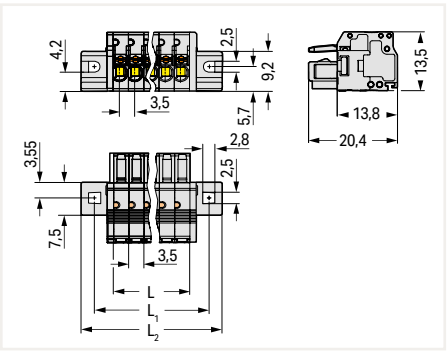
1-Conductor Female Connector ▸ *MCS* MINI ▸ 2734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Color: light gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



Pole No.	Item No.	PU
2	2734-102/031-000	100
3	2734-103/031-000	100
4	2734-104/031-000	50
5	2734-105/031-000	50
6	2734-106/031-000	50
7	2734-107/031-000	50
8	2734-108/031-000	50
9	2734-109/031-000	50
12	2734-112/031-000	25

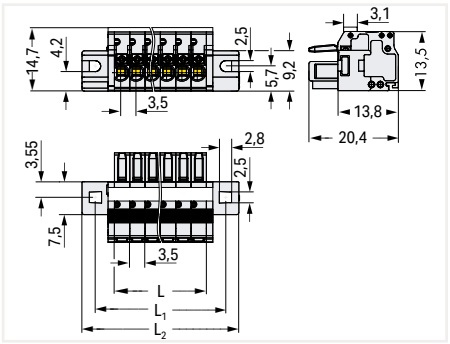


L = pole no. x pin spacing
L_1 = (pole no. x pin spacing) + 8.8 mm
L_2 = (pole no. x pin spacing) + 14.8 mm

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strip



Pole No.	Item No.	PU
10	2734-110/027-000	50
11	2734-111/027-000	25
12	2734-112/027-000	25
13	2734-113/027-000	25
14	2734-114/027-000	25
16	2734-116/027-000	25
18	2734-118/027-000	25
20	2734-120/027-000	25
24	2734-124/027-000	10



L = pole no. x pin spacing
L_1 = (pole no. x pin spacing) + 8.8 mm
L_2 = (pole no. x pin spacing) + 14.8 mm

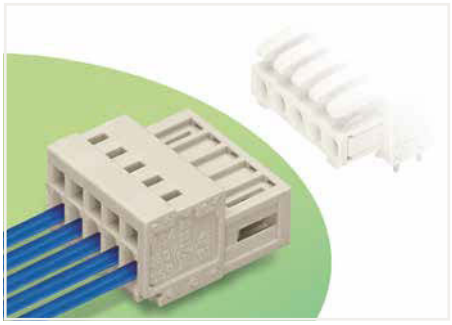
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

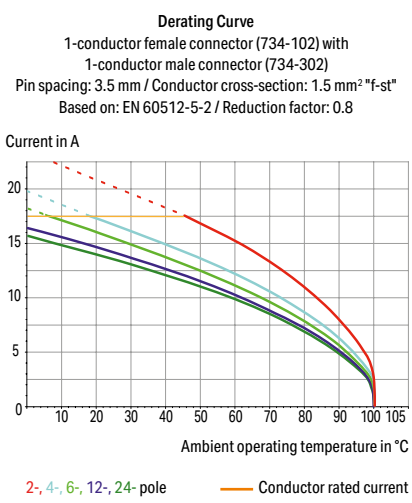
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Male Connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Strain relief plates and housings for factory and field assembly
- 100 % protected against mismating
- Coding via coding fingers



The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 408
Cover	Page 407
Ferrule	Page 847
Marking	Page 832
Mounting	Page 537, 837
Strain relief	Page 409
Testing and measuring	Page 854
Tools	Page 406, 838
Direct marking	Page 402
Cutout dimensions	Page 404
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	Terminating 1.5 mm² conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row.

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

1-Conductor Male Connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

	Locking of plug-in connection: Threaded flange	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



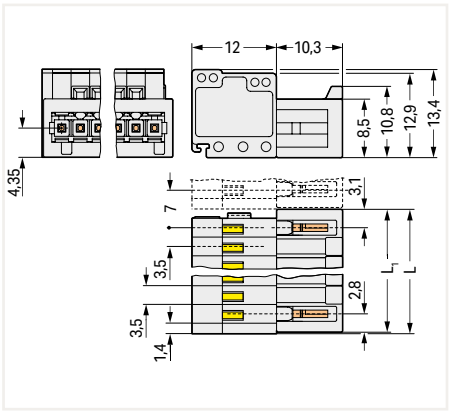




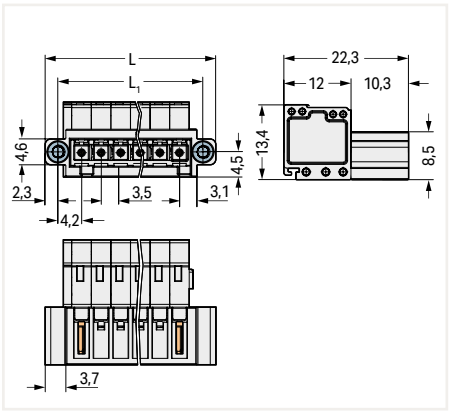
Pole No.	Item No.	PU
2	734-302	200
3	734-303	200
4	734-304	100
5	734-305	100
6	734-306	100
7	734-307	100
8	734-308	50
9	734-309	50
10	734-310	50
11	734-311	50
12	734-312	50
13	734-313	50
14	734-314	50
16	734-316	25
18	734-318	25
20	734-320	25
24	734-324	10

Pole No.	Item No.	PU
2	734-302/109-000	100
3	734-303/109-000	100
4	734-304/109-000	100
5	734-305/109-000	50
6	734-306/109-000	50
7	734-307/109-000	50
8	734-308/109-000	50
9	734-309/109-000	50
10	734-310/109-000	50
11	734-311/109-000	50
12	734-312/109-000	50
13	734-314/109-000	25
13	734-313/109-000	25
16	734-316/109-000	25
18	734-318/109-000	25
20	734-320/109-000	25
24	734-324/109-000	10

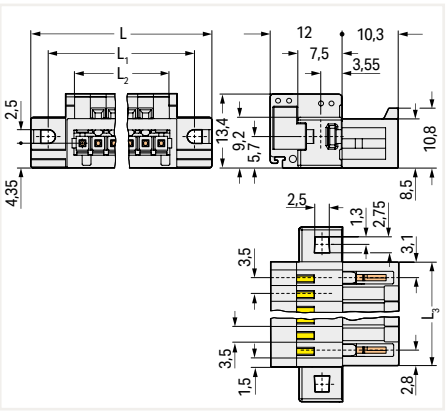
Pole No.	Item No.	PU
2	734-302/019-000	100
3	734-303/019-000	100
4	734-304/019-000	50
5	734-305/019-000	50
6	734-306/019-000	50
7	734-307/019-000	50
8	734-308/019-000	50
9	734-309/019-000	50
10	734-310/019-000	50
11	734-311/019-000	25
12	734-312/019-000	25
13	734-313/019-000	25
14	734-314/019-000	25
16	734-316/019-000	25
18	734-318/019-000	25
20	734-320/019-000	25
24	734-324/019-000	10



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm
L_1 = L – 0.45 mm



L = (pole no. x pin spacing) + 9.5 mm
L_1 = (pole no. x pin spacing) + 4.9 mm



L = pole no. x pin spacing + 14.8 mm
L_1 = pole no. x pin spacing + 8.8 mm
L_2 = pole no. x pin spacing
L_3 = (pole no. –1) x pin spacing + 5.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

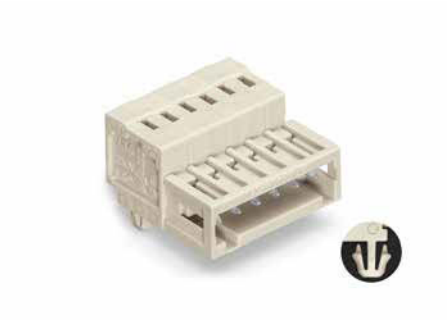
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

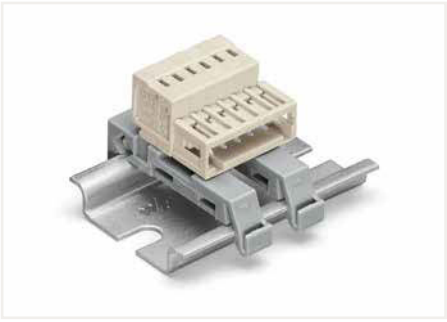
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Male Connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

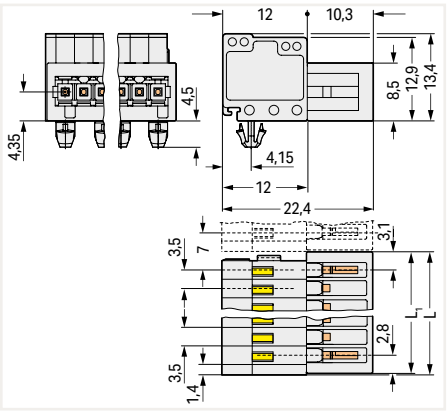
Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



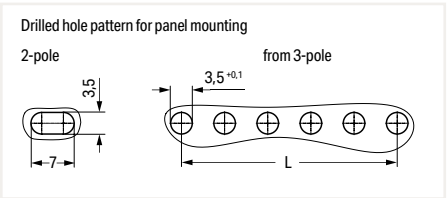


Using two DIN-35 rail mounting adapters (209-137) for 3 or more poles. Distance between two mounting adapters: maximum 7 poles.

Pole No.	Item No.	PU
2	734-302/018-000	200
3	734-303/018-000	100
4	734-304/018-000	100
5	734-305/018-000	100
6	734-306/018-000	100
7	734-307/018-000	100
8	734-308/018-000	50
9	734-309/018-000	50
10	734-310/018-000	50
11	734-311/018-000	50
12	734-312/018-000	50
13	734-313/018-000	50
14	734-314/018-000	50
16	734-316/018-000	25
18	734-318/018-000	25
20	734-320/018-000	25
24	734-324/018-000	10



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm
L_1 = L – 0.45 mm



Even pole numbers: L = (pole no. – 2) x pin spacing
Odd pole numbers: L = (pole no. – 1) x pin spacing

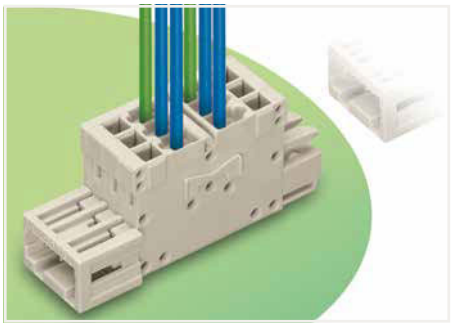
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

2-Conductor Combi Strip ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray



- Universal connection for all conductor types
- 2-conductor strips combine pin and socket connections
- Multiply potentials
- Strain relief plates for factory and field assembly
- Supply via pin-contact side
- Combi strips may be connected to multiply outputs
- 100 % protected against mismating
- Coding via coding fingers

5

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	Terminating 1.5 mm² conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row.

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

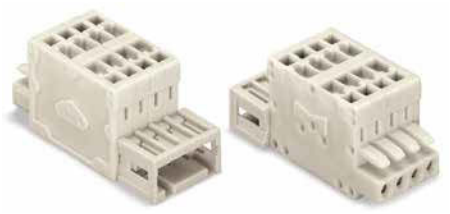
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 408
Cover	Page 407
Ferrule	Page 847
Marking	Page 832
Mounting	Page 542
Strain relief	Page 409
Testing and measuring	Page 854
Direct marking	Page 402
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

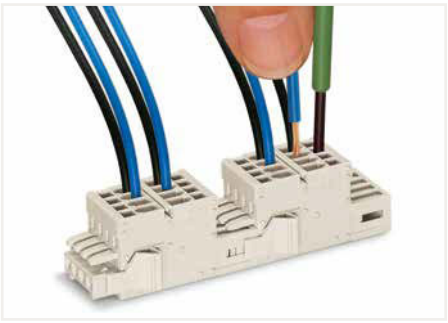
2-Conductor Combi Strip ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

	Locking of plug-in connection: locking lever



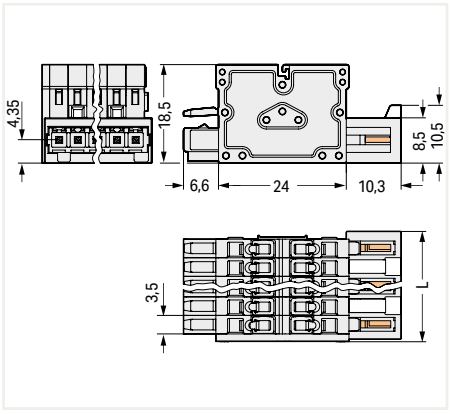




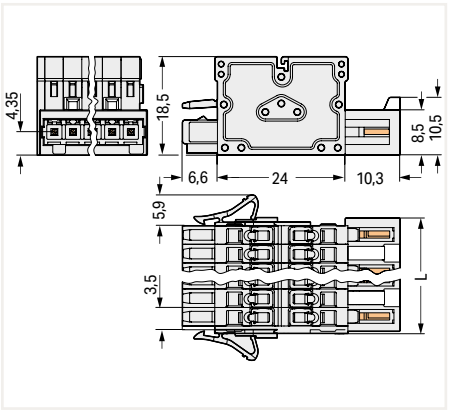
2-conductor combi strips with locking levers for multiplying potentials

Pole No.	Item No.	PU
2	734-362	100
3	734-363	50
4	734-364	50
5	734-365	50
6	734-366	50
7	734-367	25
8	734-368	25
9	734-369	25
10	734-370	25
11	734-371	25
12	734-372	25

Pole No.	Item No.	PU
2	734-362/037-000	50
3	734-363/037-000	50
4	734-364/037-000	50
5	734-365/037-000	50
6	734-366/037-000	25
7	734-367/037-000	25
8	734-368/037-000	25
9	734-369/037-000	25
10	734-370/037-000	25
11	734-371/037-000	25
12	734-372/037-000	25



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm

5

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

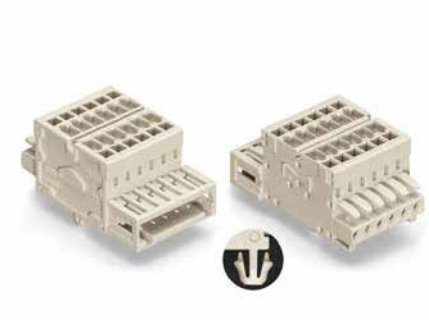
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

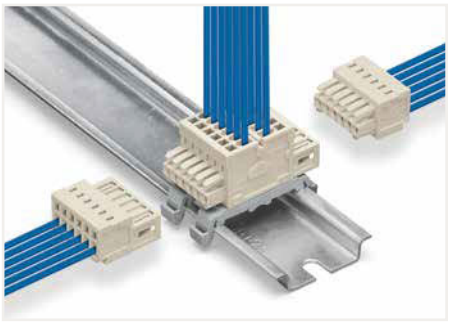
- Other pole numbers

2-Conductor Combi Strip ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

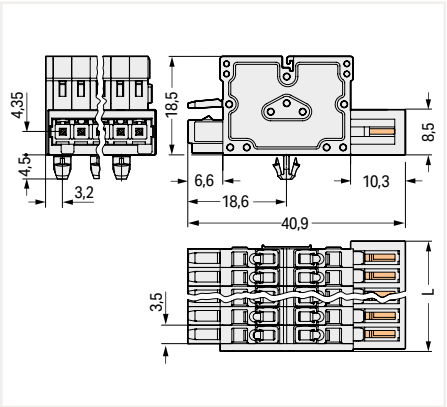
Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



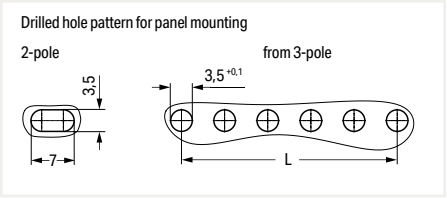


2-conductor combi strip with snap-in mounting feet using two DIN-35 rail mounting adapters (209-137) for 3 or more poles; distance between two mounting adapters: maximum 7 poles

Pole No.	Item No.	PU
2	734-362/008-000	100
3	734-363/008-000	50
4	734-364/008-000	50
5	734-365/008-000	50
6	734-366/008-000	50
7	734-367/008-000	50
8	734-368/008-000	50
9	734-369/008-000	25
10	734-370/008-000	25
11	734-371/008-000	25
12	734-372/008-000	25



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm



Even pole numbers: L = (pole no. – 2) x pin spacing
Odd pole numbers: L = (pole no. – 1) x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers

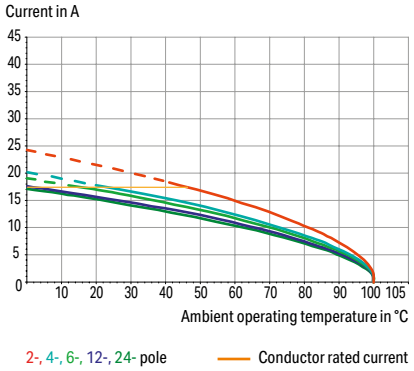
THT Female Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.9 x 0.9 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Integrated test ports for 2 mm Ø test plugs
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify inputs and outputs
- 100 % protected against mismating
- Coding via coding fingers

Derating Curve
THT female header (734-532) with
1-conductor male connector (734-302)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approvals per				
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector, in line
Solder pin length	3.8 mm
Solder pin dimensions	0.9 x 0.9 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

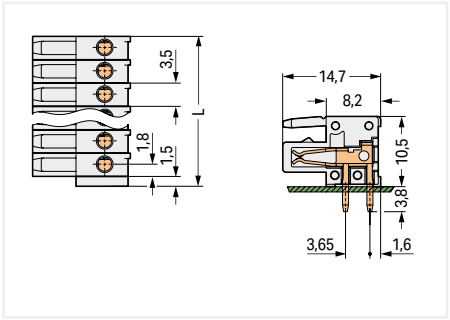
THT Female Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.9 x 0.9 mm ▸ Color: light gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	734-532	200
3	734-533	200
4	734-534	100
5	734-535	100
6	734-536	100
7	734-537	50
8	734-538	50
9	734-539	50
10	734-540	50
11	734-541	50
12	734-542	50
13	734-543	50
14	734-544	50
16	734-546	25
18	734-548	25
20	734-550	25
24	734-554	25

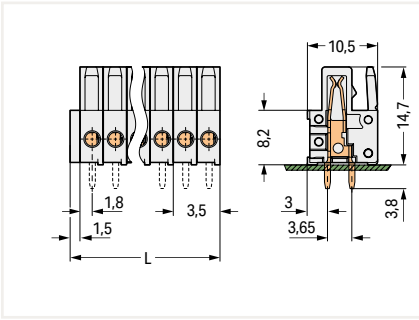


L = (pole no. x pin spacing) + 1.5 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	734-462	200
3	734-463	200
4	734-464	100
5	734-465	100
6	734-466	100
7	734-467	50
8	734-468	50
9	734-469	50
10	734-470	50
11	734-471	50
12	734-472	50
13	734-473	50
14	734-474	50
16	734-476	25
18	734-478	25
20	734-480	25
24	734-484	25

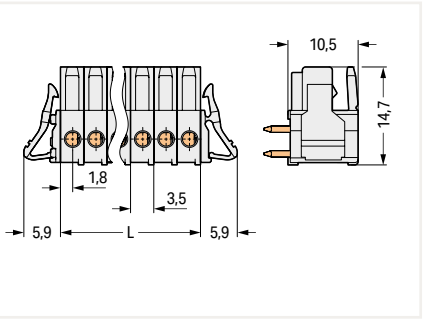


L = (pole no. x pin spacing) + 1.5 mm

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	734-532/037-000	100
3	734-533/037-000	100
4	734-534/037-000	100
5	734-535/037-000	50
6	734-536/037-000	50
7	734-537/037-000	50
8	734-538/037-000	50
9	734-539/037-000	50
10	734-540/037-000	50
11	734-541/037-000	50
12	734-542/037-000	50
13	734-543/037-000	25
14	734-544/037-000	25
16	734-546/037-000	25
18	734-548/037-000	25
20	734-550/037-000	25
24	734-554/037-000	10



L = pole no. x pin spacing

5

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

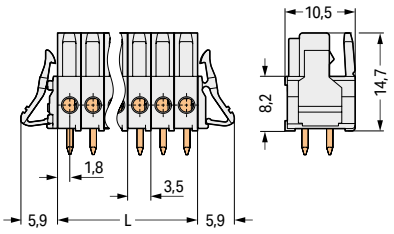
THT Female Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.9 x 0.9 mm ▸ Color: light gray

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	734-462/037-000	100
3	734-463/037-000	100
4	734-464/037-000	100
5	734-465/037-000	50
6	734-466/037-000	50
7	734-467/037-000	50
8	734-468/037-000	50
9	734-469/037-000	50
10	734-470/037-000	50
11	734-471/037-000	50
12	734-472/037-000	50
13	734-473/037-000	25
14	734-474/037-000	25
16	734-476/037-000	25
18	734-478/037-000	25
20	734-480/037-000	25
24	734-484/037-000	10



L = pole no. x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

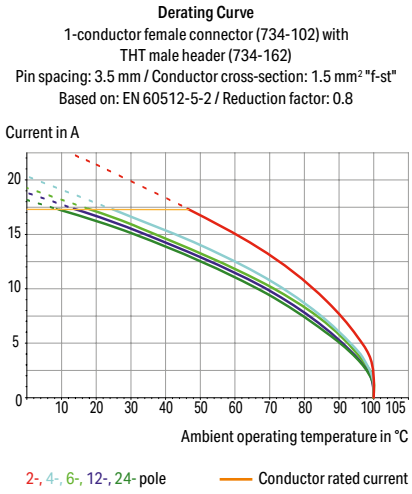
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT Male Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 100 % protected against mismating; only mating halves with the same number of poles can be connected together
- Coding via coding fingers



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1 x 1 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 408

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

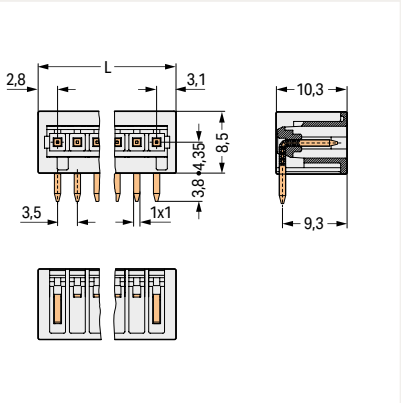
THT Male Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	734-162	200
3	734-163	200
4	734-164	200
5	734-165	200
6	734-166	100
7	734-167	100
8	734-168	100
9	734-169	100
10	734-170	100
11	734-171	100
12	734-172	100
13	734-173	100
14	734-174	50
16	734-176	50
18	734-178	50
20	734-180	50
24	734-184	50

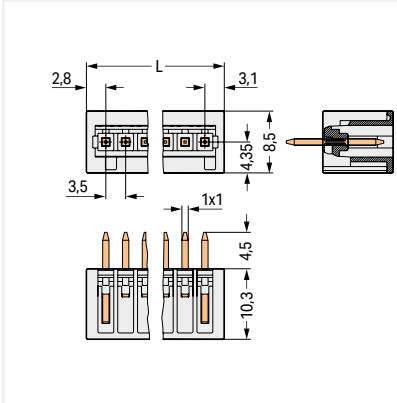


L = (pole no. – 1) x pin spacing + 5.9 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	734-132	200
3	734-133	200
4	734-134	200
5	734-135	200
6	734-136	100
7	734-137	100
8	734-138	100
9	734-139	100
10	734-140	100
11	734-141	100
12	734-142	100
13	734-143	100
14	734-144	100
16	734-146	50
18	734-148	50
20	734-150	50
24	734-154	50

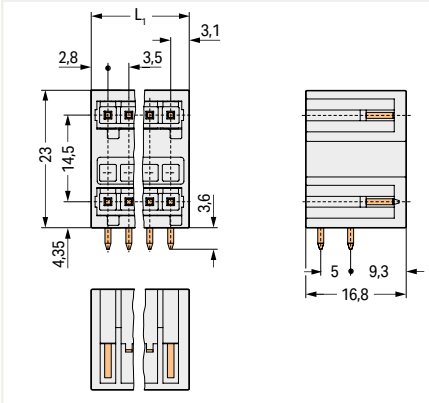


L = (pole no. – 1) x pin spacing + 5.9 mm

Double-deck ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
4	734-402	100
6	734-403	100
8	734-404	100
10	734-405	100
12	734-406	100
14	734-407	50
16	734-408	50
18	734-409	50
20	734-410	50
24	734-412	50



L_1 = (pole no./2 – 1) x pin spacing + 5.9 mm

5

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

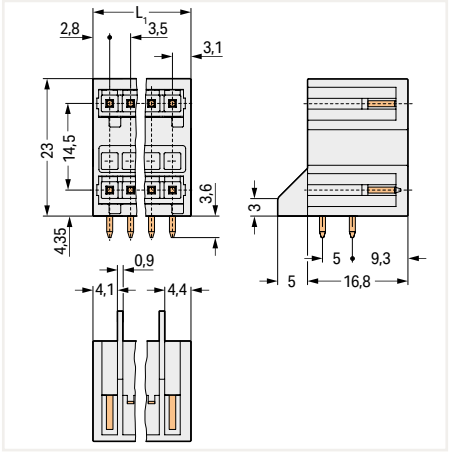
THT Male Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray

Double-deck with support ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
4	734-402/001-000	100
6	734-403/001-000	100
8	734-404/001-000	100
10	734-405/001-000	100
12	734-406/001-000	50
14	734-407/001-000	50
16	734-408/001-000	50
18	734-409/001-000	50
20	734-410/001-000	50
24	734-412/001-000	50

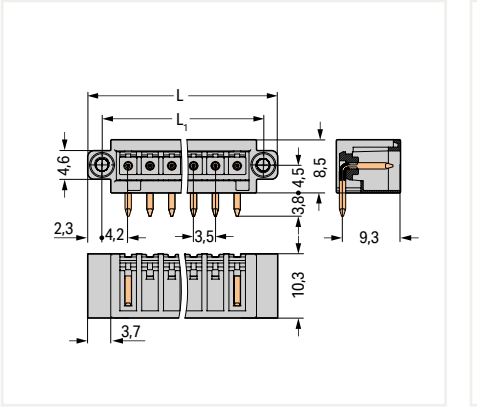


L_1 = (pole no./2 – 1) x pin spacing + 5.9 mm

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	734-162/108-000	200
3	734-163/108-000	200
4	734-164/108-000	200
5	734-165/108-000	200
6	734-166/108-000	100
7	734-167/108-000	100
8	734-168/108-000	100
9	734-169/108-000	100
10	734-170/108-000	100
11	734-171/108-000	100
12	734-172/108-000	100
13	734-173/108-000	100
14	734-174/108-000	50
16	734-176/108-000	50
18	734-178/108-000	50
20	734-180/108-000	50
24	734-184/108-000	50

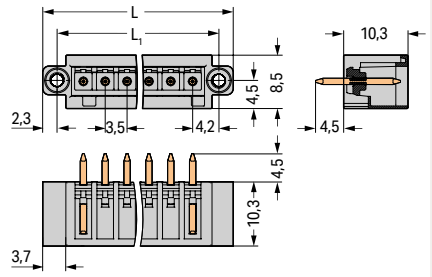


L = (pole no. x pin spacing) + 9.5 mm
L_1 = (pole no. x pin spacing) + 4.9 mm

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	734-132/108-000	200
3	734-133/108-000	200
4	734-134/108-000	200
5	734-135/108-000	100
6	734-136/108-000	100
7	734-137/108-000	100
8	734-138/108-000	100
9	734-139/108-000	100
10	734-140/108-000	100
11	734-141/108-000	100
12	734-142/108-000	100
13	734-143/108-000	50
14	734-144/108-000	50
16	734-146/108-000	50
18	734-148/108-000	50
20	734-150/108-000	50
24	734-154/108-000	50



L = (pole no. x pin spacing) + 9.5 mm
L_1 = (pole no. x pin spacing) + 4.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

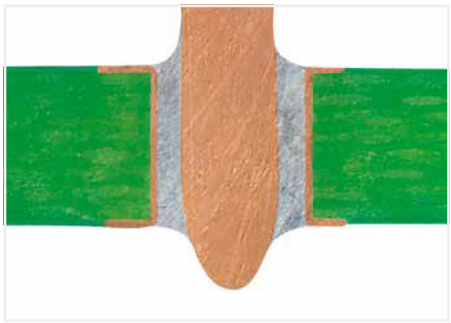
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR (Through-Hole Reflow) Soldering Process



By using high-temperature-resistant plastic and a streamlined pin design, WAGO's THR male headers and PCB terminal blocks meet requirements for SMT process capability while maintaining the necessary stability. Both headers and terminal blocks are simply pushed into the solder paste-filled PCB holes and then soldered along with the SMT components via reflow soldering. The previous wave soldering process is no longer necessary. The result is a perfect connection – both mechanically and electrically.

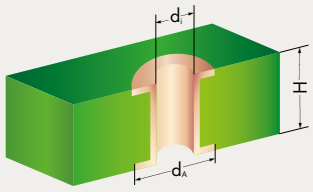




Terminal strips with an additional suction pad in tape-and-reel packaging per IEC 60286-3
WAGO recommends both a temperature profile that adheres to EN 61760-1 and the use of forced convection ovens for processing THR components.

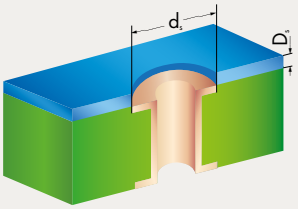
5

1



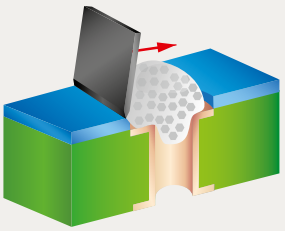
Metal-plated PCB bore hole

2



SMD positioning pattern

3



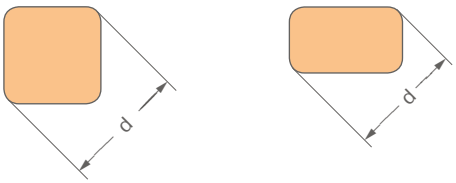
Solder paste application

Series	d_i (mm)	d_A (mm)	H (mm)	d_s (mm)	D_s (µm)	d (mm)	L (mm)
218	$1{,}1^{+0{,}1}$	1,9	< 2	1,8	150	0,9	2,8
231 (1 x 1 mm)	$1{,}4^{+0{,}1}$	2,5	< 2	2,4	150	1,2	2,4
231 (1,2 x 1,2 mm)	$1{,}7^{+0{,}1}$	2,8	< 2	2,7	150	1,5	2,4
236	$1{,}1^{+0{,}1}$	2,2	< 2	2,1	150	0,9	3,6
250	$1{,}1^{+0{,}1}$	2,0	< 2	1,9	150	0,9	3,6
713	$1{,}2^{+0{,}1}$	1,9	< 2	1,8	150	1,0	2,4
733	$1{,}2^{+0{,}1}$	1,9	< 2	1,8	150	1,0	2,4
734	$1{,}4^{+0{,}1}$	2,5	< 2	2,4	150	1,2	2,4
2060 THR	$1{,}5^{+0{,}1}$	2,4	< 2	2,3	150	1,25	2,4
2061 THR	$1{,}5^{+0{,}1}$	2,4	< 2	2,3	150	1,25	1,5 / 2,4

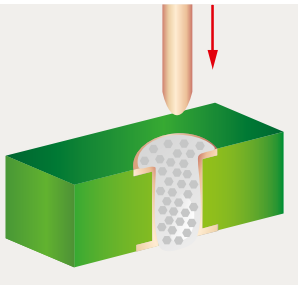
d_i: Plated through-hole diameter
d_A: Outer diameter of metal-plated PCB hole*
H: PCB thickness
d_s: Pattern hole diameter
D_s: Pattern thickness
d: Pin diagonal
L: Pin length

* When laying out the metal-plated bore holes, the clearance and creepage distance requirements – as specified in the equipment standards – must be considered.

Soldering pin form

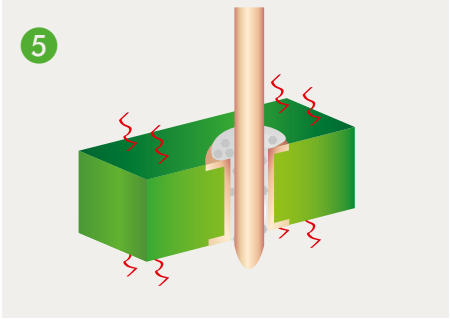


4



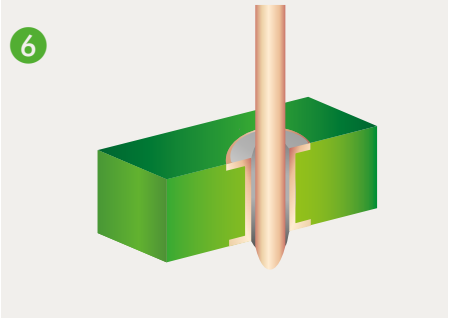
Component assembly, automatic/by hand

5



Reflow soldering process

6



THR soldering joint

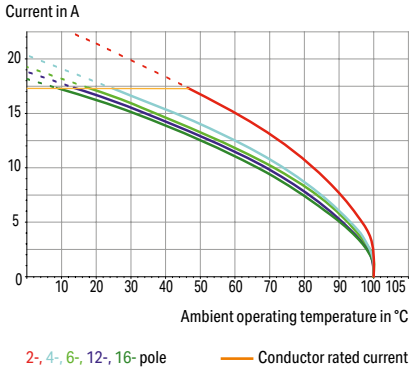
THR Male Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Optimal thermal penetration via pin enclosure design provides lower soldering temperatures
- 100 % protected against mismating
- Coding via coding fingers

Derating Curve
1-conductor female connector (734-102) with
THR male header (734-132/105-604)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin length	2.4 mm
Solder pin dimensions	1 x 1 mm
Plated through-hole diameter (THR)	1.4 $^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR-soldering process	Page 372
Coding	Page 408
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

THR Male Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

Mating direction to the PCB: 0°

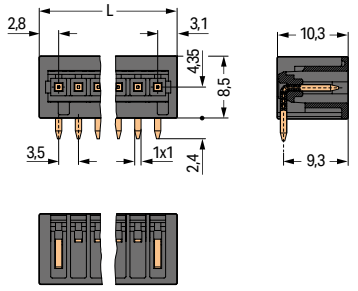
Suitable for automated assembly



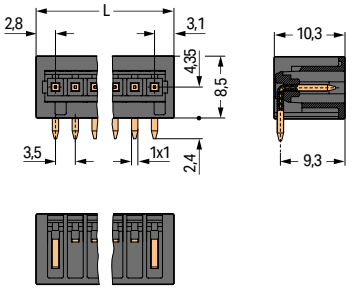


Pole No.	Item No.	PU
2	734-162/105-604	200
3	734-163/105-604	200
4	734-164/105-604	200
5	734-165/105-604	200
6	734-166/105-604	100
7	734-167/105-604	100
8	734-168/105-604	100
9	734-169/105-604	100
10	734-170/105-604	100
11	734-171/105-604	100
12	734-172/105-604	100
14	734-174/105-604	100
16	734-176/105-604	50

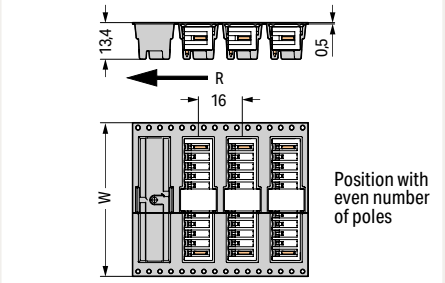
Pole No.	Tape width	Item No.	PU
2	32 mm	734-162/105-604/997-405	280
3	32 mm	734-163/105-604/997-405	280
4	32 mm	734-164/105-604/997-405	280
5	32 mm	734-165/105-604/997-405	280
6	56 mm	734-166/105-604/997-407	280
7	56 mm	734-167/105-604/997-407	280
8	56 mm	734-168/105-604/997-407	280
9	56 mm	734-169/105-604/997-407	280
10	56 mm	734-170/105-604/997-407	280
11	56 mm	734-171/105-604/997-407	280
12	56 mm	734-172/105-604/997-407	280
14	72 mm	734-174/105-604/997-408	280
16	72 mm	734-176/105-604/997-408	280



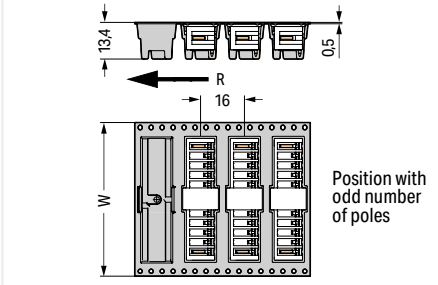
L = (pole no. – 1) x pin spacing + 5.9 mm



L = (pole no. – 1) x pin spacing + 5.9 mm



W= Tape width
R = Feed direction



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

THR Male Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

Mating direction to the PCB: 90°

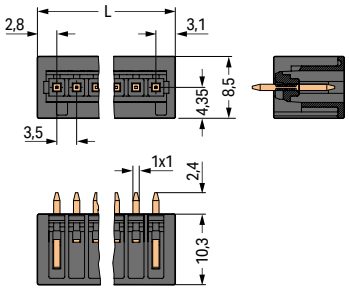
Suitable for automated assembly



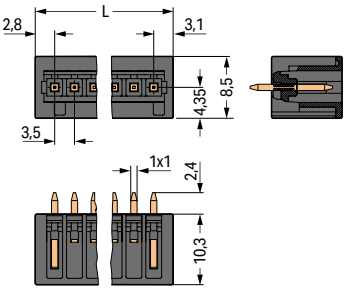


Pole No.	Item No.	PU
2	734-132/105-604	200
3	734-133/105-604	200
4	734-134/105-604	200
5	734-135/105-604	200
6	734-136/105-604	100
7	734-137/105-604	100
8	734-138/105-604	100
9	734-139/105-604	100
10	734-140/105-604	100
11	734-141/105-604	100
12	734-142/105-604	100
14	734-144/105-604	100

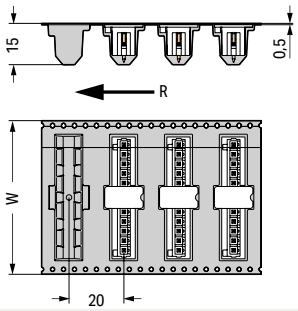
Pole No.	Tape width	Item No.	PU
2	32 mm	734-132/105-604/997-405	200
3	32 mm	734-133/105-604/997-405	200
4	32 mm	734-134/105-604/997-405	200
5	32 mm	734-135/105-604/997-405	200
6	56 mm	734-136/105-604/997-407	200
7	56 mm	734-137/105-604/997-407	200
8	56 mm	734-138/105-604/997-407	200
9	56 mm	734-139/105-604/997-407	200
10	56 mm	734-140/105-604/997-407	200
11	56 mm	734-141/105-604/997-407	200
12	56 mm	734-142/105-604/997-407	200
14	72 mm	734-144/105-604/997-408	100
16	72 mm	734-146/105-604/997-408	200



L = (pole no. – 1) x pin spacing + 5.9 mm



L = (pole no. – 1) x pin spacing + 5.9 mm



W= Tape width
R = Feed direction

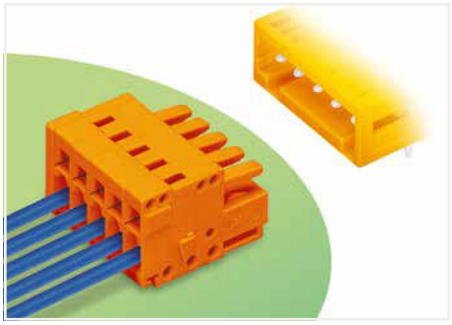
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

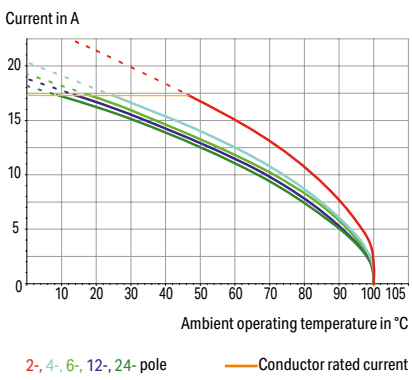
- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Female Connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Strain relief plates and housings for field assembly
- 100 % protected against mismating
- Coding via coding fingers



5

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	Terminating 1.5 mm² conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row.

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Marking	Page 832
Mounting	Page 542
Strain relief	Page 409
Testing and measuring	Page 854
Tools	Page 406
Direct marking	Page 402
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange

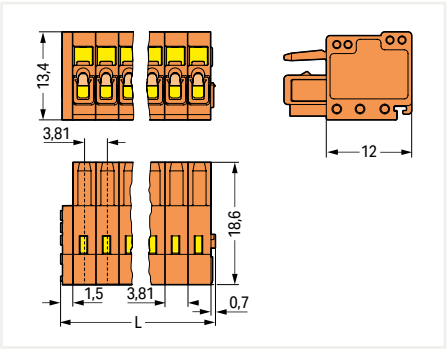
	Locking of plug-in connection: locking lever



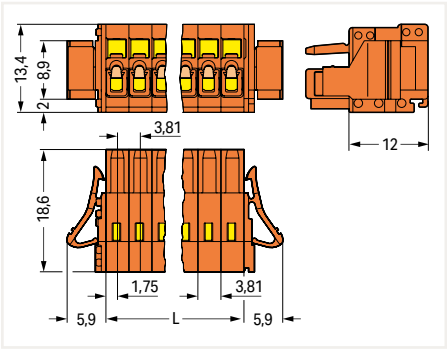


Pole No.	Item No.	PU
2	734-202	200
3	734-203	200
4	734-204	100
5	734-205	100
6	734-206	100
8	734-208	50
9	734-209	50
10	734-210	50
12	734-212	25
14	734-214	25
15	734-215	25
16	734-216	25
18	734-218	25
19	734-219	25
20	734-220	25

Pole No.	Item No.	PU
2	734-202/037-000	100
3	734-203/037-000	100
4	734-204/037-000	100
5	734-205/037-000	50
6	734-206/037-000	50
8	734-208/037-000	50
9	734-209/037-000	50
10	734-210/037-000	50
12	734-212/037-000	25
14	734-214/037-000	25
15	734-215/037-000	25
16	734-216/037-000	25
18	734-218/037-000	25
19	734-219/037-000	25
20	734-220/037-000	25



L = (pole no. x pin spacing) + 2.2 mm



L = pole no. x pin spacing

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

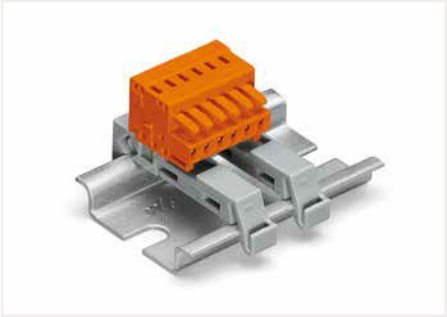
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Female Connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange

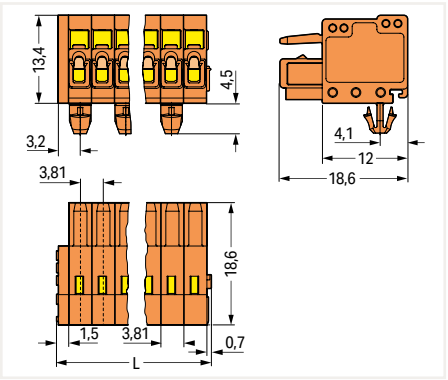
Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



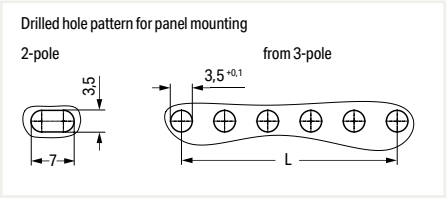


Using two DIN-35 rail mounting adapters (209-137) for 3 or more poles. Distance between two mounting adapters: maximum 7 poles.

Pole No.	Item No.	PU
2	734-202/008-000	200
3	734-203/008-000	200
4	734-204/008-000	100
5	734-205/008-000	100
6	734-206/008-000	100
8	734-208/008-000	50
9	734-209/008-000	50
10	734-210/008-000	50
12	734-212/008-000	50
14	734-214/008-000	50
15	734-215/008-000	25
16	734-216/008-000	25
18	734-218/008-000	25
19	734-219/008-000	25
20	734-220/008-000	25



L = pole no. x pin spacing



Even pole numbers: L = (pole no. – 2) x pin spacing
Odd pole numbers: L = (pole no. – 1) x pin spacing

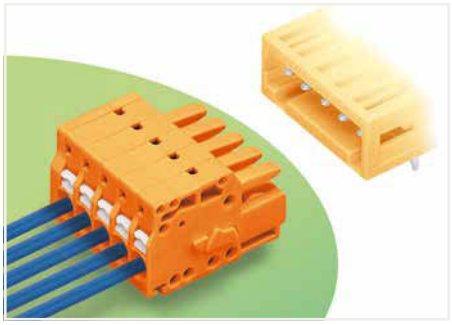
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

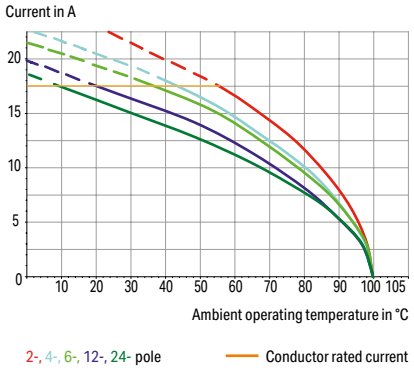
1-Conductor Female Connector ▸ *MCS* MINI ▸ 2734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Color: orange



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Simple, push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- 100 % protected against mismating
- Coding via coding fingers

Derating Curve
1-conductor female connector (2734-102) with THT male header (734-132)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.75 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Mounting	Page 537, 837
Strain relief	Page 409
Tools	Page 406, 838
Direct marking	Page 402
Cutout dimensions	Page 404
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MINI ▸ 2734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Color: orange

	Locking of plug-in connection: locking lever	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



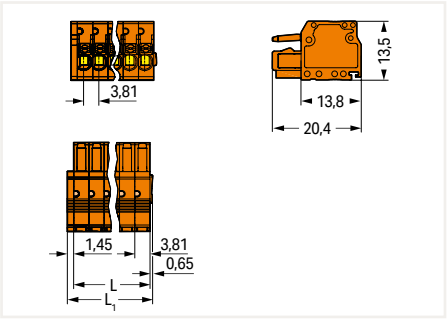




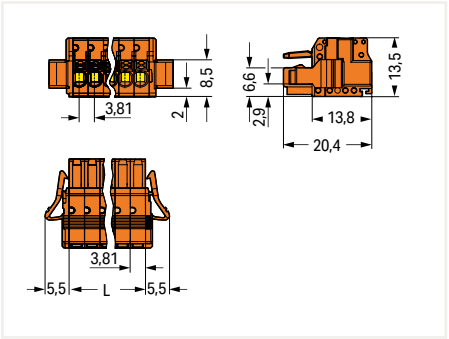
Pole No.	Item No.	PU
2	2734-202	200
3	2734-203	200
4	2734-204	100
5	2734-205	100
6	2734-206	100
8	2734-208	50
9	2734-209	50
10	2734-210	50
12	2734-212	25
14	2734-214	25
15	2734-215	25
16	2734-216	25
18	2734-218	25
19	2734-219	25
20	2734-220	25

Pole No.	Item No.	PU
2	2734-202/037-000	100
3	2734-203/037-000	100
4	2734-204/037-000	100
5	2734-205/037-000	50
6	2734-206/037-000	50
8	2734-208/037-000	50
9	2734-209/037-000	50
10	2734-210/037-000	50
12	2734-212/037-000	25
14	2734-214/037-000	25
15	2734-215/037-000	25
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18	2734-218/037-000	25
19	2734-219/037-000	25
20	2734-220/037-000	25

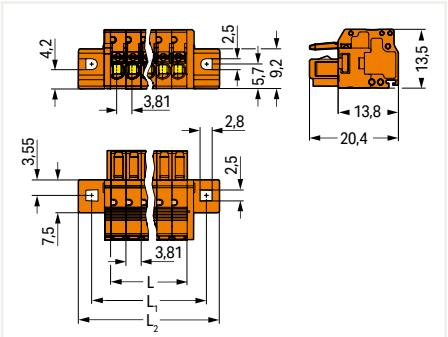
Pole No.	Item No.	PU
2	2734-202/031-000	100
3	2734-203/031-000	100
4	2734-204/031-000	50
5	2734-205/031-000	50
6	2734-206/031-000	50
8	2734-208/031-000	50
9	2734-209/031-000	50
10	2734-210/031-000	50
12	2734-212/031-000	25
14	2734-214/031-000	25
16	2734-216/031-000	25
20	2734-220/031-000	25



L = pole no. x pin spacing
L_1 = (pole no. x pin spacing) + 2.1 mm



L = pole no. x pin spacing



L = pole no. x pin spacing
L_1 = (pole no. x pin spacing) + 8.8 mm
L_2 = (pole no. x pin spacing) + 14.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

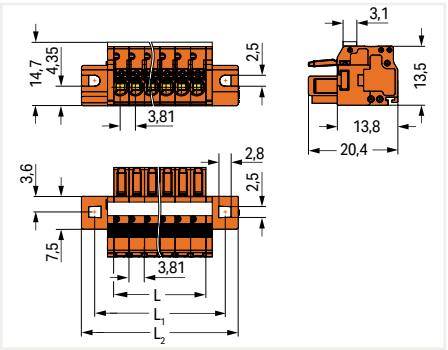
1-Conductor Female Connector ▸ *MCS* MINI ▸ 2734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Color: orange

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strip



Pole No.	Item No.	PU
10	2734-210/027-000	50
12	2734-212/027-000	25
14	2734-214/027-000	25
15	2734-215/027-000	25
16	2734-216/027-000	25
18	2734-218/027-000	25
19	2734-219/027-000	25
20	2734-220/027-000	25



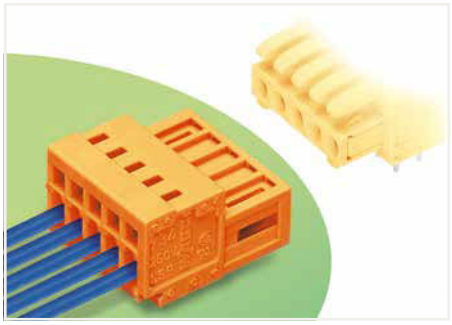
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

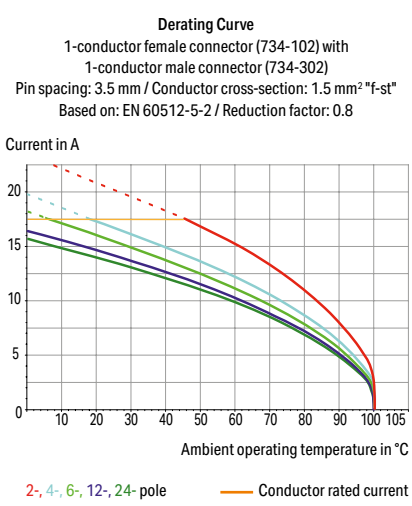
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Male Connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Strain relief plates and housings for factory and field assembly
- 100 % protected against mismating
- Coding via coding fingers



5

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

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Cover	Page 407
Ferrule	Page 847
Marking	Page 832
Mounting	Page 537, 837
Strain relief	Page 409
Testing and measuring	Page 854
Tools	Page 406, 838
Direct marking	Page 402
Cutout dimensions	Page 404
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	160 V	160 V	320 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²
Note (conductor cross-section)	Terminating 1.5 mm² conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row.

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

1-Conductor Male Connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange

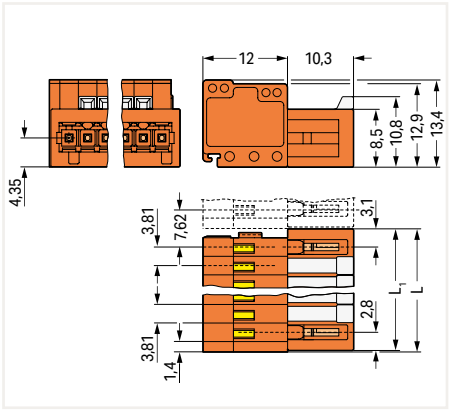
Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



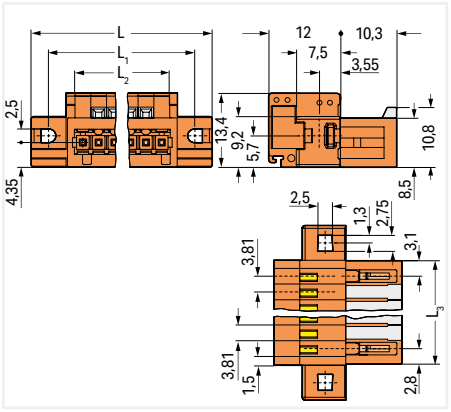


Pole No.	Item No.	PU
2	734-332	200
3	734-333	200
4	734-334	100
5	734-335	100
6	734-336	100
8	734-338	50
9	734-339	50
10	734-340	50
12	734-342	50
14	734-344	50
15	734-345	25
16	734-346	25
18	734-348	25
19	734-349	25
20	734-350	25

Pole No.	Item No.	PU
2	734-332/019-000	100
3	734-333/019-000	100
4	734-334/019-000	50
5	734-335/019-000	50
6	734-336/019-000	50
8	734-338/019-000	50
9	734-339/019-000	50
10	734-340/019-000	50
12	734-342/019-000	25
14	734-344/019-000	25
15	734-345/019-000	25
16	734-346/019-000	25
18	734-348/019-000	25
19	734-349/019-000	25
20	734-350/019-000	25



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm
L_1 = L – 0.45 mm



L = pole no. x pin spacing + 14.8 mm
L_1 = pole no. x pin spacing + 8.8 mm
L_2 = pole no. x pin spacing
L_3 = (pole no. –1) x pin spacing + 5.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

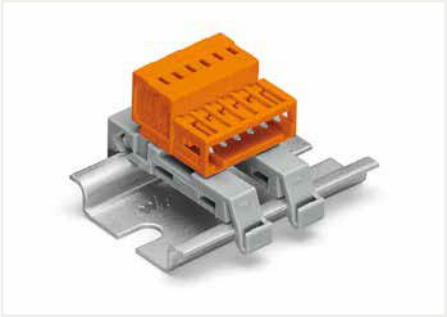
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Male Connector ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange

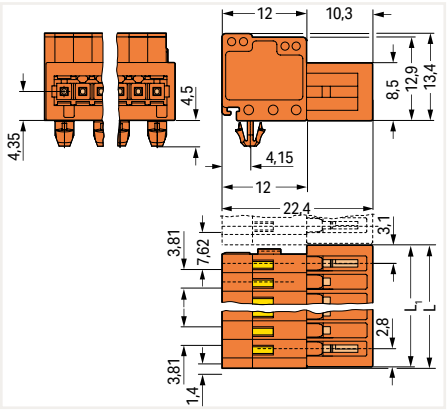
Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



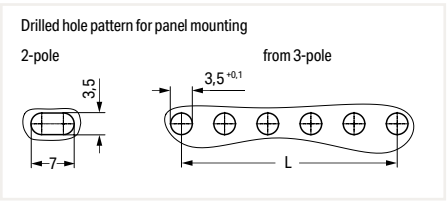


Using two DIN-35 rail mounting adapters (209-137) for 3 or more poles. Distance between two mounting adapters: maximum 7 poles.

Pole No.	Item No.	PU
2	734-332/018-000	200
3	734-333/018-000	100
4	734-334/018-000	100
5	734-335/018-000	100
6	734-336/018-000	100
8	734-338/018-000	50
9	734-339/018-000	50
10	734-340/018-000	50
12	734-342/018-000	50
14	734-344/018-000	50
15	734-345/018-000	25
16	734-346/018-000	25
18	734-348/018-000	25
19	734-349/018-000	25
20	734-350/018-000	25



L = (pole no. – 1) x pin spacing + 5.9 mm + 0.45 mm
L_1 = L – 0.45 mm



Even pole numbers: L = (pole no. – 2) x pin spacing
Odd pole numbers: L = (pole no. – 1) x pin spacing

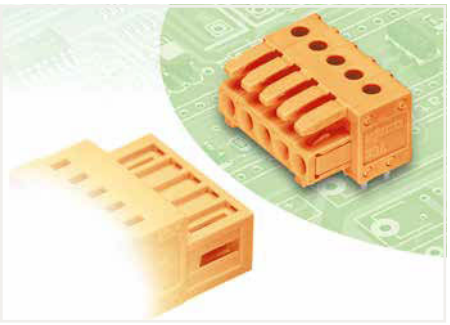
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

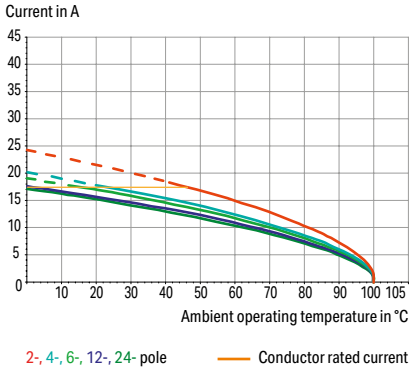
THT Female Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Solder pin dimensions: 0.9 x 0.9 mm ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Integrated test ports for 2 mm Ø test plugs
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify inputs and outputs
- 100 % protected against mismating
- Coding via coding fingers

Derating Curve
THT female header (734-532) with
1-conductor male connector (734-302)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approvals per				
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector, in line
Solder pin length	3.8 mm
Solder pin dimensions	0.9 x 0.9 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

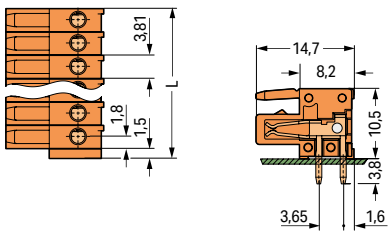
THT Female Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Solder pin dimensions: 0.9 x 0.9 mm ▸ Color: orange

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	734-562	200
3	734-563	200
4	734-564	100
5	734-565	100
6	734-566	100
8	734-568	50
9	734-569	50
10	734-570	50
12	734-572	25
14	734-574	25
15	734-575	25
16	734-576	25
20	734-580	25

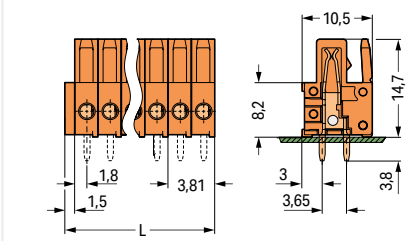


L = (pole no. x pin spacing) + 1.5 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	734-502	200
3	734-503	200
4	734-504	100
5	734-505	100
6	734-506	100
8	734-508	50
9	734-509	50
10	734-510	50
12	734-512	25
14	734-514	25
15	734-515	25
16	734-516	25
20	734-520	25

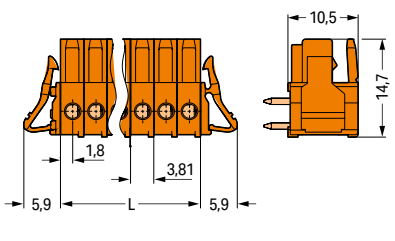


L = (pole no. x pin spacing) + 1.5 mm

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	734-562/037-000	100
3	734-563/037-000	100
4	734-564/037-000	100
5	734-565/037-000	50
6	734-566/037-000	50
8	734-568/037-000	50
9	734-569/037-000	50
10	734-570/037-000	50
12	734-572/037-000	25
14	734-574/037-000	25
15	734-575/037-000	25
16	734-576/037-000	25
20	734-580/037-000	25



L = pole no. x pin spacing

5

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

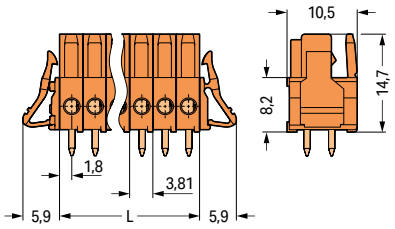
THT Female Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Solder pin dimensions: 0.9 x 0.9 mm ▸ Color: orange

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	734-502/037-000	100
3	734-503/037-000	100
4	734-504/037-000	100
5	734-505/037-000	50
6	734-506/037-000	50
8	734-508/037-000	50
9	734-509/037-000	50
10	734-510/037-000	50
12	734-512/037-000	25
14	734-514/037-000	25
15	734-515/037-000	25
16	734-516/037-000	25
20	734-520/037-000	25



L = pole no. x pin spacing

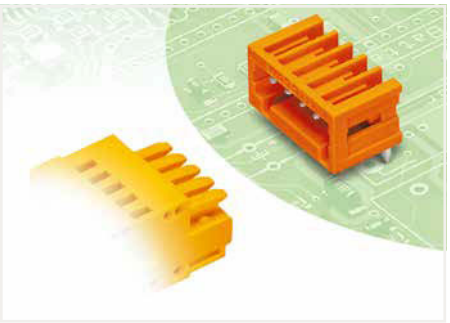
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

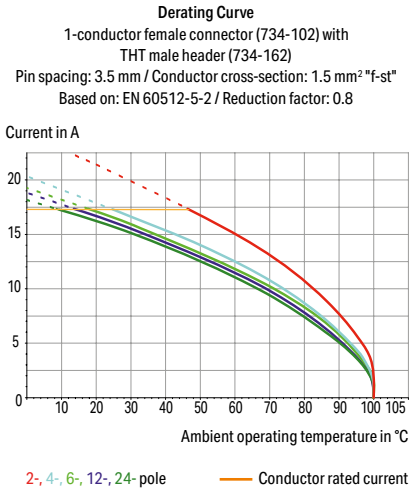
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT Male Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 100 % protected against mismating; only mating halves with the same number of poles can be connected together
- Coding via coding fingers



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	10 A	-	10 A	

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1 x 1 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 408

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

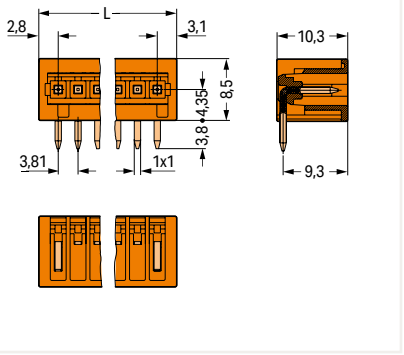
THT Male Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	734-262	200
3	734-263	200
4	734-264	200
5	734-265	200
6	734-266	100
8	734-268	100
9	734-269	100
10	734-270	100
12	734-272	100
14	734-274	100
15	734-245	100
15	734-275	100
16	734-276	50
18	734-278	50
19	734-279	50
20	734-280	50

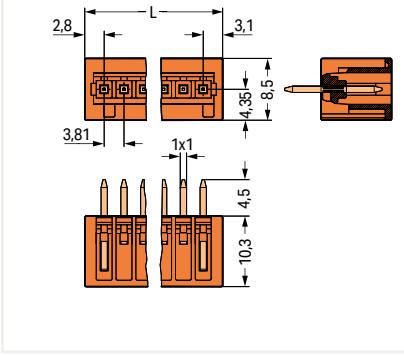


L = (pole no. – 1) x pin spacing + 5.9 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	734-232	200
3	734-233	200
4	734-234	200
5	734-235	200
6	734-236	100
8	734-238	100
9	734-239	100
10	734-240	100
12	734-242	100
14	734-244	100
16	734-246	50
18	734-248	50
19	734-249	50
20	734-250	50

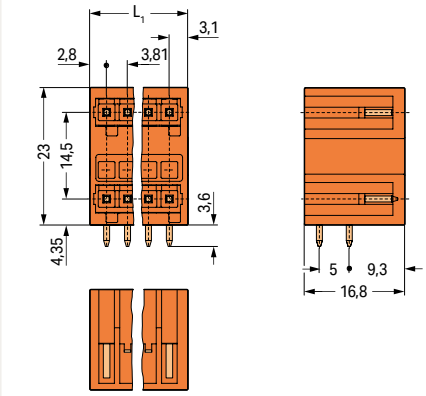


L = (pole no. – 1) x pin spacing + 5.9 mm

Double-deck ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
4	734-432	100
6	734-433	100
8	734-434	100
10	734-435	100
12	734-436	100
14	734-437	50
16	734-438	50
18	734-439	50
20	734-440	50
24	734-442	50



L_1 = (pole no./2 – 1) x pin spacing + 5.9 mm

5

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

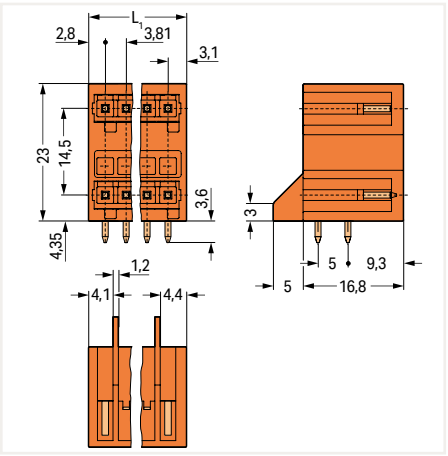
THT Male Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange

Double-deck with support ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
4	734-432/001-000	100
6	734-433/001-000	100
7	734-437/001-000	50
8	734-434/001-000	100
10	734-435/001-000	100
12	734-436/001-000	50
16	734-438/001-000	50
18	734-439/001-000	50
20	734-440/001-000	50
24	734-442/001-000	50



L_1 = (pole no./2 – 1) x pin spacing + 5.9 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

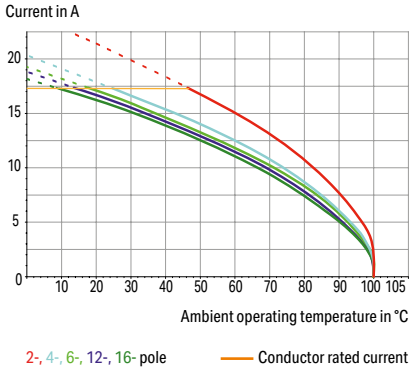
THR Male Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Optimal thermal penetration via pin enclosure design provides lower soldering temperatures
- 100 % protected against mismating
- Coding via coding fingers

Derating Curve
1-conductor female connector (734-102) with
THR male header (734-132/105-604)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin length	2.4 mm
Solder pin dimensions	1 x 1 mm
Plated through-hole diameter (THR)	1.4 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR-soldering process	Page 372
Coding	Page 408
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

THR Male Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

Mating direction to the PCB: 0°

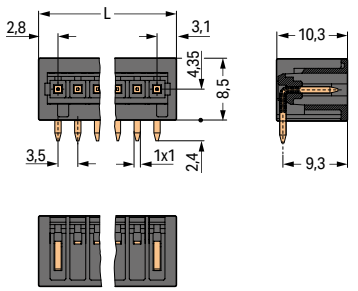
Suitable for automated assembly



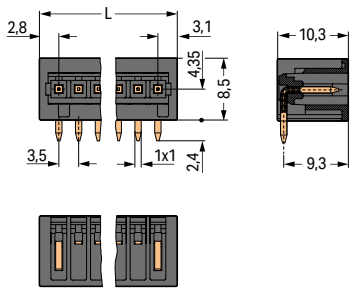


Pole No.	Item No.	PU
2	734-262/105-604	200
3	734-263/105-604	200
4	734-264/105-604	200
5	734-265/105-604	200
6	734-266/105-604	100
8	734-268/105-604	100
9	734-269/105-604	100
10	734-270/105-604	100
12	734-272/105-604	100

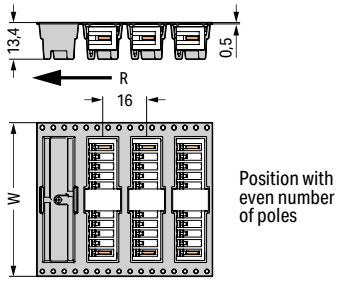
Pole No.	Tape width	Item No.	PU
2	32 mm	734-262/105-604/997-405	280
3	32 mm	734-263/105-604/997-405	280
4	32 mm	734-264/105-604/997-405	280
5	56 mm	734-265/105-604/997-407	280
6	56 mm	734-266/105-604/997-407	280
8	56 mm	734-268/105-604/997-407	280
9	56 mm	734-269/105-604/997-407	280
10	56 mm	734-270/105-604/997-407	280
12	72 mm	734-272/105-604/997-408	280



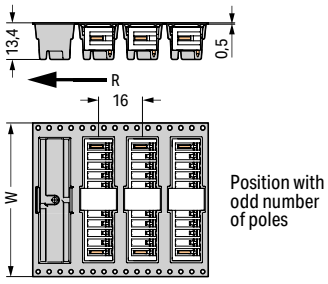
L = (pole no. – 1) x pin spacing + 5.9 mm



L = (pole no. – 1) x pin spacing + 5.9 mm



W= Tape width
R = Feed direction



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

THR Male Header ▸ *MCS* MINI ▸ 734 Series

Pin spacing: 3.81 mm (0.15 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

Mating direction to the PCB: 90°

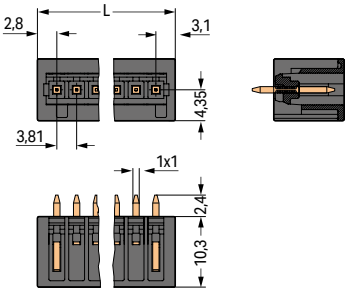
Suitable for automated assembly



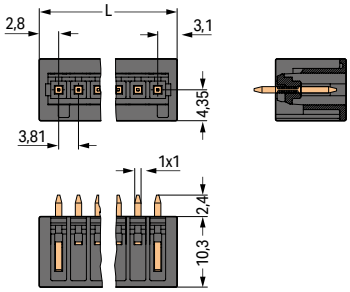


Pole No.	Item No.	PU
2	734-232/105-604	200
3	734-233/105-604	200
4	734-234/105-604	200
5	734-235/105-604	200
6	734-236/105-604	100
8	734-238/105-604	100
9	734-239/105-604	100
10	734-240/105-604	100
12	734-242/105-604	100

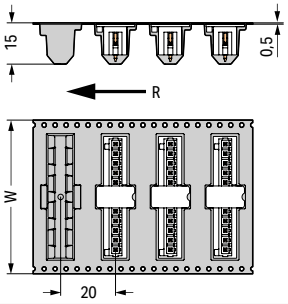
Pole No.	Tape width	Item No.	PU
2	32 mm	734-232/105-604/997-405	200
3	32 mm	734-233/105-604/997-405	200
4	32 mm	734-234/105-604/997-405	200
5	56 mm	734-235/105-604/997-407	200
6	56 mm	734-236/105-604/997-407	200
8	56 mm	734-238/105-604/997-407	200
10	56 mm	734-240/105-604/997-407	200
12	72 mm	734-242/105-604/997-408	200



L = (pole no. – 1) x pin spacing + 5.9 mm



L = (pole no. – 1) x pin spacing + 5.9 mm



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

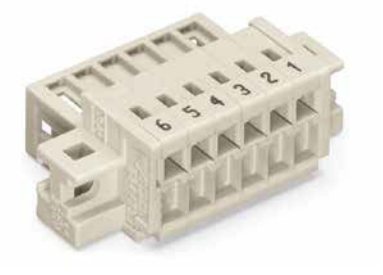
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

Direct Marking
MCS MINI







The pole numbers of male and female connectors for CAGE CLAMP® termination can be marked via factory direct marking.

Two standard marking orientations are available:
1. Marking perpendicular to conductor entry
2. Marking parallel to conductor entry

Other custom marking options are available upon request.

Direct marking is not suitable for MCS PCB Male Headers. WAGO recommends pole marking on the PCB for these headers.

Female headers with solder pins are exposed to aggressive flux agents during wave soldering. Select direct marking procedures are available upon request for these items.

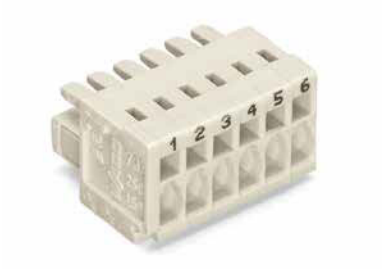
The marking type is always defined by the second 4-digit block of the item no. suffix for items with standard colors and materials.
Example: 734-106/. . . . - xxxx
xxxx = Item no. suffix for direct marking

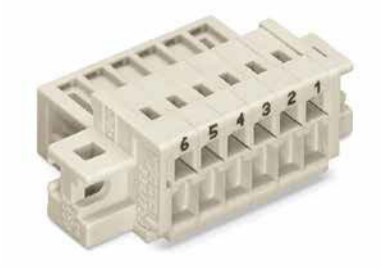
Direct marking of 1-conductor female connectors, perpendicular to conductor entry, 1 … pole no., item no. suffix.: /. . . - 047

Version	Item No. Example
1-cond. female connector, 6-pole, light gray	**734-106/000-047**
1-cond. female connector, with locking levers, 6-pole, light gray	**734-106/037-047**
1-cond. female connector, with strain relief plate, 6-pole, light gray	**734-106/033-047**
1-cond. female connector, with locking levers and strain relief plate, 6-pole, light gray	**734-106/037-047/033-000**

Direct marking of 1-conductor male connectors, perpendicular to conductor entry, pole no. … 1, item no. suffix.: /. . . - 044

Version	Item No. Example
1-cond. male connector, 6-pole, light gray	**734-306/000-044**
1-cond. male connector, with mounting flanges, 6-pole, light gray	**734-306/019-044**
1-cond. male connector, with mounting flanges and strain relief plate, 6-pole, light gray	**734-306/019-044/033-000**





Direct marking of 1-conductor female connectors, parallel to conductor entry, 1 … pole no., item no. suffix.: /. . . - 9037

Version	Item No. Example
1-cond. female connector, 6-pole, light gray	**734-106/000-9037**
1-cond. female connector, with locking levers, 6-pole, light gray	**734-106/037-9037**
1-cond. female connector, with strain relief plate, 6-pole, light gray	**734-106/033-9037**
1-cond. female connector, with locking levers and strain relief plate, 6-pole, light gray	**734-106/037-9037/033-000**

Direct marking of 1-conductor male connectors, parallel to conductor entry, pole no. … 1, item no. suffix.: /. . . - 9034

Version	Item No. Example
1-cond. male connector, 6-pole, light gray	**734-306/000-9034**
1-cond. male connector, with mounting flanges, 6-pole, light gray	**734-306/019-9034**
1-cond. male connector, with mounting flanges and strain relief plate, 6-pole, light gray	**734-306/019-9034/033-000**

Direct Marking
MCS MINI





Direct marking of 1-conductor female connectors with, push-buttons, perpendicular to conductor entry, 1 … pole no., item no. suffix.: /. . . - 047	
Version	Item No. Example
1-conductor female connector, with push-buttons, 6-pole, light gray	**2734-106/000-047**
1-conductor female connector, with push-buttons and locking levers, 6-pole, light gray	**2734-106/037-047**
1-conductor female connector, with push-buttons and strain relief plate, 6-pole, light gray	**2734-106/033-047**
1-conductor female connector, with push-buttons, locking levers and strain relief plate, 6-pole, light gray	**2734-106/037-047/033-0000**

Direct marking of 2-conductor combi strips, perpendicular to conductor entry, 1 … pole no., item no. suffix.: /. . . - 047	
Version	Item No. Example
2-conductor combi strip, 6-pole, light gray	**734-366/000-047**
2-conductor combi strip, with locking levers, 6-pole, light gray	**734-366/037-047**
2-conductor combi strip, with locking levers and strain relief plate, 6-pole, light gray	**734-366/037-047/033-000**

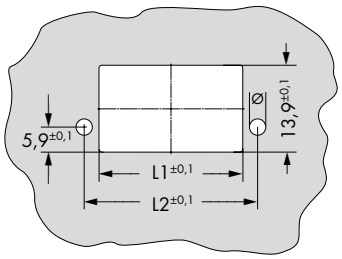




Direct marking of 1-conductor female connectors with, push-buttons, parallel to conductor entry, 1 … pole no., item no. suffix.: /. . . - 9037	
Version	Item No. Example
1-conductor female connector, with push-buttons, 6-pole, light gray	**2734-106/000-9037**
1-conductor female connector, with push-buttons and locking levers, 6-pole, light gray	**2734-106/037-9037**
1-conductor female connector, with push-buttons and strain relief plate, 6-pole, light gray	**2734-106/033-9037**
1-conductor female connector, with push-buttons, locking levers and strain relief plate, 6-pole, light gray	**2734-106/037-9037/033-000**

Direct marking of 2-conductor combi strips, parallel to conductor entry, 1 … pole no., item no. suffix.: /. . . - 9037	
Version	Item No. Example
2-conductor combi strip, 6-pole, light gray	**734-366/000-9037**
2-conductor combi strip, with locking levers, 6-pole, light gray	**734-366/037-9037**
2-conductor combi strip, with locking levers and strain relief plate, 6-pole, light gray	**734-366/037-9037/033-000**

Cutout Dimensions
MCS MINI



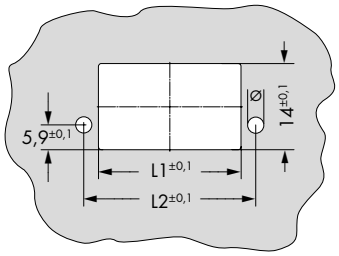




Table 1
Cutout for male connectors
with mounting flanges (734 Series)

	Pin Spacing: 3.5 mm		Pin Spacing: 3.81 mm	
Pole No.	L1	L2	L1	L2
2	9.8	15.5	10 1	16.1
3	13.3	19	13.9	19.9
4	16.8	22.5	17.7	23.7
5	20.3	26	21.5	27.6
6	24	29.4	25.6	31.3
7	27.5	32.9	29.4	35.1
8	31	36.4	33.2	38.9
9	34.5	39.9	37	42.7
10	38	43.4	40.8	46.5
11	41.5	46.9	44.6	50.3
12	45	50.4	48.4	54.1
13	48.8	53.8	52.5	57.8
14	52.3	57.3	56.3	61.6
15	55.8	60.8	60.1	65.5
16	59.3	64.3	64	69.3
17	62.8	67.8	67.8	73.1
18	66.3	71.3	71.6	76.9
19	69.9	74.7	75.5	80.6
20	73.4	78.2	79.3	84.4
21	76.9	81.7	83.1	88.2
22	80.4	85.2	86.9	92
23	83.9	88.7	90.7	95.8
24	87.4	92.2	94.5	99.6

Table 2
Cutout for female connectors
with mounting flanges (2734 Series)

	Pin Spacing: 3.5 mm		Pin Spacing: 3.81 mm	
Pole No.	L1	L2	L1	L2
2	10.4	15.5	11	16.1
3	13.9	19	14.8	19.9
4	17.4	22.5	18.6	23.7
5	20.9	26	22.5	27.6
6	24.6	29.4	26.5	31.3
7	28.1	32.9	30.3	35.1
8	31.6	36.4	34.1	38.9
9	35.1	39.9	37.9	42.7
10	38.6	43.4	41.7	46.5
11	42.1	46.9	45.5	50.3
12	45.6	50.4	49.3	54.1
13	49.4	53.8	53.4	57.8
14	52.9	57.3	57.2	61.6
15	56.4	60.8	61.1	65.5
16	59.9	64.3	64.9	69.3
17	63.4	67.8	68.7	73.1
18	66.9	71.3	72.5	76.9
19	70.5	74.7	76.4	80.6
20	74	78.2	80.2	84.4
21	77.5	81.7	84	88.2
22	81	85.2	87.8	92
23	84.5	88.7	91.6	95.8
24	88	92.2	95.4	99.6

Self-tapping screws
for 1.8 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	Pack. Unit
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	Pack. Unit
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	Pack. Unit
M 2.5 x 10 mm	**231-295**	200 (100)

Dimensions (in mm)
Drilled hole Ø depends on the type of screw used (see mounting screws).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Operating tools
MCS MINI

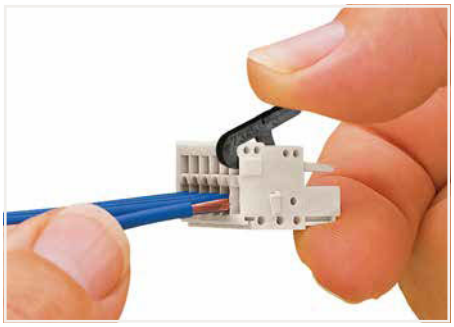




Operating lever, for male and female connectors with CAGE CLAMP® connection		
Color	Item No.	PU (SPU)
○ natural	734-230	100 (25)
● black	734-191	100 (25)

Operating tool, for male and female connectors with CAGE CLAMP® connection		
Color	Item No.	PU (SPU)
○ natural	734-190	100 (25)
● black	734-231	100 (25)

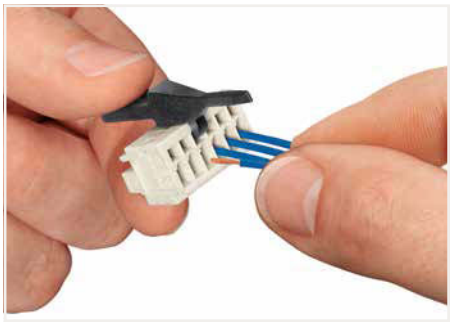
5



Inserting a conductor via operating lever.



Conductor termination parallel to CAGE CLAMP® actuation



Conductor termination perpendicular to CAGE CLAMP® actuation

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Insulation Stop and Finger Guard
MCS MINI





Insulation stop, for conductor cross-sections from 0.08 … 0.2 mm² "s" (0.14 mm² "f-st") 8 pcs/strip, 3.5 mm pin spacing		
Color	**Item No.**	PU (SPU)
○ white	**734-671**	200 (25)

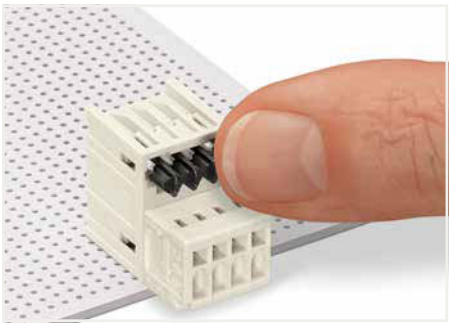
Finger guard, for THT male headers, 4-pole, 3.5/8.81 mm pin spacing		
Color	**Item No.**	PU (SPU)
● black	**734-420**	100 (25)



Conductors with small cross-sections are highly flexible, and they deform when pushed against the conductor stop in connectors. As a result, the conductor insulation – not the copper conductor – may be clamped, causing intermittent contact or no contact at all.
The solution: an insulation stop for CAGE CLAMP®-equipped 734 Series Male and Female Connectors.



Finger guards provide touch-proof protection (IP20).



Insert the finger guard into the male header to be protected.



Cut finger guard to the required number of poles.
Do not use single-pole covers!

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Coding Keys
MCS MINI

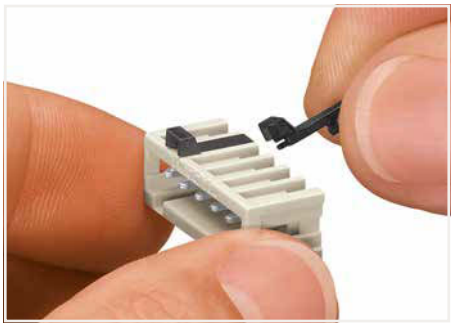




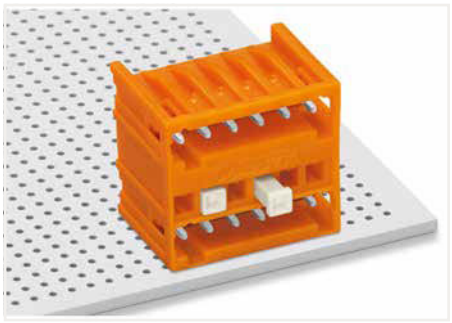
Coding key; for male headers; 3.5/3.81 mm pin spacing		
Color	Item No.	PU
○ white	734-130	100
● black*	734-159	100

*suitable for THR soldering

Coding key; for double-deck THT male headers; to be snapped in bottom level; 3.5/3.81 mm pin spacing		
Color	Item No.	PU
○ light gray	734-400	100



Coding a male header via snap-on coding keys.



Coding a THT double-deck male header – lower level.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Strain Relief Plates
MCS MINI







Strain relief plate; for field assembly; for male and female connectors with CAGE CLAMP® and Push-in CAGE CLAMP® connection; light gray; 3.5 mm pin spacing

Pole No.	Width	Item No.	PU (SPU)
2 … 3	6 mm	734-127	100 (25)
4 … 8	12.5 mm	734-128	100 (25)
9 … 12	25 mm	734-129	100 (25)
13 … 16	35 mm	734-126	100 (25)
17 … max.	55 mm	734-426	50 (25)

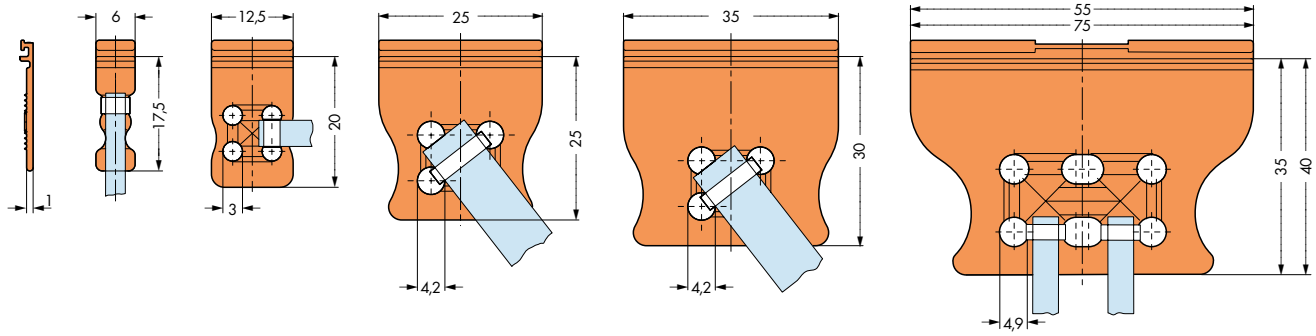
Strain relief plate; for field assembly; for male and female connectors with CAGE CLAMP® and Push-in CAGE CLAMP® connection; orange; 3.81 mm pin spacing

Pole No.	Width	Item No.	PU (SPU)
2 … 3	6 mm	734-227	100 (25)
4 … 8	12.5 mm	734-228	100 (25)
9 … 12	25 mm	734-229	100 (25)
13 … 16	35 mm	734-226	100 (25)
17 … max.	55 mm	734-428	50 (25)

Strain relief plate; factory-assembled; for male and female connectors with CAGE CLAMP® and Push-in CAGE CLAMP® connection; light gray

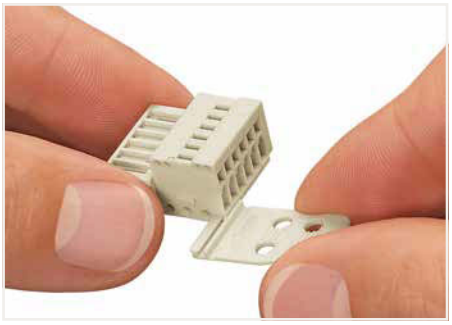
Pole No.	Width	Item No. Suffix *
2 … 3	6 mm	…/032-000
4 … 8	12.5 mm	…/033-000
9 … 12	25 mm	…/034-000
13 … 16	35 mm	…/035-000
17 … max.	55 mm	…/036-000

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.

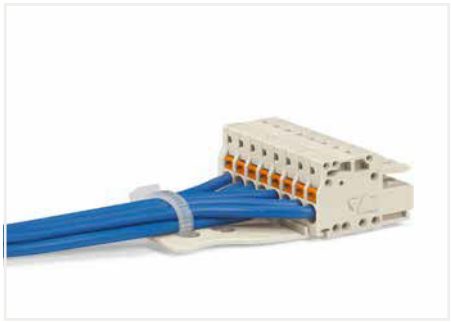


The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways. The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

Cable ties and binding tools are not offered by WAGO.



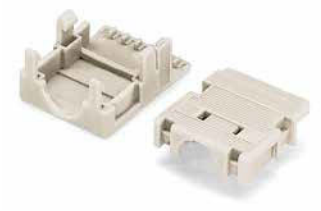
Strain relief plate for field assembly



Sample order:
1-conductor female connector with push-buttons; 3.5 mm pin spacing; 8-pole; light gray; with strain relief plate: 2734-108/033-000

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Strain Relief Housings
MCS MINI







5

Snap-on type strain relief housing; consisting of strain relief support and housing; light gray; 3.5 mm pin spacing		
Pole No.	**Item No.**	PU
2	**734-602**	50
3	**734-603**	25
4	**734-604**	25
5	**734-605**	25
6	**734-606**	25
7	**734-607**	25
8	**734-608**	25
9	**734-609**	25
10	**734-610**	25
11	**734-611**	25
12	**734-612**	25

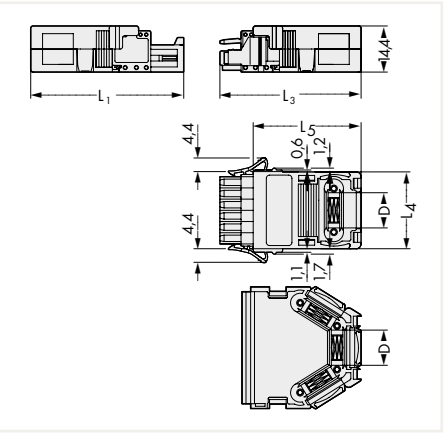
Snap-on type strain relief housing; consisting of strain relief support and housing; orange; 3.81 mm pin spacing		
Pole No.	**Item No.**	PU
2	**734-632**	50
3	**734-633**	25
4	**734-634**	25
5	**734-635**	25
6	**734-636**	25
8	**734-638**	25
9	**734-639**	25
10	**734-640**	25
12	**734-642**	25

Cable clamp; for 6–12 pole strain relief		
	Item No.	PU
	209-177	25

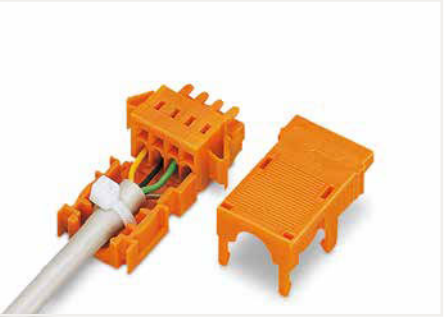


Mounting screws; for cable clamp		
	Item No.	PU
	209-172	50

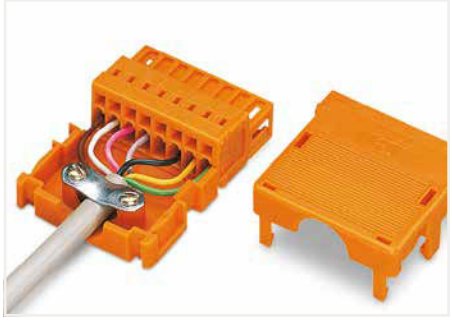
2- to 5-pole; only suitable for cable ties; 1 cable outlet (rear side); max. cable tie width 3.6 mm;
6- to 9-pole; suitable for cable clamp; 1 x cable outlet (rear side);
10- to 12-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 2 x cable outlets (side);
Removable built-in lockout caps



Strain Relief Housing Dimensions (in mm):						
Pole No.	L_4 (3,5 mm)	L_4 (3,81 mm)	L_3	L_1	L_5	D
2	10.0	10.6	43.1	46.8	32.7	5.0
3	13.5	14.4	43.1	46.8	32.7	8.5
4	17.0	18.2	43.1	46.8	32.7	8.5
5	20.5	22.0	43.1	46.8	32.7	8.5
6	24.0	25.9	44.1	47.8	33.7	11.5
7	27.5	–	44.1	47.8	33.7	11.5
8	31.0	33.5	44.1	47.8	33.7	11.5
9	34.5	37.3	44.1	47.8	33.7	11.5
10	38.0	41.1	53.1	56.8	42.7	11.5
11	41.5	–	53.1	56.8	42.7	11.5
12	45.0	48.7	53.1	56.8	42.7	11.5

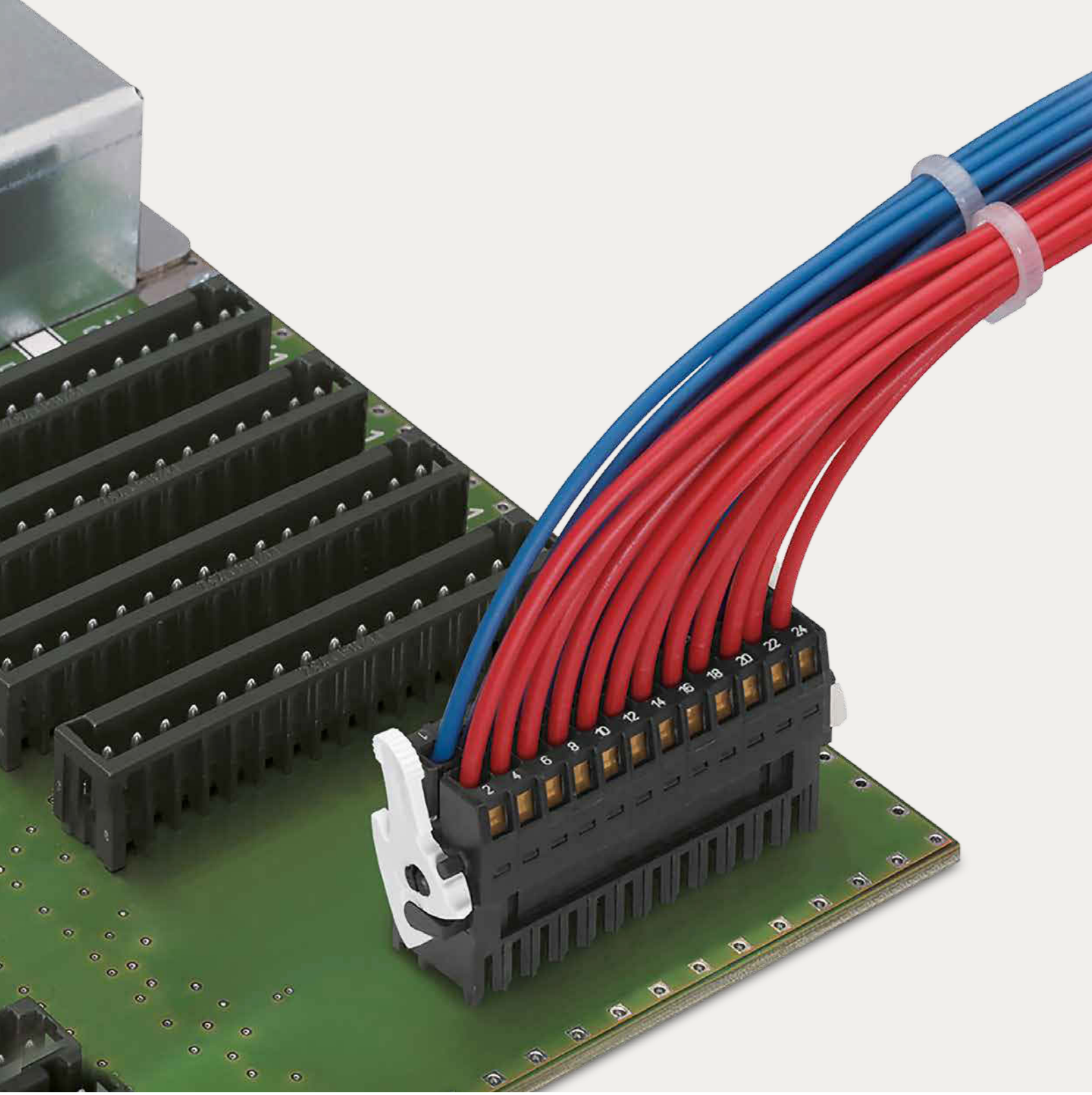


4-pole; 1-conductor female connector; with locking levers and strain relief housing (2- to 5-pole strain relief housing suitable only for cable ties)



8-pole; 1-conductor male connector; with strain relief housing (6- to 12-pole strain relief housings suitable for cable clamp)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm



WAGO *MULTI CONNECTION SYSTEM*
MINI HD

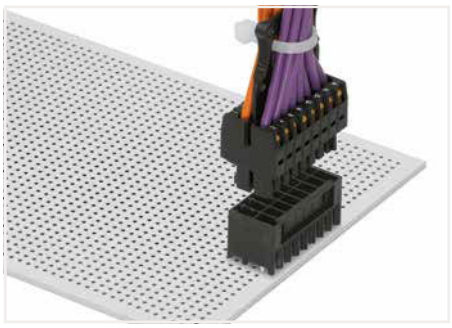
WAGO *MULTI CONNECTION SYSTEM* MINI HD
Pin Spacing: 3.5 mm / Nominal Cross-Section: 1.5 mm²

		Page
	*MCS* MINI HD 2-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	416
	*MCS* MINI HD THT Male Header, 2-Rows	418
	THR Male Header, 2-Rows	424
	*MCS* MINI HD Accessories	434
	Accessories and Tools	829

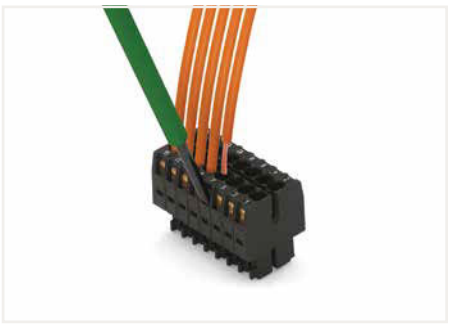
6

CAGE CLAMP®

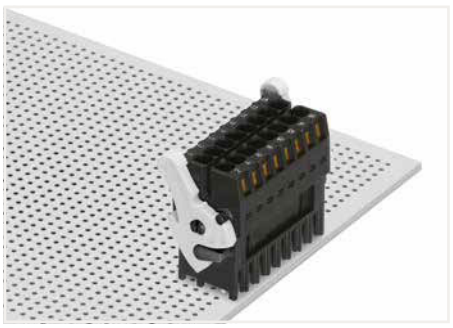
MCS MINI HD
Description and Installation



Centered strain relief plate anchors conductors for easy disconnection.

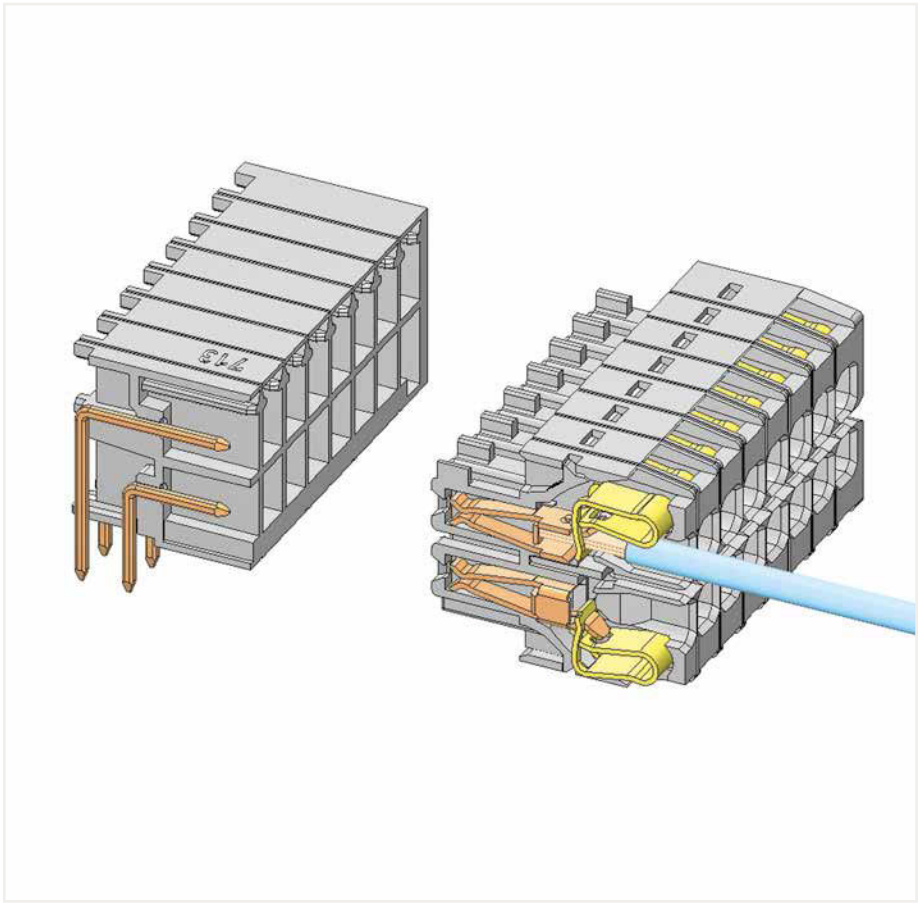


Inserting a conductor via (2.5 x 0.4) mm screwdriver.

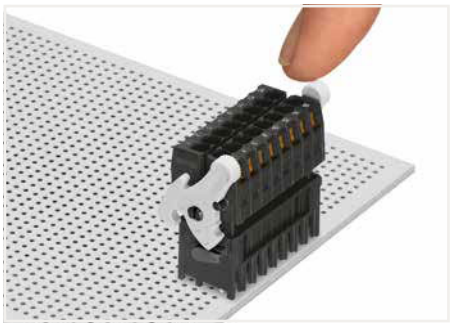


Lever as a lock – when closed, female connector is locked.

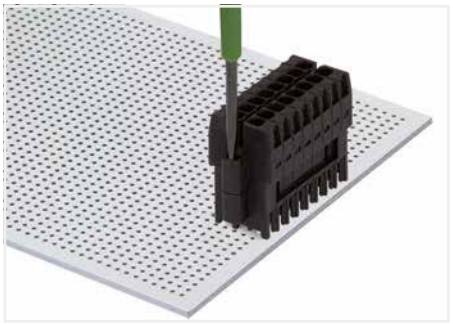
6



Pin spacing: 3.5 mm



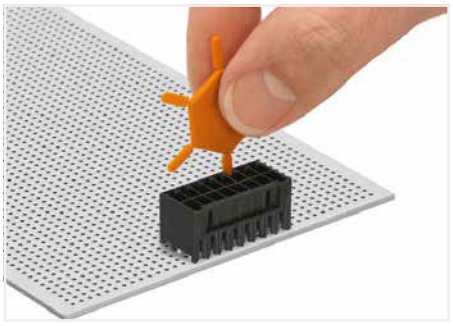
Lever as a disconnection aid – when opened, female connector is disconnected.
Rotating the lever lifts the female connector out of the male header.



Screw interlock can only be disconnected using a tool.



Pole marking via self-adhesive strips or direct marking.



Coding a male header by inserting a coding pin.



Coding a female connector by removing coding finger(s).

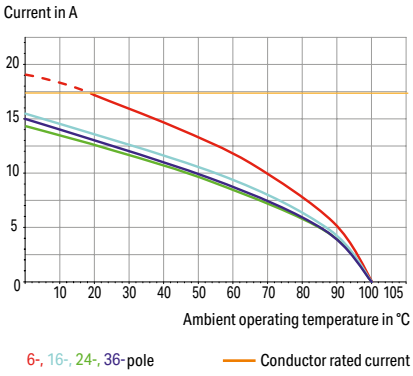
2-Conductor Female Connector ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: black



- Universal connection for all conductor types
- Unique, compact, double-row connector system for conductor cross-sections up to 1.5 mm²
- High-density, wire-to-board connections in very confined spaces
- Centered strain relief plate anchors conductors, while acting as convenient connection and disconnection handle. It also provides easy access to operating slots – even when wired
- Optional dual-purpose lever doubles as a lock and disconnection aid, while preventing accidental disconnection in closed position
- Coding fingers provide 100 % protection against mismating

Derating Curve
1-conductor female connector (713-1103) with THT male header (713-1403)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data						
Locking of plug-in connection				**Screw flange / Locking lever**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	80 V	160 V	250 V	80 V	160 V	250 V
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV
Rated current	10 A	10 A	10 A	10 A	10 A	10 A
Approvals per	UL 1059			UL 1059		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	50 V	-	300 V	50 V	-
Rated current	10 A	10 A	-	10 A	10 A	-
Approvals per	CSA			CSA		
Use Group	B	C	D	B	C	D
Rated voltage	300 V	-	-	300 V	-	-
Rated current	10 A	-	-	10 A	-	-

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Solid conductor	0.08 … 1.5 mm² / 28 … 16 AWG
Fine-stranded conductor	0.08 … 1.5 mm² / 28 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1 mm²

Material Data	
Material group	II
Insulating material	Glass fiber-reinforced polyamide (PA 66 GF)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

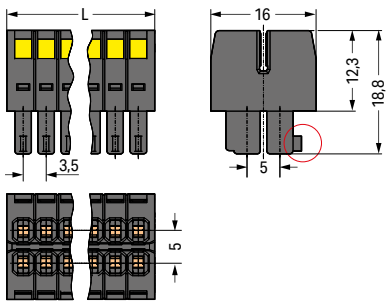
Ferrule	Page 847
Strain relief	Page 434
Tools	Page 838
Direct marking	Page 432
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

2-Conductor Female Connector ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: black

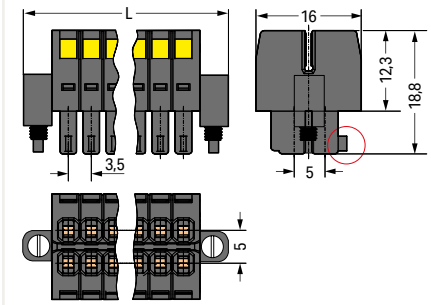
	Locking of plug-in connection: Screw flange	Locking of plug-in connection: Locking lever
		

Pole No.	Item No.	PU
6	713-1103	100
8	713-1104	50
10	713-1105	50
12	713-1106	50
14	713-1107	50
16	713-1108	25
18	713-1109	25
20	713-1110	25
22	713-1111	25
24	713-1112	25
26	713-1113	25
28	713-1114	20
30	713-1115	20
32	713-1116	20
34	713-1117	20
36	713-1118	20



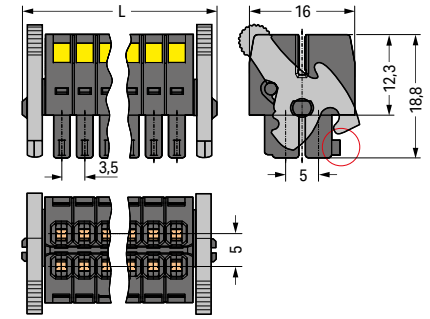
L = [(pole no./2) – 1] x pin spacing + 5.2 mm
Coding finger (red circle)

Pole No.	Item No.	PU
6	713-1103/107-000	50
8	713-1104/107-000	50
10	713-1105/107-000	25
12	713-1106/107-000	25
14	713-1107/107-000	25
16	713-1108/107-000	25
18	713-1109/107-000	25
20	713-1110/107-000	20
22	713-1111/107-000	20
24	713-1112/107-000	20
26	713-1113/107-000	20
28	713-1114/107-000	20
30	713-1115/107-000	20
32	713-1116/107-000	10
34	713-1117/107-000	10
36	713-1118/107-000	10



L = [(pole no./2) – 1] x pin spacing + 13.6 mm
Coding finger (red circle)

Pole No.	Item No.	PU
6	713-1103/037-000	50
8	713-1104/037-000	50
10	713-1105/037-000	50
12	713-1106/037-000	25
14	713-1107/037-000	25
16	713-1108/037-000	25
18	713-1109/037-000	25
20	713-1110/037-000	25
22	713-1111/037-000	20
24	713-1112/037-000	20
26	713-1113/037-000	20
28	713-1114/037-000	20
30	713-1115/037-000	20
32	713-1116/037-000	20
34	713-1117/037-000	10
36	713-1118/037-000	10



L = [(pole no./2) – 1] x pin spacing + 12.2 mm
Coding finger (red circle)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

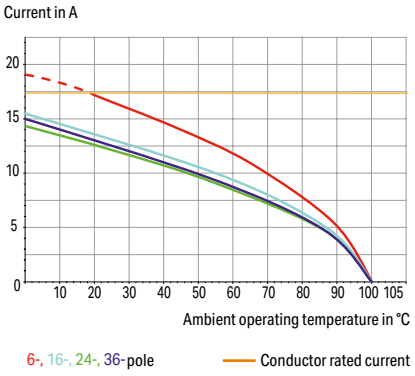
THT Male Header, 2-Row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black



- Male headers may be mounted horizontally or vertically via straight or angled solder pins
- Header housing is molded of THT-compatible insulation material for lead-free reflow soldering
- Separated pin slots prevent damage and make the headers touch-proof when unplugged
- 100 % protected against mismating
- Coding pins available

Derating Curve
1-conductor female connector (713-1103) with
THT male header (713-1403)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	80 V	160 V	250 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	150 V	50 V	-	
Rated current	10 A	10 A	-	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	12 A	-	-	

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin length	3.8 mm
Solder pin dimensions	0.8 x 0.8 mm
Drilled hole diameter (tolerance)	$1.2^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 434

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

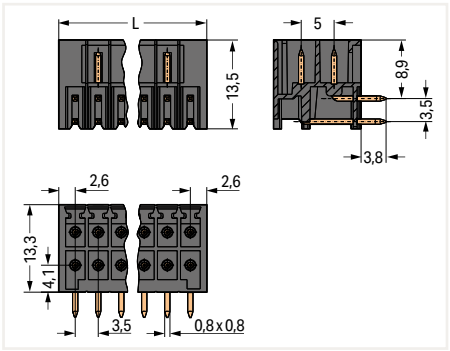
THT Male Header, 2-Row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
6	713-1423	100
8	713-1424	50
10	713-1425	50
12	713-1426	50
14	713-1427	50
16	713-1428	25
18	713-1429	25
20	713-1430	25
22	713-1431	25
24	713-1432	25
26	713-1433	25
28	713-1434	20
30	713-1435	20
32	713-1436	20
34	713-1437	20
36	713-1438	20

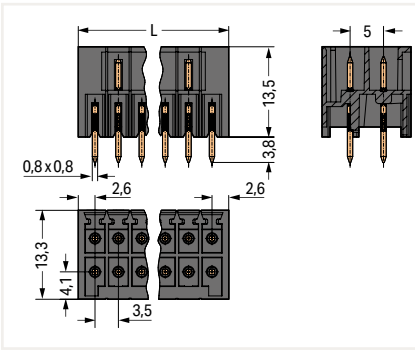


L = [(pole no./2) – 1] x pin spacing + 5.2 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
6	713-1403	100
8	713-1404	50
10	713-1405	50
12	713-1406	50
14	713-1407	50
16	713-1408	25
18	713-1409	25
20	713-1410	25
22	713-1411	25
24	713-1412	25
26	713-1413	25
28	713-1414	20
30	713-1415	20
32	713-1416	20
34	713-1417	20
36	713-1418	20

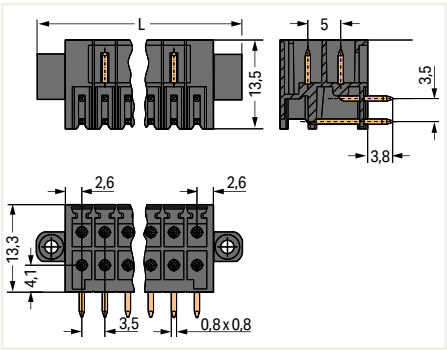


L = [(pole no./2) – 1] x pin spacing + 5.2 mm

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
6	713-1423/107-000	50
8	713-1424/107-000	50
10	713-1425/107-000	25
12	713-1426/107-000	25
14	713-1427/107-000	25
16	713-1428/107-000	25
18	713-1429/107-000	25
20	713-1430/107-000	20
22	713-1431/107-000	20
24	713-1432/107-000	20
26	713-1433/107-000	20
28	713-1434/107-000	20
30	713-1435/107-000	20
32	713-1436/107-000	10
34	713-1437/107-000	10
36	713-1438/107-000	10



L = [(pole no./2) – 1] x pin spacing + 13.6 mm

6

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

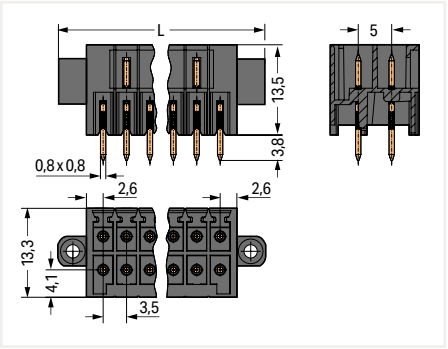
THT Male Header, 2-Row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
6	713-1403/107-000	50
8	713-1404/107-000	50
10	713-1405/107-000	25
12	713-1406/107-000	25
14	713-1407/107-000	25
16	713-1408/107-000	25
18	713-1409/107-000	25
20	713-1410/107-000	20
22	713-1411/107-000	20
24	713-1412/107-000	20
26	713-1413/107-000	20
28	713-1414/107-000	20
30	713-1415/107-000	20
32	713-1416/107-000	10
34	713-1417/107-000	10
36	713-1418/107-000	10

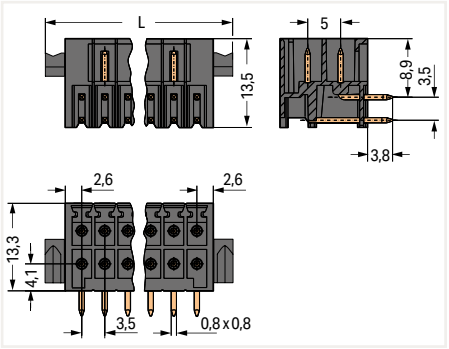


L = [(pole no./2) – 1] x pin spacing + 13.6 mm

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
6	713-1423/037-000	50
8	713-1424/037-000	50
10	713-1425/037-000	50
12	713-1426/037-000	25
14	713-1427/037-000	25
16	713-1428/037-000	25
18	713-1429/037-000	25
20	713-1430/037-000	25
22	713-1431/037-000	20
24	713-1432/037-000	20
26	713-1433/037-000	20
28	713-1434/037-000	20
30	713-1435/037-000	20
32	713-1436/037-000	20
34	713-1437/037-000	10
36	713-1438/037-000	10

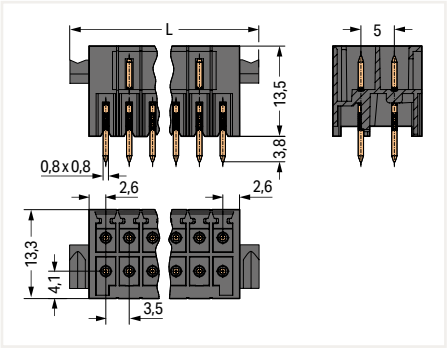


L = [(pole no./2) – 1] x pin spacing + 11.6 mm

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
6	713-1403/037-000	50
8	713-1404/037-000	50
10	713-1405/037-000	50
12	713-1406/037-000	25
14	713-1407/037-000	25
16	713-1408/037-000	25
18	713-1409/037-000	25
20	713-1410/037-000	25
22	713-1411/037-000	20
24	713-1412/037-000	20
26	713-1413/037-000	20
28	713-1414/037-000	20
30	713-1415/037-000	20
32	713-1416/037-000	20
34	713-1417/037-000	10
36	713-1418/037-000	10



L = [(pole no./2) – 1] x pin spacing + 11.6 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

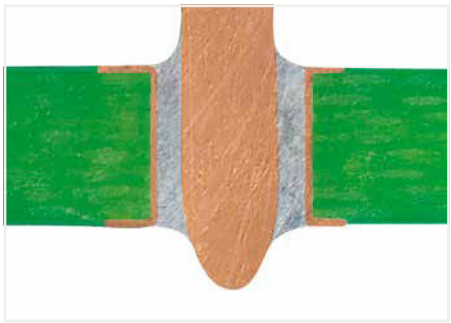
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

THR (Through-Hole Reflow) Soldering Process



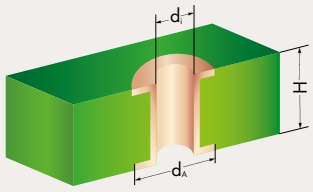
By using high-temperature-resistant plastic and a streamlined pin design, WAGO's THR male headers and PCB terminal blocks meet requirements for SMT process capability while maintaining the necessary stability. Both headers and terminal blocks are simply pushed into the solder paste-filled PCB holes and then soldered along with the SMT components via reflow soldering. The previous wave soldering process is no longer necessary. The result is a perfect connection – both mechanically and electrically.





Terminal strips with an additional suction pad in tape-and-reel packaging per IEC 60286-3
WAGO recommends both a temperature profile that adheres to EN 61760-1 and the use of forced convection ovens for processing THR components.

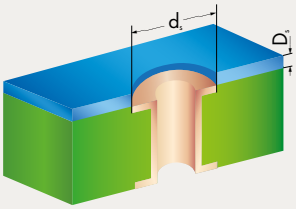
1



Metal-plated PCB bore hole

Series	d_i (mm)	d_A (mm)	H (mm)	d_s (mm)	D_s (µm)	d (mm)	L (mm)
218	$1{,}1^{+0{,}1}$	1,9	< 2	1,8	150	0,9	2,8
231 (1 x 1 mm)	$1{,}4^{+0{,}1}$	2,5	< 2	2,4	150	1,2	2,4
231 (1,2 x 1,2 mm)	$1{,}7^{+0{,}1}$	2,8	< 2	2,7	150	1,5	2,4
236	$1{,}1^{+0{,}1}$	2,2	< 2	2,1	150	0,9	3,6
250	$1{,}1^{+0{,}1}$	2,0	< 2	1,9	150	0,9	3,6
713	$1{,}2^{+0{,}1}$	1,9	< 2	1,8	150	1,0	2,4
733	$1{,}2^{+0{,}1}$	1,9	< 2	1,8	150	1,0	2,4
734	$1{,}4^{+0{,}1}$	2,5	< 2	2,4	150	1,2	2,4
2060 THR	$1{,}5^{+0{,}1}$	2,4	< 2	2,3	150	1,25	2,4
2061 THR	$1{,}5^{+0{,}1}$	2,4	< 2	2,3	150	1,25	1,5 / 2,4

2

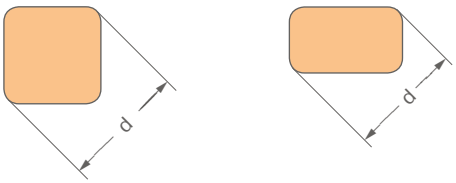


SMD positioning pattern

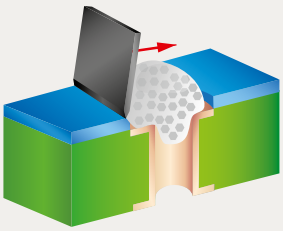
d_i: Plated through-hole diameter
d_A: Outer diameter of metal-plated PCB hole*
H: PCB thickness
d_s: Pattern hole diameter
D_s: Pattern thickness
d: Pin diagonal
L: Pin length

* When laying out the metal-plated bore holes, the clearance and creepage distance requirements – as specified in the equipment standards – must be considered.

Soldering pin form

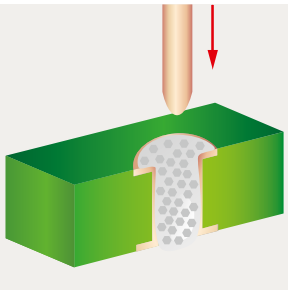


3



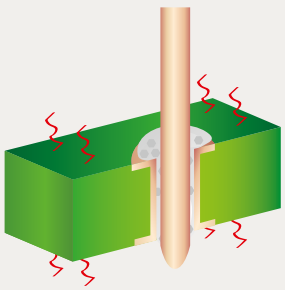
Solder paste application

4



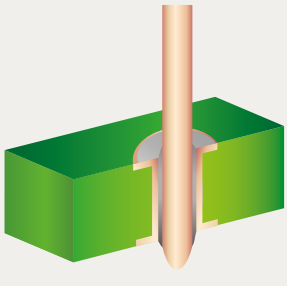
Component assembly, automatic/by hand

5



Reflow soldering process

6



THR soldering joint

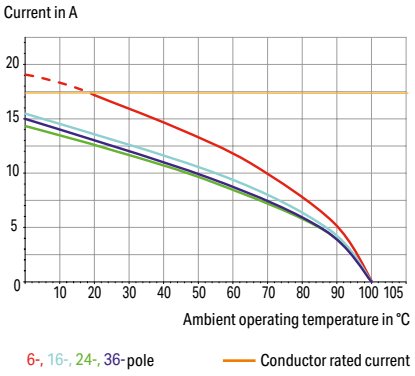
THR Male Header, 2-Row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Separated pin slots prevent damage and make the headers touch-proof when unplugged
- 100 % protected against mismating
- Coding pins available

Derating Curve
1-conductor female connector (713-1103) with
THT male header (713-1403)
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



6

Electrical Data

Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	80 V	160 V	250 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	150 V	50 V	-	
Rated current	10 A	10 A	-	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	12 A	-	-	

Material Data

Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector, in line
Solder pin length	2.4 mm
Solder pin dimensions	0.8 x 0.8 mm
Drilled hole diameter (tolerance)	$1.3^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR-soldering process	Page 422
Coding	Page 434
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

THR Male Header, 2-Row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Mating direction to the PCB: 0°

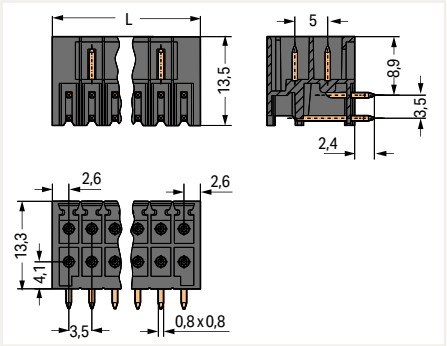
Suitable for automated assembly



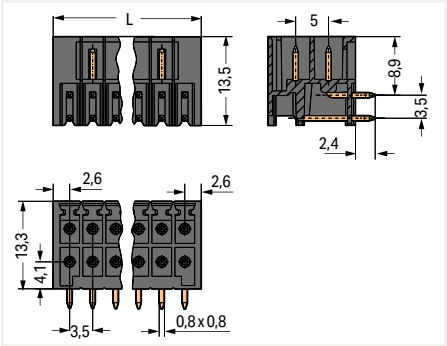


Pole No.	Item No.	PU
6	713-1423/105-000	100
8	713-1424/105-000	50
10	713-1425/105-000	50
12	713-1426/105-000	50
14	713-1427/105-000	50
16	713-1428/105-000	25
18	713-1429/105-000	25
20	713-1430/105-000	25
22	713-1431/105-000	25
24	713-1432/105-000	25
26	713-1433/105-000	25
28	713-1434/105-000	20
30	713-1435/105-000	20
32	713-1436/105-000	20
34	713-1437/105-000	20
36	713-1438/105-000	20

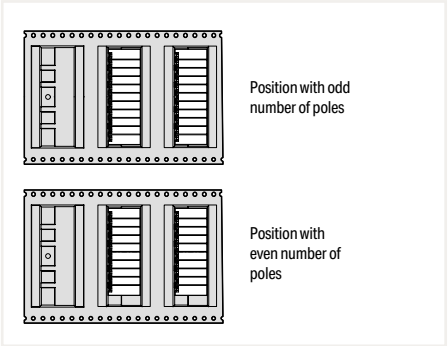
Pole No.	Tape width	Item No.	PU
6	32 mm	713-1423/105-000/997-405	120
8	32 mm	713-1424/105-000/997-405	120
10	32 mm	713-1425/105-000/997-405	120
12	44 mm	713-1426/105-000/997-406	120
14	44 mm	713-1427/105-000/997-406	120
16	44 mm	713-1428/105-000/997-406	120
18	56 mm	713-1429/105-000/997-407	120
20	56 mm	713-1430/105-000/997-407	120
22	56 mm	713-1431/105-000/997-407	120
24	72 mm	713-1432/105-000/997-408	120
26	72 mm	713-1433/105-000/997-408	120
28	72 mm	713-1434/105-000/997-408	120
30	72 mm	713-1435/105-000/997-408	120
32	72 mm	713-1436/105-000/997-408	120
34	88 mm	713-1437/105-000/997-409	120
36	88 mm	713-1438/105-000/997-409	120



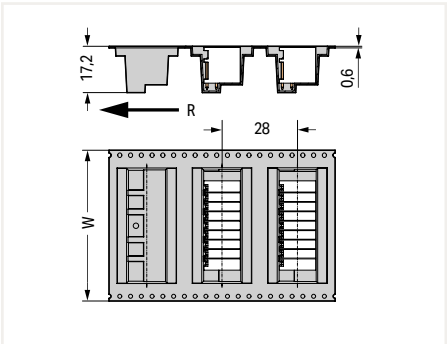
L = [(pole no./2) – 1] x pin spacing + 5.2 mm



L = [(pole no./2) – 1] x pin spacing + 5.2 mm



Pin position in tape-and-reel packaging



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

6

THR Male Header, 2-Row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Mating direction to the PCB: 90°

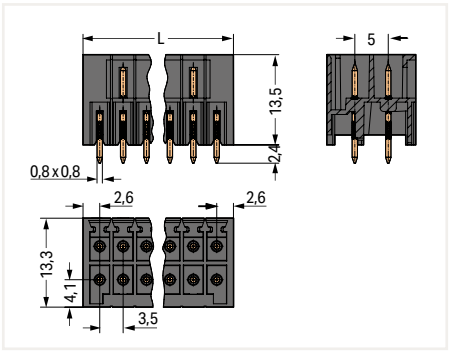
Suitable for automated assembly



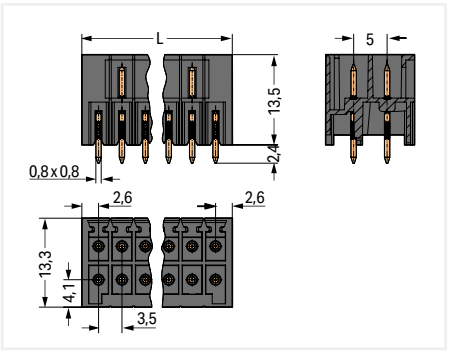


Pole No.	Item No.	PU
6	713-1403/105-000	100
8	713-1404/105-000	50
10	713-1405/105-000	50
12	713-1406/105-000	50
14	713-1407/105-000	50
16	713-1408/105-000	25
18	713-1409/105-000	25
20	713-1410/105-000	25
22	713-1411/105-000	25
24	713-1412/105-000	25
26	713-1413/105-000	25
28	713-1414/105-000	20
30	713-1415/105-000	20
32	713-1416/105-000	20
34	713-1417/105-000	20
36	713-1418/105-000	20

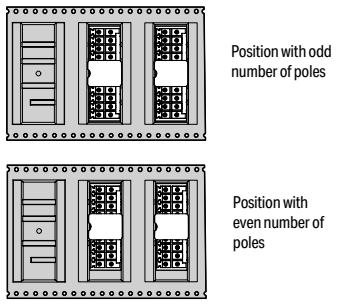
Pole No.	Tape width	Item No.	PU
6	32 mm	713-1403/105-000/997-405	120
8	32 mm	713-1404/105-000/997-405	120
10	32 mm	713-1405/105-000/997-405	120
12	44 mm	713-1406/105-000/997-406	120
14	44 mm	713-1407/105-000/997-406	120
16	44 mm	713-1408/105-000/997-406	120
18	56 mm	713-1409/105-000/997-407	120
20	56 mm	713-1410/105-000/997-407	120
22	56 mm	713-1411/105-000/997-407	120
24	72 mm	713-1412/105-000/997-408	120
26	72 mm	713-1413/105-000/997-408	120
28	72 mm	713-1414/105-000/997-408	120
30	72 mm	713-1415/105-000/997-408	120
32	72 mm	713-1416/105-000/997-408	120
34	88 mm	713-1417/105-000/997-409	120
36	88 mm	713-1418/105-000/997-409	120



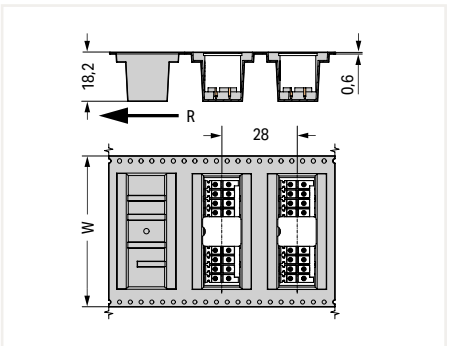
L = [(pole no./2) – 1] x pin spacing + 5.2 mm



L = [(pole no./2) – 1] x pin spacing + 5.2 mm



Pin position in tape-and-reel packaging



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

THR Male Header, 2-Row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 0°

Suitable for automated assembly

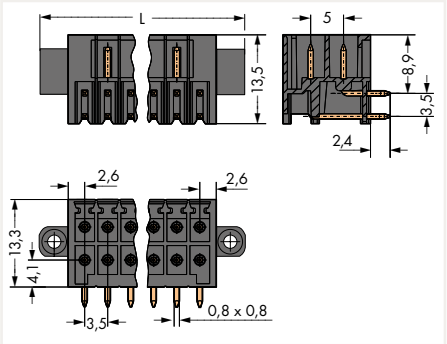




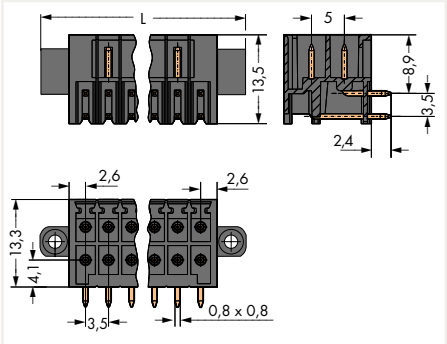
Pole No.	Item No.	PU
6	713-1423/117-000	50
8	713-1424/117-000	50
10	713-1425/117-000	25
12	713-1426/117-000	25
14	713-1427/117-000	25
16	713-1428/117-000	25
18	713-1429/117-000	25
20	713-1430/117-000	20
22	713-1431/117-000	20
24	713-1432/117-000	20
26	713-1433/117-000	20
28	713-1434/117-000	20
30	713-1435/117-000	20
32	713-1436/117-000	10
34	713-1437/117-000	10
36	713-1438/117-000	10

Pole No.	Tape width	Item No.	PU
6	32 mm	713-1423/117-000/997-405	120
8	44 mm	713-1424/117-000/997-406	120
10	44 mm	713-1425/117-000/997-406	120
12	44 mm	713-1426/117-000/997-406	120
14	56 mm	713-1427/117-000/997-407	120
16	56 mm	713-1428/117-000/997-407	120
18	56 mm	713-1429/117-000/997-407	120
20	72 mm	713-1430/117-000/997-408	120

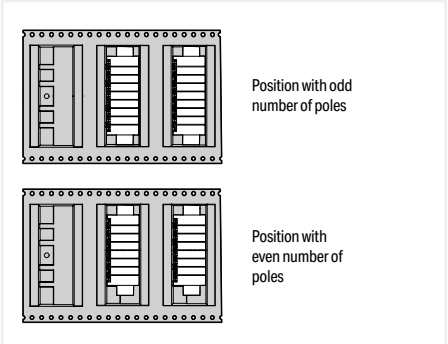
Pole No.	Tape width	Item No.	PU
22	72 mm	713-1431/117-000/997-408	120
24	72 mm	713-1432/117-000/997-408	120
26	72 mm	713-1433/117-000/997-408	120
28	72 mm	713-1434/117-000/997-408	120
30	88 mm	713-1435/117-000/997-409	120
32	88 mm	713-1436/117-000/997-409	120
34	88 mm	713-1437/117-000/997-409	120
36	88 mm	713-1438/117-000/997-409	120



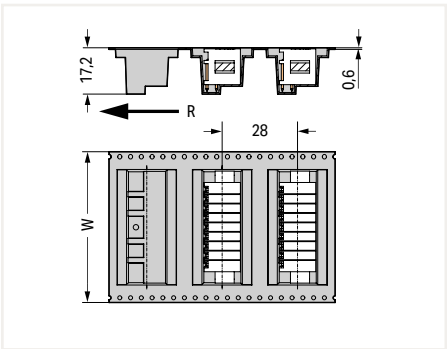
L = [(pole no./2) – 1] x pin spacing + 13.6 mm



L = [(pole no./2) – 1] x pin spacing + 13.6 mm



Pin position in tape-and-reel packaging



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

6

THR Male Header, 2-Row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 90°

Suitable for automated assembly

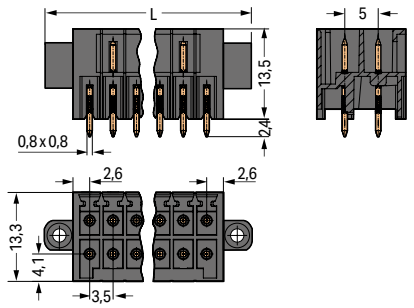




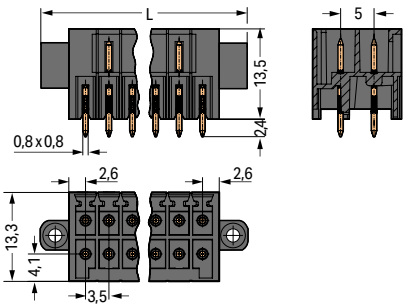
Pole No.	Item No.	PU
6	713-1403/117-000	50
8	713-1404/117-000	50
10	713-1405/117-000	25
12	713-1406/117-000	25
14	713-1407/117-000	25
16	713-1408/117-000	25
18	713-1409/117-000	25
20	713-1410/117-000	20
22	713-1411/117-000	20
24	713-1412/117-000	20
26	713-1413/117-000	20
28	713-1414/117-000	20
30	713-1415/117-000	20
32	713-1416/117-000	10
34	713-1417/117-000	10
36	713-1418/117-000	10

Pole No.	Tape width	Item No.	PU
6	32 mm	713-1403/117-000/997-405	120
8	44 mm	713-1404/117-000/997-406	120
10	44 mm	713-1405/117-000/997-406	120
12	44 mm	713-1406/117-000/997-406	120
14	56 mm	713-1407/117-000/997-407	120
16	56 mm	713-1408/117-000/997-407	120
18	56 mm	713-1409/117-000/997-407	120
20	72 mm	713-1410/117-000/997-408	120

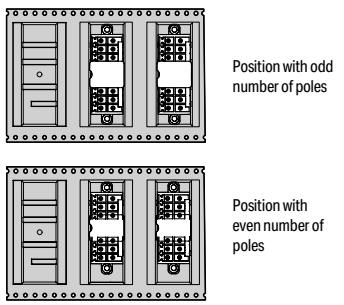
Pole No.	Tape width	Item No.	PU
22	72 mm	713-1411/117-000/997-408	120
24	72 mm	713-1412/117-000/997-408	120
26	72 mm	713-1413/117-000/997-408	120
28	72 mm	713-1414/117-000/997-408	120
30	88 mm	713-1415/117-000/997-409	120
32	88 mm	713-1416/117-000/997-409	120
34	88 mm	713-1417/117-000/997-409	120
36	88 mm	713-1418/117-000/997-409	120



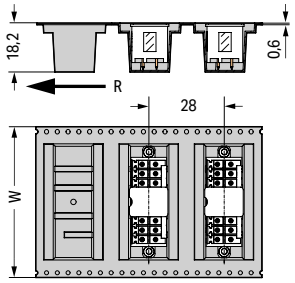
L = [(pole no./2) – 1] x pin spacing + 13.6 mm



L = [(pole no./2) – 1] x pin spacing + 13.6 mm



Pin position in tape-and-reel packaging



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

THR Male Header, 2-Row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 0°

Suitable for automated assembly

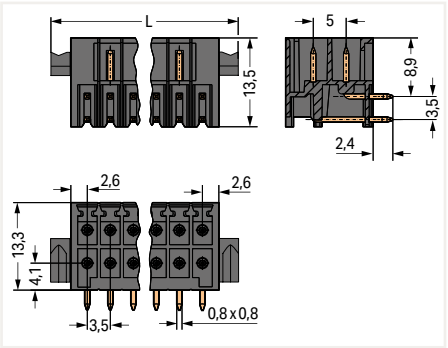




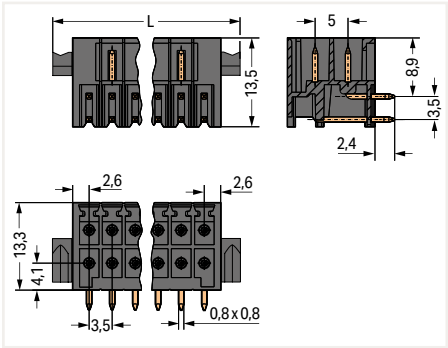
Pole No.	Item No.	PU
6	713-1423/116-000	50
8	713-1424/116-000	50
10	713-1425/116-000	50
12	713-1426/116-000	50
14	713-1427/116-000	50
16	713-1428/116-000	25
18	713-1429/116-000	25
20	713-1430/116-000	25
22	713-1431/116-000	20
24	713-1432/116-000	20
26	713-1433/116-000	20
28	713-1434/116-000	20
30	713-1435/116-000	20
32	713-1436/116-000	20
34	713-1437/116-000	10
36	713-1438/116-000	10

Pole No.	Tape width	Item No.	PU
6	32 mm	713-1423/116-000/997-405	120
8	44 mm	713-1424/116-000/997-406	120
10	44 mm	713-1425/116-000/997-406	120
12	44 mm	713-1426/116-000/997-406	120
14	56 mm	713-1427/116-000/997-407	120
16	56 mm	713-1428/116-000/997-407	120
18	56 mm	713-1429/116-000/997-407	120
20	72 mm	713-1430/116-000/997-408	120

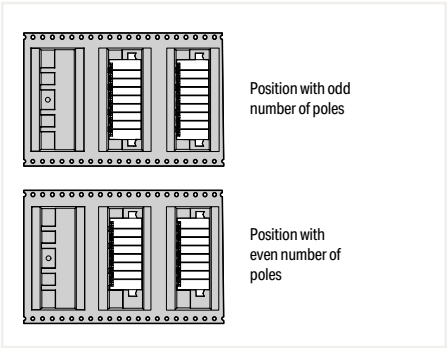
Pole No.	Tape width	Item No.	PU
22	72 mm	713-1431/116-000/997-408	120
24	72 mm	713-1432/116-000/997-408	120
26	72 mm	713-1433/116-000/997-408	120
28	72 mm	713-1434/116-000/997-408	120
30	88 mm	713-1435/116-000/997-409	120
32	88 mm	713-1436/116-000/997-409	120
34	88 mm	713-1437/116-000/997-409	120
36	88 mm	713-1438/116-000/997-409	120



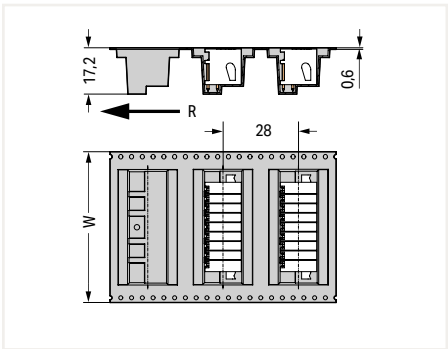
L = [(pole no./2) – 1] x pin spacing + 11.6 mm



L = [(pole no./2) – 1] x pin spacing + 11.6 mm



Pin position in tape-and-reel packaging



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

6

THR Male Header, 2-Row ▸ *MCS* MINI HD ▸ 713 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Locking of plug-in connection: Locking lever ▸ Mating direction to the PCB: 90°

Suitable for automated assembly

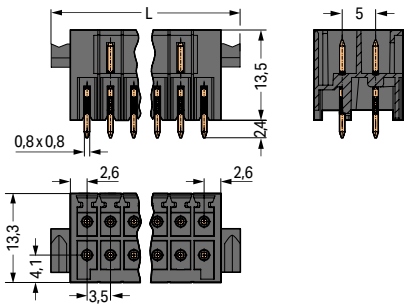




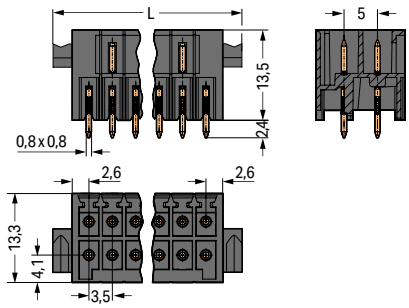
Pole No.	Item No.	PU
6	713-1403/116-000	50
8	713-1404/116-000	50
10	713-1405/116-000	50
12	713-1406/116-000	25
14	713-1407/116-000	25
16	713-1408/116-000	25
18	713-1409/116-000	25
20	713-1410/116-000	25
22	713-1411/116-000	20
24	713-1412/116-000	20
26	713-1413/116-000	20
28	713-1414/116-000	20
30	713-1415/116-000	20
32	713-1416/116-000	20
34	713-1417/116-000	10
36	713-1418/116-000	10

Pole No.	Tape width	Item No.	PU
6	32 mm	713-1403/116-000/997-405	120
8	44 mm	713-1404/116-000/997-406	120
10	44 mm	713-1405/116-000/997-406	120
12	44 mm	713-1406/116-000/997-406	120
14	56 mm	713-1407/116-000/997-407	120
16	56 mm	713-1408/116-000/997-407	120
18	56 mm	713-1409/116-000/997-407	120
20	72 mm	713-1410/116-000/997-408	120

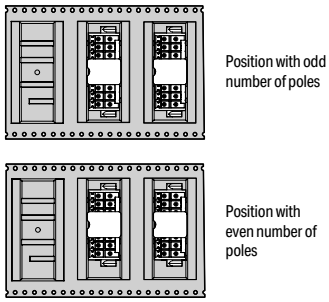
Pole No.	Tape width	Item No.	PU
22	72 mm	713-1411/116-000/997-408	120
24	72 mm	713-1412/116-000/997-408	120
26	72 mm	713-1413/116-000/997-408	120
28	72 mm	713-1414/116-000/997-408	120
30	88 mm	713-1415/116-000/997-409	120
32	88 mm	713-1416/116-000/997-409	120
34	88 mm	713-1417/116-000/997-409	120
36	88 mm	713-1418/116-000/997-409	120



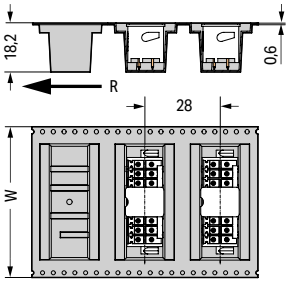
L = [(pole no./2) – 1] x pin spacing + 11.6 mm



L = [(pole no./2) – 1] x pin spacing + 11.6 mm



Pin position in tape-and-reel packaging



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other solder pin lengths
- Gold-plated or partially gold-plated contact surfaces

Direct Marking
MCS MINI HD







713 Series Female Connectors can be marked with "1 ... pole no." via factory direct marking.

Two standard marking orientations are available:
1. Marking perpendicular to conductor entry
2. Marking parallel to conductor entry

Other custom marking options are available upon request.

WAGO recommends pole marking on the PCB for male headers with solder pins (713 Series).

The marking type is always defined by the second 4-digit block of the item no. suffix for items with standard colors and materials.

Example: 713-1110/. . . - xxxx
xxxx = Item no. suffix for direct marking

Direct marking of 1-conductor female connectors, perpendicular to conductor entry, 1 ... pole no., item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor female connector, double-row, 16-pole, black	**713-1108/000-047**
1-conductor female connector, with screw flanges, double-row,16-pole, black	**713-1108/0107-047**
1-conductor female connector, with levers and strain relief plate, double-row, 16-pole, black	**713-1108/037-047/033-000**

Direct marking of 1-conductor female connectors, parallel to conductor entry, 1 ... pole no., item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
1-conductor female connector, double-row, 16-pole, black	**713-1108/000-9037**
1-conductor female connector, with levers, double-row, 16-pole, black	**13-1108/037-9037**
1-conductor female connector, with strain relief plate, double-row, 16-pole, black	**713-1108/033-9037**

Strain Relief Plates
MCS MINI HD







Strain relief plate; for field assembly; for female connectors with CAGE CLAMP® connection; black

Pole No.	Width	Item No.	PU (SPU)
6 … 8	11 mm	713-126	100 (25)
10 … 12	18 mm	713-130	100 (25)
14 … 20	24 mm	713-127	100 (25)
22 … 28	39 mm	713-128	100 (25)
30 … 36	53 mm	713-129	100 (25)

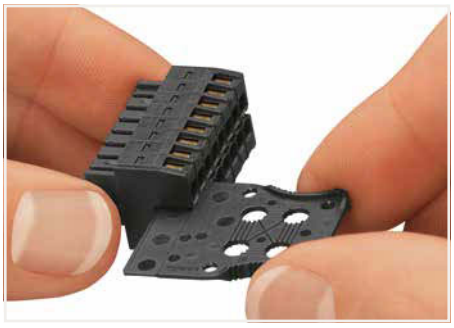
Strain relief plate; pre-assembled; for female connectors with CAGE CLAMP® connection; black

Pole No.	Width	Item no. suffix *
6 … 8	11 mm	…/032-000
10 … 12	18 mm	…/036-000
14 … 20	24 mm	…/033-000
22 … 28	39 mm	…/034-000
30 … 36	53 mm	…/035-000

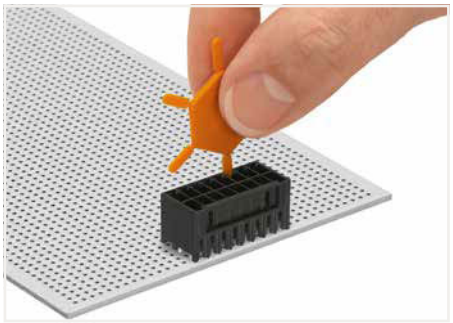
*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of female connector.

Coding pin carrier, for male headers with six coding pins

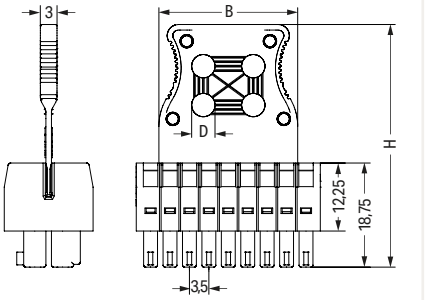
Color	Item No.	PU (SPU)
orange	714-101	100 (25)



Strain relief plate for field assembly



Coding a male header via coding pins.



Pole No.	B	H	D
6 … 8	11	38,7	3
10 … 12	18	43,7	4,2
14 … 20	25	43,7	4,2
22 … 28	39	48,7	4,2
30 … 36	53	54,2	4,9

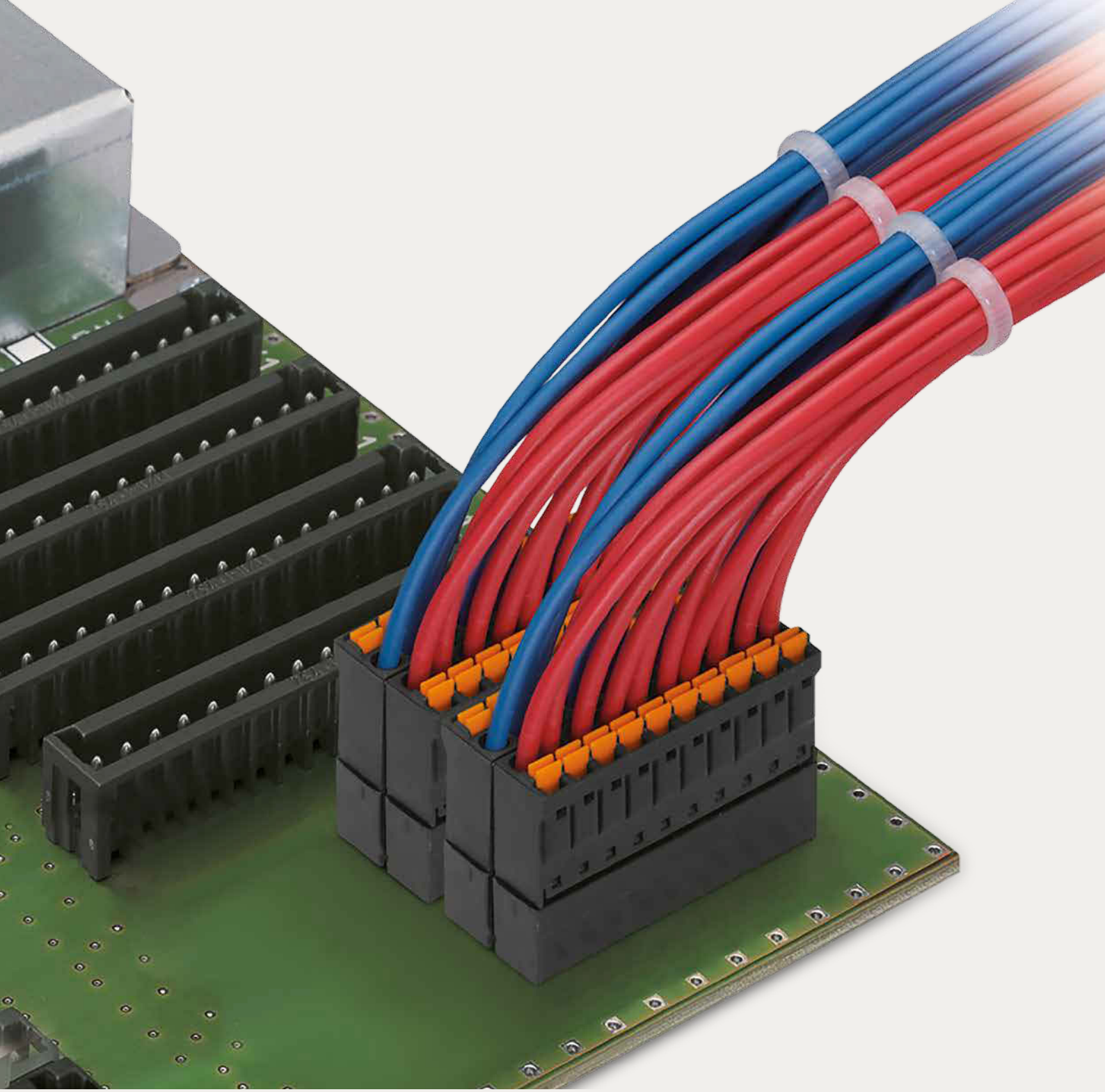
The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways. The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

Cable ties and binding tools are not offered by WAGO.



Coding a female connector – removing coding finger(s).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm



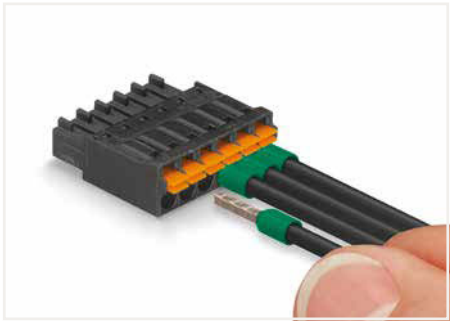
WAGO *MULTI CONNECTION SYSTEM*
MINI SL

WAGO *MULTI CONNECTION SYSTEM* MINI SL
Pin Spacing: 3.5 mm / Nominal Cross-Section: 1.5 mm²

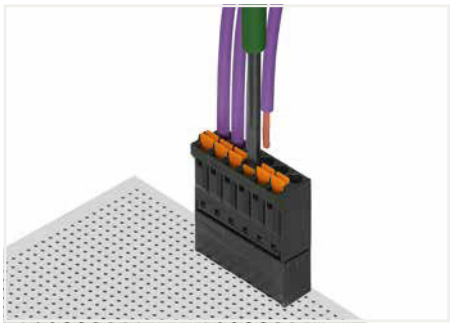
		Page
	*MCS* MINI SL 1-Conductor Female Connectors ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	440
	*MCS* MINI SL THT Male Headers	442
	*MCS* MINI SL Accessories	444
	Accessories and Tools	829

7

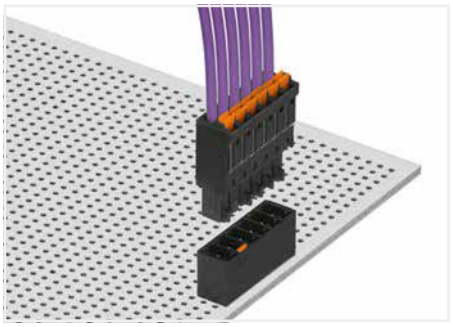
MCS MINI SL
Description and Installation



Terminating solid and ferruled conductors via push-in termination.



Inserting/removing fine-stranded conductors via push-button.



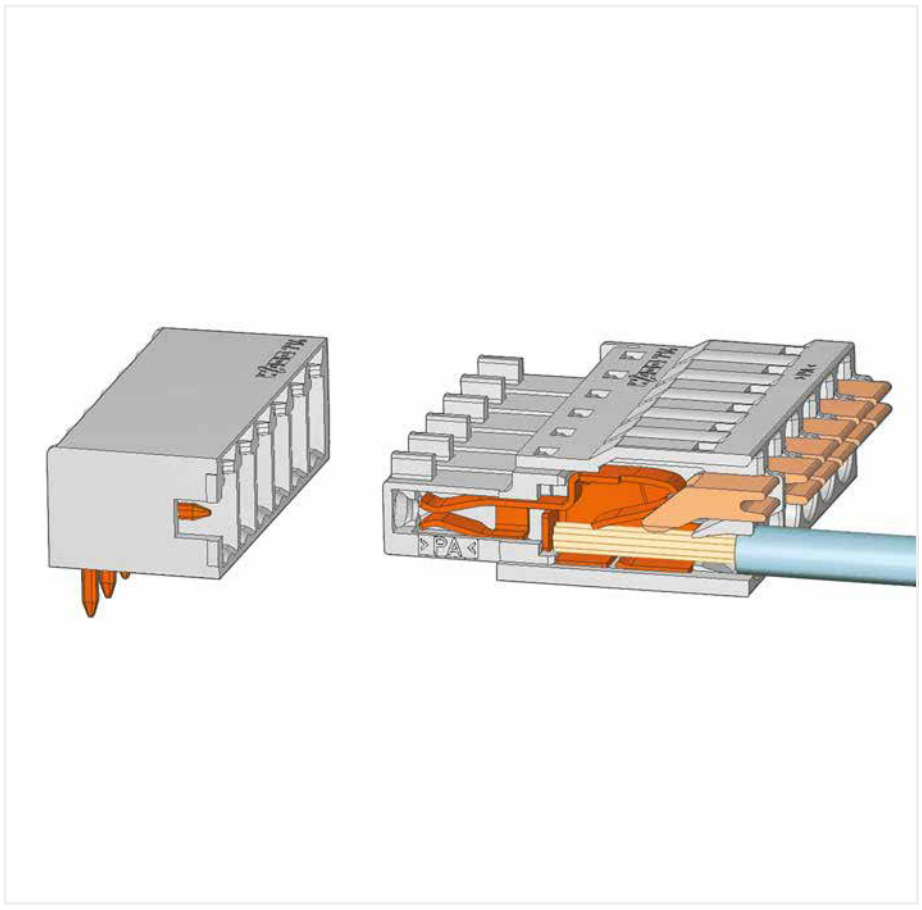
Coded connectors.



Coding a male header by inserting a coding pin.



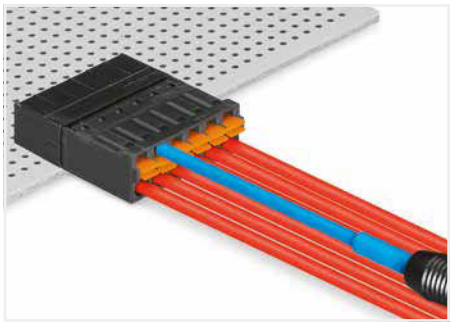
Coding a female connector by removing coding finger(s).



Pin spacing: 3.5 mm



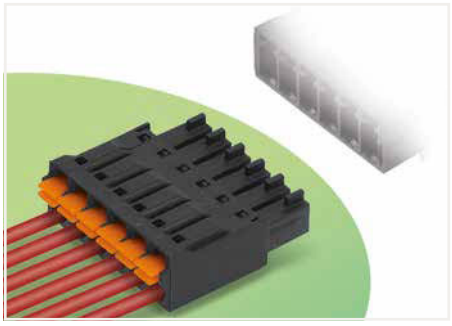
Pole marking via factory direct marking.



Testing via 1 mm Ø test pin – insertion parallel to conductor entry.

1-Conductor Female Connector ▸ *MCS* MINI SL ▸ 714 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Color: black



- Female connectors terminate both solid and ferruled conductors via push-in termination
- Integrated push-buttons provide convenient, tool-free operation
- Ultra-low profile of just 7.8 mm for conductor cross-section up to 1.5 mm²
- With coding fingers and test points

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	8 A	8 A	8 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	8 A	-	-	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 0.75 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

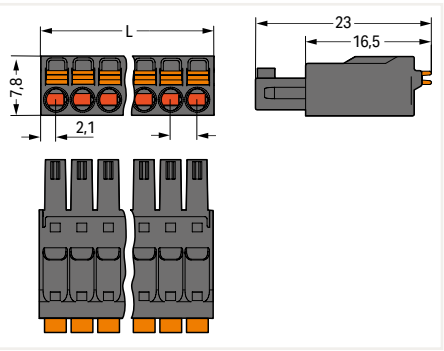
Ferrule	Page 847
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MINI SL ▸ 714 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Color: black



Pole No.	Item No.	PU
2	714-102	200
3	714-103	200
4	714-104	200
5	714-105	100
6	714-106	100
8	714-108	100
10	714-110	100
12	714-112	100
14	714-114	50
15	714-115	50
16	714-116	50



L = (pole no. – 1) x pin spacing + 4.2 mm

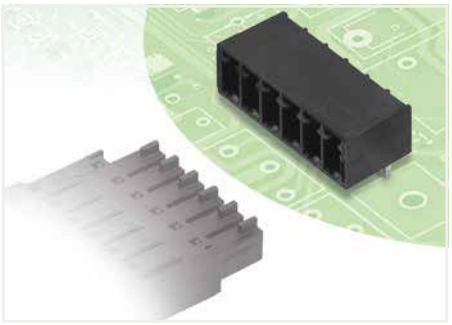
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers

THT Male Header ▸ *MCS* MINI SL ▸ 714 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black



- Male headers may be mounted horizontally or vertically via straight or angled solder pins
- Header housing is molded of THR-compatible insulation material for lead-free reflow soldering
- Separated pin slots prevent damage and make the headers touch-proof when unplugged
- Coding pins available

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	160 V	160 V	320 V	
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	
Rated current	8 A	8 A	8 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	150 V	-	-	
Rated current	8 A	-	-	

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin length	3.4 mm
Solder pin dimensions	0.8 x 0.8 mm
Drilled hole diameter (tolerance)	$1.2^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 444

Additional information, see “Technical Section”

Approvals and corresponding ratings, visit www.wago.com

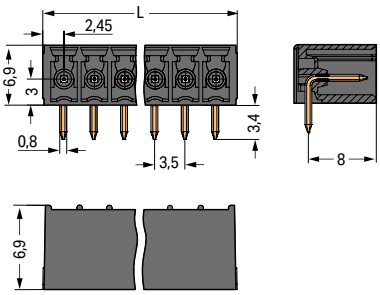
THT Male Header ▸ *MCS* MINI SL ▸ 714 Series

Pin spacing: 3.5 mm (0.138 inch) ▸ Solder pin dimensions: 0.8 x 0.8 mm ▸ Color: black

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	714-162	200
3	714-163	200
4	714-164	200
5	714-165	200
6	714-166	200
8	714-168	200
10	714-170	100
12	714-172	100
14	714-174	100
15	714-175	100
16	714-176	100

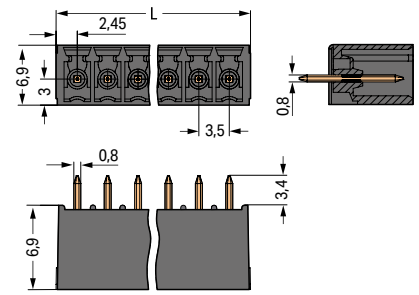


L = (pole no. – 1) x pin spacing + 4.9 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	714-132	200
3	714-133	200
4	714-134	200
5	714-135	200
6	714-136	200
8	714-138	200
10	714-140	100
12	714-142	100
14	714-144	100
15	714-145	100
16	714-146	100



L = (pole no. – 1) x pin spacing + 4.9 mm

7

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers

Coding Pin Carrier and Direct Marking
MCS MINI SL





Coding pin carrier; for male headers; with six coding pins		
Color	**Item No.**	PU (SPU)
orange	**714-101**	100 (25)

Direct marking of 1-conductor female connectors; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor female connector; with push-buttons; 6-pole; black	**714-106/000-047**

714 Series Female Connectors can be marked with "1 … pole no." via factory direct marking.

WAGO recommends pole marking on the PCB for male headers with solder pins (714 Series).

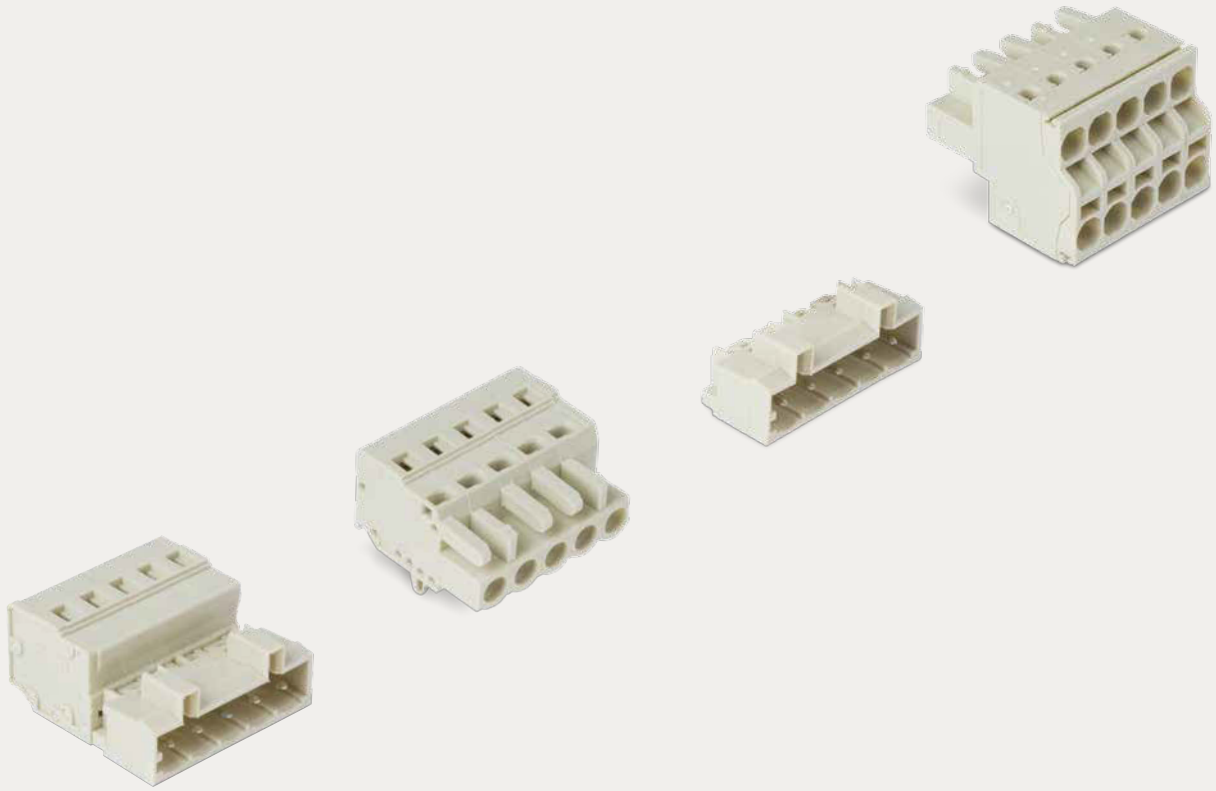


Coding a male header via coding pins.



Coding a female connector – removing coding finger(s).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm



WAGO *MULTI CONNECTION SYSTEM*
MIDI

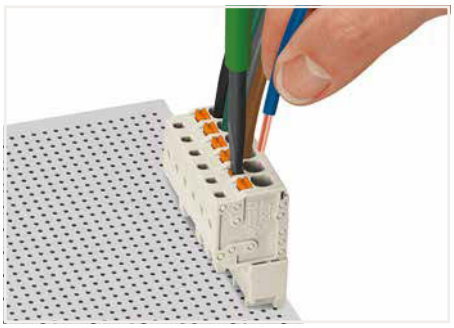
WAGO *MULTI CONNECTION SYSTEM* MIDI
Pin Spacing: 5 mm; 7.5 mm ▸ 2.5 mm²

		Pin Spacing	Page
	*MCS* MIDI 1-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	5 mm 7.5 mm	450 492
	*MCS* MIDI 2-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP®	5 mm 7,5 mm	458 498
	*MCS* MIDI 1-Conductor Female Connectors ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	5 mm 7.5 mm	460 500
	*MCS* MIDI 1-Conductor Male Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	5 mm 7.5 mm	464 504
	*MCS* MIDI THT Female Headers	5 mm 7.5 mm	472 512
	*MCS* MIDI THT Male Headers	5 mm 7.5 mm	478 518
	*MCS* MIDI Female Connectors for Rail-Mount Terminal Blocks Male Connectors for Rail-Mount Terminal Blocks	5 mm 5 mm	486 490
	*MCS* MIDI Accessories Accessories and Tools		534 829
	Application Examples		730

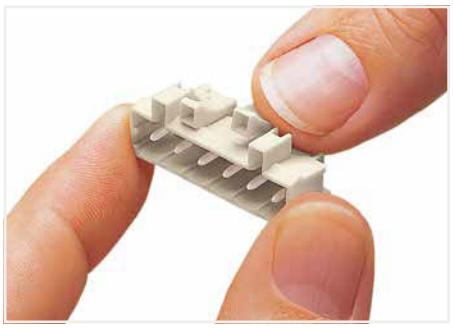
8

MCS MIDI, 100 % Protected Against Mismating

Description and Installation



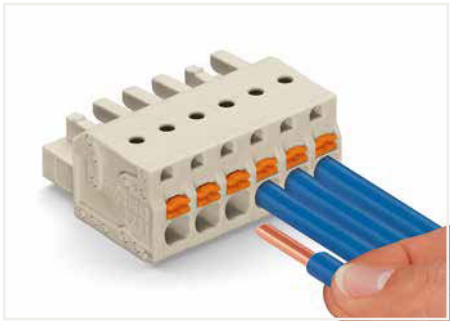
Inserting/removing a conductor via 3.5 mm screwdriver – Push-in CAGE CLAMP® actuation in mated condition.



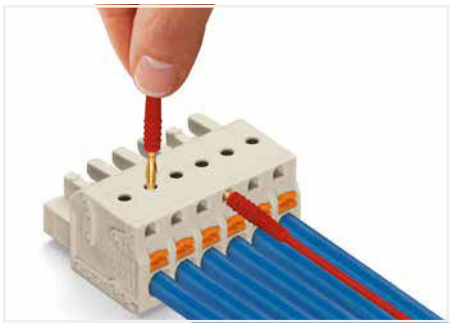
Coding a male header – fitting coding key(s).



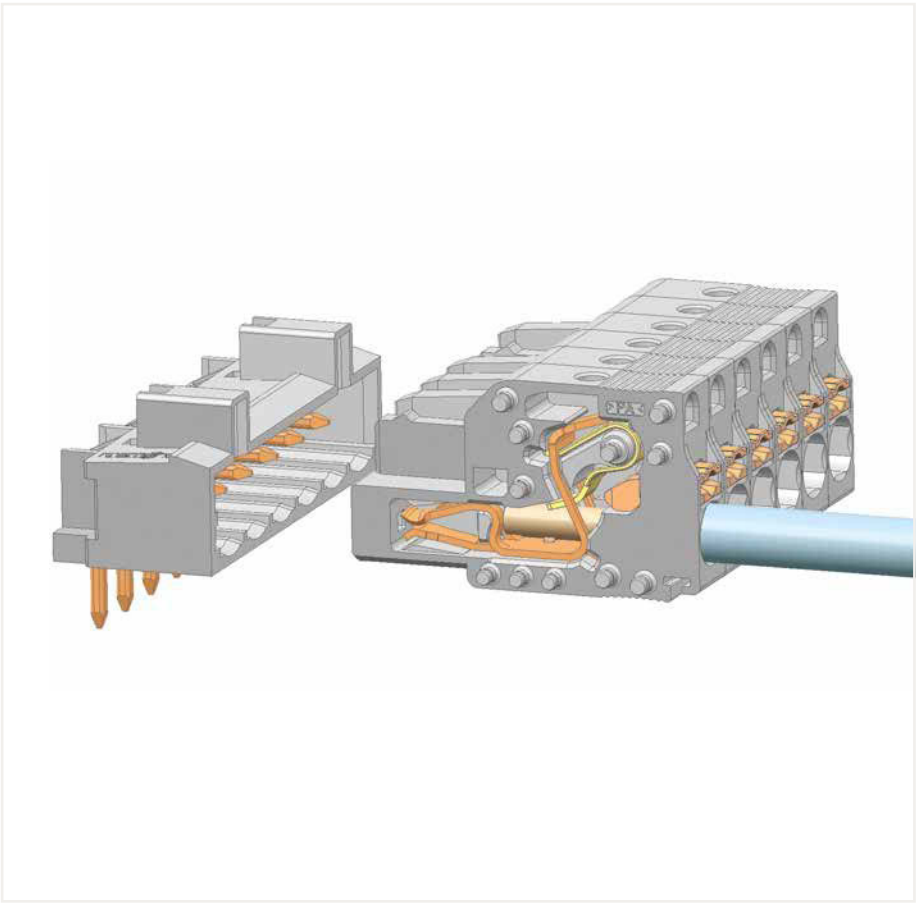
Coding a female connector – removing coding finger(s).



Push-in termination of solid conductors or fine-stranded conductors with ferrule



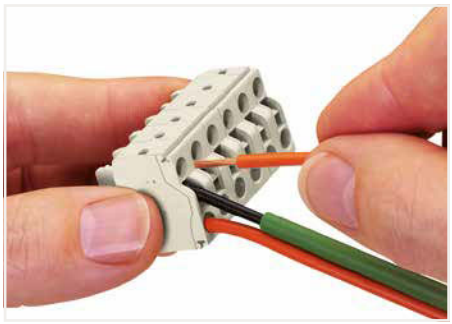
Testing parallel to conductor entry via integrated test ports – female connector with push-buttons and Push-in CAGE CLAMP® connection – touch contact perpendicular to conductor entry.



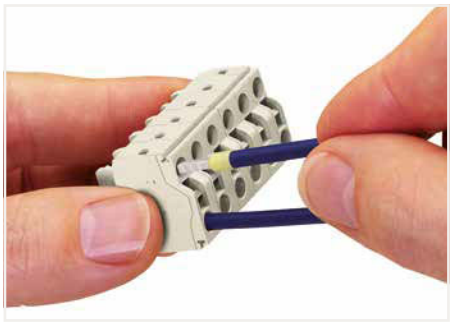
Pin spacing: 5 mm and 7.5 mm, Push-in CAGE CLAMP®



Labeling via direct marking or self-adhesive strips.



Inserting a fine-stranded conductor via 3.5 mm screwdriver into a 2-conductor female connector equipped with Push-in CAGE CLAMP®.

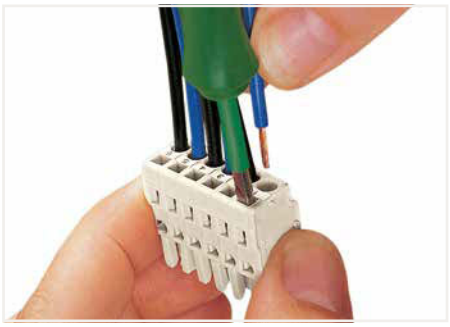


Push-in termination of solid conductors or fine-stranded conductors with ferrule

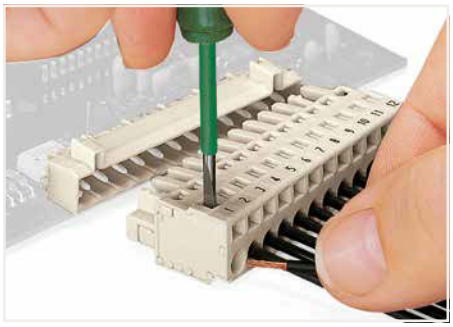
CAGE CLAMP®

MCS MIDI, 100 % Protected Against Mismating

Description and Installation



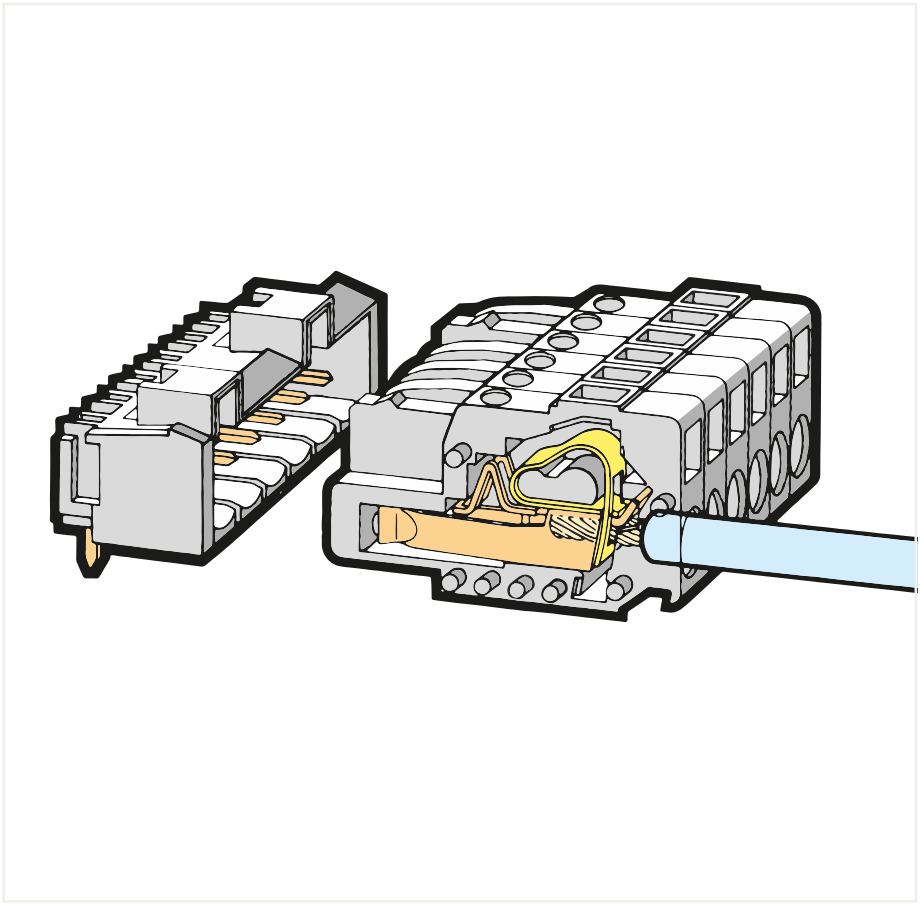
Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.



Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



Inserting a conductor into CAGE CLAMP® unit via operating lever (231-291).



Pin spacing: 5 mm and 7.5 mm, CAGE CLAMP®



Connectors for 280 Series Rail-Mount Terminal Blocks



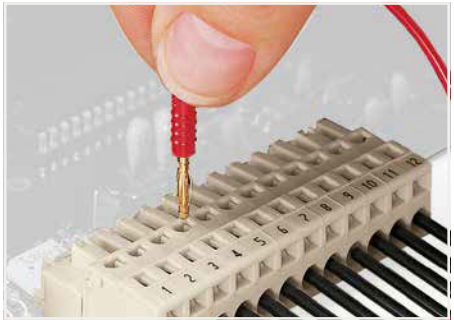
Angled female connector for panel mounting



Male connector with strain relief plate



Strain relief housing shown with a male connector equipped with CAGE CLAMP®

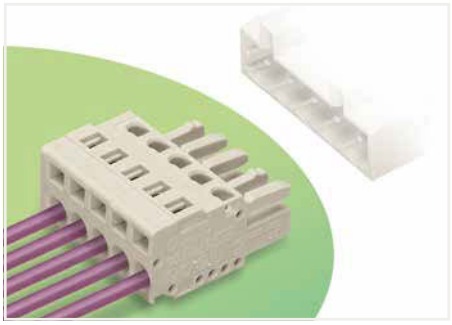


Testing perpendicular to conductor entry with 2 or 2.3 mm Ø test plug – female connector with CAGE CLAMP® – via integrated test ports

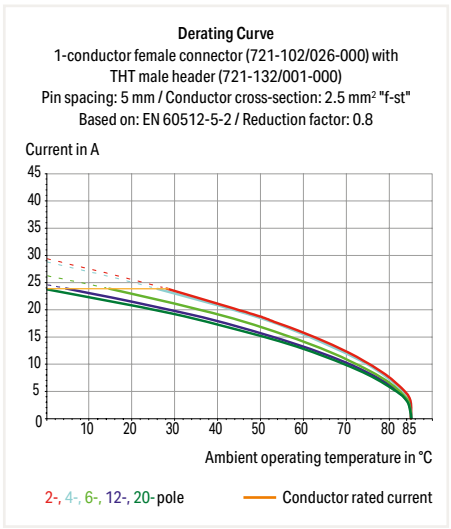
8

1-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- 100 % protected against mismating
- Coding option available



The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
General accessory	Page 537
Insulation stop	Page 537
Jumper	Page 543
Marking	Page 833
Mounting	Page 542
Mounting adapter	Page 543
Strain relief	Page 540
Testing and measuring	Page 535, 854
Tools	Page 534
Direct marking	Page 526
Cutout dimensions	Page 530
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

1-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

	Locking of plug-in connection: locking lever	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



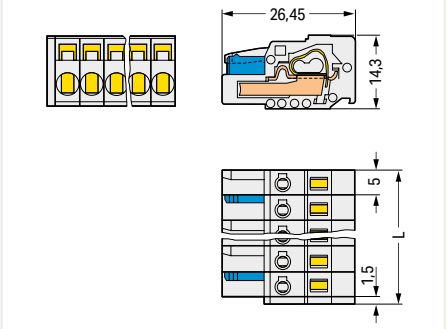




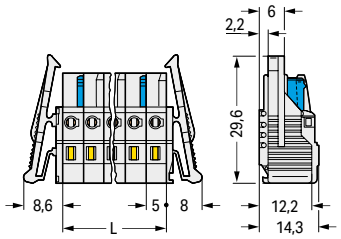
Pole No.	Item No.	PU
2	721-102/026-000	100
3	721-103/026-000	100
4	721-104/026-000	100
5	721-105/026-000	100
6	721-106/026-000	50
7	721-107/026-000	50
8	721-108/026-000	50
9	721-109/026-000	50
10	721-110/026-000	50
11	721-111/026-000	25
12	721-112/026-000	25
13	721-113/026-000	25
14	721-114/026-000	25
15	721-115/026-000	25
16	721-116/026-000	25
20	721-120/026-000	10

Pole No.	Item No.	PU
2	721-102/037-000	100
3	721-103/037-000	50
4	721-104/037-000	50
5	721-105/037-000	50
6	721-106/037-000	50
7	721-107/037-000	50
8	721-108/037-000	25
9	721-109/037-000	25
10	721-110/037-000	25
11	721-111/037-000	25
12	721-112/037-000	25
13	721-113/037-000	25
14	721-114/037-000	25
15	721-115/037-000	25
16	721-116/037-000	10
20	721-120/037-000	10

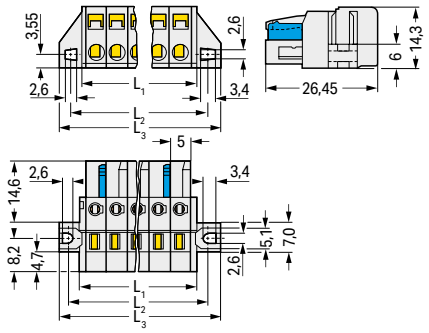
Pole No.	Item No.	PU
2	721-102/031-000	100
3	721-103/031-000	50
4	721-104/031-000	50
5	721-105/031-000	50
6	721-106/031-000	50
7	721-107/031-000	50
8	721-108/031-000	50
9	721-109/031-000	25
10	721-110/031-000	25
11	721-111/031-000	25
12	721-112/031-000	25
13	721-113/031-000	25
14	721-114/031-000	25
15	721-115/031-000	25
16	721-116/031-000	10
20	721-120/031-000	10



L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only



L = pole no. x pin spacing
2-pole female connectors – one latch only



L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm
2-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

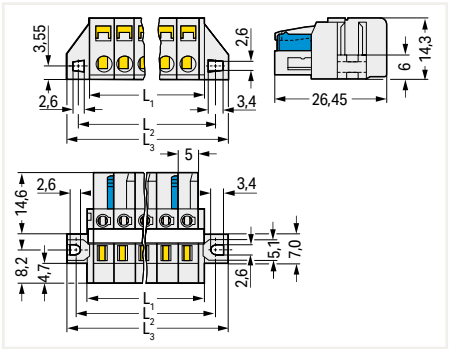
1-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strip



Pole No.	Item No.	PU
6	721-106/027-000	50
7	721-107/027-000	50
8	721-108/027-000	50
9	721-109/027-000	25
10	721-110/027-000	25
11	721-111/027-000	25
12	721-112/027-000	25
13	721-113/027-000	25
14	721-114/027-000	25
15	721-115/027-000	25
16	721-116/027-000	10
20	721-120/027-000	10

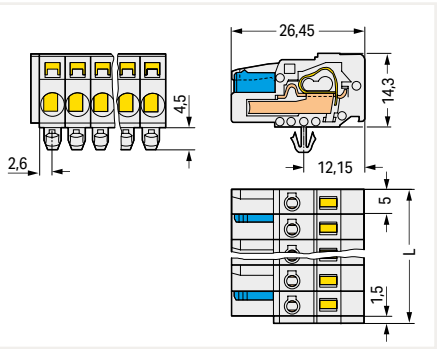


L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm
2-pole female connectors – one latch only

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	721-102/008-000	100
3	721-103/008-000	100
4	721-104/008-000	100
5	721-105/008-000	100
6	721-106/008-000	50
7	721-107/008-000	50
8	721-108/008-000	50
9	721-109/008-000	50
10	721-110/008-000	50
11	721-111/008-000	25
12	721-112/008-000	25
13	721-113/008-000	25
14	721-114/008-000	25
15	721-115/008-000	25
16	721-116/008-000	25
20	721-120/008-000	10



L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

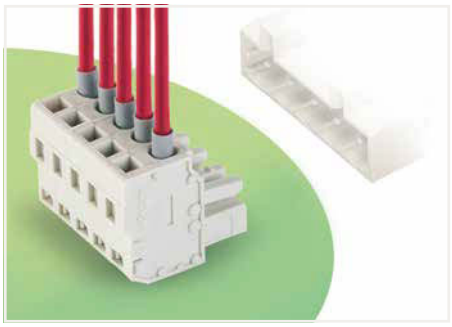
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

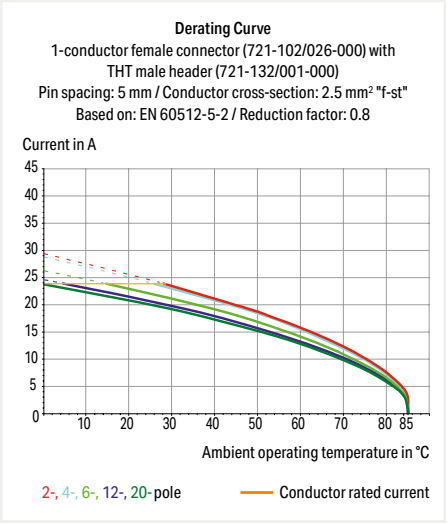
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Female Connector ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- 100 % protected against mismating
- Coding option available



8

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

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Strain relief	Page 540
Testing and measuring	Page 535, 854
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Direct marking	Page 526
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	14 A	14 A	14 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

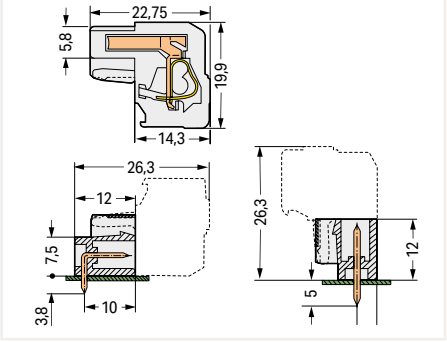
1-Conductor Female Connector ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: light gray

Conductor entry direction to mating direction: 90°



Pole No.	Item No.	PU
2	722-202/026-000	100
3	722-203/026-000	100
4	722-204/026-000	100
5	722-205/026-000	100
6	722-206/026-000	50
7	722-207/026-000	25
8	722-208/026-000	25
9	722-209/026-000	25
10	722-210/026-000	25
11	722-211/026-000	25
12	722-212/026-000	25
13	722-213/026-000	25
14	722-214/026-000	25
15	722-215/026-000	25
16	722-216/026-000	10
20	722-220/026-000	10

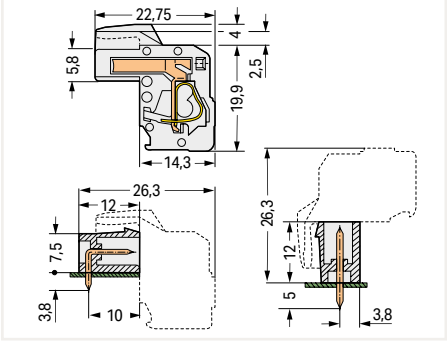


Total length = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2-pole female connectors – one latch only

Conductor entry direction to mating direction: 270°



Pole No.	Item No.	PU
2	722-102/026-000	100
3	722-103/026-000	100
4	722-104/026-000	100
5	722-105/026-000	100
6	722-106/026-000	50
7	722-107/026-000	50
8	722-108/026-000	50
9	722-109/026-000	50
10	722-110/026-000	50
11	722-111/026-000	25
12	722-112/026-000	25
14	722-114/026-000	25
16	722-116/026-000	25
20	722-120/026-000	10



Total length = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2-pole female connectors – one latch only

8

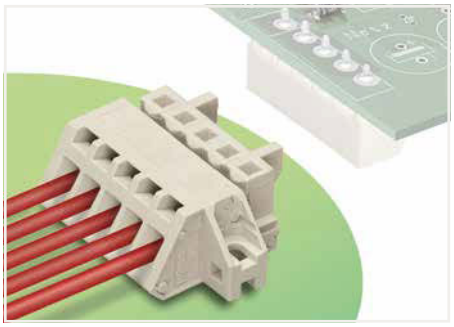
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

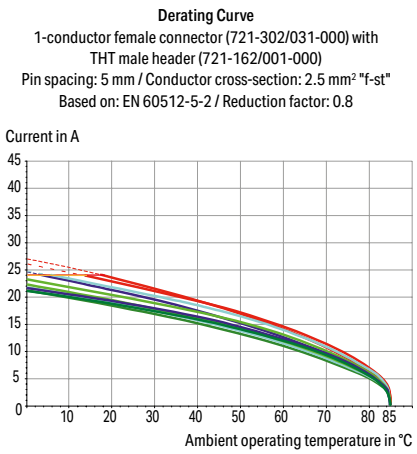
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90° ▸ Color: light gray



- Universal connection for all conductor types
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- Mounting adapter allows versions with snap-in mounting feet to be DIN-rail mounted
- Easy conductor termination, even when halves are mated
- 100 % protected against mismating



8

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

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Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	7 … 8 mm / 0.28 … 0.31 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

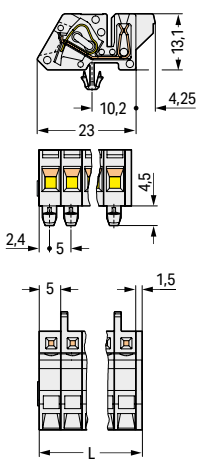
1-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90° ▸ Color: light gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	721-302/008-000	100
3	721-303/008-000	50
4	721-304/008-000	50
5	721-305/008-000	50
6	721-306/008-000	25
7	721-307/008-000	50
8	721-308/008-000	50
9	721-309/008-000	50
10	721-310/008-000	50
11	721-311/008-000	25
12	721-312/008-000	25
13	721-313/008-000	25
14	721-314/008-000	10
15	721-315/008-000	10
16	721-316/008-000	25
20	721-320/008-000	10

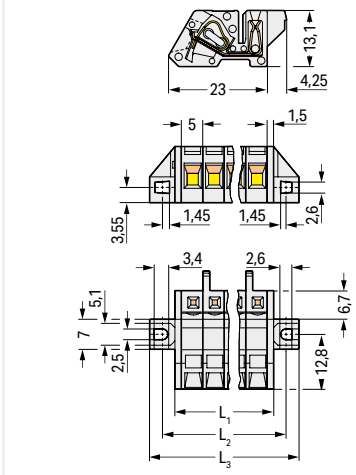


L = (pole no. x pin spacing) + 1.5 mm

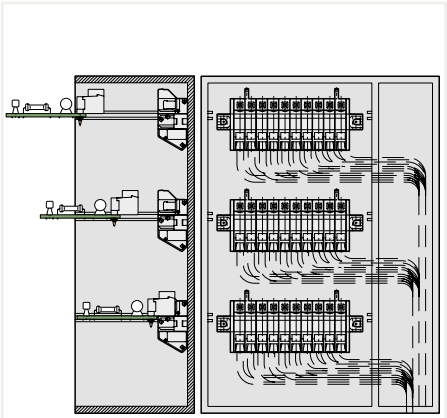
Type of mounting: Panel mounting ▸ Mounting type: Mounting flange



Pole No.	Item No.	PU
2	721-302/031-000	100
3	721-303/031-000	50
4	721-304/031-000	50
5	721-305/031-000	50
6	721-306/031-000	50
7	721-307/031-000	50
8	721-308/031-000	50
9	721-309/031-000	25
10	721-310/031-000	25
11	721-311/031-000	25
12	721-312/031-000	25
13	721-313/031-000	10
14	721-314/031-000	25
15	721-315/031-000	10
16	721-316/031-000	10
20	721-320/031-000	10



L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm



Multilevel arrangement in a distributed electronic housing



Angled female connector – a male header with straight solder pins is used for horizontal PCB mounting in narrow housings.

8

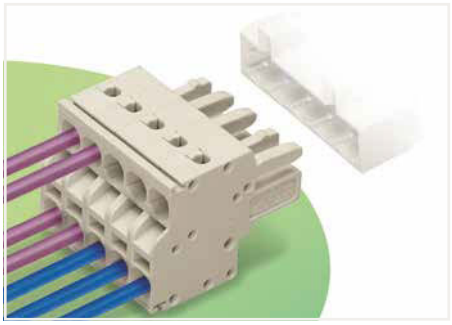
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

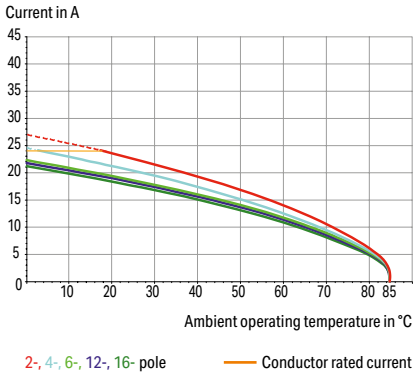
2-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or Data buses
- Bus connection is retained, even when unmated
- Push-in terminations of solid and ferruled conductors
- 100 % protected against mismating
- With coding fingers

Derating Curve
2-conductor female connector (721-2102/026-000) with THT male header (721-132/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



8

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Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

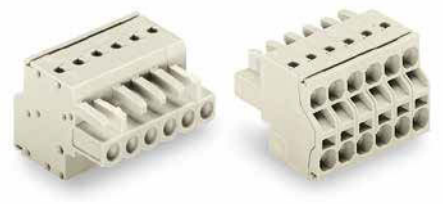
Environmental Requirements

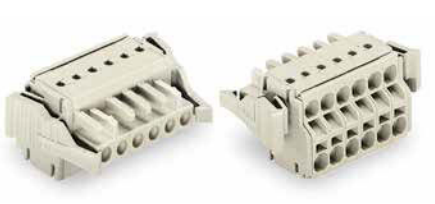
Limit temperature range	-60 … +85 °C

2-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

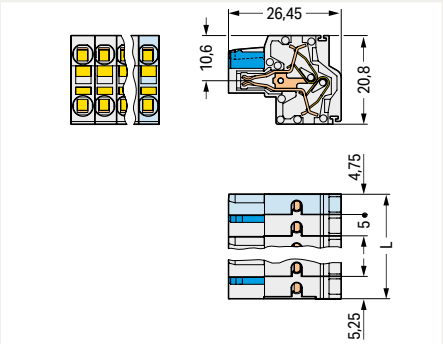
Locking of plug-in connection: locking lever



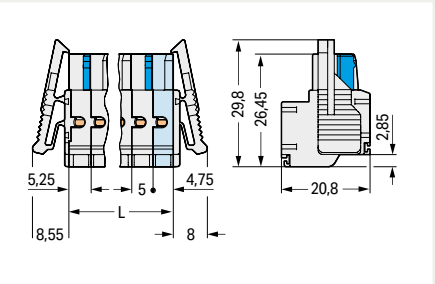


Pole No.	Item No.	PU
2	721-2102/026-000	100
3	721-2103/026-000	100
4	721-2104/026-000	100
5	721-2105/026-000	50
6	721-2106/026-000	50
7	721-2107/026-000	50
8	721-2108/026-000	50
9	721-2109/026-000	50
10	721-2110/026-000	50
11	721-2111/026-000	25
12	721-2112/026-000	25
13	721-2113/026-000	25
14	721-2114/026-000	25
15	721-2115/026-000	25
16	721-2116/026-000	25

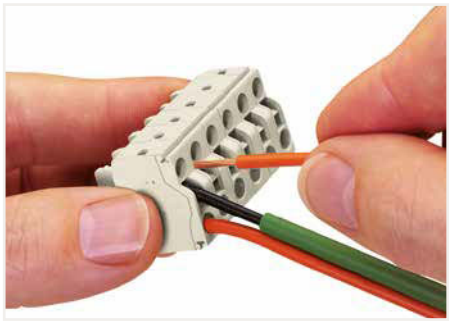
Pole No.	Item No.	PU
2	721-2102/037-000	100
3	721-2103/037-000	50
4	721-2104/037-000	50
5	721-2105/037-000	50
6	721-2106/037-000	50
7	721-2107/037-000	50
8	721-2108/037-000	25
9	721-2109/037-000	25
10	721-2110/037-000	25
11	721-2111/037-000	25
12	721-2112/037-000	25
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15	721-2115/037-000	10
16	721-2116/037-000	10



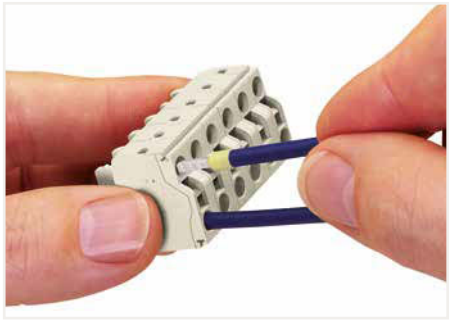
L = (pole no. – 2) x pin spacing + 10 mm
2-pole female connectors – one latch only



L = (pole no. – 2) x pin spacing + 10 mm
2-pole female connectors – one latch only



Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

8

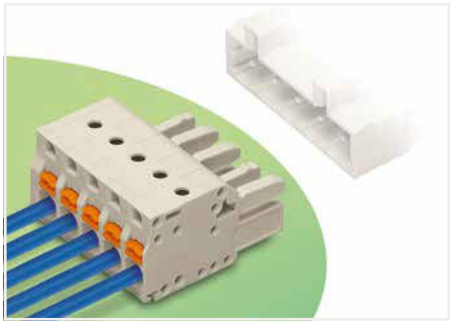
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

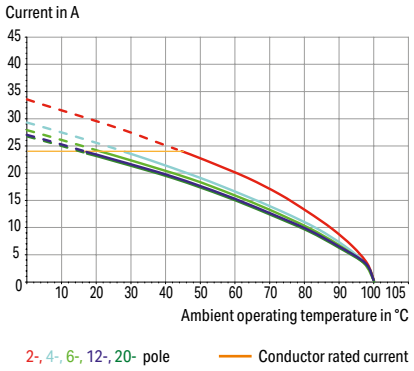
1-Conductor Female Connector ▸ *MCS* MIDI ▸ 2721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (2721-102/026-000) with THT male header (721-162/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



8

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

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Mounting	Page 542
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Strain relief	Page 539
Testing and measuring	Page 535, 854
Tools	Page 534, 838
Direct marking	Page 526
Cutout dimensions	Page 530
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per		UL 1059	
Use Group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per		CSA	
Use Group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

1-Conductor Female Connector ▸ *MCS* MIDI ▸ 2721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

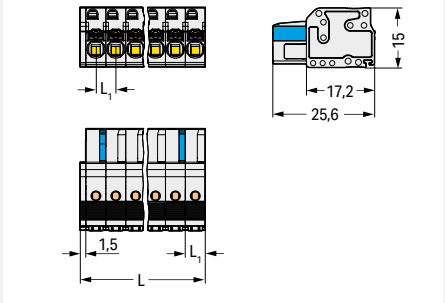
	Locking of plug-in connection: locking lever	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange





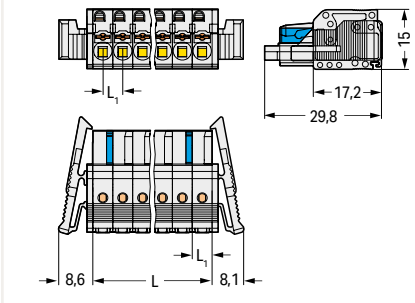


Pole No.	Item No.	PU
2	2721-102/026-000	100
3	2721-103/026-000	100
4	2721-104/026-000	100
5	2721-105/026-000	100
5	2721-115/026-000	25
6	2721-106/026-000	50
7	2721-107/026-000	50
8	2721-108/026-000	50
9	2721-109/026-000	50
10	2721-110/026-000	50
11	2721-111/026-000	25
12	2721-112/026-000	25
13	2721-113/026-000	25
14	2721-114/026-000	25
16	2721-116/026-000	25
20	2721-120/026-000	10



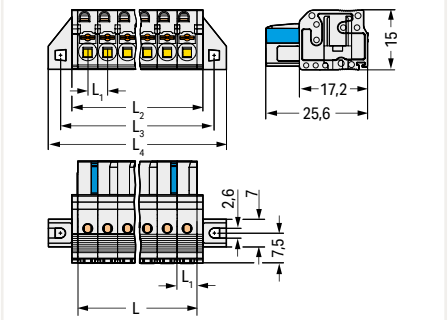
L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5 mm
2-pole female connectors – one latch only

Pole No.	Item No.	PU
2	2721-102/037-000	100
3	2721-103/037-000	50
4	2721-104/037-000	50
5	2721-105/037-000	50
6	2721-106/037-000	50
7	2721-107/037-000	50
8	2721-108/037-000	25
9	2721-109/037-000	25
10	2721-110/037-000	25
11	2721-111/037-000	25
12	2721-112/037-000	25
14	2721-114/037-000	25
15	2721-115/037-000	25
16	2721-116/037-000	10
20	2721-120/037-000	10



L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5 mm
2-pole female connectors – one latch only

Pole No.	Item No.	PU
2	2721-102/031-000	100
3	2721-103/031-000	50
4	2721-104/031-000	50
5	2721-105/031-000	50
6	2721-106/031-000	50
7	2721-107/031-000	50
8	2721-108/031-000	50
9	2721-109/031-000	50
10	2721-110/031-000	25
12	2721-112/031-000	25
14	2721-114/031-000	10
16	2721-116/031-000	10
20	2721-120/031-000	10



L = pole no. x pin spacing
L_1 = 5 mm
L_2 = L + 2.8 mm
L_3 = L + 8.8 mm
L_4 = L + 14.8 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

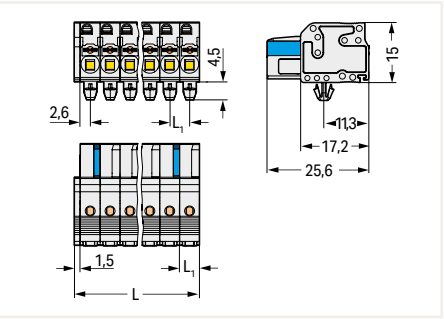
1-conductor Female Connector ▸ *MCS* MIDI ▸ 2721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	2721-102/008-000	100
3	2721-103/008-000	100
4	2721-104/008-000	100
5	2721-105/008-000	100
6	2721-106/008-000	50
7	2721-107/008-000	50
8	2721-108/008-000	50
9	2721-109/008-000	50
10	2721-110/008-000	50
11	2721-111/008-000	25
12	2721-112/008-000	25
14	2721-114/008-000	25
15	2721-115/008-000	25
16	2721-116/008-000	25
20	2721-120/008-000	25



L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5 mm
2-pole female connectors – one latch only

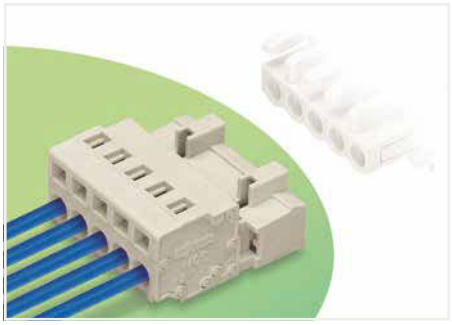
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

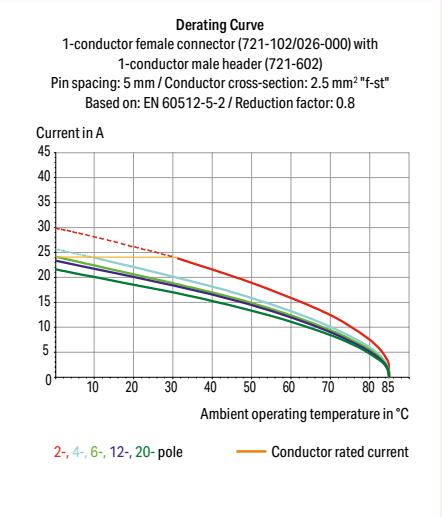
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Male Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- 3- to 5-pole male connectors are also available with preceding ground contact
- 100 % protected against mismating
- With coding fingers



The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

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Ferrule	Page 847
General accessory	Page 537
Insulation stop	Page 537
Jumper	Page 543
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Mounting adapter	Page 543
Strain relief	Page 540
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Cutout dimensions	Page 530
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

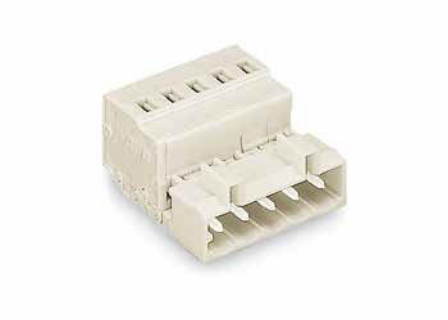
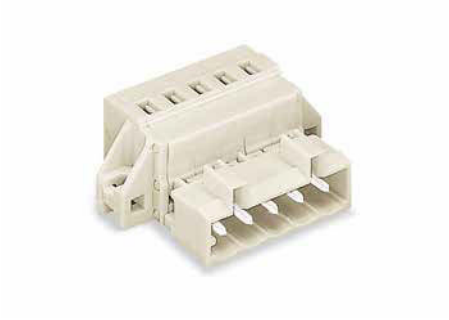
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

1-Conductor Male Connector ▸ *MCS* MIDI ▸ 721 Series

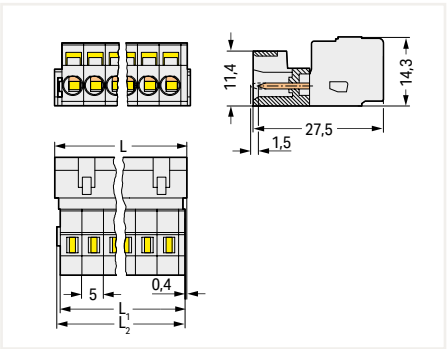
Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange	Type of mounting: Feed-through mounting ▸ Mounting type: Snap-in
		

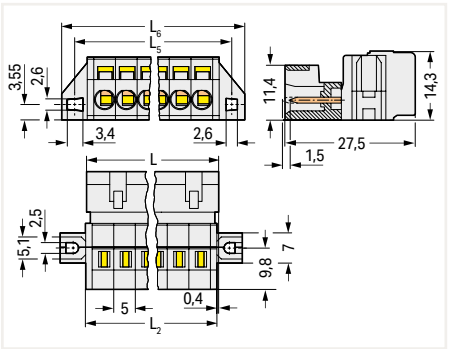
Pole No.	Item No.	PU
2	721-602	100
3	721-603	100
4	721-604	100
5	721-605	50
6	721-606	50
7	721-607	50
8	721-608	50
9	721-609	50
10	721-610	50
11	721-611	25
12	721-612	25
13	721-613	25
14	721-614	25
15	721-615	25
16	721-616	25
20	721-620	10

Pole No.	Item No.	PU
2	721-602/019-000	100
3	721-603/019-000	50
4	721-604/019-000	50
5	721-605/019-000	50
6	721-606/019-000	50
7	721-607/019-000	50
8	721-608/019-000	50
9	721-609/019-000	25
10	721-610/019-000	25
11	721-611/019-000	25
12	721-612/019-000	25
13	721-613/019-000	25
14	721-614/019-000	25
15	721-615/019-000	25
16	721-616/019-000	10
20	721-620/019-000	10

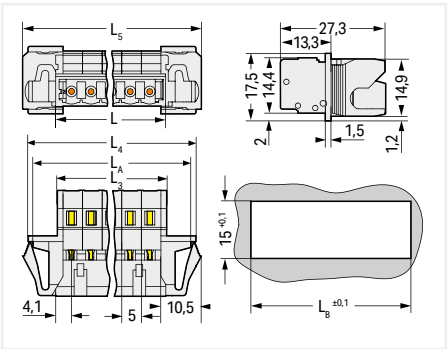
Pole No.	Item No.	PU
2	721-602/114-000	50
3	721-603/114-000	50
4	721-604/114-000	50
5	721-605/114-000	50
6	721-606/114-000	50
7	721-607/114-000	25
8	721-608/114-000	25
9	721-609/114-000	25
10	721-610/114-000	25
11	721-611/114-000	25
12	721-612/114-000	25
13	721-613/114-000	25
14	721-614/114-000	25
15	721-615/114-000	10
16	721-616/114-000	10
20	721-620/114-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L – 1.7 mm
L_3 = L – 1.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L – 0.2 mm
L_5 = L_2 + 5.8 mm
L_6 = L_2 + 11.8 mm



L = (pole no. x pin spacing)+ 3.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

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- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

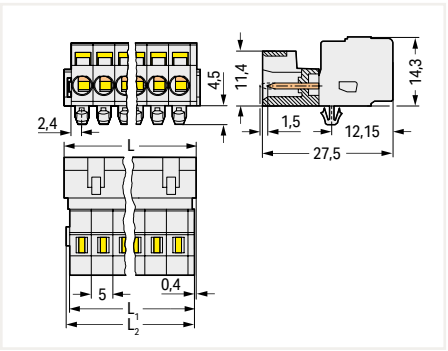
1-Conductor Male Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	721-602/018-000	100
3	721-603/018-000	100
4	721-604/018-000	100
5	721-605/018-000	50
6	721-606/018-000	50
7	721-607/018-000	50
8	721-608/018-000	50
9	721-609/018-000	50
10	721-610/018-000	50
11	721-611/018-000	25
12	721-612/018-000	25
13	721-613/018-000	25
14	721-614/018-000	25
15	721-615/018-000	25
16	721-616/018-000	25
20	721-620/018-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L – 1.7 mm
L_3 = L – 1.2 mm

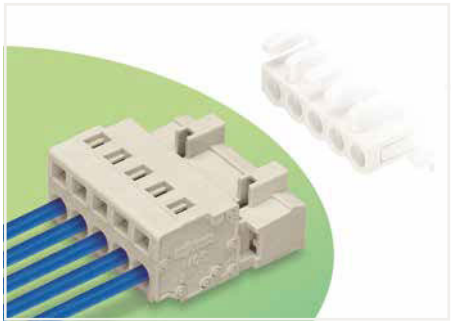
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

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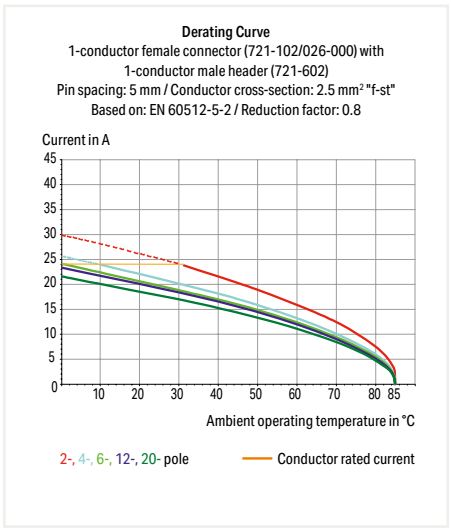
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Male Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ with preceding GND contact ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- 3- to 5-pole male connectors are also available with preceding ground contact
- 100 % protected against mismating
- With coding fingers



The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

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Additional information, see "Technical Section"	
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Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements

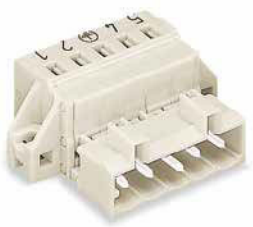
Limit temperature range	-60 … +100 °C

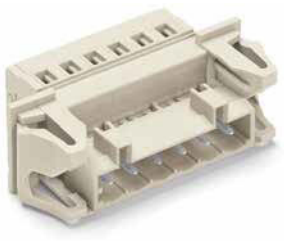
1-Conductor Male Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ with preceding GND contact ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange	Type of mounting: Feed-through mounting ▸ Mounting type: Snap-in



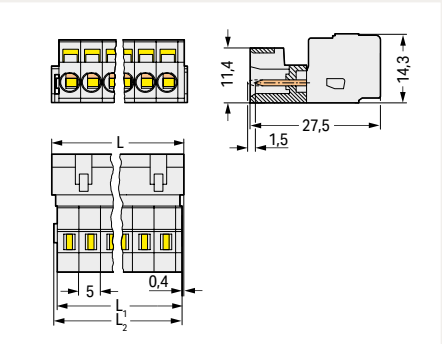




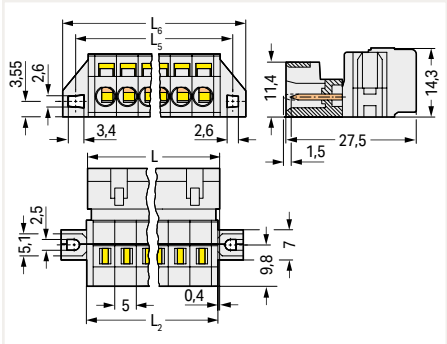
Pole No.	Item No.	PU
3	721-603/000-042	100
4	721-604/000-042	100
5	721-605/000-042	50

Pole No.	Item No.	PU
3	721-603/019-042	50
4	721-604/019-042	50
5	721-605/019-042	50

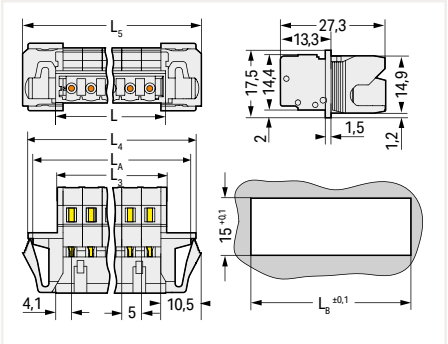
Pole No.	Item No.	PU
3	721-603/114-042	50
4	721-604/114-042	50
5	721-605/114-042	50



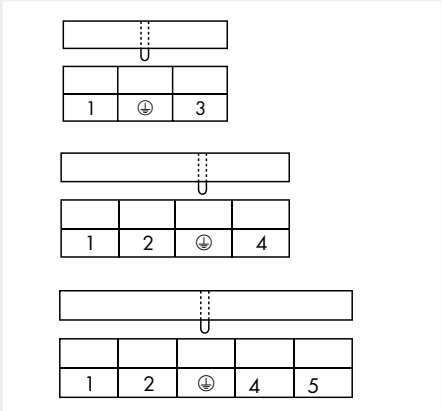
L = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L – 1.7 mm
L_3 = L – 1.2 mm



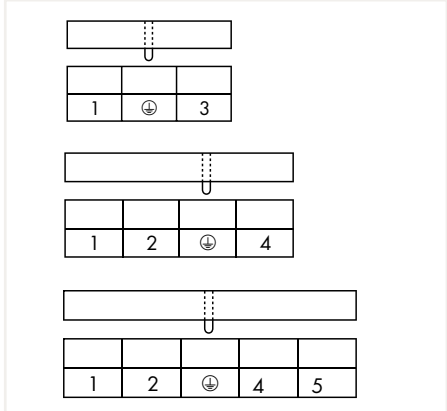
L = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L – 0.2 mm
L_5 = L_2 + 5.8 mm
L_6 = L_2 + 11.8 mm



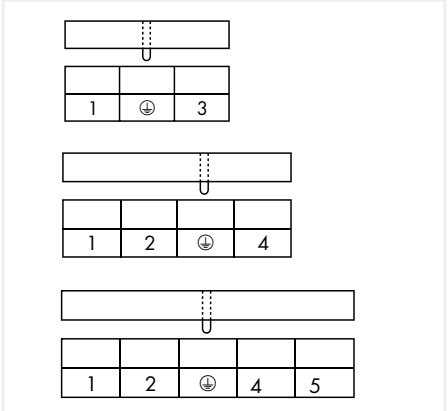
L = (pole no. x pin spacing)+ 3.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm



Preceding ground contact position



Preceding ground contact position



Preceding ground contact position

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

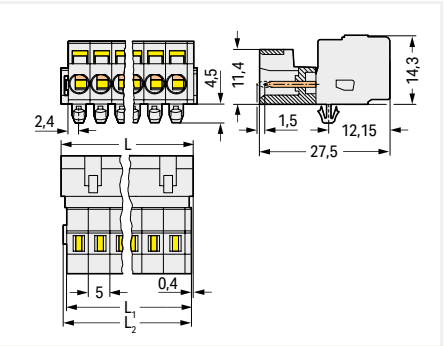
1-Conductor Male Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ with preceding GND contact ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

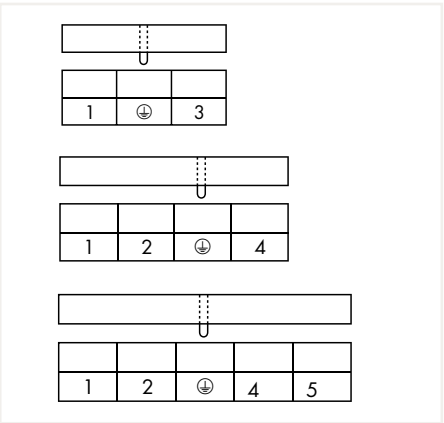
Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
3	721-603/018-042	100
4	721-604/018-042	100
4	721-604/018-042/033-000	50
5	721-605/018-042	50



L = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L – 1.7 mm
L_3 = L – 1.2 mm



Preceding ground contact position

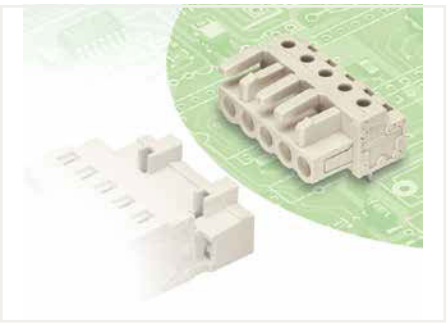
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

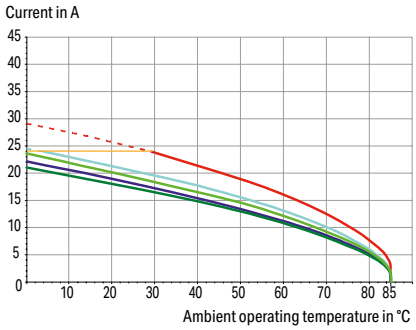
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT Female Header ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- 100 % protected against mismating
- With coding fingers



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	12 A	12 A	12 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	-			
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector, in line
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter (tolerance)	$1.3^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +85 °C

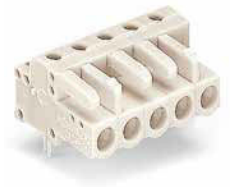
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting	Page 537, 837
Testing and measuring	Page 535, 854
Cutout dimensions	Page 530
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

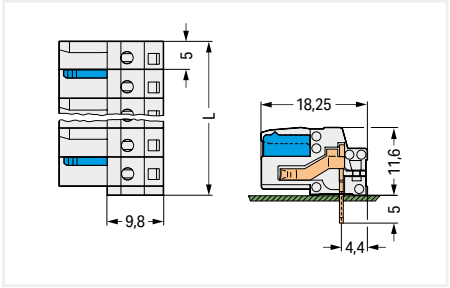
THT Female Header ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	722-232	100
3	722-233	100
4	722-234	100
5	722-235	100
6	722-236	50
7	722-237	50
8	722-238	50
9	722-239	50
10	722-240	50
11	722-241	25
12	722-242	25
13	722-243	25
14	722-244	25
15	722-245	25
16	722-246	25
20	722-250	10

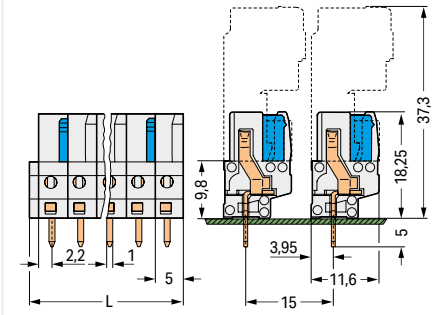


L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	722-132	100
3	722-133	100
4	722-134	100
5	722-135	100
6	722-136	50
7	722-137	50
8	722-138	50
9	722-139	50
10	722-140	50
11	722-141	25
12	722-142	25
13	722-143	25
14	722-144	25
15	722-145	25
16	722-146	25
20	722-150	10

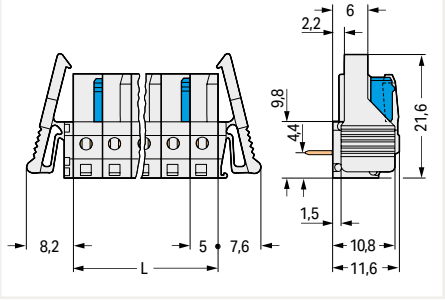


L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	722-232/039-000	100
3	722-233/039-000	50
4	722-234/039-000	50
5	722-235/039-000	50
6	722-236/039-000	50
7	722-237/039-000	50
8	722-238/039-000	50
9	722-239/039-000	25
10	722-240/039-000	25
11	722-241/039-000	25
12	722-242/039-000	25
13	722-243/039-000	25
14	722-244/039-000	25
15	722-245/039-000	25
16	722-246/039-000	10
20	722-250/039-000	10



L = pole no. x pin spacing
2-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

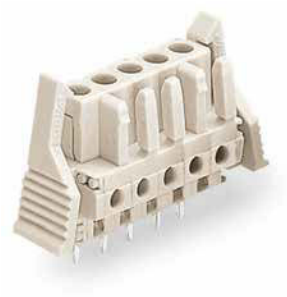
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

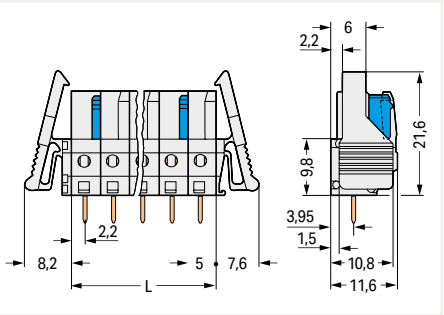
THT Female Header ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	722-132/039-000	100
3	722-133/039-000	50
4	722-134/039-000	50
5	722-135/039-000	50
6	722-136/039-000	50
7	722-137/039-000	50
8	722-138/039-000	50
9	722-139/039-000	25
10	722-140/039-000	25
11	722-141/039-000	25
12	722-142/039-000	25
13	722-143/039-000	25
14	722-144/039-000	25
15	722-145/039-000	25
16	722-146/039-000	10
20	722-150/039-000	10



L = pole no. x pin spacing
2-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Female Header ▸ *MCS* MIDI ▸ 722 Series

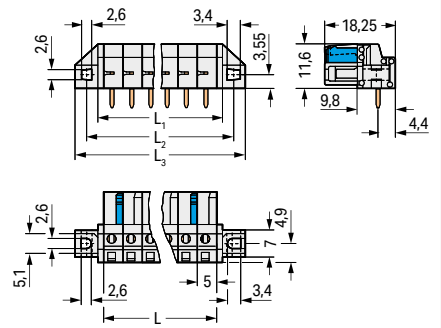
Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0°

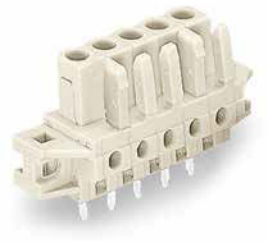


Pole No.	Item No.	PU
2	722-232/031-000	100
3	722-233/031-000	50
4	722-234/031-000	50
5	722-235/031-000	50
6	722-236/031-000	50
7	722-237/031-000	50
8	722-238/031-000	50
9	722-239/031-000	25
10	722-240/031-000	25
11	722-241/031-000	25
12	722-242/031-000	25
13	722-243/031-000	25
14	722-244/031-000	25
15	722-245/031-000	25
16	722-246/031-000	10
20	722-250/031-000	10

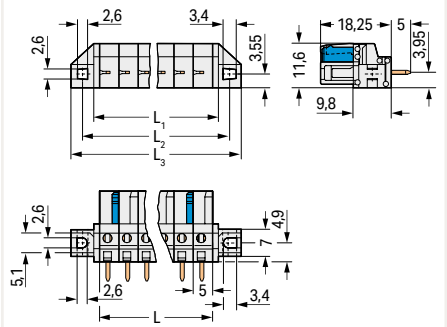


L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	722-132/031-000	100
3	722-133/031-000	50
4	722-134/031-000	50
5	722-135/031-000	50
6	722-136/031-000	50
7	722-137/031-000	50
8	722-138/031-000	50
9	722-139/031-000	25
10	722-140/031-000	25
11	722-141/031-000	25
12	722-142/031-000	25
13	722-143/031-000	25
14	722-144/031-000	25
15	722-145/031-000	25
16	722-146/031-000	10
20	722-150/031-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

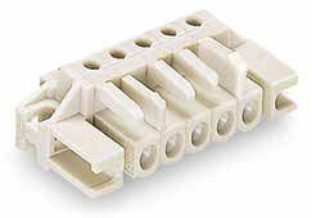
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Female Header ▸ *MCS* MIDI ▸ 722 Series

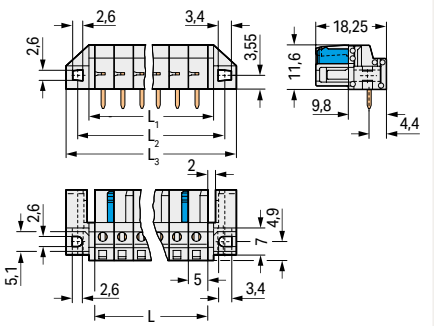
Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Type of mounting: Flush mounting, Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	722-232/047-000	100
3	722-233/047-000	50
4	722-234/047-000	50
5	722-235/047-000	50
6	722-236/047-000	50
7	722-237/047-000	50
8	722-238/047-000	50
9	722-239/047-000	25
10	722-240/047-000	25
11	722-241/047-000	25
12	722-242/047-000	25
13	722-243/047-000	25
14	722-244/047-000	25
15	722-245/047-000	25
16	722-246/047-000	10
20	722-250/047-000	10

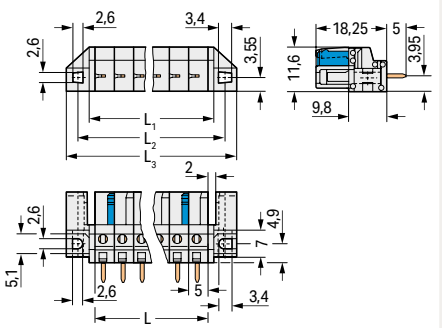


L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	722-132/047-000	100
3	722-133/047-000	50
4	722-134/047-000	50
5	722-135/047-000	50
6	722-136/047-000	50
7	722-137/047-000	50
8	722-138/047-000	50
9	722-139/047-000	25
10	722-140/047-000	25
11	722-141/047-000	25
12	722-142/047-000	25
13	722-143/047-000	25
14	722-144/047-000	25
15	722-145/047-000	25
16	722-146/047-000	10
20	722-150/047-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

8

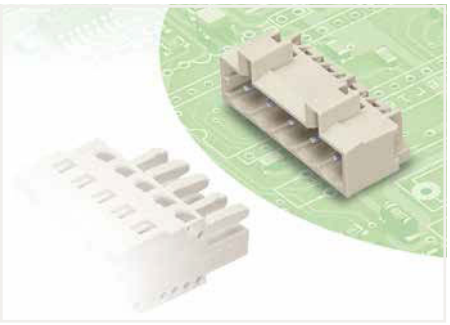
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

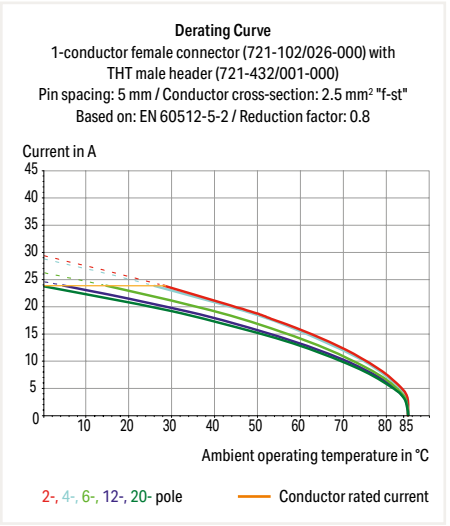
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- 100 % protected against mismating
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1 x 1 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 536

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

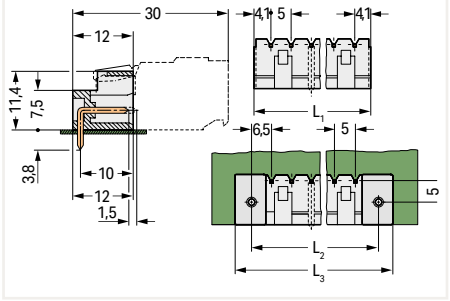
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	721-432/001-000	200
3	721-433/001-000	200
4	721-434/001-000	200
5	721-435/001-000	200
6	721-436/001-000	100
7	721-437/001-000	100
8	721-438/001-000	100
9	721-439/001-000	100
10	721-440/001-000	100
11	721-441/001-000	100
12	721-442/001-000	100
13	721-443/001-000	50
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15	721-445/001-000	50
16	721-446/001-000	50
20	721-450/001-000	50

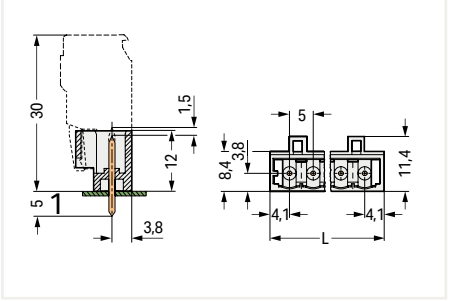


L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	721-132/001-000	200
3	721-133/001-000	200
4	721-134/001-000	200
5	721-135/001-000	200
6	721-136/001-000	100
7	721-137/001-000	100
8	721-138/001-000	100
9	721-139/001-000	100
10	721-140/001-000	100
11	721-141/001-000	100
12	721-142/001-000	100
13	721-143/001-000	50
14	721-144/001-000	50
15	721-145/001-000	50
16	721-146/001-000	50
20	721-150/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

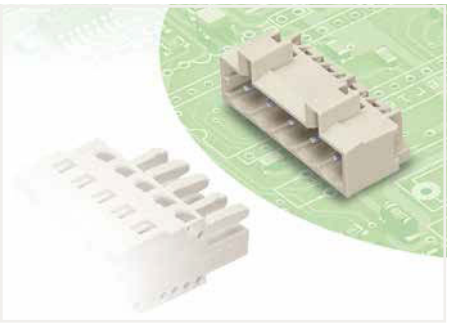
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

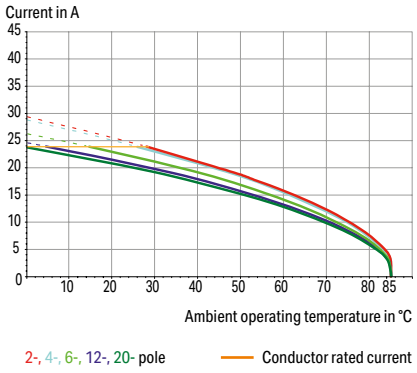
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of horter headers
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-102/026-000) with THT male header (721-432/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



8

Electrical Data

Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	16 A	16 A	16 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	-			
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1.2 x 1.2 mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 536

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

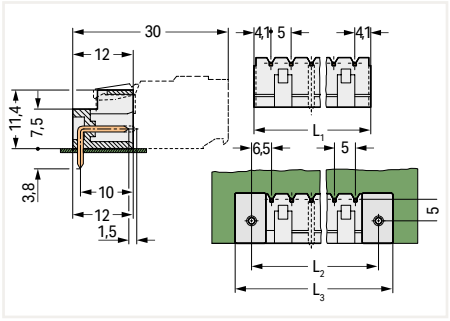
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	721-462/001-000	200
3	721-463/001-000	200
4	721-464/001-000	200
5	721-465/001-000	100
6	721-466/001-000	100
7	721-467/001-000	100
8	721-468/001-000	100
9	721-469/001-000	100
10	721-470/001-000	100
11	721-471/001-000	100
12	721-472/001-000	100
13	721-473/001-000	50
14	721-474/001-000	50
15	721-475/001-000	50
16	721-476/001-000	50
20	721-480/001-000	50

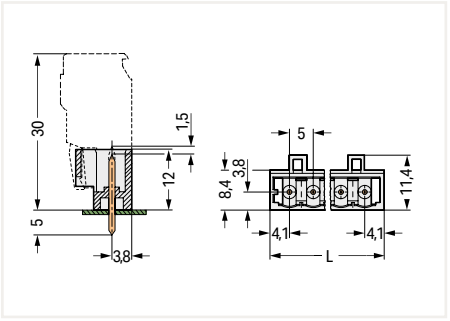


L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	721-162/001-000	200
3	721-163/001-000	200
4	721-164/001-000	200
5	721-165/001-000	200
6	721-166/001-000	100
7	721-167/001-000	100
8	721-168/001-000	100
9	721-169/001-000	100
10	721-170/001-000	100
10	721-170/104-000	100
11	721-171/001-000	100
12	721-172/001-000	100
13	721-173/001-000	50
14	721-174/001-000	50
15	721-175/001-000	50
16	721-176/001-000	50
20	721-180/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

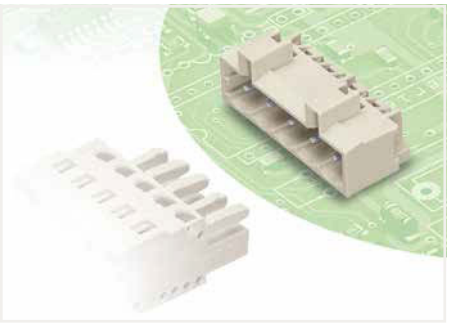
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

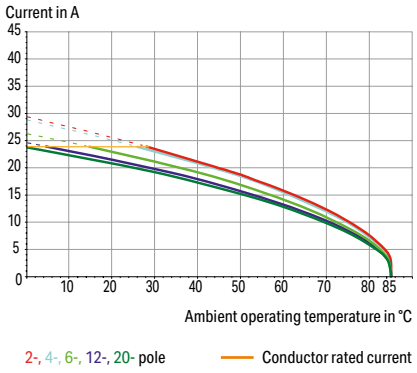
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ with preceding GND contact ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-102/026-000) with THT male header (721-432/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1 x 1 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 536

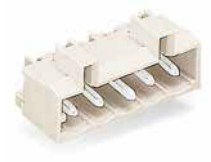
Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

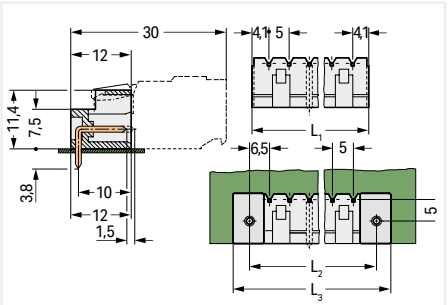
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ with preceding GND contact ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray

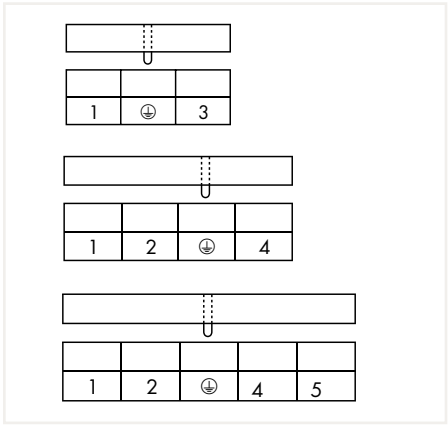
Mating direction to the PCB: 0°



Pole No.	Item No.	PU
3	721-433/001-040	200
4	721-434/001-040	200
5	721-435/001-040	200



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm

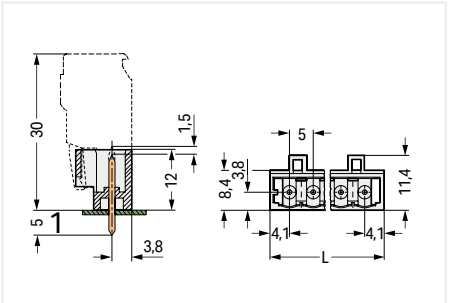


Preceding ground contact position

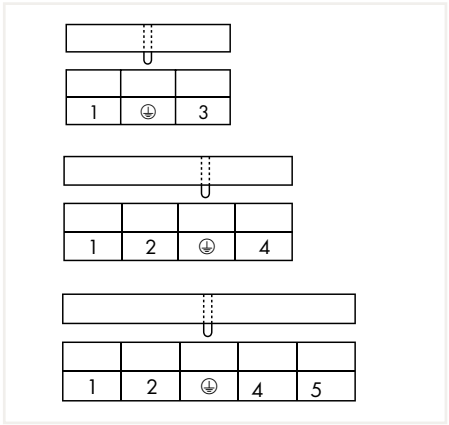
Mating direction to the PCB: 90°



Pole No.	Item No.	PU
3	721-133/001-040	200
4	721-134/001-040	200
5	721-135/001-040	200



L = (pole no. – 1) x pin spacing + 8.2 mm



Preceding ground contact position

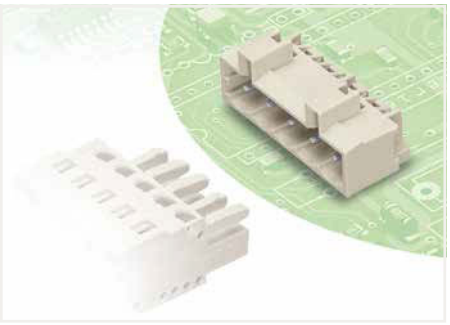
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

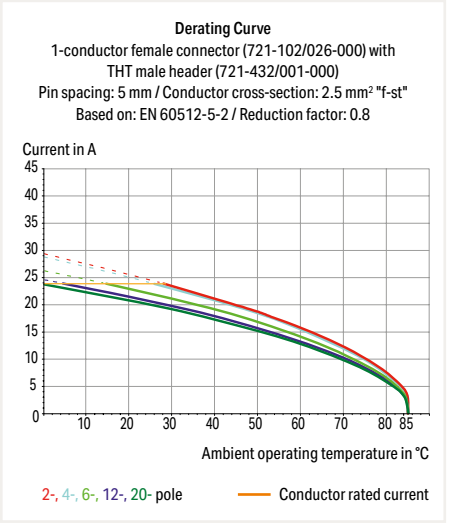
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ with preceding GND contact ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of horter headers
- 100 % protected against mismating
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 536

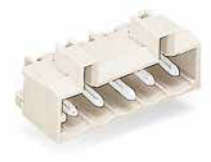
Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

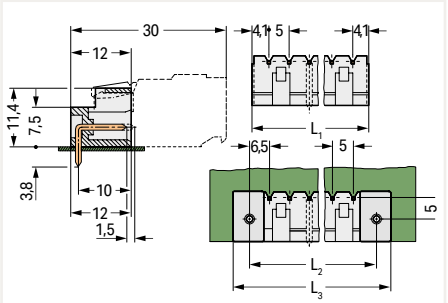
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 5 mm (0.197 inch) ▸ with preceding GND contact ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

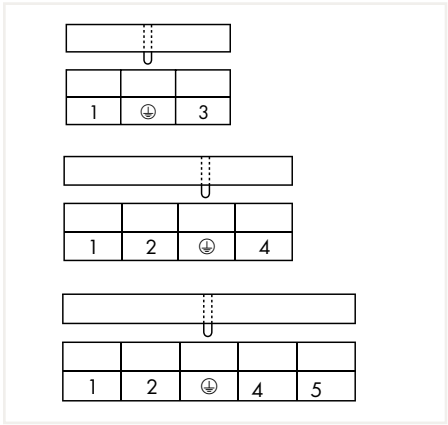
Mating direction to the PCB: 0°



Pole No.	Item No.	PU
3	721-463/001-040	200
4	721-464/001-040	200
5	721-465/001-040	200



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm

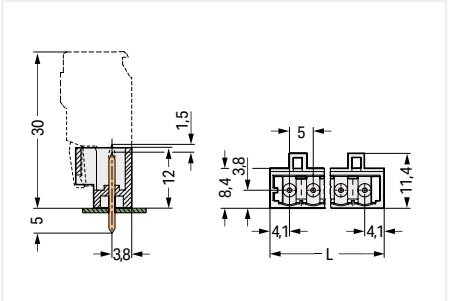


Preceding ground contact position

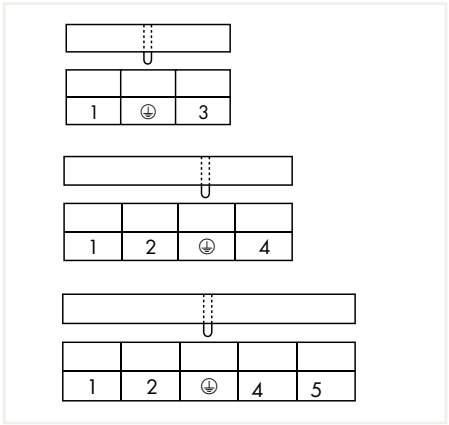
Mating direction to the PCB: 90°



Pole No.	Item No.	PU
3	721-163/001-040	200
4	721-164/001-040	200
5	721-165/001-040	200



L = (pole no. – 1) x pin spacing + 8.2 mm



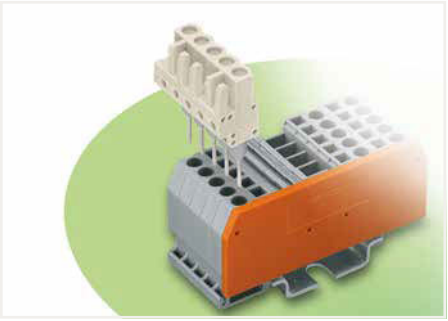
Preceding ground contact position

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

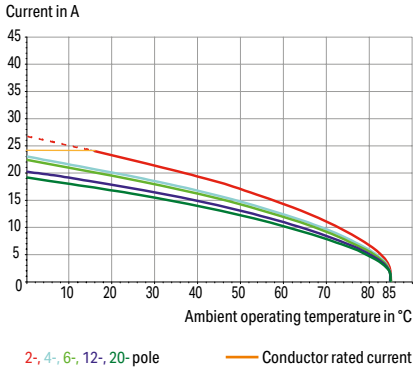
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

Female Connector for Rail-Mount Terminal Blocks ▸ *MCS* MIDI ▸ 722 Series
Pin spacing: 5 mm (0.197 inch) ▸ Color: light gray



- Pluggable connectors for rail-mount terminal blocks equipped with CAGE CLAMP® connection
- Female connectors with long contact pins connect to the termination ports of 280 Series Rail-Mount Terminal Blocks
- Female connectors are touch-proof when unmated, providing a pluggable, live output
- 100 % protected against mismating
- With coding fingers

Derating Curve
Female connector (722-232/005-000) with
1-conductor male connector (721-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

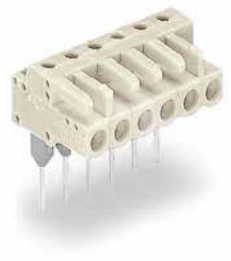
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Testing and measuring	Page 535, 854
Tools	Page 535
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

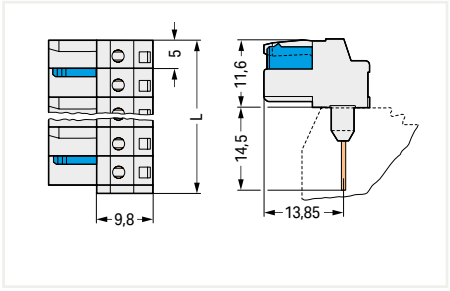
Female Connector for Rail-Mount Terminal Blocks ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 5 mm (0.197 inch) ▸ Color: light gray

Mating direction to the rail-mount terminal block: 0°

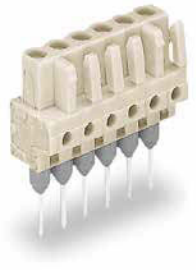


Pole No.	Item No.	PU
2	722-232/005-000	100
3	722-233/005-000	100
4	722-234/005-000	100
5	722-235/005-000	100
6	722-236/005-000	50
7	722-237/005-000	50
8	722-238/005-000	50
9	722-239/005-000	50
10	722-240/005-000	50
11	722-241/005-000	25
12	722-242/005-000	25
13	722-243/005-000	25
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15	722-245/005-000	25
16	722-246/005-000	25
20	722-250/005-000	10

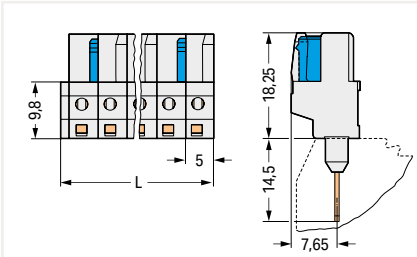


L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

Mating direction to the rail-mount terminal block: 90°

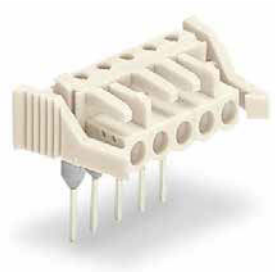


Pole No.	Item No.	PU
2	722-132/005-000	100
3	722-133/005-000	100
4	722-134/005-000	100
5	722-135/005-000	100
6	722-136/005-000	50
7	722-137/005-000	50
8	722-138/005-000	50
9	722-139/005-000	50
10	722-140/005-000	50
11	722-141/005-000	25
12	722-142/005-000	25
13	722-143/005-000	25
14	722-144/005-000	25
15	722-145/005-000	25
16	722-146/005-000	25
20	722-150/005-000	10

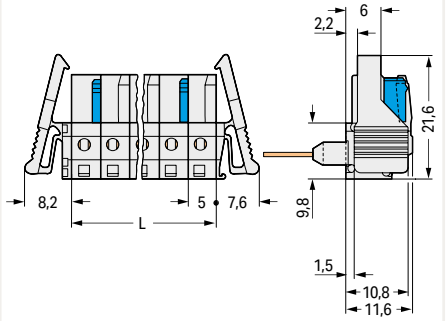


L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

Locking of plug-in connection: locking lever ▸ Mating direction to the rail-mount terminal block: 0°



Pole No.	Item No.	PU
2	722-232/005-000/039-000	100
3	722-233/005-000/039-000	50
4	722-234/005-000/039-000	50
5	722-235/005-000/039-000	50
6	722-236/005-000/039-000	50
7	722-237/005-000/039-000	50
8	722-238/005-000/039-000	50
9	722-239/005-000/039-000	25
10	722-240/005-000/039-000	25
11	722-241/005-000/039-000	25
12	722-242/005-000/039-000	25
14	722-244/005-000/039-000	25
16	722-246/005-000/039-000	10
20	722-250/005-000/039-000	10



L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

8

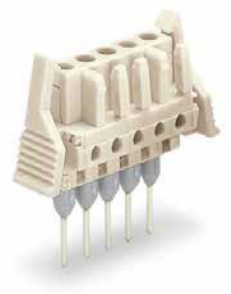
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

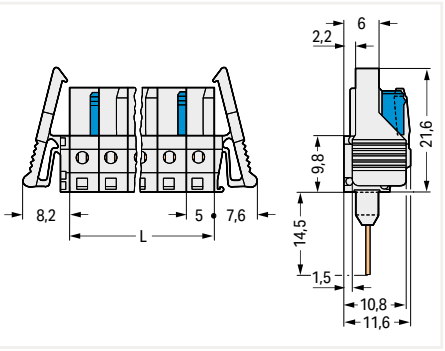
- Other pole numbers

Female connector for rail-mount terminal blocks ▸ *MCS* MIDI ▸ 722 Series
Pin spacing: 5 mm (0.197 inch) ▸ Color: light gray

Locking of plug-in connection: locking lever ▸ Mating direction to the rail-mount terminal block: 90°



Pole No.	Item No.	PU
2	722-132/005-000/039-000	100
3	722-133/005-000/039-000	50
4	722-134/005-000/039-000	50
5	722-135/005-000/039-000	50
6	722-136/005-000/039-000	50
7	722-137/005-000/039-000	50
8	722-138/005-000/039-000	50
9	722-139/005-000/039-000	25
10	722-140/005-000/039-000	25
11	722-141/005-000/039-000	25
12	722-142/005-000/039-000	25
14	722-144/005-000/039-000	25
16	722-146/005-000/039-000	10
20	722-150/005-000/039-000	10



L = (pole no. x pin spacing) + 1.5 mm
2-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

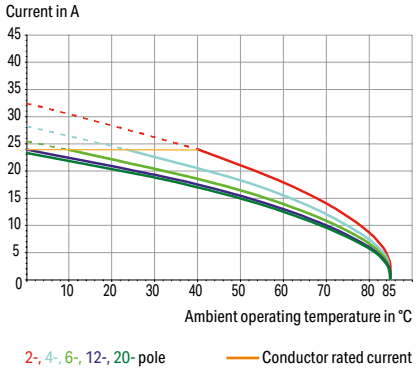
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:
- Other pole numbers

Male Connector for Rail-Mount Terminal Blocks ▸ *MCS* MIDI ▸ 721 Series
Pin spacing: 5 mm (0.197 inch) ▸ Color: light gray



- Pluggable connectors for rail-mount terminal blocks equipped with CAGE CLAMP® connection
- Male connectors with long contact pins connect to the termination ports of 280 Series Rail-Mount Terminal Blocks
- Pins can be touched when the connector is unplugged, so power should be supplied via terminal block (observe rated voltage!)
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-102/026-000) with male connector (721-162/003-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

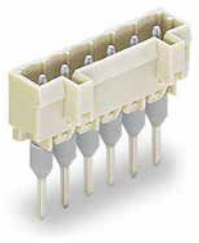
Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

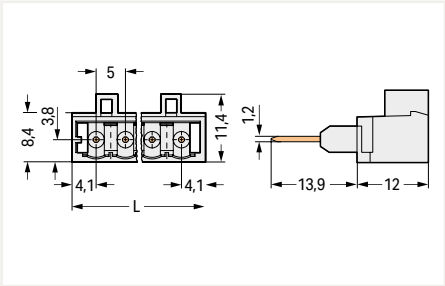
Coding	Page 536
Tools	Page 535
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Male Connector for Rail-Mount Terminal Blocks ▸ *MCS* MIDI ▸ 721 Series
Pin spacing: 5 mm (0.197 inch) ▸ Color: light gray

Mating direction to the rail-mount terminal block: 90°



Pole No.	Item No.	PU
2	721-162/003-000	200
3	721-163/003-000	200
4	721-164/003-000	200
5	721-165/003-000	200
6	721-166/003-000	100
7	721-167/003-000	100
8	721-168/003-000	100
9	721-169/003-000	100
10	721-170/003-000	100
11	721-171/003-000	100
12	721-172/003-000	100
13	721-173/003-000	50
14	721-174/003-000	50
15	721-175/003-000	50
16	721-176/003-000	50
20	721-180/003-000	50



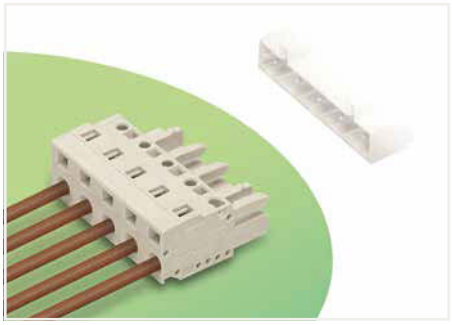
L = (pole no. – 1) x pin spacing + 8.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

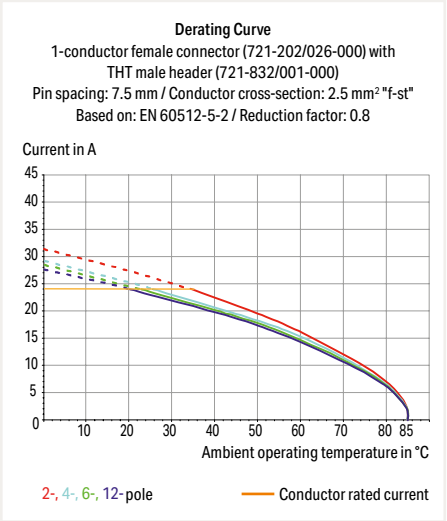
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:
- Other pole numbers

1-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- 100 % protected against mismating
- Coding option available



The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
General accessory	Page 537
Insulation stop	Page 537
Marking	Page 833
Mounting	Page 542
Mounting adapter	Page 543
Strain relief	Page 541
Testing and measuring	Page 535, 854
Tools	Page 534
Direct marking	Page 526
Cutout dimensions	Page 530
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

1-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

	Locking of plug-in connection: locking lever	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



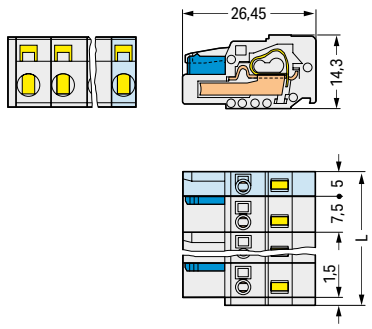




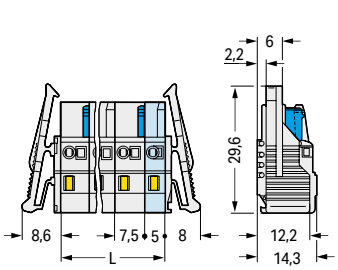
Pole No.	Item No.	PU
2	721-202/026-000	100
3	721-203/026-000	100
4	721-204/026-000	50
5	721-205/026-000	50
6	721-206/026-000	50
7	721-207/026-000	50
8	721-208/026-000	25
9	721-209/026-000	25
10	721-210/026-000	25
11	721-211/026-000	25
12	721-212/026-000	25

Pole No.	Item No.	PU
2	721-202/037-000	50
3	721-203/037-000	50
4	721-204/037-000	50
5	721-205/037-000	50
6	721-206/037-000	25
7	721-207/037-000	25
8	721-208/037-000	25
9	721-209/037-000	25
10	721-210/037-000	25
12	721-212/037-000	10

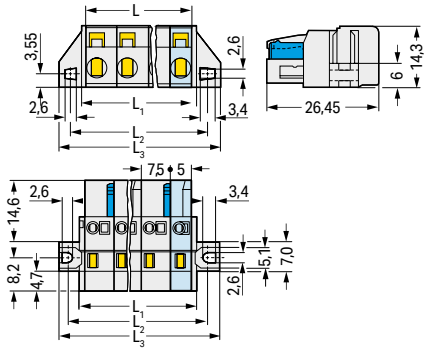
Pole No.	Item No.	PU
2	721-202/031-000	50
3	721-203/031-000	50
4	721-204/031-000	50
5	721-205/031-000	50
6	721-206/031-000	25
7	721-207/031-000	25
8	721-208/031-000	25
9	721-209/031-000	25
10	721-210/031-000	25
12	721-212/031-000	10



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm



L = (pole no. – 1) x pin spacing + 5 mm



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strip

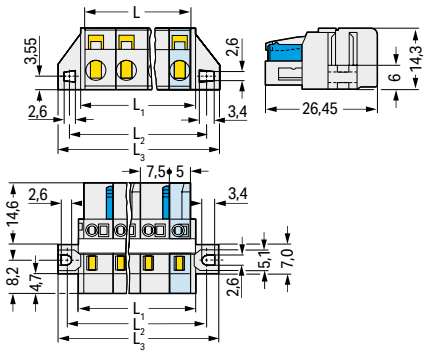


Pole No.	Item No.	PU
6	721-206/027-000	25
8	721-208/027-000	25
9	721-209/027-000	25
12	721-212/027-000	10

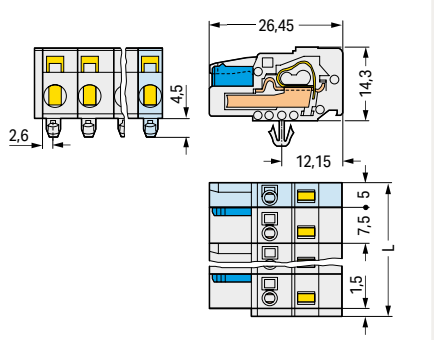
Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	721-202/008-000	100
3	721-203/008-000	100
4	721-204/008-000	50
5	721-205/008-000	50
6	721-206/008-000	50
7	721-207/008-000	50
8	721-208/008-000	25
9	721-209/008-000	25
10	721-210/008-000	25
11	721-211/008-000	10
12	721-212/008-000	25



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

8

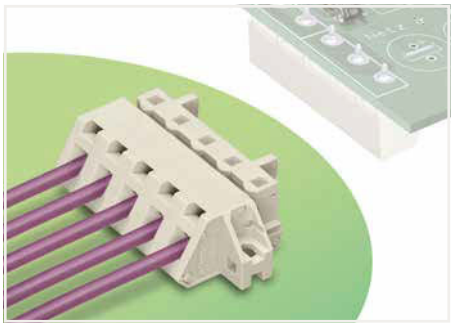
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

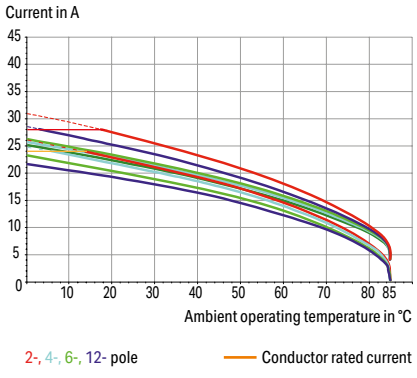
1-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90° ▸ Color: light gray



- Universal connection for all conductor types
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- Mounting adapter allows versions with snap-in mounting feet to be DIN-rail mounted
- Easy conductor termination, even when halves are mated
- 100 % protected against mismating

Derating Curve
1-conductor female connector (721-332/031-000) with THT male header (721-232/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	7 … 8 mm / 0.28 … 0.31 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Marking	Page 833
Mounting	Page 542
Testing and measuring	Page 535
Tools	Page 534
Cutout dimensions	Page 530
Direct marking	Page 526
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

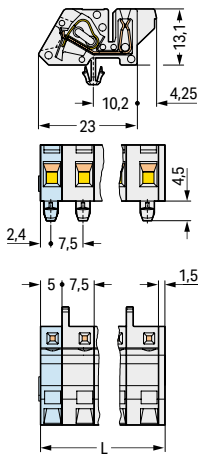
1-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90° ▸ Color: light gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	721-332/008-000	100
3	721-333/008-000	100
4	721-334/008-000	50
5	721-335/008-000	50
7	721-337/008-000	25
8	721-338/008-000	25
9	721-339/008-000	25
10	721-340/008-000	25
11	721-341/008-000	25
12	721-342/008-000	25

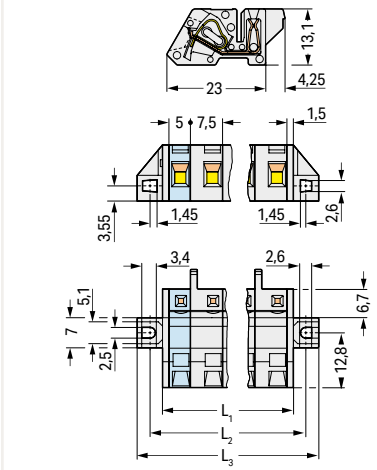


L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

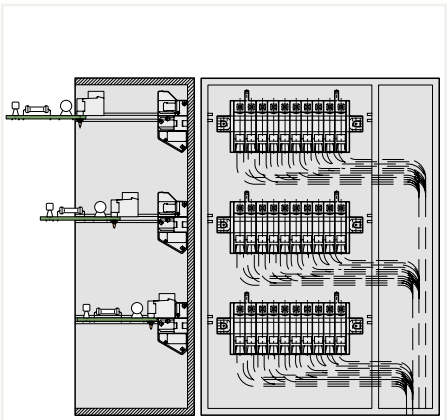
Type of mounting: Panel mounting ▸ Mounting type: Mounting flange



Pole No.	Item No.	PU
2	721-332/031-000	50
3	721-333/031-000	50
4	721-334/031-000	50
5	721-335/031-000	50
6	721-336/031-000	25
7	721-337/031-000	25
8	721-338/031-000	25
9	721-339/031-000	25
10	721-340/031-000	25
11	721-341/031-000	10
12	721-342/031-000	25



L_1 = (pole no. – 1) x pin spacing + 5 mm + 3 mm
L_2 = (pole no. – 1) x pin spacing + 5 mm + 8.8 mm
L_3 = (pole no. – 1) x pin spacing + 5 mm 14.8 mm



Multilevel arrangement in a distributed electronic housing



Angled female connector – a male header with straight solder pins is used for horizontal PCB mounting in narrow housings.

8

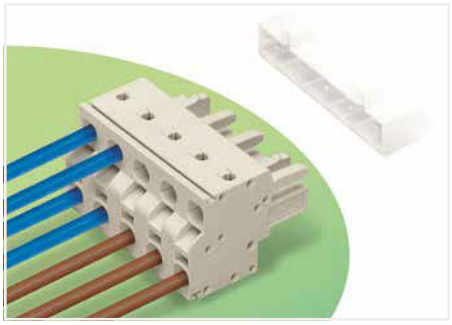
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

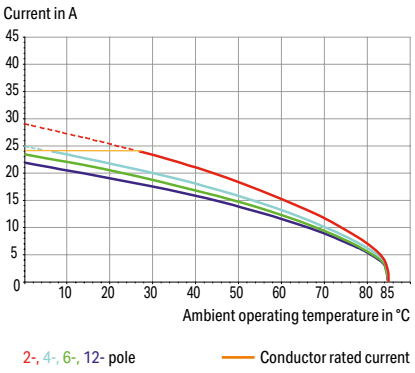
2-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or Data buses
- Bus connection is retained, even when unmated
- Push-in terminations of solid and ferruled conductors
- 100 % protected against mismating
- With coding fingers

Derating Curve
2-conductor female connector (721-2202/026-000) with THT male header (721-262/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



8

Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

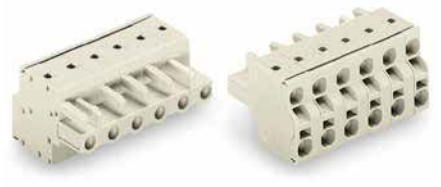
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Insulation stop	Page 537
Marking	Page 833
Strain relief	Page 539
Testing and measuring	Page 535
Tools	Page 838
Direct marking	Page 526
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

2-Conductor Female Connector ▸ *MCS* MIDI ▸ 721 Series

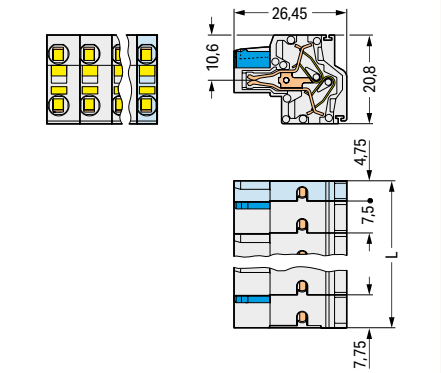
Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

Locking of plug-in connection: locking lever



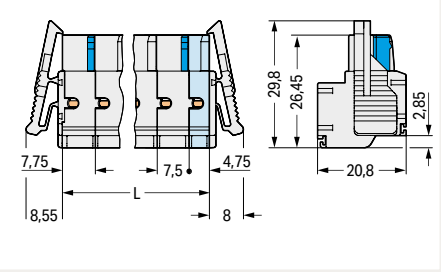


Pole No.	Item No.	PU
2	721-2202/026-000	100
3	721-2203/026-000	100
4	721-2204/026-000	50
5	721-2205/026-000	50
6	721-2206/026-000	50
7	721-2207/026-000	50
8	721-2208/026-000	25
9	721-2209/026-000	25
10	721-2210/026-000	25
11	721-2211/026-000	25
12	721-2212/026-000	25

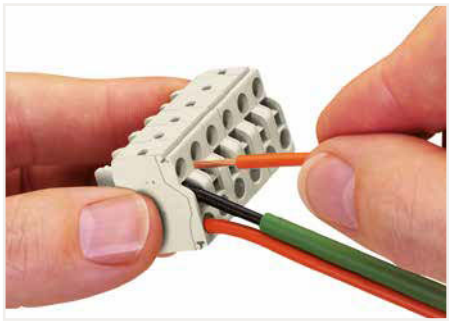


L = (pole no. – 2) x pin spacing + 12.5 mm
2-pole female connectors – one latch only

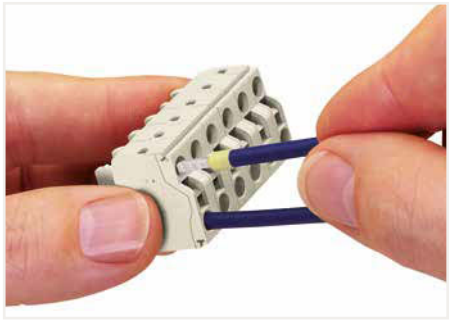
Pole No.	Item No.	PU
2	721-2202/037-000	50
3	721-2203/037-000	50
4	721-2204/037-000	50
5	721-2205/037-000	50
6	721-2206/037-000	25
7	721-2207/037-000	25
8	721-2208/037-000	25
9	721-2209/037-000	25
10	721-2210/037-000	25
11	721-2211/037-000	10
12	721-2212/037-000	10



L = (pole no. – 2) x pin spacing + 12.5 mm
2-pole female connectors – one latch only



Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

8

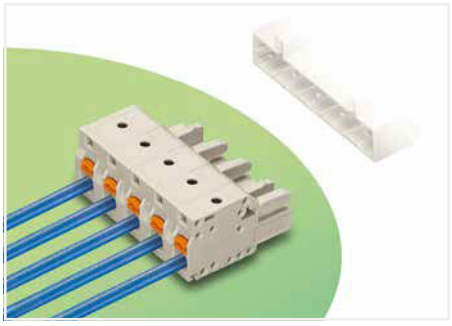
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

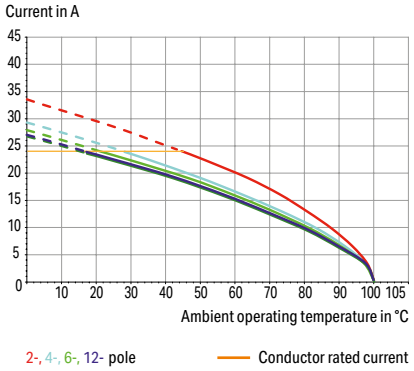
1-Conductor Female Connector ▸ *MCS* MIDI ▸ 2721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (2721-202/026-000) with THT male header (721-262/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

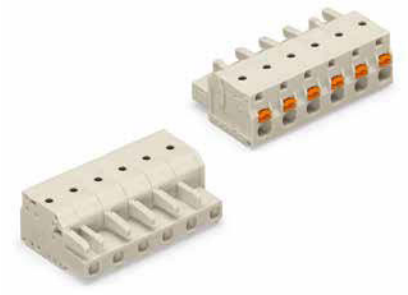
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

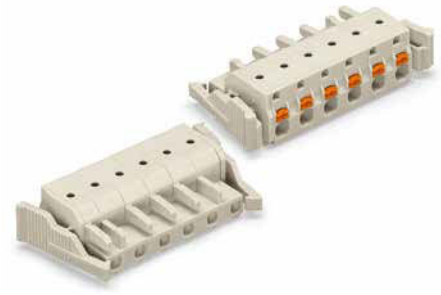
Ferrule	Page 847
Insulation stop	Page 537
Marking	Page 833
Mounting	Page 542
Mounting adapter	Page 543
Strain relief	Page 539
Testing and measuring	Page 535, 854
Tools	Page 838
Direct marking	Page 526
Cutout dimensions	Page 530
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

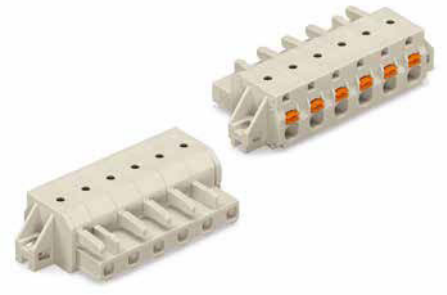
1-Conductor Female Connector ▸ *MCS* MIDI ▸ 2721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

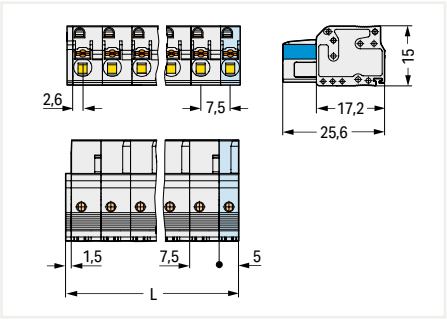
	Locking of plug-in connection: locking lever	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange





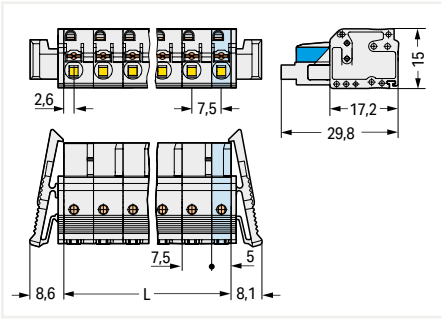


Pole No.	Item No.	PU
2	2721-202/026-000	100
3	2721-203/026-000	100
4	2721-204/026-000	50
5	2721-205/026-000	50
6	2721-206/026-000	50
7	2721-207/026-000	50
8	2721-208/026-000	25
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10	2721-210/026-000	25
11	2721-211/026-000	25
12	2721-212/026-000	25



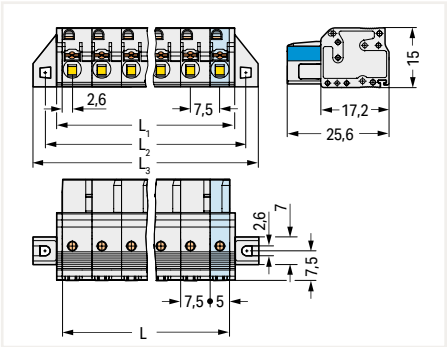
L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2-pole female connectors – one latch only

Pole No.	Item No.	PU
2	2721-202/037-000	50
3	2721-203/037-000	50
4	2721-204/037-000	50
5	2721-205/037-000	50
6	2721-206/037-000	25
7	2721-207/037-000	25
8	2721-208/037-000	25
9	2721-209/037-000	25
10	2721-210/037-000	25
11	2721-211/037-000	10
12	2721-212/037-000	10



L = (pole no. – 1) x pin spacing + 5 mm
2-pole female connectors – one latch only

Pole No.	Item No.	PU
2	2721-202/031-000	50
3	2721-203/031-000	50
4	2721-204/031-000	50
5	2721-205/031-000	50
6	2721-206/031-000	25
7	2721-207/031-000	25
8	2721-208/031-000	25
9	2721-209/031-000	25
10	2721-210/031-000	25
11	2721-211/031-000	10
12	2721-212/031-000	10



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 2.8 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

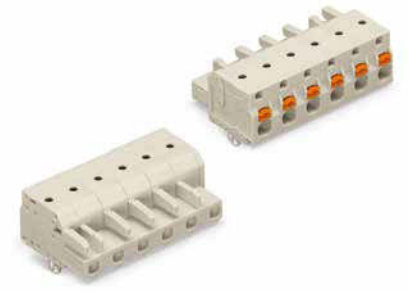
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

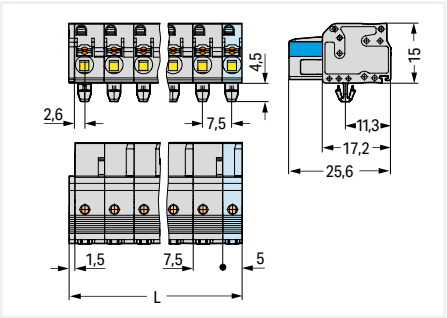
1-Conductor Female Connector ▸ *MCS* MIDI ▸ 2721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	2721-202/008-000	100
3	2721-203/008-000	100
4	2721-204/008-000	50
5	2721-205/008-000	50
6	2721-206/008-000	50
7	2721-207/008-000	50
8	2721-208/008-000	25
9	2721-209/008-000	25
10	2721-210/008-000	25
11	2721-211/008-000	10
12	2721-212/008-000	25



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2-pole female connectors – one latch only

8

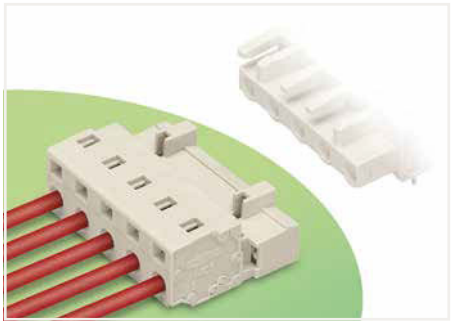
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

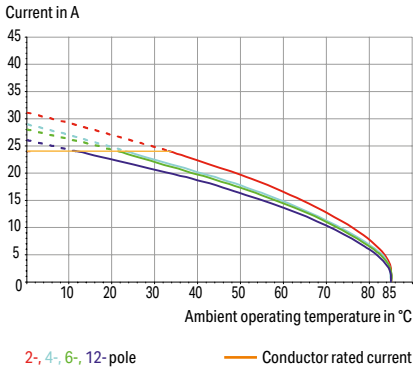
1-Conductor Male Connector ▸ *MCS* MIDI ▸ 723 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- 3- to 5-pole male connectors are also available with preceding ground contact
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-202/026-000) with 1-conductor male connector (723-602)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



8

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 536
Ferrule	Page 847
General accessory	Page 537
Insulation stop	Page 537
Mounting	Page 542
Mounting adapter	Page 543
Strain relief	Page 541
Tools	Page 534
Direct marking	Page 526
Cutout dimensions	Page 530
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approvals per		UL 1059	
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per		CSA	
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

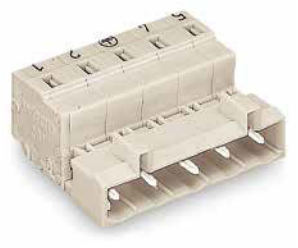
Environmental Requirements

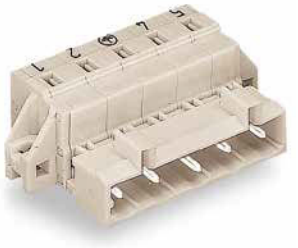
Limit temperature range	-60 … +100 °C

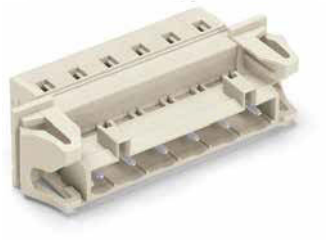
1-Conductor Male Connector ▸ *MCS* MIDI ▸ 723 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange	Type of mounting: Feed-through mounting ▸ Mounting type: Snap-in



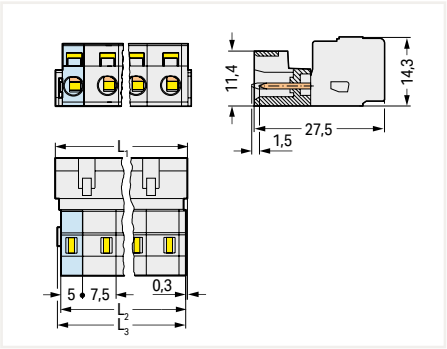




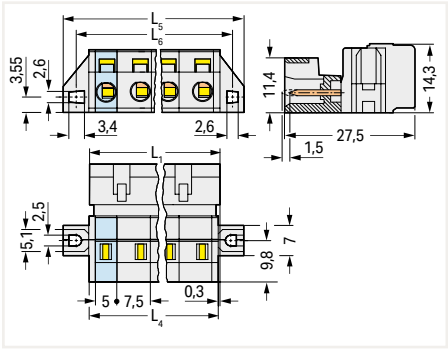
Pole No.	Item No.	PU
2	723-602	100
3	723-603	100
4	723-604	50
5	723-605	50
6	723-606	50
7	723-607	50
8	723-608	25
9	723-609	25
10	723-610	25
11	723-611	25
12	723-612	25

Pole No.	Item No.	PU
2	723-602/019-000	50
3	723-603/019-000	50
4	723-604/019-000	50
5	723-605/019-000	50
6	723-606/019-000	25
7	723-607/019-000	25
8	723-608/019-000	25
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10	723-610/019-000	25
11	723-611/019-000	10
12	723-612/019-000	10

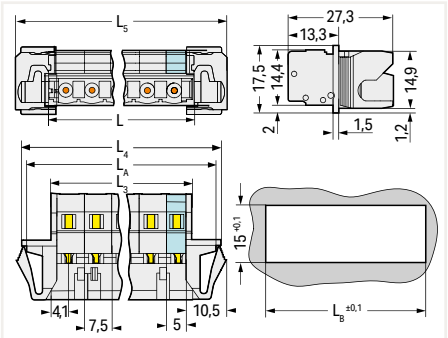
Pole No.	Item No.	PU
2	723-602/114-000	50
3	723-603/114-000	50
4	723-604/114-000	50
5	723-605/114-000	25
6	723-606/114-000	25
7	723-607/114-000	25
8	723-608/114-000	25
9	723-609/114-000	25
10	723-610/114-000	10
11	723-611/114-000	10
12	723-612/114-000	10



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
$L_2 = L_1 - 1.7$ mm
$L_3 = L_1 - 1.2$ mm



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
$L_4 = L_1 - 0.2$ mm
$L_5 = L_4 + 5.8$ mm
$L_6 = L_4 + 11.8$ mm



L = (pole no. – 1) x pin spacing + 8.2 mm
$L_3 = L - 0.2$ mm
$L_4 = L_3 + 15.2$ mm
$L_5 = L_3 + 18$ mm
$L_A = L_3 + 12.6$ mm
$L_B = L_3 + 13.2$ mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

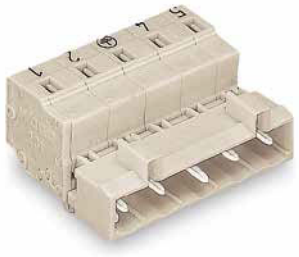
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

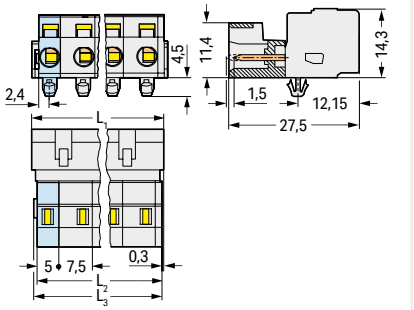
1-Conductor Male Connector ▸ *MCS* MIDI ▸ 723 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	723-602/018-000	100
3	723-603/018-000	100
4	723-604/018-000	50
5	723-605/018-000	50
6	723-606/018-000	50
7	723-607/018-000	50
8	723-608/018-000	25
9	723-609/018-000	25
10	723-610/018-000	25
11	723-611/018-000	25
12	723-612/018-000	25



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
$L_2 = L_1 – 1.7$ mm
$L_3 = L_1 – 1.2$ mm

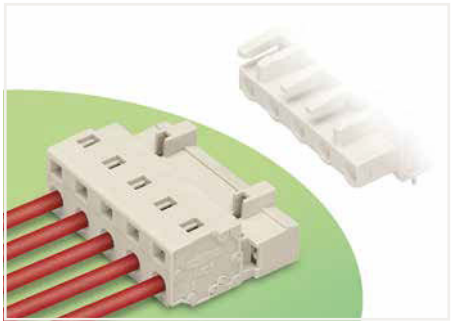
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

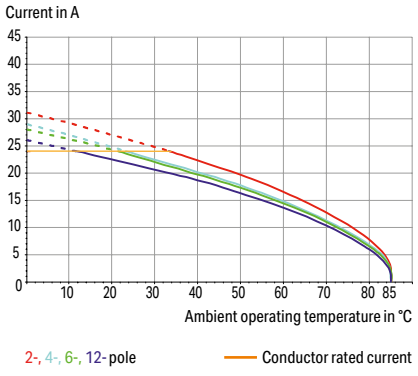
1-Conductor Male Connector ▸ *MCS* MIDI ▸ 723 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ with preceding GND contact ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- 3- to 5-pole male connectors are also available with preceding ground contact
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-202/026-000) with 1-conductor male connector (723-602)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

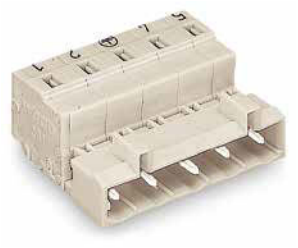
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

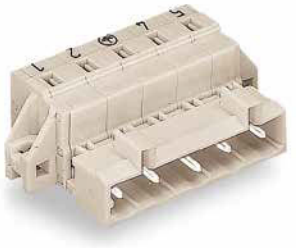
Coding	Page 536
Ferrule	Page 847
General accessory	Page 537
Insulation stop	Page 537
Mounting	Page 542
Mounting adapter	Page 543
Strain relief	Page 541
Tools	Page 534
Direct marking	Page 526
Cutout dimensions	Page 530
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

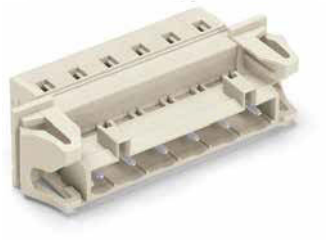
1-Conductor Male Connector ▸ *MCS* MIDI ▸ 723 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ with preceding GND contact ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange	Type of mounting: Feed-through mounting ▸ Mounting type: Snap-in



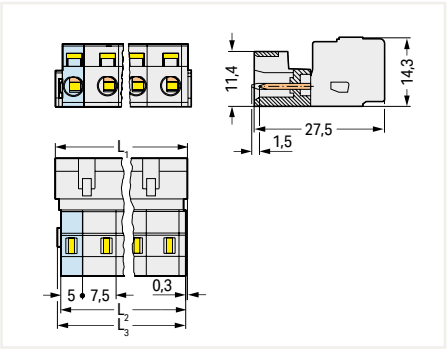




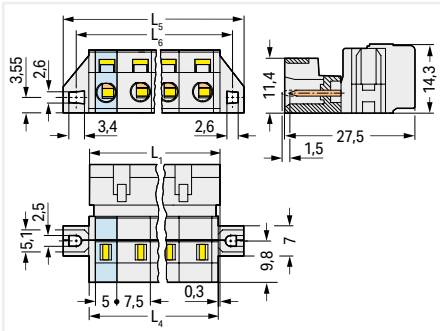
Pole No.	Item No.	PU
3	723-603/000-042	100
4	723-604/000-042	50
5	723-605/000-042	50

Pole No.	Item No.	PU
3	723-603/019-042	50
4	723-604/019-042	50
5	723-605/019-042	50

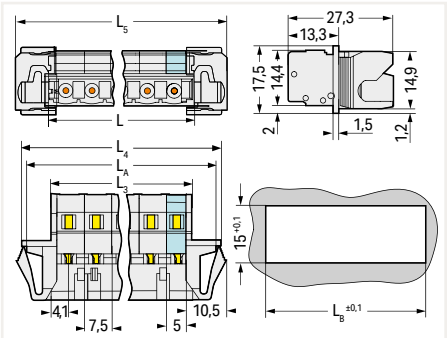
Pole No.	Item No.	PU
3	723-603/114-042	50
4	723-604/114-042	50
5	723-605/114-042	25



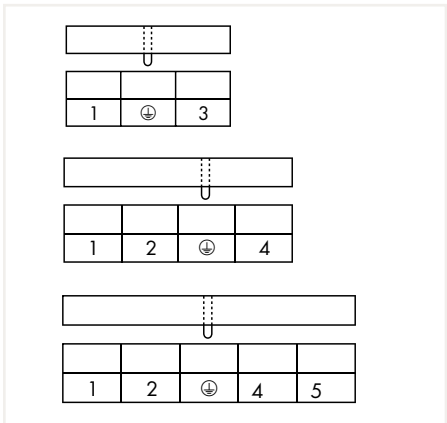
L_1 = (pole no. – 1) x pin spacing + 8.2 mm
$L_2 = L_1 - 1.7$ mm
$L_3 = L_1 - 1.2$ mm



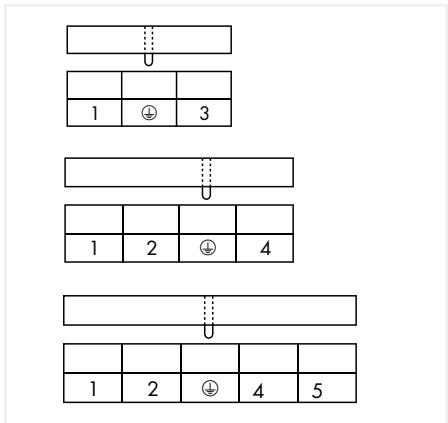
L_1 = (pole no. – 1) x pin spacing + 8.2 mm
$L_4 = L_1 - 0.2$ mm
$L_5 = L_4 + 5.8$ mm
$L_6 = L_4 + 11.8$ mm



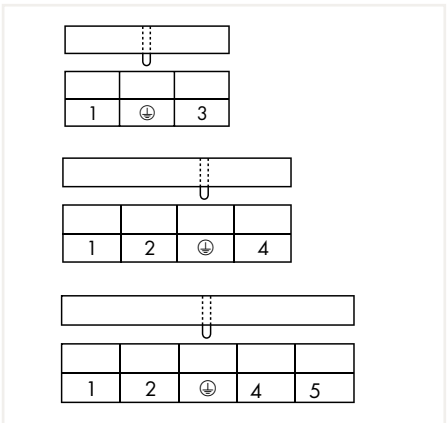
L = (pole no. – 1) x pin spacing + 8.2 mm
$L_3 = L - 0.2$ mm
$L_4 = L_3 + 15.2$ mm
$L_5 = L_3 + 18$ mm
$L_A = L_3 + 12.6$ mm
$L_B = L_3 + 13.2$ mm



Preceding ground contact position



Preceding ground contact position



Preceding ground contact position

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

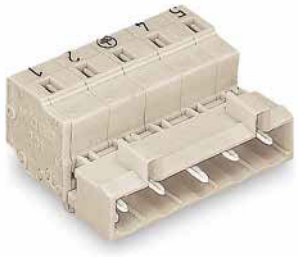
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

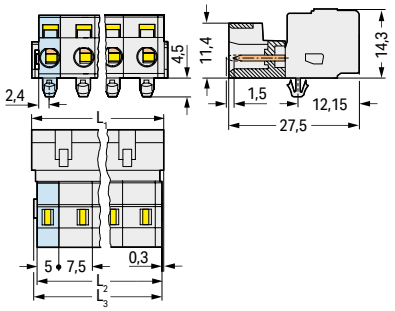
1-Conductor Male Connector ▸ *MCS* MIDI ▸ 723 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ with preceding GND contact ▸ Conductor entry direction to mating direction: 0° ▸ Color: light gray

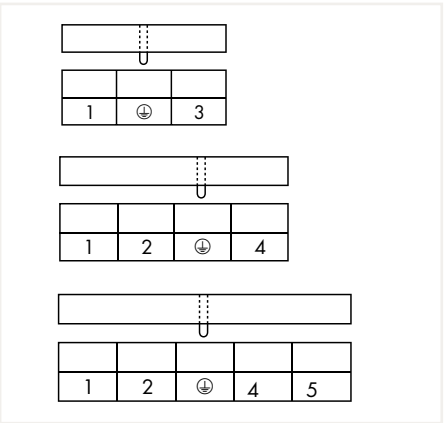
Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
3	723-603/018-042	100
4	723-604/018-042	50
5	723-605/018-042	50



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 – 1.7 mm
L_3 = L_1 – 1.2 mm



Preceding ground contact position

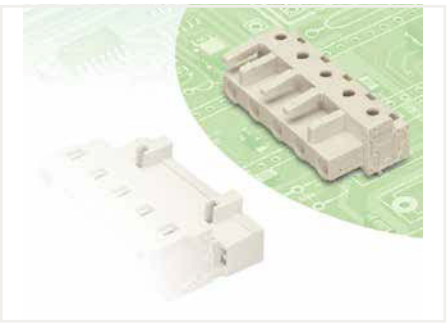
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

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- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

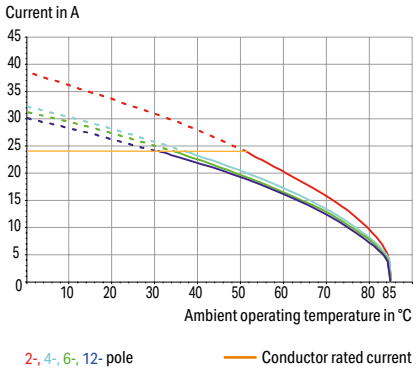
THT Female Header ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- 100 % protected against mismating
- With coding fingers

Derating Curve
THT female header (722-832) with
1-conductor male connector (723-602)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector, in line
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter (tolerance)	$1.3^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +85 °C

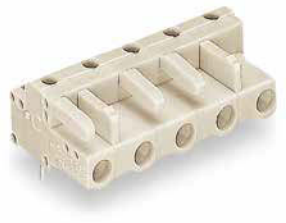
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting	Page 537, 837
Testing and measuring	Page 535, 854
Cutout dimensions	Page 530
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

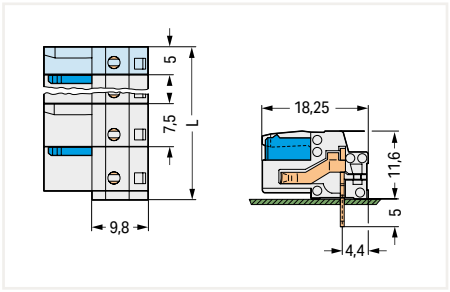
THT Female Header ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	722-832	100
3	722-833	100
4	722-834	50
5	722-835	50
6	722-836	50
7	722-837	50
8	722-838	25
9	722-839	25
10	722-840	25
11	722-841	25
12	722-842	25

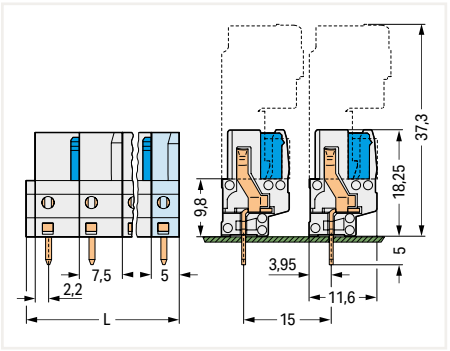


L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	722-732	100
3	722-733	100
4	722-734	50
5	722-735	50
6	722-736	50
7	722-737	50
8	722-738	25
9	722-739	25
10	722-740	25
11	722-741	25
12	722-742	25

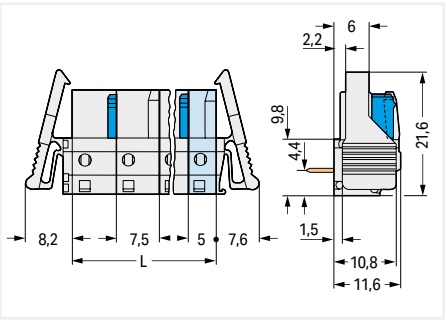


L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2-pole female connectors – one latch only

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	722-832/039-000	50
3	722-833/039-000	50
4	722-834/039-000	50
5	722-835/039-000	50
6	722-836/039-000	25
7	722-837/039-000	25
8	722-838/039-000	25
9	722-839/039-000	25
10	722-840/039-000	25
11	722-841/039-000	10
12	722-842/039-000	10



L = (pole no. – 1) x pin spacing + 5 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

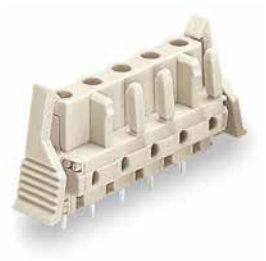
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins

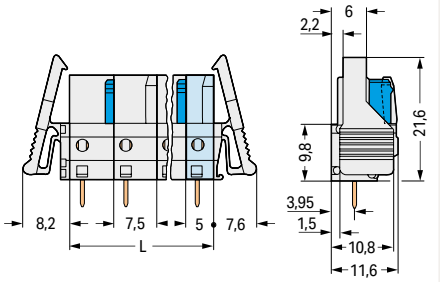
THT Female Header ▸ *MCS* MIDI ▸ 722 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	722-732/039-000	50
3	722-733/039-000	50
4	722-734/039-000	50
5	722-735/039-000	50
6	722-736/039-000	25
7	722-737/039-000	25
8	722-738/039-000	25
9	722-739/039-000	25
10	722-740/039-000	25
11	722-741/039-000	10
12	722-742/039-000	10



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

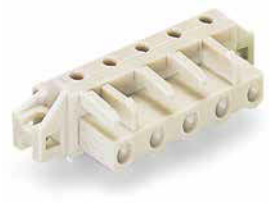
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins

THT Female Header ▸ *MCS* MIDI ▸ 722 Series

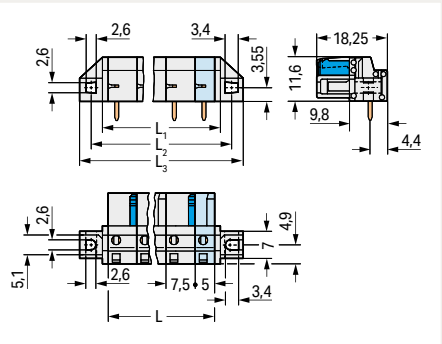
Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0°



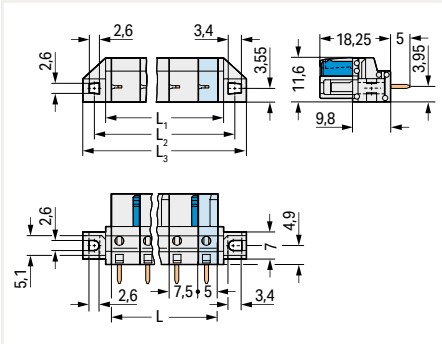
Pole No.	Item No.	PU
2	722-832/031-000	50
3	722-833/031-000	50
4	722-834/031-000	50
5	722-835/031-000	50
6	722-836/031-000	25
7	722-837/031-000	25
8	722-838/031-000	25
9	722-839/031-000	25
10	722-840/031-000	25
11	722-841/031-000	10
12	722-842/031-000	10



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

Mating direction to the PCB: 90°

Pole No.	Item No.	PU
2	722-732/031-000	50
3	722-733/031-000	50
4	722-734/031-000	50
5	722-735/031-000	50
6	722-736/031-000	25
7	722-737/031-000	25
8	722-738/031-000	25
9	722-739/031-000	25
10	722-740/031-000	25
11	722-741/031-000	10
12	722-742/031-000	10



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

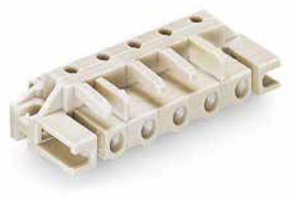
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins

THT Female Header ▸ *MCS* MIDI ▸ 722 Series

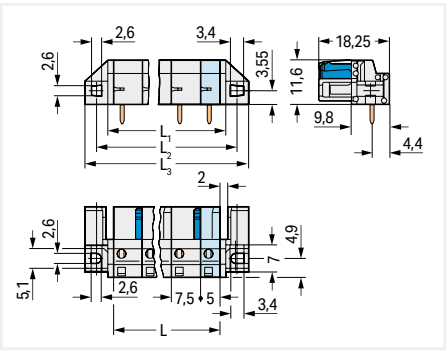
Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: light gray

Type of mounting: Flush mounting, Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0°

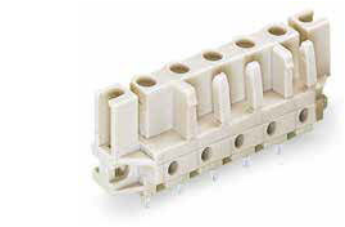


Pole No.	Item No.	PU
2	722-832/047-000	50
3	722-833/047-000	50
4	722-834/047-000	50
5	722-835/047-000	50
6	722-836/047-000	25
7	722-837/047-000	25
8	722-838/047-000	25
9	722-839/047-000	25
10	722-840/047-000	25
11	722-841/047-000	10
12	722-842/047-000	10

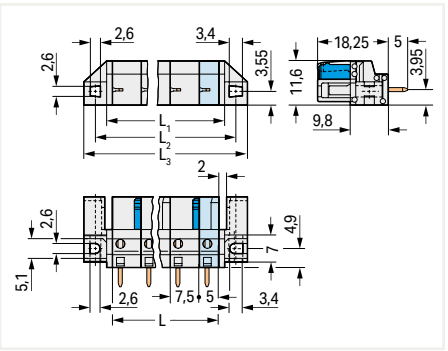


L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	722-732/047-000	50
3	722-733/047-000	50
4	722-734/047-000	50
5	722-735/047-000	50
6	722-736/047-000	25
7	722-737/047-000	25
8	722-738/047-000	25
9	722-739/047-000	25
10	722-740/047-000	25
11	722-741/047-000	10
12	722-742/047-000	10



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2-pole female connectors – one latch only

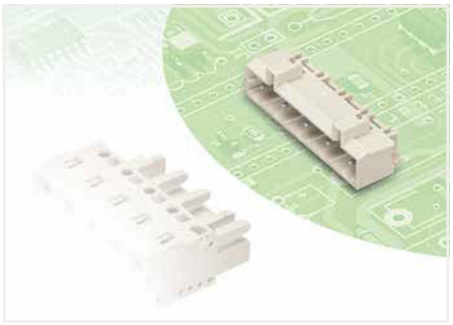
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

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- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins

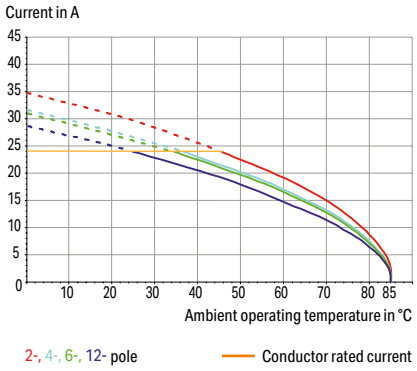
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-202/026-000) with
THT male header (721-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1 x 1 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 536

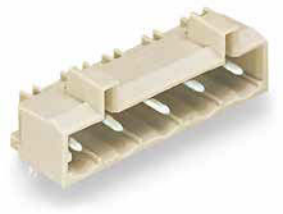
Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

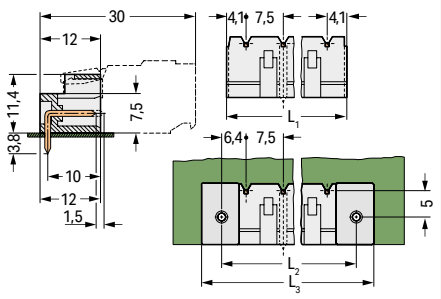
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	721-832/001-000	200
3	721-833/001-000	200
4	721-834/001-000	100
5	721-835/001-000	100
6	721-836/001-000	100
7	721-837/001-000	50
8	721-838/001-000	50
9	721-839/001-000	50
10	721-840/001-000	50
11	721-841/001-000	50
12	721-842/001-000	50

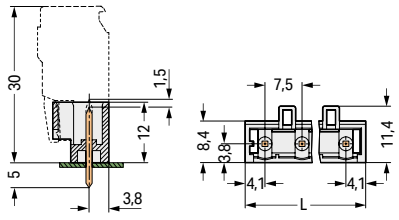


L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	721-232/001-000	200
3	721-233/001-000	200
4	721-234/001-000	100
5	721-235/001-000	100
6	721-236/001-000	100
7	721-237/001-000	50
8	721-238/001-000	50
9	721-239/001-000	50
10	721-240/001-000	50
10	721-241/001-000	50
12	721-242/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

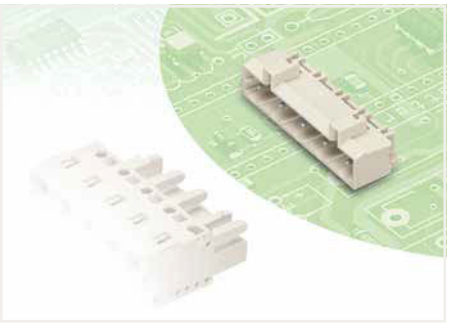
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

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- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

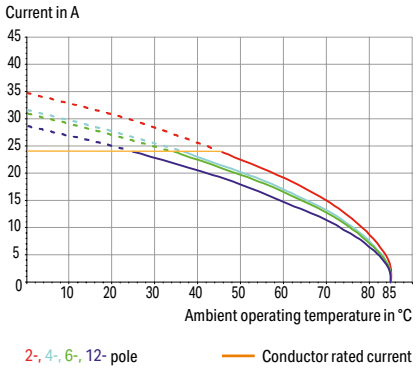
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of horter headers
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-202/026-000) with THT male header (721-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	16 A	16 A	16 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	-			
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 536

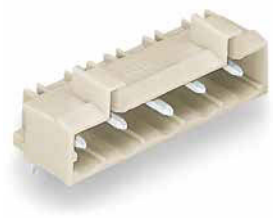
Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

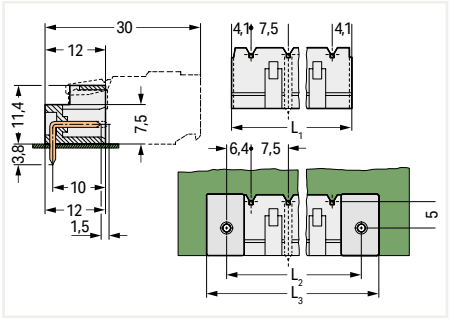
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	721-862/001-000	200
3	721-863/001-000	200
4	721-864/001-000	100
5	721-865/001-000	100
6	721-866/001-000	100
7	721-867/001-000	50
8	721-868/001-000	50
9	721-869/001-000	50
10	721-870/001-000	50
11	721-871/001-000	50
12	721-872/001-000	50

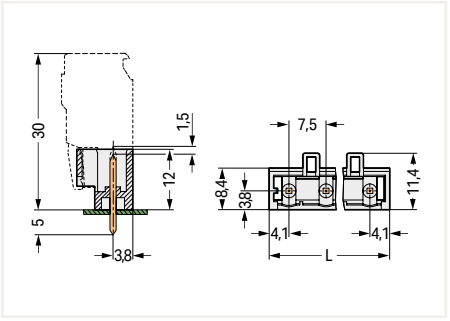


L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	721-262/001-000	100
3	721-263/001-000	200
4	721-264/001-000	100
5	721-265/001-000	100
6	721-266/001-000	100
7	721-267/001-000	50
8	721-268/001-000	50
9	721-269/001-000	50
10	721-270/001-000	50
10	721-271/001-000	50
12	721-272/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

8

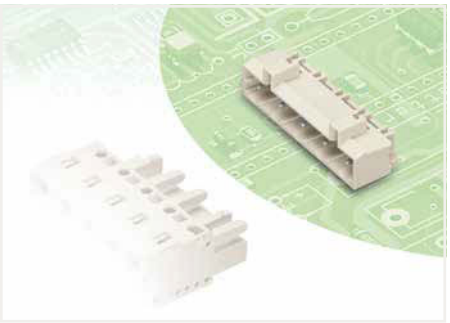
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

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- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

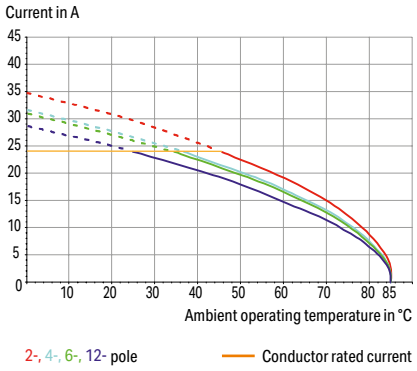
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ with preceding GND contact ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- 100 % protected against mismating
- With coding fingers

Derating Curve
1-conductor female connector (721-202/026-000) with THT male header (721-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



8

Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1 x 1 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 536

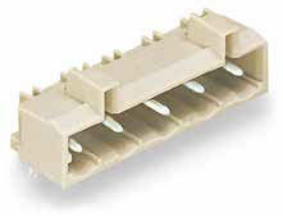
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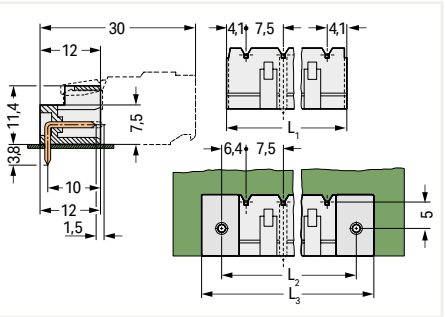
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ with preceding GND contact ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: light gray

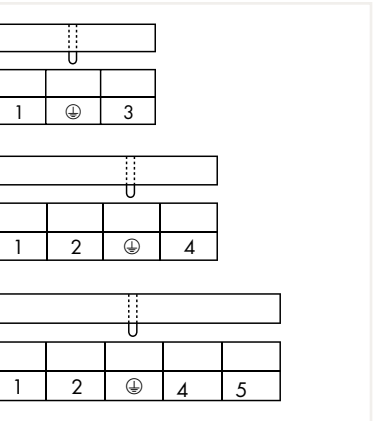
Mating direction to the PCB: 0°



Pole No.	Item No.	PU
3	721-833/001-040	200
4	721-834/001-040	100
5	721-835/001-040	100



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm

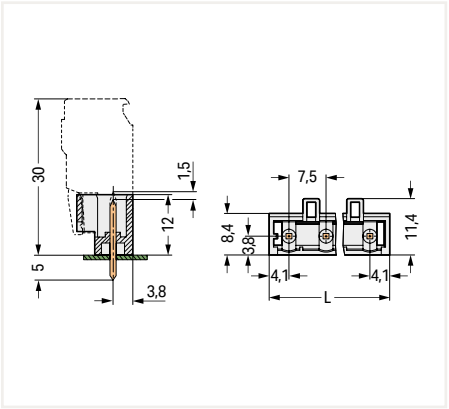


Preceding ground contact position

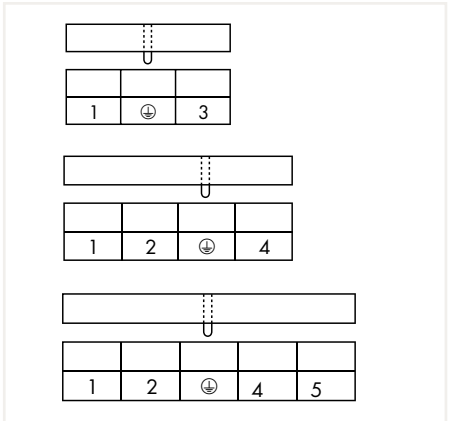
Mating direction to the PCB: 90°



Pole No.	Item No.	PU
3	721-233/001-040	200
4	721-234/001-040	100
5	721-235/001-040	100



L = (pole no. – 1) x pin spacing + 8.2 mm



Preceding ground contact position

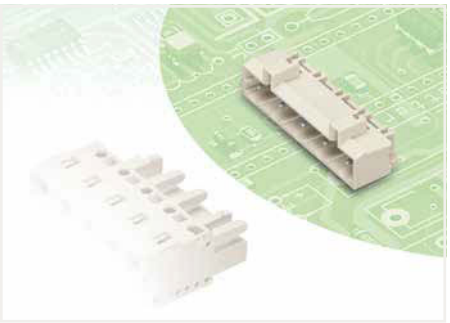
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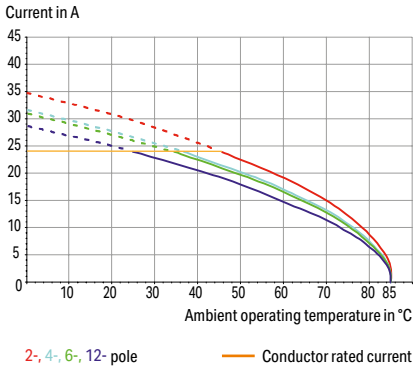
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ with preceding GND contact ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
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- 100 % protected against mismating
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Derating Curve
1-conductor female connector (721-202/026-000) with THT male header (721-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
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Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
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Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
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Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

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Coding Page 536

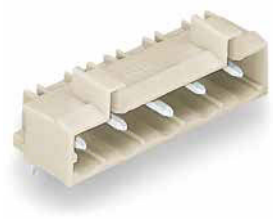
Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

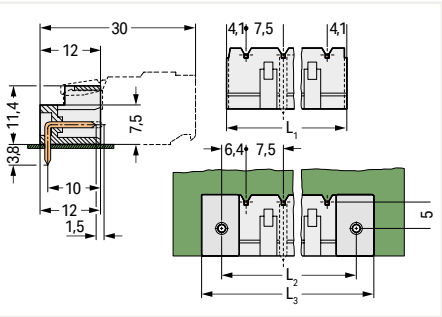
THT Male Header ▸ *MCS* MIDI ▸ 721 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ with preceding GND contact ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

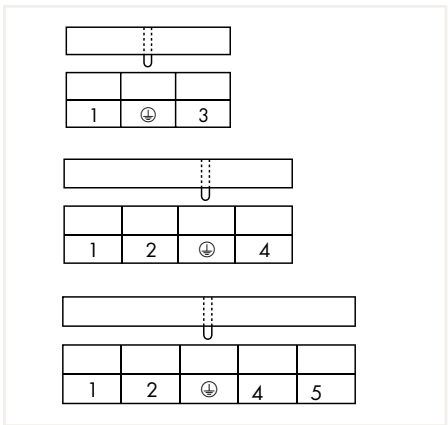
Mating direction to the PCB: 0°



Pole No.	Item No.	PU
3	721-863/001-040	200
4	721-864/001-040	100
5	721-865/001-040	100



L_1 = (pole no. – 1) x pin spacing + 8.2 mm
L_2 = L_1 + 5 mm
L_3 = L_2 + 7.4 mm

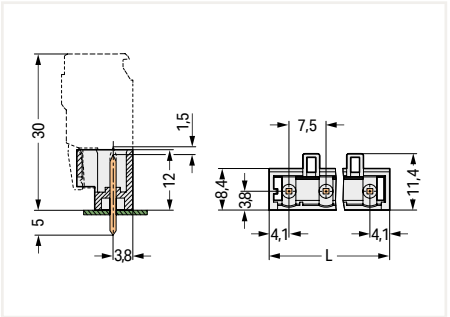


Preceding ground contact position

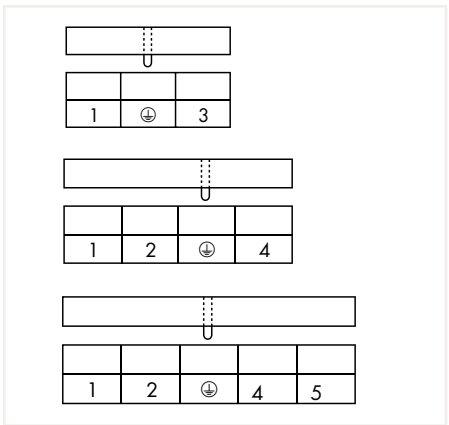
Mating direction to the PCB: 90°



Pole No.	Item No.	PU
3	721-263/001-040	200
4	721-264/001-040	100
5	721-265/001-040	100



L = (pole no. – 1) x pin spacing + 8.2 mm



Preceding ground contact position

8

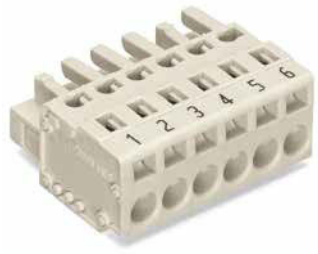
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

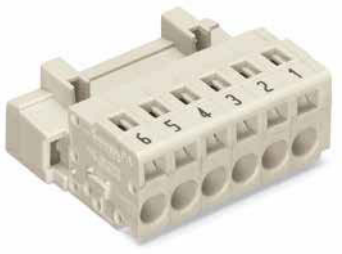
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

Direct Marking
MCS MIDI and *MCS* MIDI Classic







The pole numbers of male and female connectors for CAGE CLAMP® termination can be marked via factory direct marking.

Two standard marking orientations are available:
1. Marking perpendicular to conductor entry
2. Marking parallel to conductor entry

Other custom marking options are available upon request.

Direct marking is not suitable for MCS PCB Male Headers. WAGO recommends pole marking on the PCB for these headers.

Female headers with solder pins are exposed to aggressive flux agents during wave soldering. Custom direct marking procedures are available upon request for these items.

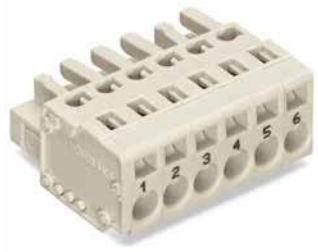
The marking type is always defined by the second 4-digit block of the item no. suffix for items with standard colors and materials.
Example: 721-106/. . . . - xxxx
xxxx = Item no. suffix for direct marking

Direct marking of 1-conductor female connectors; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047

Version	Item No. Example
1-conductor female connector; 5 mm pin spacing; 6-pole; light gray	**721-106/026-047**
1-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**721-106/037-047**
1-conductor female connector; with strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/026-047/ 034-000**
1-conductor female connector; with locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/026-047/ 034-000**

Direct marking of 1-conductor male connectors; perpendicular to conductor entry; pole no. … 1; item no. suffix.: /. . . - 044

Version	Item No. Example
1-conductor male connector; 6-pole; light gray	**721-606/000-044**
1-conductor male connector; with mounting flanges; 6-pole; light gray	**721-606/019-044**
1-conductor male connector; with mounting flanges and strain relief plate; 6-pole; light gray	**721-606/019-044/ 034-000**





Direct marking of 1-conductor female connectors; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037

Version	Item No. Example
1-conductor female connector; 5 mm pin spacing; 6-pole; light gray	**721-106/026-9037**
1-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**721-106/037-9037**
1-conductor female connector; with strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/026-9037/ 034-000**
1-conductor female connector; with locking levers and strain relief plate; 5 mm pin spacing 6-pole; light gray	**721-106/037-9037/ 034-000**

Direct marking of 1-conductor male connectors; parallel to conductor entry; pole no. … 1; item no. suffix.: /. . . - 9034

Version	Item No. Example
1-conductor male connector; 5 mm pin spacing; 6-pole; light gray	**721-606/000-9034**
1-conductor male connector; with mounting flanges; 5 mm pin spacing; 6-pole; light gray	**721-606/019-9034**
1-conductor male connector; with mounting flanges and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-606/019-9034/ 034-000**

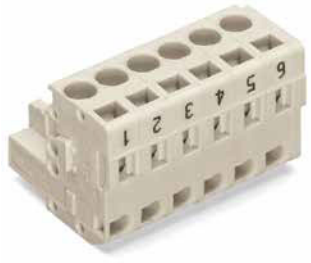
Direct Marking
MCS MIDI and *MCS* MIDI Classic



Direct marking of 1-conductor female connectors with push-buttons; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor female connector; with push-buttons; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-047**
1-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-047**
1-conductor female connector; with push-buttons and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-047/ 134-000**
1-conductor female connector; with push-buttons; locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-047/ 134-000**



Direct marking of 2-conductor female connectors; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
2-conductor female connector; 6-pole; light gray	**721-2106/026-047**
2-conductor female connector; with locking levers; 6-pole; light gray	**721-2106/037-047**
2-conductor female connector; with locking levers and strain relief plate; 6-pole; light gray	**721-2106/026-047/ 134-000**



Direct marking of 1-conductor angled female connectors; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor angled female connector; 6-pole; light gray	**722-206/026-047**
1-conductor angled female connector; with strain relief plate; 6-pole; light gray	**722-206/026-047/ 034-000**



Direct marking of 1-conductor female connectors with push-buttons; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
1-conductor female connector; with push-buttons; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-9037**
1-conductor female connector; with push-buttons and locking levers; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-9037**
1-conductor female connector; with push-buttons and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-9037/ 134-000**
1-conductor female connector; with push-buttons; locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-9037/ 134-000**



Direct marking of 2-conductor female connectors; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
2-conductor female connector; 5 mm pin spacing; 6-pole; light gray	**721-2106/026-9037**
2-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**721-2106/037-9037**
2-conductor female connector; with locking levers and strain relief plate; 5 mm pin spacing 6-pole; light gray	**721-2106/026-9037/ 134-000**



Direct marking of 1-conductor angled female connectors; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor angled female connector; 5 mm pin spacing; 6-pole; light gray	**722-206/026-9037**
1-conductor angled female connector; with strain relief plate; 5 mm pin spacing; 6-pole; light gray	**722-206/026-9037/ 034-000**

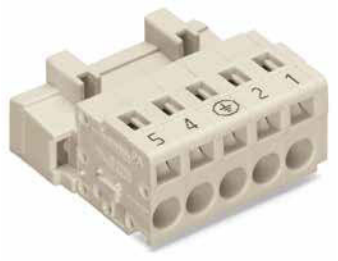
8

Direct Marking
MCS MIDI and *MCS* MIDI Classic



Direct marking of 2-conductor angled female connectors with flanges for panel mounting; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047

Version	Item No. Example
1-conductor angled female connector; with flanges for panel mounting; 5 mm pin spacing; 6-pole; light gray	**721-306/031-047**
1-conductor angled female connector; with flanges for panel mounting; with snap-in mounting feet; 5 mm pin spacing; 6-pole; light gray	**721-306/008-047**

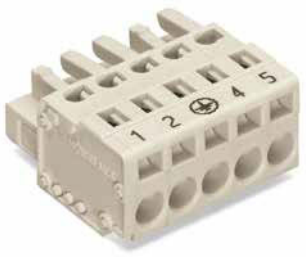


Direct marking of 3- to 5-pole; 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment; item no. suffix.: /. . . - 042

Version	Item No. Example
1-conductor male connector; with preceding ground contact; 5 mm pin spacing 5-pole; light gray	**721-605/000-042**

1-conductor male connectors in 3- to 5-pole versions (721 and 723 Series) are available with the following markings:

3-pole: 3 - 3 - 1
4-pole: 4 - 3 - 2 - 1
5-pole: 5 - 3 - ⏚ - 2 - 1



Direct marking of 3- to 5-pole; 1-conductor female connectors for 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment; item no. suffix.: /. . . - 045

Version	Item No. Example
1-conductor female connector; with preceding ground contact; 5 mm pin spacing 5-pole; light gray	**721-105/026-045**

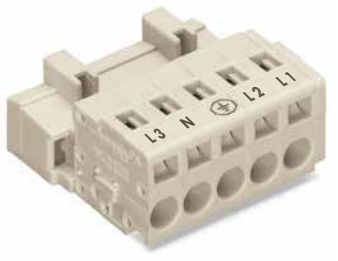
1-conductor female connectors in 3- to 5-pole versions (721, 2721, 722 and 723 Series) for 1-conductor male connectors with preceding ground contact are available with the following markings:

3-pole: 1 - 3 - 3
4-pole: 1 - 2 - 3 - 4
5-pole: 1 - 2 - ⏚ - 4 - 5



Direct marking of 1-conductor angled female connectors with flanges for panel mounting; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037

Version	Item No. Example
1-conductor female connector; with push-buttons; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-9037**
1-conductor female connector; with push-buttons and locking levers; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-9037**
1-conductor female connector; with push-buttons and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-9037/ 134-000**
1-conductor female connector; with push-buttons; locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-9037/ 134-000**



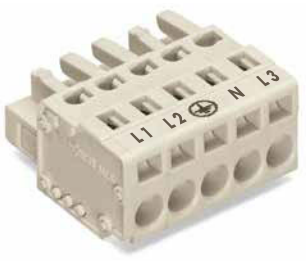
Direct marking of 3- to 5-pole; 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment; item no. suffix.: /. . . - 041

Version	Item No. Example
1-conductor male connector; with preceding ground contact; 5 mm pin spacing 5-pole; light gray	**721-605/000-041**

1-conductor male connectors in 3- to 5-pole versions (721 and 723 Series) are available with the following markings:

3-pole: N - 3 - L 1
4-pole: L 2 - 3 - N - L 1
5-pole: L 3 - N - 3 - L 2 - L 1

Pole no. … 1; item no. suffix.: /. . . - 043



Direct marking of 3- to 5-pole; 1-conductor female connectors for 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment; item no. suffix.: /. . . - 046

Version	Item No. Example
1-conductor female connector; with preceding ground contact; 5 mm pin spacing 5-pole; light gray	**721-105/026-046**

1-conductor female connectors in 3- to 5-pole versions (721, 2721, 722 and 723 Series) for 1-conductor male connectors with preceding ground contact are available with the following markings:

3-pole: L 1 - 3 - N
4-pole: L 1 - N - 3 - L 2
5-pole: L 1 - L 2 - 3 - N - L 3

1 … pole no.; item no. suffix.: /. . . - 047

8

Cutout Dimensions
MCS MIDI

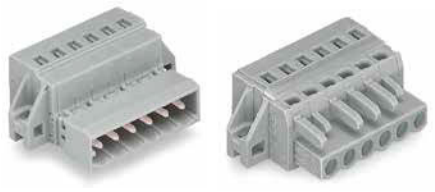




Table 1:
Cutout for 231. 721. 723 and 731 Series Male and Female Connectors with Mounting Flanges

	Pin Spacing 5 mm		Pin Spacing 5.08 mm		Pin Spacing 7.5 mm		Pin Spacing 7.62 mm	
Pole No.	L1	L2	L1	L2	L1	L2	L1	L2
2	13.4	18.4	13.6	18.6	15.9	20.9	16	21
3	18.4	23.4	18.6	23.6	23.4	28.4	23.6	28.6
4	23.4	28.4	23.7	28.7	30.9	35.9	31.3	36.3
5	28.4	33.4	28.8	33.8	38.4	43.4	38.9	43.9
6	33.5	38.3	34	38.8	46	50.8	46.6	51.4
7	38.5	43.3	39.1	43.9	53.5	58.3	54.2	59
8	43.5	48.3	44.1	48.9	61	65.8	61.8	66.6
9	48.5	53.3	49.2	54	68.5	73.3	69.5	74.3
10	53.5	58.3	54.3	59.1	76	80.8	77.1	81.9
11	58.5	63.3	59.4	64.2	83.5	88.3	84.7	89.5
12	63.5	68.3	64.5	69.3	91	95.8	92.3	97.1
13	68.6	73.2	69.6	74.2	98.6	103.2	100	104.6
14	73.6	78.2	74.7	79.3	106.1	110.7	107.7	112.3
15	78.6	83.2	79.8	84.4	113.6	118.2	115.3	119.9
16	83.6	88.2	84.9	89.5	121.1	125.7	122.9	127.5
17	88.6	93.2	90	94.6	128.6	133.2	130.5	135.1
18	93.6	98.2	95	99.6	136.1	140.7	138.1	142.7
19	98.7	103.1	100.2	104.6	143.7	148.1	145.9	150.3
20	103.7	108.1	105.3	109.7	151.2	155.6	153.5	157.9
21	108.7	113.1	110.4	114.8	158.7	163.1	161.1	165.5
22	113.7	118.1	115.5	119.9	166.2	170.6	168.7	173.1
23	118.7	123.1	120.5	124.9	173.7	178.1	176.3	180.7
24	123.7	128.1	125.6	130	181.2	185.6	184	188.4

Self-tapping screws,
for 1.8 mm ± 0.1 mm Ø mounting hole

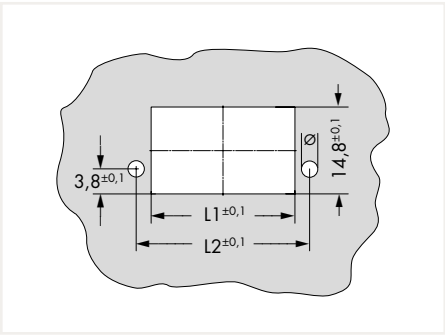
Dimensions	Item No.	PU (SPU)
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).



PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Cutout Dimensions
MCS MIDI

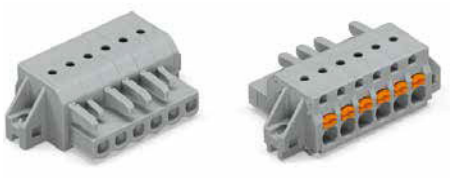




Table 2:
Cutout for 2721 and 2231 Series Female Connectors with Mounting Flanges

	Pin Spacing 5 mm		Pin Spacing 5.08 mm		Pin Spacing 7.5 mm		Pin Spacing 7.62 mm	
Pole No.	L1	L2	L1	L2	L1	L2	L1	L2
2	13.2	18.4	13.4	18.6	15.7	20.9	15.8	21
3	18.2	23.4	18.4	23.6	23.2	28.4	23.4	28.6
4	23.2	28.4	23.5	28.7	30.7	35.9	31.1	36.3
5	28.2	33.4	28.6	33.8	38.2	43.4	38.7	43.9
6	33.4	38.3	33.9	38.8	45.9	50.8	46.5	51.4
7	38.4	43.3	39	43.9	53.4	58.3	54.1	59
8	43.4	48.3	44	48.9	60.9	65.8	61.7	66.6
9	48.4	53.3	49.1	54	68.4	73.3	69.4	74.3
10	53.4	58.3	54.2	59.1	75.9	80.8	77	81.9
11	58.4	63.3	59.3	64.2	83.4	88.3	84.6	89.5
12	63.4	68.3	64.4	69.3	90.9	95.8	92.2	97.1
13	68.6	73.2	69.6	74.2	98.6	103.2	100	104.6
14	73.6	78.2	74.7	79.3	106.1	110.7	107.7	112.3
15	78.6	83.2	79.8	84.4	113.6	118.2	115.3	119.9
16	83.6	88.2	84.9	89.5	121.1	125.7	122.9	127.5
17	88.6	93.2	90	94.6	128.6	133.2	130.5	135.1
18	93.6	98.2	95	99.6	136.1	140.7	138.1	142.7
19	98.8	103.1	100.3	104.6	143.8	148.1	146	150.3
20	103.8	108.1	105.4	109.7	151.3	155.6	153.6	157.9
21	108.8	113.1	110.5	114.8	158.8	163.1	161.2	165.5
22	113.8	118.1	115.6	119.9	166.3	170.6	168.8	173.1
23	118.8	123.1	120.6	124.9	173.8	178.1	176.4	180.7
24	123.8	128.1	125.7	130	181.3	185.6	184.1	188.4

Self-tapping screws,
for 1.8 mm ± 0.1 mm Ø mounting hole

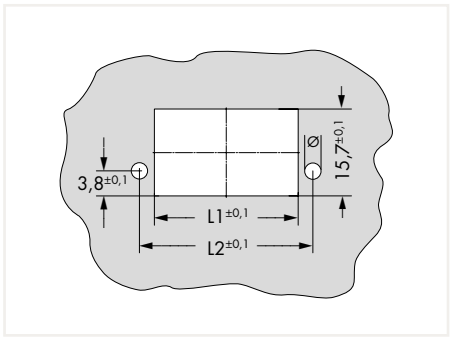
Dimensions	Item No.	PU (SPU)
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

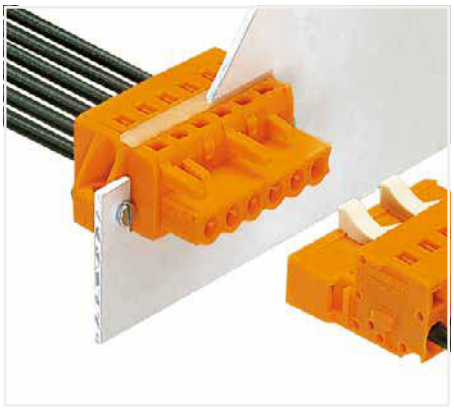
Dimensions	Item No.	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).



PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Cutout Dimensions
MCS MIDI

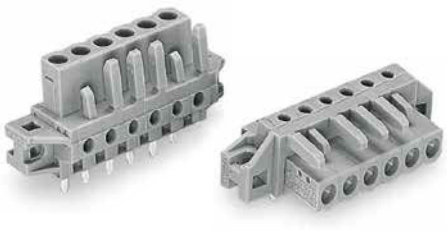




Table 3:
Cutout for 232 and 722 Series THT Female Headers with Mounting Flanges

	Pin Spacing 5 mm		Pin Spacing 5.08 mm		Pin Spacing 7.5 mm		Pin Spacing 7.62 mm	
Pole No.	L1	L2	L1	L2	L1	L2	L1	L2
2	13.4	18.4	13.6	18.6	15.9	20.9	16	21
3	18.4	23.4	18.6	23.6	23.4	28.4	23.6	28.6
4	23.4	28.4	23.7	28.7	30.9	35.9	31.3	36.3
5	28.4	33.4	28.8	33.8	38.4	43.4	38.9	43.9
6	33.5	38.3	34	38.8	46	50.8	46.6	51.4
7	38.5	43.3	39.1	43.9	53.5	58.3	54.2	59
8	43.5	48.3	44.1	48.9	61	65.8	61.8	66.6
9	48.5	53.3	49.2	54	68.5	73.3	69.5	74.3
10	53.5	58.3	54.3	59.1	76	80.8	77.1	81.9
11	58.5	63.3	59.4	64.2	83.5	88.3	84.7	89.5
12	63.5	68.3	64.5	69.3	91	95.8	92.3	97.1
13	68.6	73.2	69.6	74.2	98.6	103.2	100	104.6
14	73.6	78.2	74.7	79.3	106.1	110.7	107.7	112.3
15	78.6	83.2	79.8	84.4	113.6	118.2	115.3	119.9
16	83.6	88.2	84.9	89.5	121.1	125.7	122.9	127.5
17	88.6	93.2	90	94.6	128.6	133.2	130.5	135.1
18	93.6	98.2	95	99.6	136.1	140.7	138.1	142.7
19	98.7	103.1	100.2	104.6	143.7	148.1	145.9	150.3
20	103.7	108.1	105.3	109.7	151.2	155.6	153.5	157.9
21	108.7	113.1	110.4	114.8	158.7	163.1	161.1	165.5
22	113.7	118.1	115.5	119.9	166.2	170.6	168.7	173.1
23	118.7	123.1	120.5	124.9	173.7	178.1	176.3	180.7
24	123.7	128.1	125.6	130	181.2	185.6	184	188.4

Self-tapping screws,
for 1.8 mm ± 0.1 mm Ø mounting hole

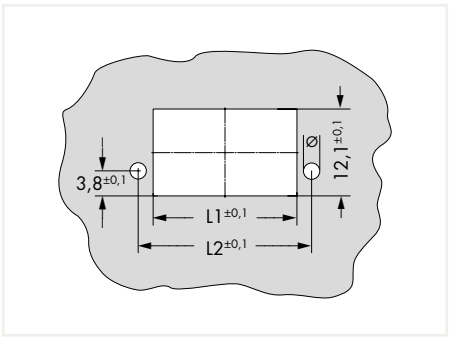
Dimensions	Item No.	PU (SPU)
B 2.2 x 9,5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

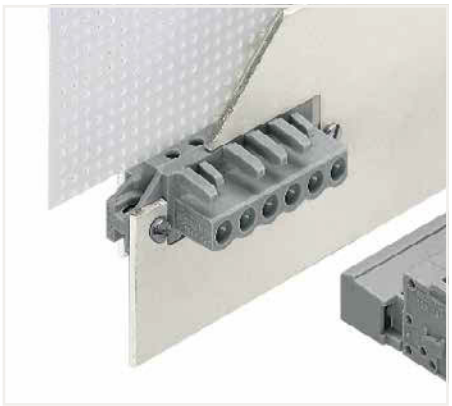
Dimensions	Item No.	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).



PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Cutout Dimensions
MCS MIDI

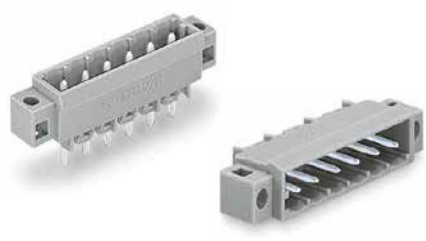




Table 4:
Cutout for 231 Series THT Male Headers with Mounting Flanges

	Pin Spacing 5 mm			Pin Spacing 7,5 mm		
Pole No.	L1	L2	L3	L1	L2	L3
2	13.6	8.9	9.5	16.1	10.6	10.8
3	18.6	11.4	12	23.6	14.3	14.5
4	23.6	13.9	14.5	31.1	18.1	18.3
5	28.6	16.4	17	38.6	21.8	22
6	33.8	19	19.6	46.3	25.7	25.9
7	38.8	21.5	22.1	53.8	29.4	29.6
8	43.8	24	24.6	61.3	33.2	33.4
9	48.8	26.5	27.1	68.8	36.9	37.1
10	53.8	29	29.6	76.3	40.7	40.9
11	58.8	31.5	32.1	83.8	44.4	44.6
12	63.8	34	34.6	91.3	48.2	48.4
13	69	36.6	37.2	99	52	52.2
14	74	39.1	39.7	106.5	55.8	56
15	79	41.6	42.2	114	59.5	59.7
16	84	44.1	44.7	121.5	63.3	63.5
17	89	46.6	47.2	129	67	67.2
18	94	49.1	49.7	136.5	70.8	71
19	99.2	51.7	52.3	144.2	74.6	74.8
20	104.2	54.2	54.8	151.7	78.4	78.6
21	109.2	56.7	57.3	159.2	82.1	82.3
22	114.2	59.2	59.8	166.7	85.9	86.1
23	119.2	61.7	62.3	174.2	89.6	89.8
24	124.2	64.2	64.8	181.7	93.4	93.6

Self-tapping screws,
for 1.8 mm ± 0.1 mm Ø mounting hole

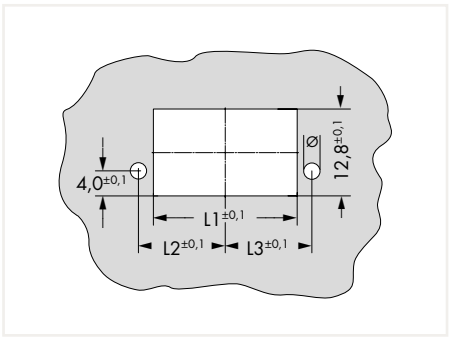
Dimensions	Item No.	PU (SPU)
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).



PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Operating Tools
MCS MIDI





Operating lever; for male and female connectors equipped with CAGE CLAMP® connection; 5/5.08 mm and 7.5/7.62 mm pin spacing

Color	Item No.	PU (SPU)
natural	231-131	100 (25)
red	231-291	100 (25)

Operating tool; for male and female connectors equipped with CAGE CLAMP® connection; 5/5.08 mm and 7.5/7.62 mm pin spacing

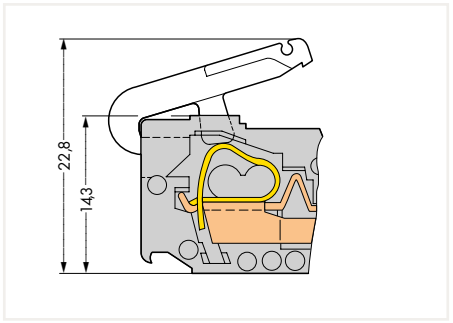
Color	Item No.	PU (SPU)
natural	231-159	100 (25)
red	231-231	100 (25)



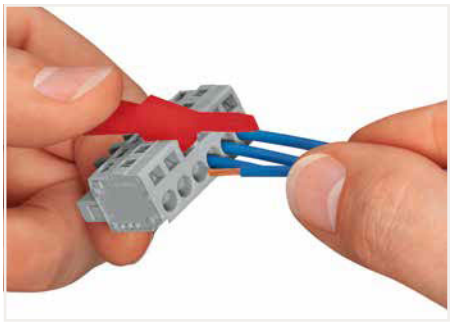
Inserting a conductor via operating lever.



Conductor termination parallel to CAGE CLAMP® actuation



Operating levers are not suitable for panel-mount, angled female connectors.



Conductor termination perpendicular to CAGE CLAMP® actuation

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Operating Tools and Test Plug Adapters
MCS MIDI







Multipole operating tool; insulated; operation parallel to conductor entry; suitable for male and female connectors; with CAGE CLAMP®, 5/5.08 mm pin spacing

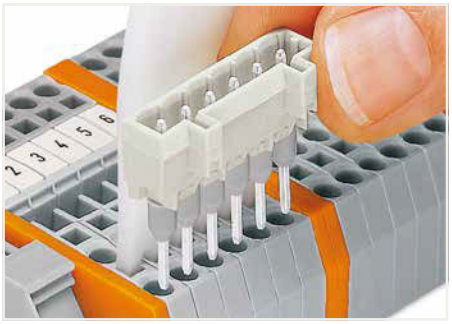
	Item No.	PU (SPU)
1-pole	209-130	100 (1)
2-pole	280-432	100 (1)
3-pole	280-433	100 (1)
4-pole	280-434	40 (1)
5-pole	280-435	40 (1)
6-pole	280-436	40 (1)
7-pole	280-437	30 (1)
8-pole	280-438	30 (1)
9-pole	280-439	30 (1)
10-pole	280-440	30 (1)

Operating tool; insulated; operation perpendicular to conductor entry; suitable for male and female connectors; with CAGE CLAMP®, 5/5.08 pin spacing

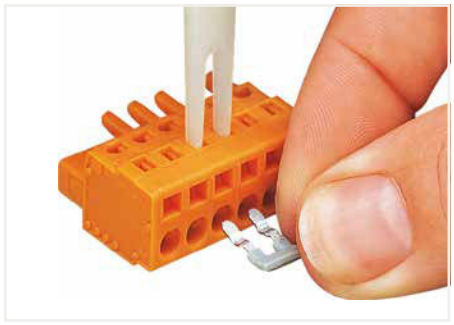
	Item No.	PU (SPU)
2-pole	209-132	40 (1)

Test plug adapter; for female connectors; light gray

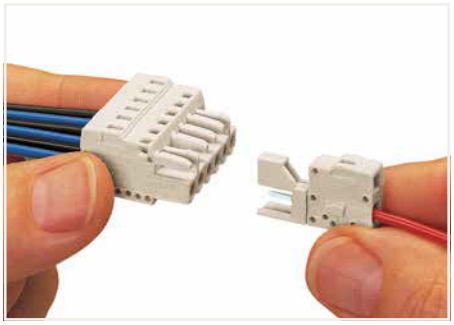
Pin Spacing	Item No.	PU
5/5.08 mm	231-661	100
7.5/7.62 mm	231-662	100



Inserting male or female connectors with long contact pins into 280 Series Rail-Mount Terminal Blocks via multipole operating tool (max. 10-pole for field assembly). Using CAGE CLAMP®-equipped male and female connectors (5/5.08 mm pin spacing), this operating tool allows up to ten CAGE CLAMP® units to be opened simultaneously, e.g., when inserting 231-90x Comb-Style Jumper Bars. Wiring male or female connectors should be performed in a suitable mount.



Operating tool for 231-902 Comb-Style Jumper Bars



Test plug adapter with CAGE CLAMP® connection

Electrical Data	
Ratings per	IEC/EN 60664-1
Overvoltage category	III
Pollution degree	2
Rated voltage	320 V
Rated surge voltage	4 kV
Rated current	12 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.33 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Coding Keys
MCS MIDI







Coding key; for male headers

Color	Item No.	PU (SPU)
○ light gray	**231-500**	200 (100)

Coding key; for male headers; 5/5.08 mm pin spacing

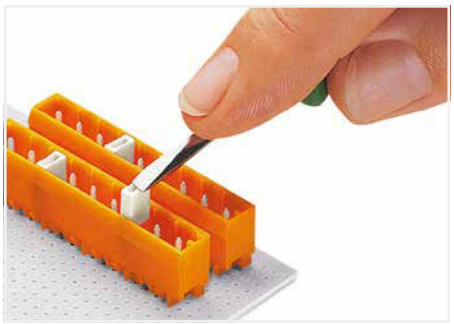
Color	Item No.	PU
○ light gray	**231-129**	100

Coding key; for male headers; 7.5/7.62 mm pin spacing

Color	Item No.	PU
○ light gray	**231-130**	100

Coding pin; for male headers for double-deck assembly; snaps into lower level

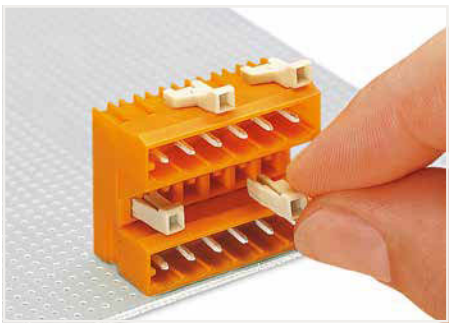
Color	Item No.	PU
○ light gray	**231-160**	100



Inserting separators for group formation directly into MCS MIDI Classic Male Headers.
Group formation using separators means that pole count is reduced by at least one pole. Female connectors with integrated end plates and 5/5.08 mm pin spacing are available for group formation without loss of poles. Group formation without loss of poles is possible using standard female connectors (7.5/7.62 mm pin spacing) without separators.



Snap-on coding key for male headers with solder pins and CAGE CLAMP®-equipped male connectors.
The last pole of male and female connectors with 7.5 mm pin spacing has a width of 5 mm;
for 7.62 mm pin spacing, the pole width is 5.08 mm.
Always use a 231-129 Coding Key for coding this pole.



Coding a THT double-deck male header – lower level.

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Lockout Caps, Insulation Stops and Locking Devices
MCS MIDI







Lockout caps; for male and female connectors equipped with CAGE CLAMP® connection

Color	Item No.	PU (SPU)
gray	231-668	500 (100)
orange	231-669	500 (100)

Insulation stop; for male and female connectors equipped with CAGE CLAMP® or Push-in CAGE CLAMP® connection; with CAGE CLAMP®; 5/5.08 mm pin spacing

Color	Conductor Size	Item No.	PU
white	0.08 … 0.2 mm² „e“ 0.08 … 0.14 mm² „f“	231-670	200
light gray	0.25 … 0.5 mm²	231-671	200
dark gray	0.27 … 1 mm²	231-672	200

Locking devices; for angled THT male headers with solder pins

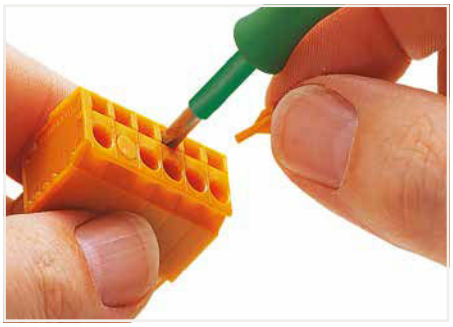
Color	Item No.	PU
gray	231-193	100
orange	231-393	100

7.5/7.62 mm pin spacing

Color	Conductor Size	Item No.	PU
white	0.08 … 0.2 mm² „e“ 0.08 … 0.14 mm² „f“	231-673	200
light gray	0.25 … 0.5 mm²	231-674	200
dark gray	0.27 … 1 mm²	231-675	200

Screws for locking devices

Type	Item No.	PU
Screw with nut		
M2 x 12 mm	231-195	100
Self-tapping screw; 1.8 mm Ø mounting hole		
B 2.2 x 13 mm	231-194	100



Sealing unnecessary clamping points in CAGE CLAMP®-equipped male and female connectors (e.g., when doubling the pin spacing to meet clearance and creepage distance requirements, or when higher rated voltage is required). Lockout pins are not suitable for panel-mount, angled female connectors.



The wiring of programmable logic controllers and microprocessor-operated control circuits often relies on very small, fine-stranded conductors. These conductors are highly flexible and deform when pushed against the conductor stop in terminal blocks. As a result, the conductor insulation – not the copper conductor – may be clamped, causing intermittent contact or no contact at all. Common to all terminal block types currently offered, this problem creates unnecessary downtime for troubleshooting.

Insulation stops for connectors reliably ensure proper termination. Insulation stops automatically bundle the cores of fine-stranded conductors when inserted into the clamping unit, preventing splaying. This also limits the conductor entry to a defined cross sectional area – ensuring the actual conductor, not the insulation, will enter the clamping unit

Insulation stops are available as dividable 5-pole strips for MCS MIDI Male and Female Connectors. Insulation stop usage will not affect the conductor strip lengths for the aforementioned connectors.

Insulation stops are not suitable for panel-mount female connectors.



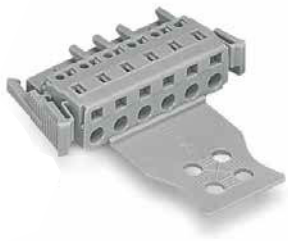
Locking devices enhance connection reliability between male headers with angled solder pins and the PCB. This substantially reduces mechanical stress on both solder pins and joints, particularly when dealing with small lengths and frequent mating cycles.

8

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

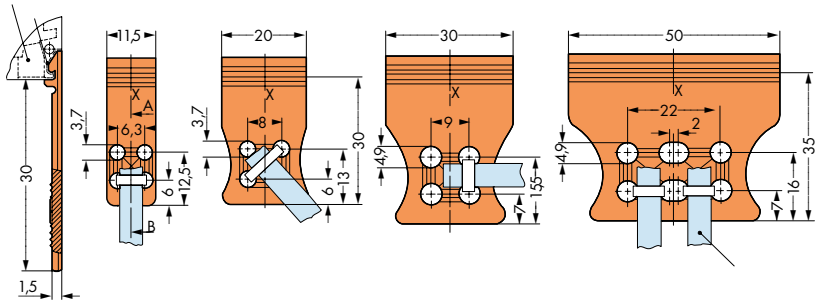
Strain relief plate, pre-assembled, for male and female connectors with CAGE CLAMP® connection, *MCS* MIDI





5/5.08 mm pin spacing; orange		
Pole No.	Width	Item No. Suffix *
2 … 3	11.5 mm	…/032-000
4 … 5	20 mm	…/033-000
6 … 9	30 mm	…/034-000
10 … 24	50 mm	…/035-000

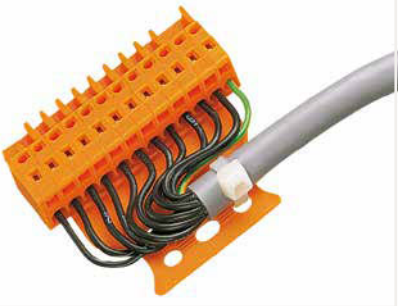
7.5/7.62 mm pin spacing; gray		
Pole No.	Width	Item No. Suffix *
2 … 3	11.5 mm	…/032-000
4 … 5	20 mm	…/033-000
6 … 9	30 mm	…/034-000
10 … 24	50 mm	…/035-000



Both CAGE CLAMP®-equipped male and female connectors can be fitted with a strain relief plate. The strain relief plates must be pre-assembled (glued) prior to delivery for connector models equipped with CAGE CLAMP® connection. These strain relief plates are available in four different widths and are allocated to the specific pin spacing and pole number (as shown above). Angled female connectors for panel mounting cannot be fitted with strain relief plates.

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.

Cable ties and binding tools are not offered by WAGO.
The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.



Ordering example:
1-conductor female connector;
with strain relief plate;
5.08 mm pin spacing; 12-pole; orange:
231-312/026-000/035-000



Ordering example:
1-conductor female connector;
with strain relief plate;
5 mm pin spacing; 3-pole; gray:
231-103/026-000/032-000



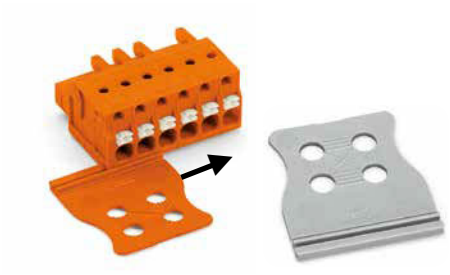
Gray strain relief plates are used for light gray 721, 722 and 723 Series Male and Female Connectors equipped with CAGE CLAMP® connection.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

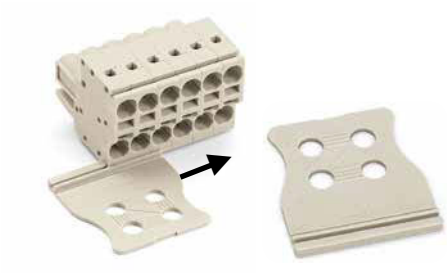
Strain relief plate; for field assembly; for male and female connectors with CAGE CLAMP® and Push-in CAGE CLAMP®; for female connectors 2721, 2231 Series and 2-conductor 231, 721 Series

MCS MIDI

for inserting; 5/5.08 mm pin spacing



for inserting; 7.5/7.62 mm pin spacing



factory-assembled



light gray			
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	734-127	100 (25)
3 … 4	12.5 mm	734-128	100 (25)
5 … 7	25 mm	734-129	100 (25)
8 … 11	35 mm	734-126	100 (25)
12 … 16	55 mm	734-426	50 (25)
17 … 24	75 mm	734-427	50 (25)

light gray			
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	734-127	100 (25)
2 … 3	12.5 mm	734-128	100 (25)
4 … 6	25 mm	734-129	100 (25)
7 … 9	35 mm	734-126	100 (25)
10 … 12	55 mm	734-426	50 (25)
13 … 16	75 mm	734-427	50 (25)

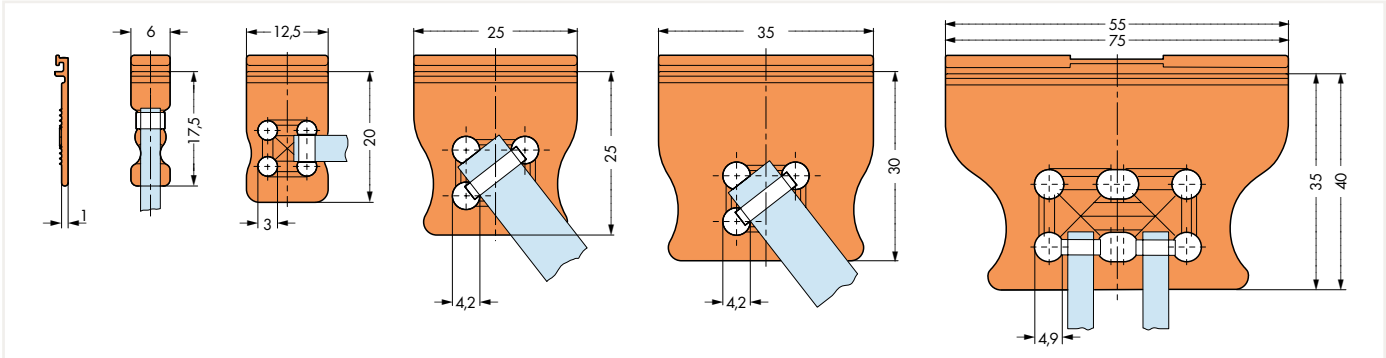
5/5.08 mm and 7.5/7.62 mm pin spacing		
Pole No.	Width	Item No. Suffix *
2	6 mm	…/132-000
2 … 3	12.5 mm	…/133-000
4 … 6	25 mm	…/134-000
7 … 9	35 mm	…/135-000
10 … 12	55 mm	…/136-000
13 … 16	75 mm	…/137-000

gray			
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	734-327	100 (25)
3 … 4	12.5 mm	734-328	100 (25)
5 … 7	25 mm	734-329	100 (25)
8 … 11	35 mm	734-326	100 (25)
12 … 16	55 mm	734-430	50 (25)
17 … 24	75 mm	734-431	50 (25)

gray			
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	734-327	100 (25)
2 … 3	12.5 mm	734-328	100 (25)
4 … 6	25 mm	734-329	100 (25)
7 … 9	35 mm	734-326	100 (25)
10 … 12	55 mm	734-430	50 (25)
13 … 16	75 mm	734-431	50 (25)

orange			
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	734-227	100 (25)
3 … 4	12.5 mm	734-228	100 (25)
5 … 7	25 mm	734-229	100 (25)
8 … 11	35 mm	734-226	100 (25)
12 … 16	55 mm	734-428	50 (25)
17 … 24	75 mm	734-429	50 (25)

orange			
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	734-227	100 (25)
2 … 3	12.5 mm	734-228	100 (25)
4 … 6	25 mm	734-229	100 (25)
7 … 9	35 mm	734-226	100 (25)
10 … 12	55 mm	734-428	50 (25)
13 … 16	75 mm	734-429	50 (25)



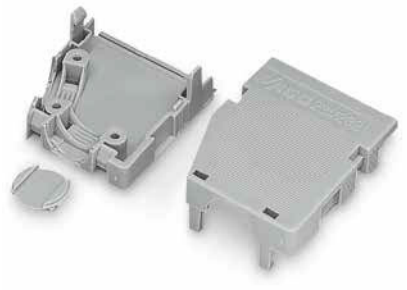
Female connectors with Push-in CAGE CLAMP® can be retrofitted with a strain relief plate or pre-assembled with one at the factory. These strain relief plates are available in six different widths and are allocated to the specific pin spacing and pole number (as shown left). The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways.

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.

Cable ties and binding tools are not offered by WAGO.
The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Snap-on type strain relief housing; consisting of strain relief support and housing
MCS MIDI







5 mm pin spacing; gray		
Pole No.	**Item No.**	PU
2	**232-602**	25
3	**232-603**	25
4	**232-604**	25
5	**232-605**	25
6	**232-606**	25
7	**232-607**	25
8	**232-608**	25
9	**232-609**	25
10	**232-610**	25
12	**232-612**	25

5.08 mm pin spacing; orange		
Pole No.	**Item No.**	PU
2	**232-632**	25
3	**232-633**	25
4	**232-634**	25
5	**232-635**	25
6	**232-636**	25
7	**232-637**	25
8	**232-638**	25
9	**232-639**	25
10	**232-640**	25
12	**232-642**	25
16	**232-646**	25

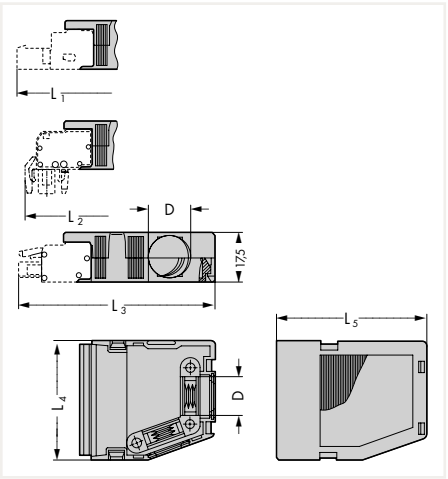
Cable clamp; for strain relief		
Pole No.	**Item No.**	PU
4 … 6	**209-177**	25
7 … 16	**209-174**	25



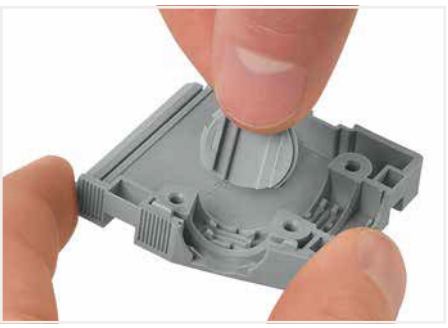
Mounting screws; for cable clamp		
Pole No.	**Item No.**	PU
4 … 6	**209-176**	50
7 … 16	**209-173**	50

2- to 3-pole; only suitable for cable ties; 1 cable outlet (rear side); max. 3.6 mm cable tie width
4- to 6-pole; suitable for cable clamp; 1 x cable outlet (rear side)
7- to 8-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 1 x cable outlet (side); 1 cover (included)
9- to 16-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 2 x cable outlets (side); 2 covers (included)

Cable ties and binding tools are not offered by WAGO.



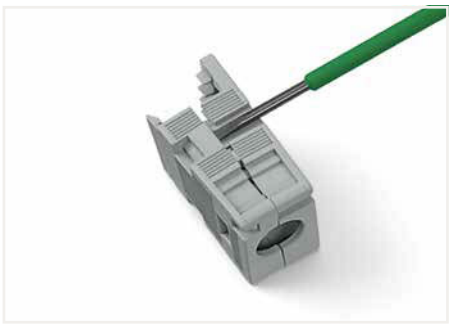
Strain relief housing dimensions (in mm):							
Pole No.	L_4 (5 mm)	L_4 (5,08 mm)	L_1	L_2	L_3	L5	Cable Ø (max.)
2	13	13	59	55.5	58	41.5	6
3	18	18	59	55.5	58	41.5	7.5
4	23	23	59	55.5	58	41.5	9.5
5	28	28	59	55.5	58	41.5	9.5
6	33	33	59	55.5	58	41.5	9.5
7	38	38	71.5	68	70.5	54	14
8	43	43	71.5	68	70.5	54	14
9	48	48.7	71.5	68	70.5	54	14
10	53	53.8	71.5	68	70.5	54	14
12	63	64	71.5	68	70.5	54	14
16	85	85	71.5	68	70.5	54	14



Snapping a cover into the unused cable outlet.



Snapping on a strain relief housing, demonstrated with a female connector with locking levers. Cable exits laterally – strain relief by cable tie (up to a width of 4 mm).



Disassembling a strain relief housing is only possible using an operating tool (e.g., 210-719).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Snap-on type strain relief housing; consisting of strain relief support and housing
MCS MIDI







7.5 mm pin spacing; light gray		
Pole No.	Item No.	PU
2	232-662	25
3	232-663	25
4	232-664	25
5	232-665	25
7	232-667	25
10	232-670	25

7.62 mm pin spacing; orange		
Pole No.	Item No.	PU
2	232-682	25
3	232-683	25
4	232-684	25
5	232-685	25
7	232-687	25

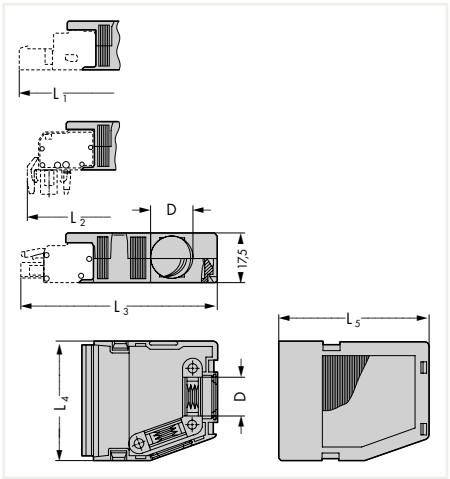
Cable clamp; for strain relief		
Pole No.	Item No.	PU
4 … 6	209-177	25
7 … 16	209-174	25



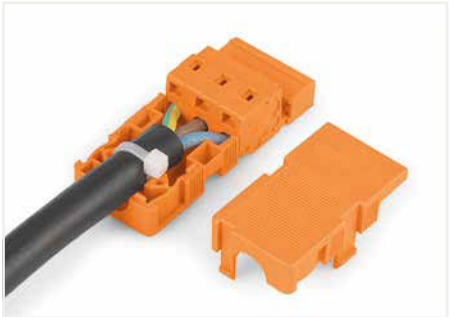
Mounting screws; for cable clamp		
Pole No.	Item No.	PU
4 … 6	209-176	50
7 … 16	209-173	50

2-pole; only suitable for cable ties; 1 cable outlet (rear side); max. cable tie width 3.6 mm;
3- to 4-pole; suitable for cable clamp; 1 x cable outlet (rear side);
5-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 1 x cable outlets (side); 1 cover (included);
7-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 2 x cable outlets (side); 2 covers (included)

Cable ties and binding tools are not offered by WAGO.



Strain relief housing dimensions (in mm):							
Pole No.	L_4 (5 mm)	L_4 (5,08 mm)	L_1	L_2	L_3	L_5	Cable Ø (max.)
2	15.5	15.5	59	55.5	58	41.5	6
3	23	23	59	55.5	58	41.5	9.5
4	30.5	30.5	59	55.5	58	41.5	9.5
5	38	38	71.5	68	70.5	54	14
7	53	53.8	71.5	68	70.5	54	14



3-pole female connector with strain relief housing



4-pole male connector with strain relief housing



Gray strain relief plates are used for light gray 721, 722 and 723 Series Male and Female Connectors equipped with CAGE CLAMP® connection.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Mounting Adapters
MCS MIDI

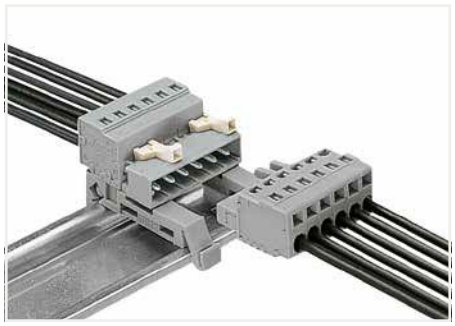




Mounting adapter for DIN-35 rail, for male and female connectors with snap-in mounting feet		
Color	**Item No.**	PU
gray	**209-137**	25

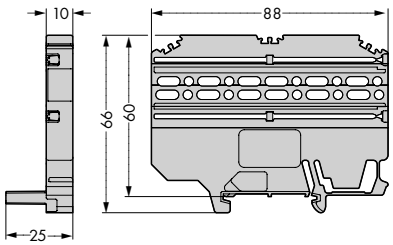
Multi mounting adapter, for DIN-35 rail, for male and female connectors with snap-in mounting feet		
Color	**Item No.**	PU
gray	**209-148**	25

Mounting adapter, for DIN-35 rail, for angled female connectors with snap-in feet for panel mounting		
Color	**Item No.**	PU (SPU)
gray	**209-120**	500(25)



Female connector with snap-in mounting feet and 209-189 Mounting Adapter on DIN-35 rail

Dimensions (in mm):







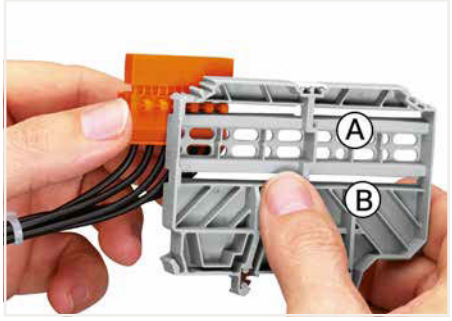
Multi mounting adapter (209-120) on DIN-35 rail and angled female connector with snap-in feet for panel mounting



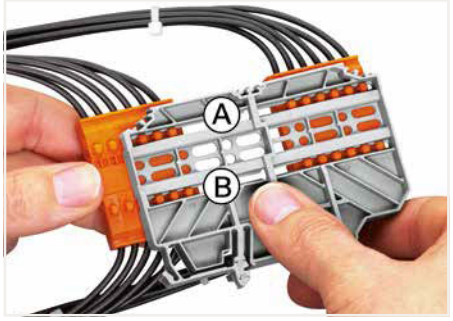
The pluggable male or female connector can also be fitted with a strain relief plate.



The adapter can be marked either with WSB, Mini-WSB or WMB markers.

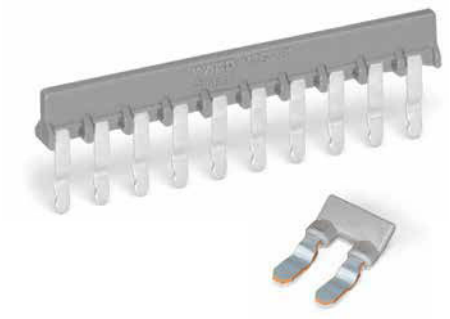


Both male and female connectors remain pluggable when they are mounted on the multi mounting adapter via its oblong holes or open grooves (A/B).



If a connector is pushed from the side into the open grooves (A/B) of the multi mounting adapter, the plug connection will be reliably protected from unintentional disconnection when mounted.

Comb-Style Jumper Bars
MCS MIDI



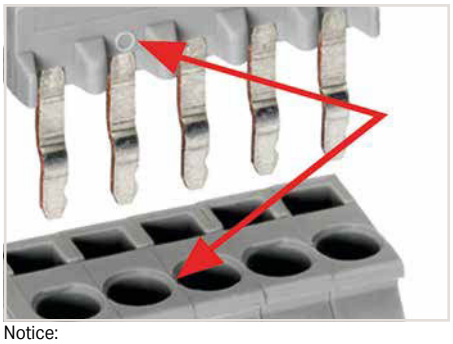
Comb-style jumper bar, for male and female connectors with CAGE CLAMP®, with CAGE CLAMP®, 5/5.08 mm pin spacing		
	Item No.	PU (SPU)
2-pole	**231-902**	200 (25)
3-pole	**231-903**	200 (25)
5-pole	**231-905**	100 (25)
7-pole	**231-907**	100 (25)
10-pole	**231-910**	100 (25)

Notice:
Not suitable for female connectors equipped with Push-in CAGE CLAMP® connection and angled, panel-mount female connectors.

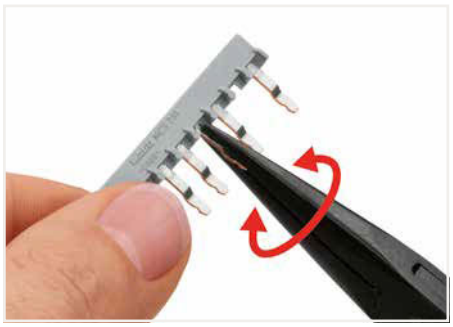
Comb-style jumper bar reduces maximum conductor cross-section to 1.5 mm².



Notice:
Insert jumper bar according to direction of symbols.
□ symbol correlates to the direction of the operating slot.



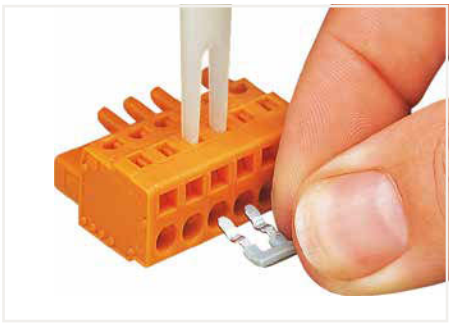
Notice:
Insert jumper bar according to direction of symbols.
○ symbol correlates to the direction of the conductor entry.



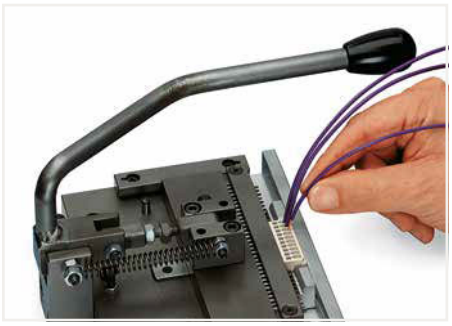
Custom comb-style jumper bars are created by breaking off jumper contacts (3 contacts and more).



Inserting a comb-style jumper bar via multipole operating tool – with the female or male connector being supported in a suitable holding device.



Commoning a female connector with 231-902 Comb-Style Jumper Bar via 2-pole operating tool.

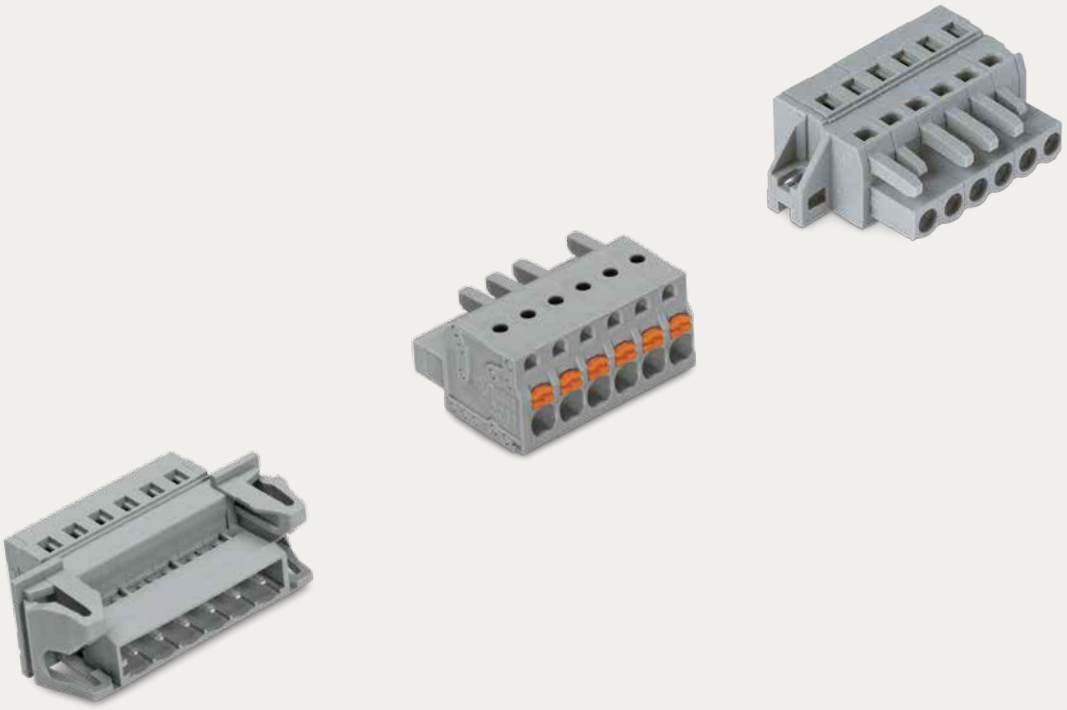


Both male and female connectors can be pre-assembled with comb-style jumper bars upon request.



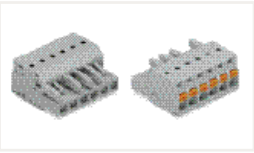
Notice: Comb-style jumper bars reduce the conductor cross-section to 1.5 mm² "s" + "f-st."

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

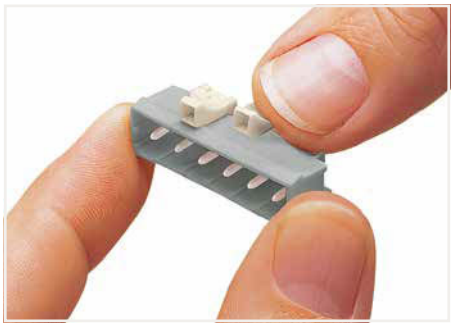


WAGO *MULTI CONNECTION SYSTEM*
MIDI Classic

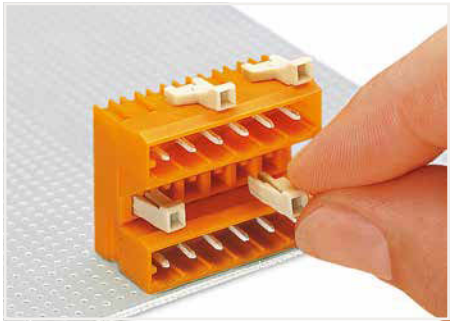
WAGO *MULTI CONNECTION SYSTEM* MIDI Classic
Pin Spacing: 5/5.08 mm, 7.5/7.62 mm ▸ 2.5 mm²

		Nominal Cross-Section	Page
	*MCS* MIDI Classic 1-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	5 mm 5.08 mm 7.5 mm 7.62 mm	548 602 640 684
	*MCS* MIDI Classic 2-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP®	5 mm 5.08 mm 7.5 mm 7.62 mm	558 610 650 690
	*MCS* MIDI Classic 1-Conductor Female Connectors ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP®	5 mm 5.08 mm 7.5 mm 7.62 mm	560 454 652 692
	*MCS* MIDI Classic 1-Conductor Male Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	5 mm 5.08 mm 7.5 mm 7.62 mm	564 618 656 696
	*MCS* MIDI Classic THT Female Headers	5 mm 5.08 mm 7.5 mm 7.62 mm	568 622 660 700
	*MCS* MIDI Classic THT Male Headers	5 mm 5.08 mm 7.5 mm 7.62 mm	574 628 666 706
	*MCS* MIDI THR Male Headers	5 mm 7.5 mm	586 674
	*MCS* MIDI Classic Female Connectors for Rail-Mount Terminal Blocks Male Connectors for Rail-Mount Terminal Blocks	5 mm 5 mm	596 600
	*MCS* MIDI Accessories Accessories and Tools		720 829
	Application Examples		730

MCS MIDI Classic
Description and Installation



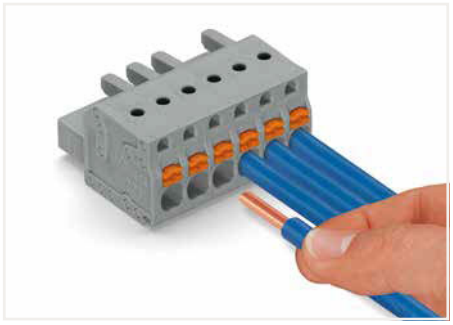
Coding a male header – fitting coding key(s).



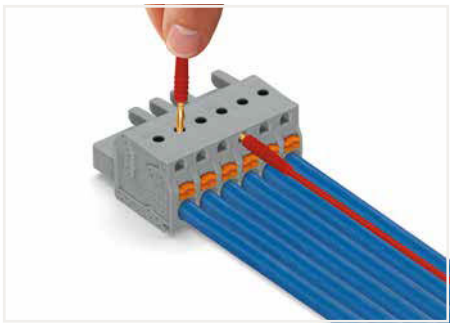
Coding a lower male header – inserting coding key(s).



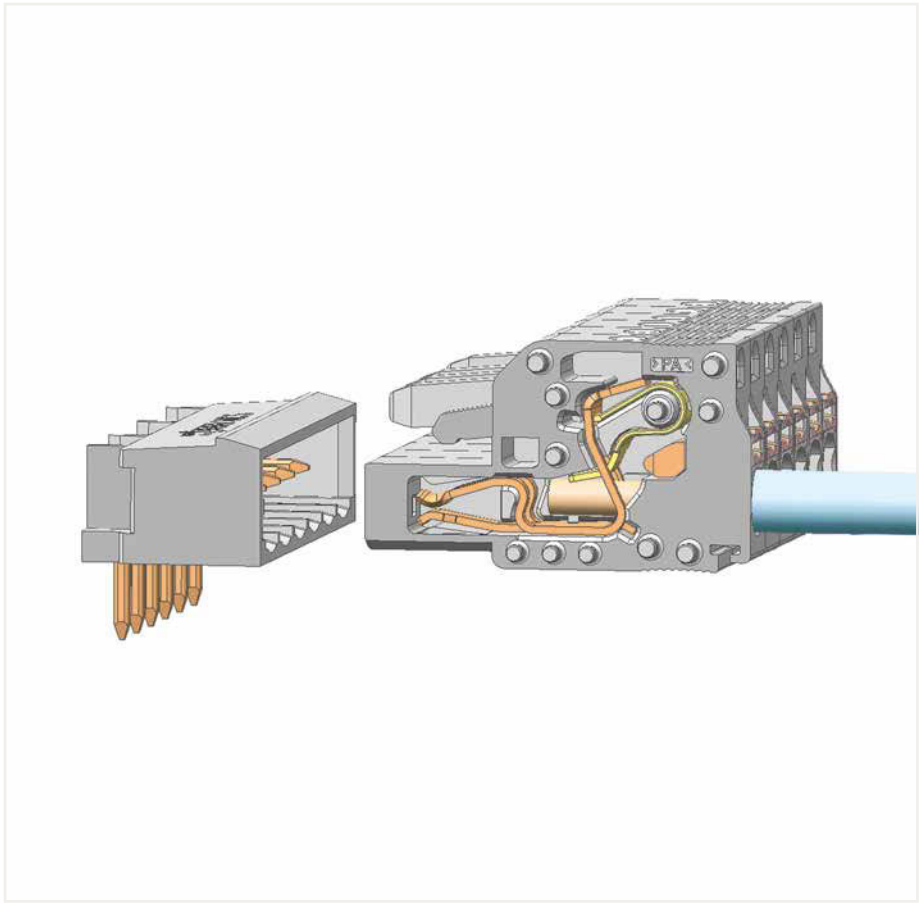
Coding a female connector – removing coding finger(s).



Push-in termination of solid conductors or fine-stranded conductors with ferrule



Testing parallel to conductor entry via integrated test ports – female connector with push-buttons and Push-in CAGE CLAMP® connection – touch contact perpendicular to conductor entry.



Pin spacing: 5/5.08 mm and 7.5/7.62 mm, Push-in CAGE CLAMP®



Inserting fine-stranded conductors into Push-in CAGE CLAMP® unit via push-buttons.



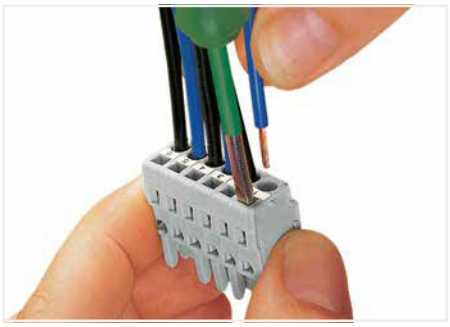
THR male headers in tape-and-reel packaging for SMT applications



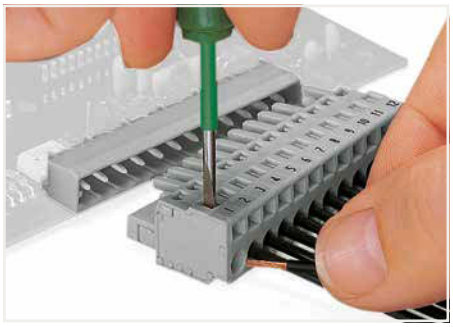
Labeling via direct marking or self-adhesive strips.

CAGE CLAMP®

MCS MIDI Classic
Description and Installation



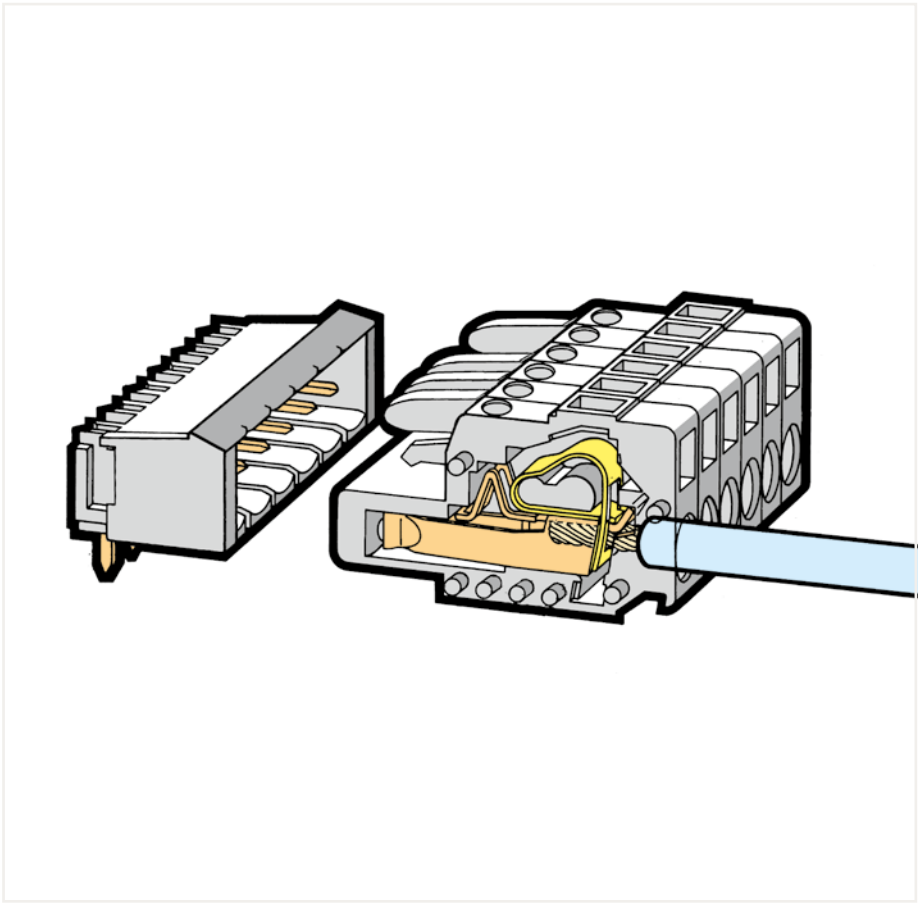
Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.



Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



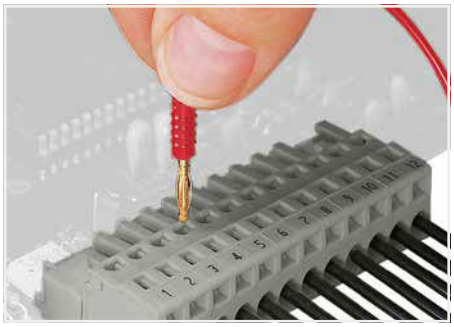
Inserting a conductor into CAGE CLAMP® unit via operating lever (231-291).



Pin spacing: 5/5.08 mm and 7.5/7.62 mm, CAGE CLAMP®



Inserting a conductor into CAGE CLAMP® unit via operating tool (210-250).



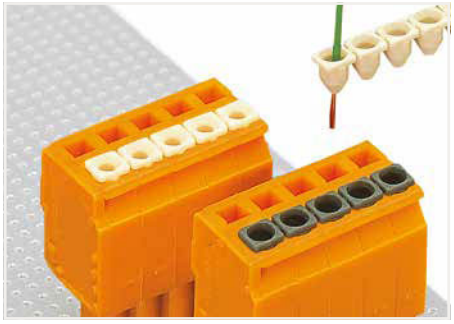
Testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug – female connector with CAGE CLAMP®.



Male connector with strain relief plate



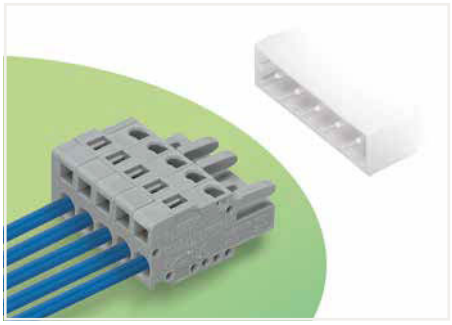
Strain relief housing shown with a male connector equipped with CAGE CLAMP®



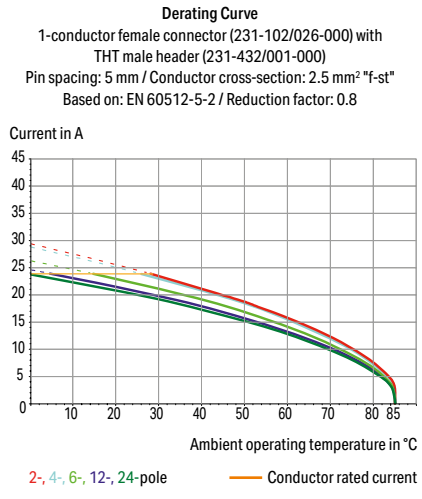
Insulation stop – prevents conductor insulation from being inserted into CAGE CLAMP® and Push-in CAGE CLAMP® units.

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
General accessory	Page 723
Insulation stop	Page 723
Jumper	Page 729
Marking	Page 833
Mounting	Page 723, 837
Mounting adapter	Page 729
Strain relief	Page 726
Testing and measuring	Page 721, 854
Tools	Page 720, 838
Direct marking	Page 712
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

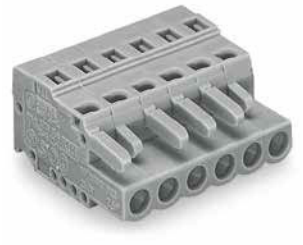
Environmental Requirements

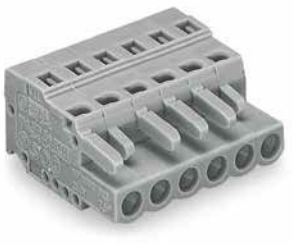
Limit temperature range	-60 … +85 °C

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

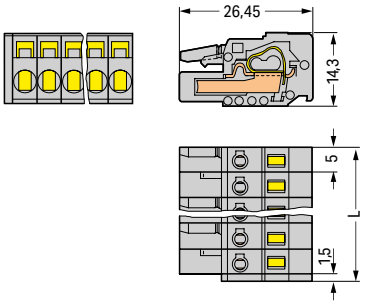
Plugging without loss of pin spacing



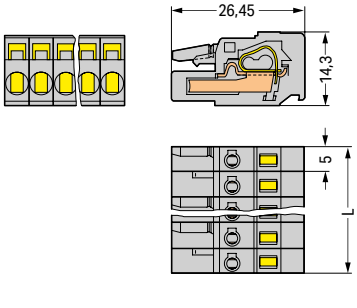


Pole No.	Item No.	PU
2	231-102/026-000	100
3	231-103/026-000	100
4	231-104/026-000	100
5	231-105/026-000	100
6	231-106/026-000	50
7	231-107/026-000	50
8	231-108/026-000	50
9	231-109/026-000	50
10	231-110/026-000	50
11	231-111/026-000	25
12	231-112/026-000	25
13	231-113/026-000	25
14	231-114/026-000	25
15	231-115/026-000	25
16	231-116/026-000	25
17	231-117/026-000	25
18	231-118/026-000	25
19	231-119/026-000	10
20	231-120/026-000	10
21	231-121/026-000	10
22	231-122/026-000	10
23	231-123/026-000	10
24	231-124/026-000	10

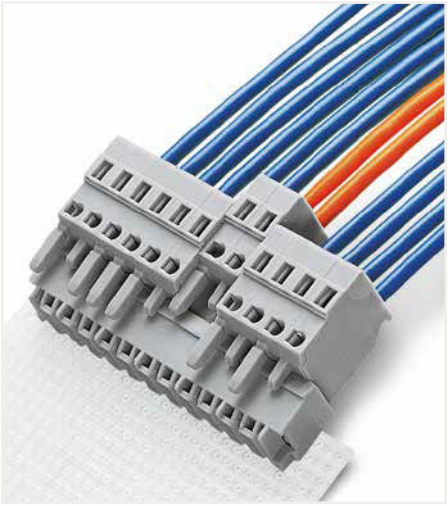
Pole No.	Item No.	PU
2	231-102/102-000	100
3	231-103/102-000	100
4	231-104/102-000	100
5	231-105/102-000	100
6	231-106/102-000	50
7	231-107/102-000	50
8	231-108/102-000	50
9	231-109/102-000	50
10	231-110/102-000	50
11	231-111/102-000	25
12	231-112/102-000	25
13	231-113/102-000	25
14	231-114/102-000	25
15	231-115/102-000	25
16	231-116/102-000	25
17	231-117/102-000	25
18	231-118/102-000	25
19	231-119/102-000	10
20	231-120/102-000	10
21	231-121/102-000	10
22	231-122/102-000	10
23	231-123/102-000	10
24	231-124/102-000	10



L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only



Total pole number for female connectors = pole number for male header



Female connectors with a built-in end plate require no extra space, while maintaining the nominal cross-section. This means: Total length of female connectors is reduced to „pole no. x pin spacing“!

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

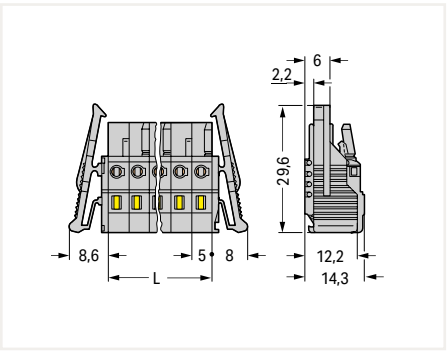
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

Locking of plug-in connection: locking lever

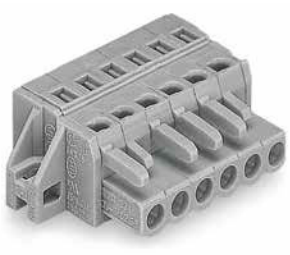


Pole No.	Item No.	PU
2	231-102/037-000	100
3	231-103/037-000	50
4	231-104/037-000	50
5	231-105/037-000	50
6	231-106/037-000	50
7	231-107/037-000	50
8	231-108/037-000	25
9	231-109/037-000	25
10	231-110/037-000	25
11	231-111/037-000	25
12	231-112/037-000	25
13	231-113/037-000	25
14	231-114/037-000	25
15	231-115/037-000	25
16	231-116/037-000	10
17	231-117/037-000	10
18	231-118/037-000	10
19	231-119/037-000	10
20	231-120/037-000	10
21	231-121/037-000	10
22	231-122/037-000	10
23	231-123/037-000	10
24	231-124/037-000	10

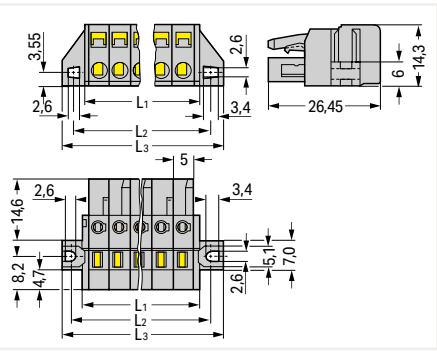


L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange

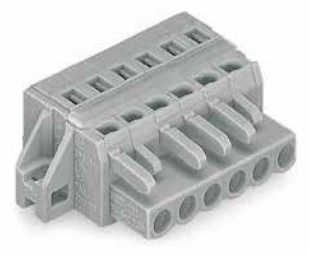


Pole No.	Item No.	PU
2	231-102/031-000	100
3	231-103/031-000	50
4	231-104/031-000	50
5	231-105/031-000	50
6	231-106/031-000	50
7	231-107/031-000	50
8	231-108/031-000	50
9	231-109/031-000	25
10	231-110/031-000	25
11	231-111/031-000	25
12	231-112/031-000	25
13	231-113/031-000	25
14	231-114/031-000	25
15	231-115/031-000	25
16	231-116/031-000	10
17	231-117/031-000	10
18	231-118/031-000	10
19	231-119/031-000	10
20	231-120/031-000	10
21	231-121/031-000	10
22	231-122/031-000	10
23	231-123/031-000	10
24	231-124/031-000	10

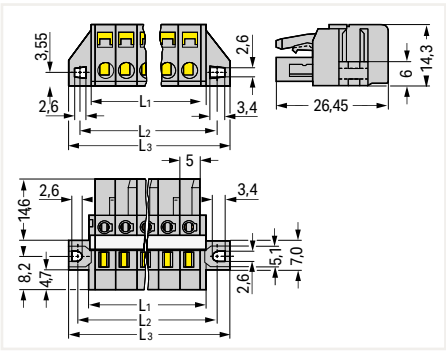


L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm
2- to 3-pole female connectors – one latch only

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strip



Pole No.	Item No.	PU
6	231-106/027-000	50
7	231-107/027-000	50
8	231-108/027-000	50
10	231-110/027-000	25
11	231-111/027-000	25
12	231-112/027-000	25
13	231-113/027-000	25
14	231-114/027-000	25
15	231-115/027-000	25
16	231-116/027-000	10
17	231-117/027-000	10
18	231-118/027-000	10
19	231-119/027-000	10
20	231-120/027-000	10
21	231-121/027-000	10
22	231-122/027-000	10
23	231-123/027-000	10
24	231-124/027-000	10



L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:
- Gold-plated or partially gold-plated contact surfaces

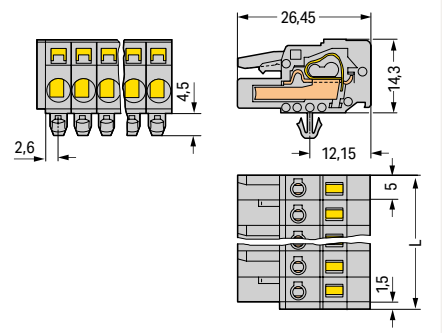
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	231-102/008-000	100
3	231-103/008-000	100
4	231-104/008-000	100
5	231-105/008-000	100
6	231-106/008-000	50
7	231-107/008-000	25
8	231-108/008-000	50
9	231-109/008-000	50
10	231-110/008-000	50
11	231-111/008-000	25
12	231-112/008-000	25
13	231-113/008-000	25
14	231-114/008-000	25
15	231-115/008-000	25
16	231-116/008-000	25
17	231-117/008-000	25
18	231-118/008-000	25
19	231-119/008-000	10
20	231-120/008-000	10
21	231-121/008-000	10
22	231-122/008-000	10
23	231-123/008-000	10
24	231-124/008-000	10



L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only

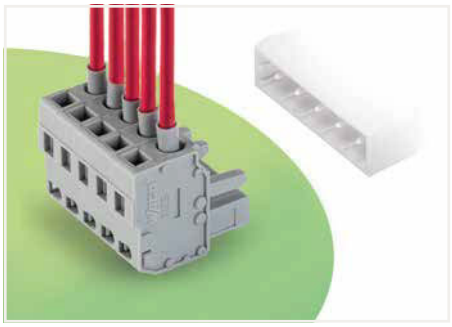
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

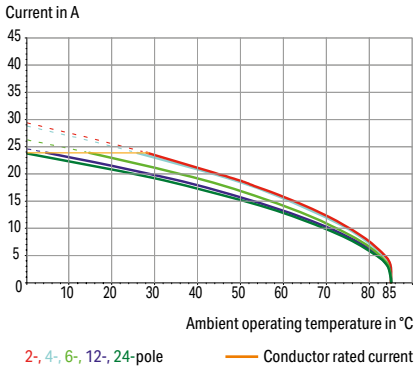
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers

Derating Curve
1-conductor female connector (231-102/026-000) with THT male header (231-432/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	14 A	14 A	14 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
General accessory	Page 723
Insulation stop	Page 723
Jumper	Page 729
Marking	Page 833
Strain relief	Page 726
Testing and measuring	Page 721, 854
Tools	Page 720
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

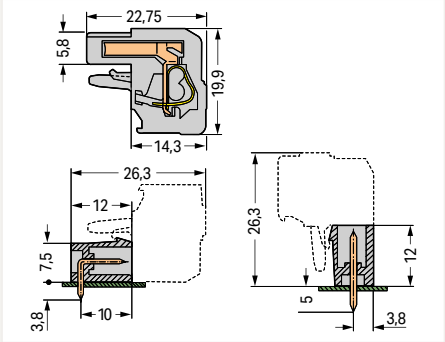
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: gray

Conductor entry direction to mating direction: 90°



Pole No.	Item No.	PU
2	232-202/026-000	100
3	232-203/026-000	100
4	232-204/026-000	100
5	232-205/026-000	100
6	232-206/026-000	50
7	232-207/026-000	50
8	232-208/026-000	50
9	232-209/026-000	50
10	232-210/026-000	50
11	232-211/026-000	25
12	232-212/026-000	25
13	232-213/026-000	25
14	232-214/026-000	25
15	232-215/026-000	25
16	232-216/026-000	25
17	232-217/026-000	25
18	232-218/026-000	25
19	232-219/026-000	10
20	232-220/026-000	10
21	232-221/026-000	10
22	232-222/026-000	10
23	232-223/026-000	10
24	232-224/026-000	10

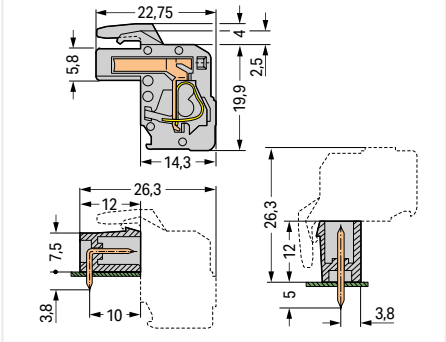


L = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2- to 3-pole female connectors – one latch only

Conductor entry direction to mating direction: 270°



Pole No.	Item No.	PU
2	232-102/026-000	100
3	232-103/026-000	100
4	232-104/026-000	100
5	232-105/026-000	100
6	232-106/026-000	50
7	232-107/026-000	50
8	232-108/026-000	50
9	232-109/026-000	50
10	232-110/026-000	50
11	232-111/026-000	25
12	232-112/026-000	25
13	232-113/026-000	25
14	232-114/026-000	25
15	232-115/026-000	25
16	232-116/026-000	25
17	232-117/026-000	25
18	232-118/026-000	25
19	232-119/026-000	10
20	232-120/026-000	10
21	232-121/026-000	10
22	232-122/026-000	10
23	232-123/026-000	10
24	232-124/026-000	10



L = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

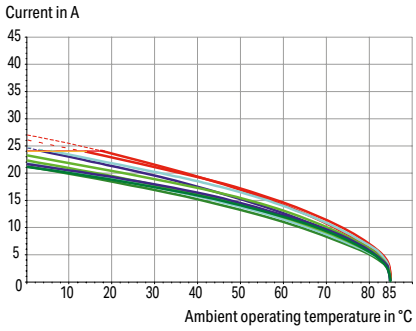
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90° ▸ Color: gray



- Universal connection for all conductor types
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- Mounting adapter allows versions with snap-in mounting feet to be DIN-rail mounted
- Easy conductor termination, even when halves are mated



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	7 … 8 mm / 0.28 … 0.31 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Jumper	Page 729
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Mounting	Page 723, 837
Strain relief	Page 726
Testing and measuring	Page 721
Tools	Page 720, 838
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90° ▸ Color: gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



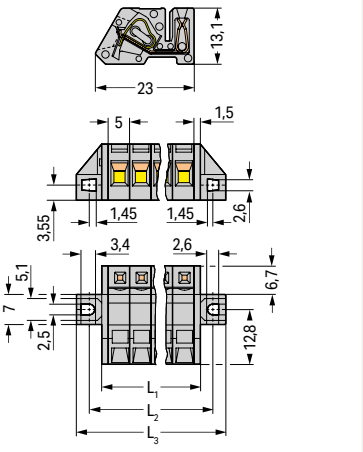


Angled female connector used as through-panel connector.
Termination ports and operating slots are located outside the housing – panel thickness up to 2 mm.

Pole No.	Item No.	PU
2	731-502/031-000	100
3	731-503/031-000	50
4	731-504/031-000	50
5	731-505/031-000	50
6	731-506/031-000	50
7	731-507/031-000	50
8	731-508/031-000	50
9	731-509/031-000	25
10	731-510/031-000	25
11	731-511/031-000	25
12	731-512/031-000	25
13	731-513/031-000	25
14	731-514/031-000	25
15	731-515/031-000	25
16	731-516/031-000	10
17	731-517/031-000	10
18	731-518/031-000	10
19	731-519/031-000	10
20	731-520/031-000	10



Angled female connector – a male header with straight solder pins is used for horizontal PCB mounting in narrow housings.



L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90° ▸ Color: gray

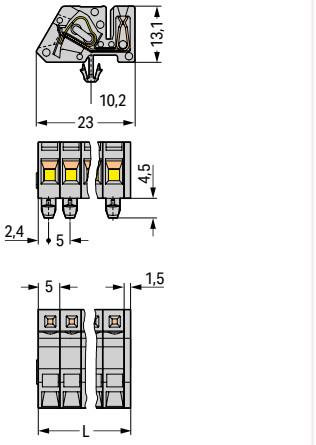
Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot





Angled female connector with DIN-35 rail-mount adapter (209-120)

Pole No.	Item No.	PU
2	731-502/008-000	100
3	731-503/008-000	50
4	731-504/008-000	50
5	731-505/008-000	50
6	731-506/008-000	50
7	731-507/008-000	50
8	731-508/008-000	50
9	731-509/008-000	50
10	731-510/008-000	50
11	731-511/008-000	25
12	731-512/008-000	25
13	731-513/008-000	25
14	731-514/008-000	25
15	731-515/008-000	25
16	731-516/008-000	25
17	731-517/008-000	25
18	731-518/008-000	25
19	731-519/008-000	10
20	731-520/008-000	10



L = (pole no. x pin spacing) + 1.5 mm

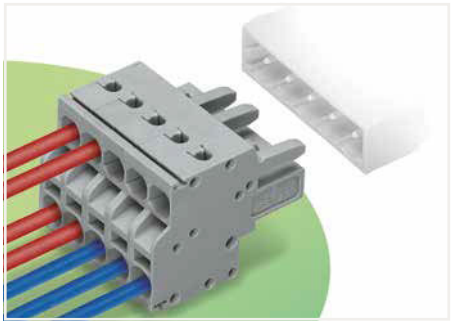
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

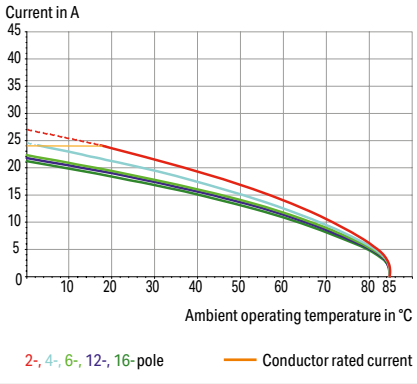
2-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or Data buses
- Bus connection is retained, even when unmated
- Push-in termination of solid and ferruled conductors
- With coding fingers

Derating Curve
2-conductor female connector (231-2102/026-000) with THT male header (231-132/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

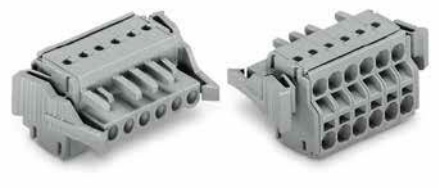
Ferrule	Page 847
Insulation stop	Page 723
Marking	Page 833
Strain relief	Page 725
Testing and measuring	Page 721
Tools	Page 721, 838
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

2-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

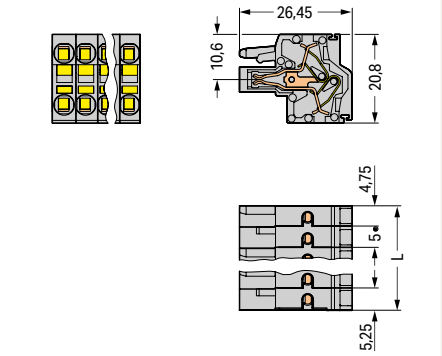
	Locking of plug-in connection: locking lever



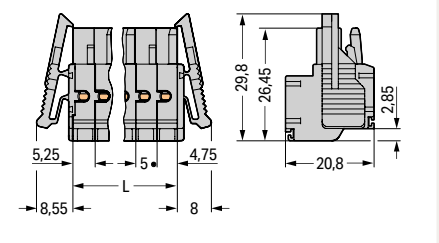


Pole No.	Item No.	PU
2	231-2102/026-000	100
3	231-2103/026-000	100
4	231-2104/026-000	100
5	231-2105/026-000	50
6	231-2106/026-000	50
7	231-2107/026-000	50
8	231-2108/026-000	50
9	231-2109/026-000	50
10	231-2110/026-000	50
11	231-2111/026-000	25
12	231-2112/026-000	25
13	231-2113/026-000	25
14	231-2114/026-000	25
15	231-2115/026-000	25
16	231-2116/026-000	25

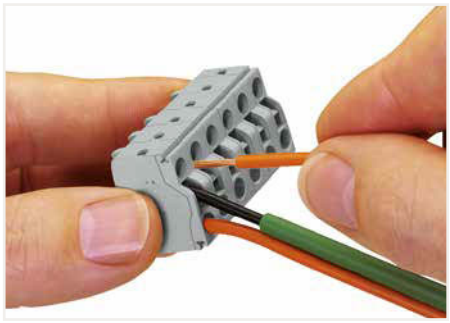
Pole No.	Item No.	PU
2	231-2102/037-000	100
3	231-2103/037-000	50
4	231-2104/037-000	50
5	231-2105/037-000	50
6	231-2106/037-000	50
7	231-2107/037-000	50
8	231-2108/037-000	25
9	231-2109/037-000	25
10	231-2110/037-000	25
11	231-2111/037-000	25
12	231-2112/037-000	25
13	231-2113/037-000	25
14	231-2114/037-000	25
15	231-2115/037-000	25
16	231-2116/037-000	10



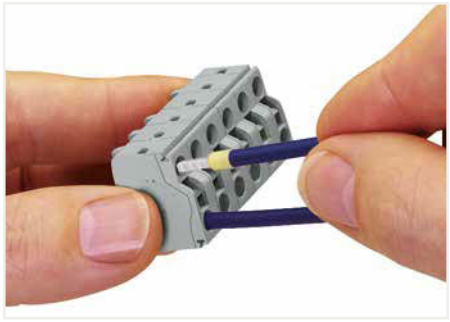
L = (pole no. – 2) x pin spacing + 10 mm



L = (pole no. – 2) x pin spacing + 10 mm



Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

9

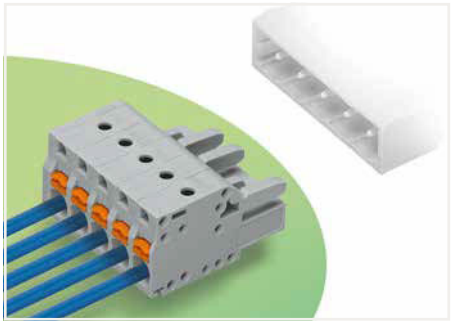
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

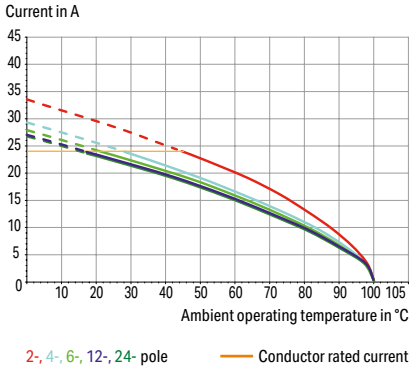
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- With coding fingers

Derating Curve
1-conductor female connector (2231-102/026-000) with THT male header (231-162/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Insulation stop	Page 723
Marking	Page 833
Mounting	Page 723, 837
Mounting adapter	Page 729
Strain relief	Page 725
Testing and measuring	Page 721, 854
Tools	Page 838
Direct marking	Page 712
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

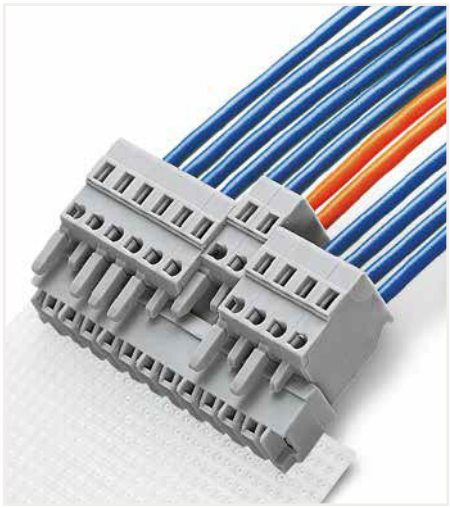
	Plugging without loss of pin spacing





Pole No.	Item No.	PU
2	2231-102/026-000	100
3	2231-103/026-000	100
4	2231-104/026-000	100
5	2231-105/026-000	100
6	2231-106/026-000	50
7	2231-107/026-000	50
8	2231-108/026-000	50
9	2231-109/026-000	50
10	2231-110/026-000	50
11	2231-111/026-000	25
12	2231-112/026-000	25
13	2231-113/026-000	25
14	2231-114/026-000	25
15	2231-115/026-000	25
16	2231-116/026-000	25
17	2231-117/026-000	25
18	2231-118/026-000	25
19	2231-119/026-000	10
20	2231-120/026-000	10
21	2231-121/026-000	10
22	2231-122/026-000	10
23	2231-123/026-000	10
24	2231-124/026-000	10

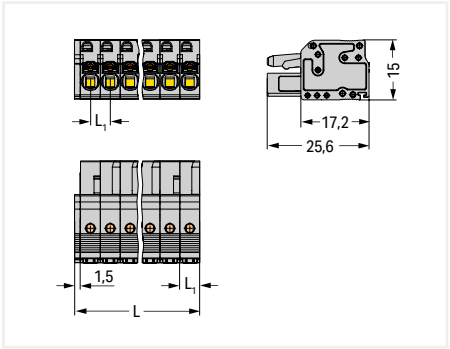
Pole No.	Item No.	PU
2	2231-102/102-000	100
3	2231-103/102-000	100
4	2231-104/102-000	100
5	2231-105/102-000	100
6	2231-106/102-000	50
7	2231-107/102-000	50
8	2231-108/102-000	50
9	2231-109/102-000	50
10	2231-110/102-000	50
11	2231-111/102-000	25
12	2231-112/102-000	25
13	2231-113/102-000	25
14	2231-114/102-000	25
15	2231-115/102-000	25
16	2231-116/102-000	25
17	2231-117/102-000	25
18	2231-118/102-000	25
19	2231-119/102-000	10
20	2231-120/102-000	10
21	2231-121/102-000	10
22	2231-122/102-000	10
23	2231-123/102-000	10
24	2231-124/102-000	10



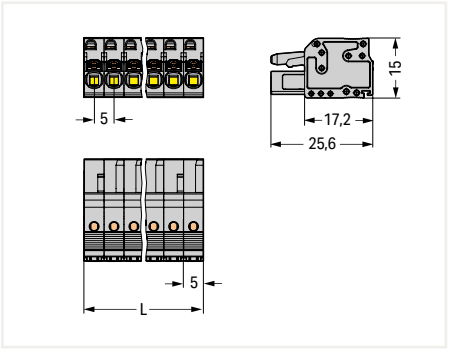
Total pole number for female connectors = pole number for male header



Female connectors with a built-in end plate require no extra space, while maintaining the nominal cross-section. This means: Total length of female connectors is reduced to „pole no. x pin spacing“!



L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

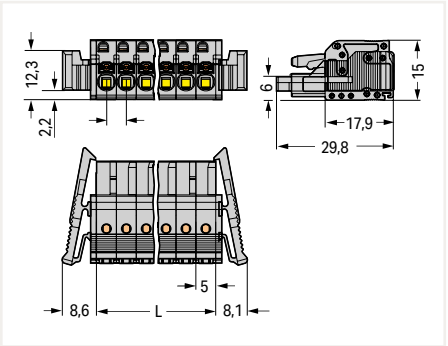
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

Locking of plug-in connection: locking lever



Pole No.	Item No.	PU
2	2231-102/037-000	100
3	2231-103/037-000	50
4	2231-104/037-000	50
5	2231-105/037-000	50
6	2231-106/037-000	50
7	2231-107/037-000	50
8	2231-108/037-000	25
9	2231-109/037-000	25
10	2231-110/037-000	25
11	2231-111/037-000	25
12	2231-112/037-000	25
13	2231-113/037-000	25
14	2231-114/037-000	25
15	2231-115/037-000	25
16	2231-116/037-000	10
17	2231-117/037-000	10
18	2231-118/037-000	10
19	2231-119/037-000	10
20	2231-120/037-000	10
21	2231-121/037-000	10
22	2231-122/037-000	10
23	2231-123/037-000	10
24	2231-124/037-000	10

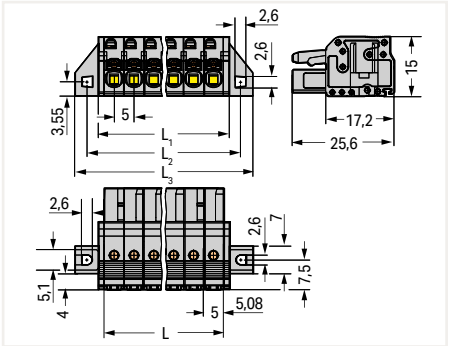


L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



Pole No.	Item No.	PU
2	2231-102/031-000	100
3	2231-103/031-000	50
4	2231-104/031-000	50
5	2231-105/031-000	50
6	2231-106/031-000	50
7	2231-107/031-000	50
8	2231-108/031-000	50
9	2231-109/031-000	25
10	2231-110/031-000	25
11	2231-111/031-000	25
12	2231-112/031-000	25
13	2231-113/031-000	25
14	2231-114/031-000	25
15	2231-115/031-000	25
16	2231-116/031-000	10
17	2231-117/031-000	10
18	2231-118/031-000	10
19	2231-119/031-000	10
20	2231-120/031-000	10
21	2231-121/031-000	10
22	2231-122/031-000	10
23	2231-123/031-000	10
24	2231-124/031-000	10

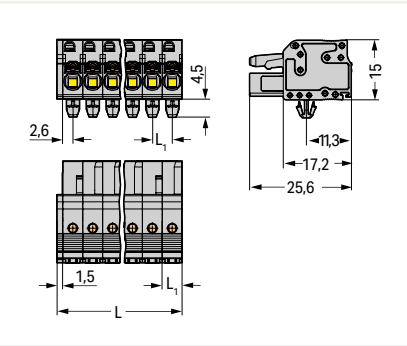


L = pole no. x pin spacing
L_1 = L + 2.8 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	2231-102/008-000	100
3	2231-103/008-000	100
4	2231-104/008-000	100
5	2231-105/008-000	100
6	2231-106/008-000	50
7	2231-107/008-000	25
8	2231-108/008-000	50
9	2231-109/008-000	50
10	2231-110/008-000	50
11	2231-111/008-000	25
12	2231-112/008-000	25
13	2231-113/008-000	25
14	2231-114/008-000	25
15	2231-115/008-000	25
16	2231-116/008-000	25
17	2231-117/008-000	25
18	2231-118/008-000	25
19	2231-119/008-000	10
20	2231-120/008-000	10
21	2231-121/008-000	10
22	2231-122/008-000	10
23	2231-123/008-000	10
24	2231-124/008-000	10



L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5 mm
2- to 3-pole female connectors – one latch only

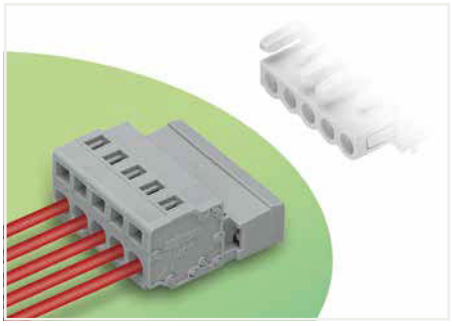
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

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- Gold-plated or partially gold-plated contact surfaces

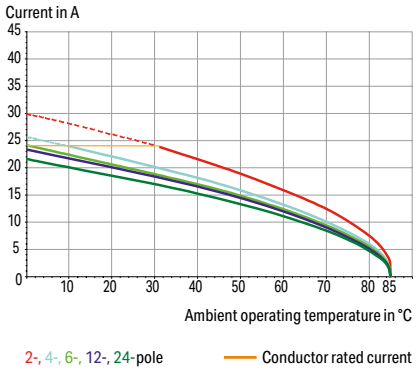
1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers

Derating Curve
1-conductor female connector (231-102/026-000) with 1-conductor male header (231-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

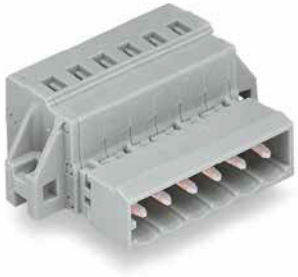
Coding	Page 722
Ferrule	Page 847
General accessory	Page 723
Insulation stop	Page 723
Jumper	Page 729
Marking	Page 833
Mounting	Page 723, 837
Mounting adapter	Page 729
Strain relief	Page 726
Tools	Page 720, 838
Direct marking	Page 712
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

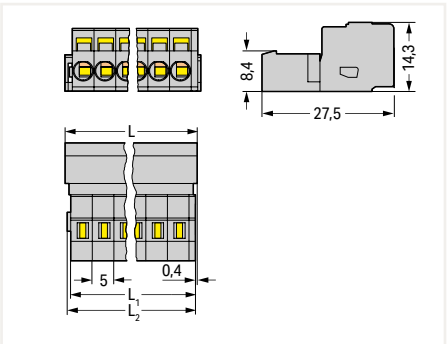
Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



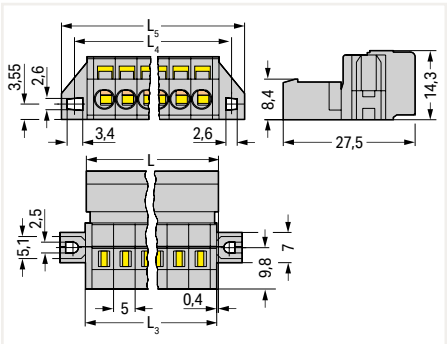


Pole No.	Item No.	PU
2	231-602	100
3	231-603	100
4	231-604	100
5	231-605	50
6	231-606	50
7	231-607	50
8	231-608	50
9	231-609	50
10	231-610	50
11	231-611	25
12	231-612	25
13	231-613	25
14	231-614	25
15	231-615	25
16	231-616	25
17	231-617	25
18	231-618	25
19	231-619	10
20	231-620	10
21	231-621	10
22	231-622	10
23	231-623	10
24	231-624	10

Pole No.	Item No.	PU
2	231-602/019-000	100
3	231-603/019-000	50
4	231-604/019-000	50
5	231-605/019-000	50
6	231-606/019-000	50
7	231-607/019-000	50
8	231-608/019-000	50
9	231-609/019-000	25
10	231-610/019-000	25
11	231-611/019-000	25
12	231-612/019-000	25
13	231-613/019-000	25
14	231-614/019-000	25
15	231-615/019-000	25
16	231-616/019-000	10
17	231-617/019-000	10
18	231-618/019-000	10
19	231-619/019-000	10
20	231-620/019-000	10
21	231-621/019-000	10
22	231-622/019-000	10
23	231-623/019-000	10
24	231-624/019-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 5.8 mm
L_5 = L_3 + 11.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

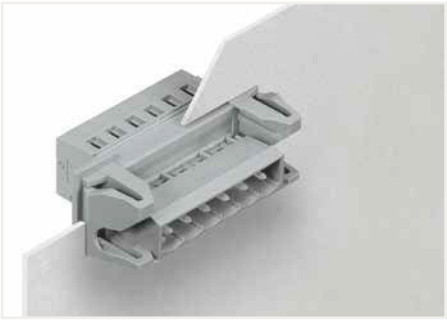
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

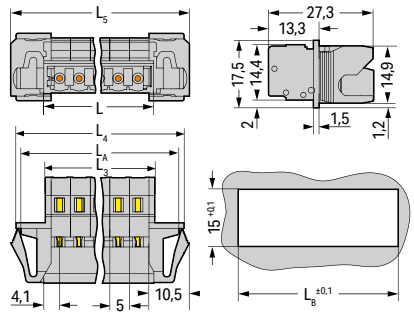
Type of mounting: Feed-through mounting ▸ Mounting type: Snap-in





Male connector, with snap-in flanges for feedthrough applications, for 0.5 … 2.5 mm plate thickness

Pole No.	Item No.	PU
2	231-602/114-000	50
3	231-603/114-000	50
4	231-604/114-000	50
5	231-605/114-000	50
6	231-606/114-000	50
7	231-607/114-000	25
8	231-608/114-000	25
9	231-609/114-000	25
10	231-610/114-000	25
11	231-611/114-000	25
12	231-612/114-000	25
13	231-613/114-000	25
14	231-614/114-000	25
15	231-615/114-000	10
16	231-616/114-000	10
17	231-617/114-000	10
18	231-618/114-000	10
19	231-619/114-000	10
20	231-620/114-000	10
21	231-621/114-000	10
22	231-622/114-000	10
23	231-623/114-000	10
24	231-624/114-000	10



L = (pole no. x pin spacing)+ 3.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

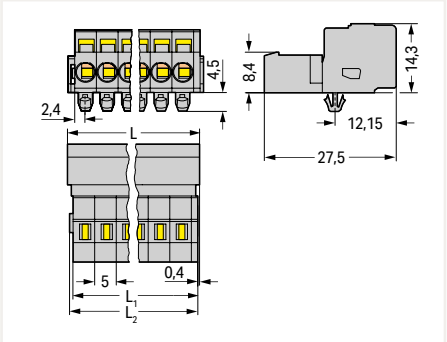
1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	231-602/018-000	100
3	231-603/018-000	100
4	231-604/018-000	100
5	231-605/018-000	50
6	231-606/018-000	50
7	231-607/018-000	50
8	231-608/018-000	50
9	231-609/018-000	50
10	231-610/018-000	50
11	231-611/018-000	25
12	231-612/018-000	25
13	231-613/018-000	25
14	231-614/018-000	25
15	231-615/018-000	25
16	231-616/018-000	25
17	231-617/018-000	25
18	231-618/018-000	25
19	231-619/018-000	10
20	231-620/018-000	10
21	231-621/018-000	10
22	231-622/018-000	10
23	231-623/018-000	10
24	231-624/018-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm

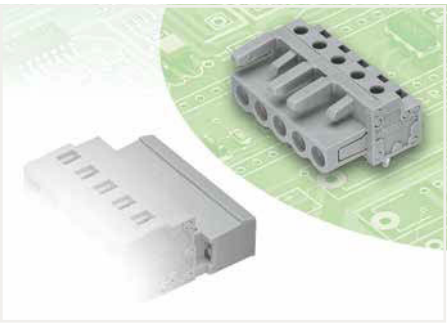
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

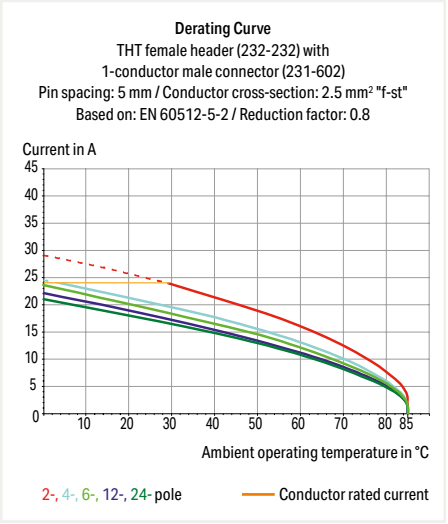
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per		UL 1059	
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per		CSA	
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire female connector, in line
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter (tolerance)	$1.3^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting	Page 723, 837
Testing and measuring	Page 721, 854
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

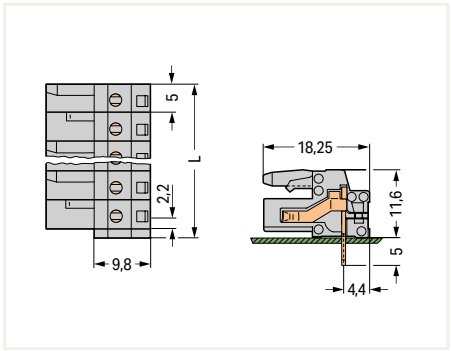
THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	232-232	200
3	232-233	100
4	232-234	100
5	232-235	100
6	232-236	50
7	232-237	50
8	232-238	50
9	232-239	50
10	232-240	50
11	232-241	25
12	232-242	25
13	232-243	25
14	232-244	25
15	232-245	25
16	232-246	25
17	232-247	25
18	232-248	25
19	232-249	10
20	232-250	10
21	232-251	10
22	232-252	10
23	232-253	10
24	232-254	10

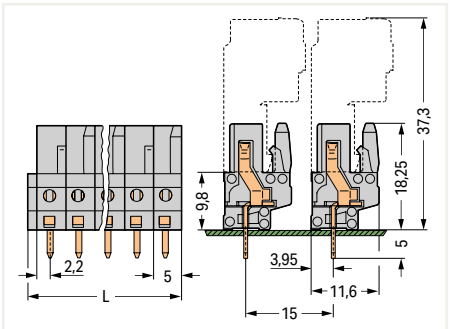


L = (pole no. x pin spacing) + 1.5 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-132	100
3	232-133	100
4	232-134	100
5	232-135	100
6	232-136	50
7	232-137	50
8	232-138	50
9	232-139	50
10	232-140	50
11	232-141	25
12	232-142	25
13	232-143	25
14	232-144	25
15	232-145	25
16	232-146	25
17	232-147	25
18	232-148	25
19	232-149	10
20	232-150	10
21	232-151	10
22	232-152	10
23	232-153	10
24	232-154	10

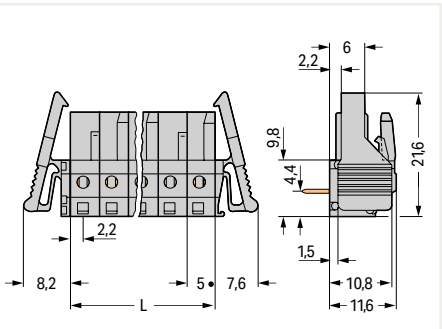


L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	232-232/039-000	100
3	232-233/039-000	50
4	232-234/039-000	50
5	232-235/039-000	50
6	232-236/039-000	50
7	232-237/039-000	50
8	232-238/039-000	50
9	232-239/039-000	25
10	232-240/039-000	25
11	232-241/039-000	25
12	232-242/039-000	25
13	232-243/039-000	25
14	232-244/039-000	25
15	232-245/039-000	25
16	232-246/039-000	10
17	232-247/039-000	10
18	232-248/039-000	10
19	232-249/039-000	10
20	232-250/039-000	10
21	232-251/039-000	10
22	232-252/039-000	10
23	232-253/039-000	10
24	232-254/039-000	10



L = pole no. x pin spacing
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

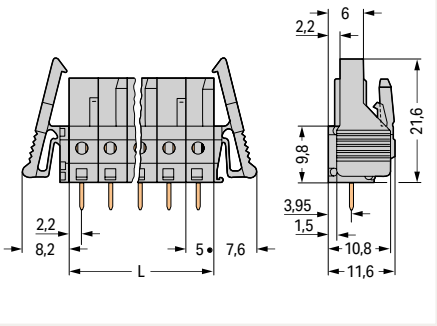
THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-132/039-000	100
3	232-133/039-000	50
4	232-134/039-000	50
5	232-135/039-000	50
6	232-136/039-000	50
7	232-137/039-000	50
8	232-138/039-000	50
9	232-139/039-000	25
10	232-140/039-000	25
11	232-141/039-000	25
12	232-142/039-000	25
13	232-143/039-000	25
14	232-144/039-000	25
15	232-145/039-000	25
16	232-146/039-000	10
17	232-147/039-000	10
18	232-148/039-000	10
19	232-149/039-000	10
20	232-150/039-000	10
21	232-151/039-000	10
22	232-152/039-000	10
23	232-153/039-000	10



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

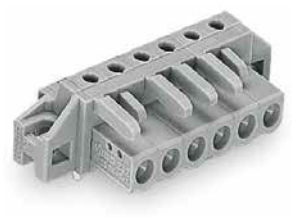
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

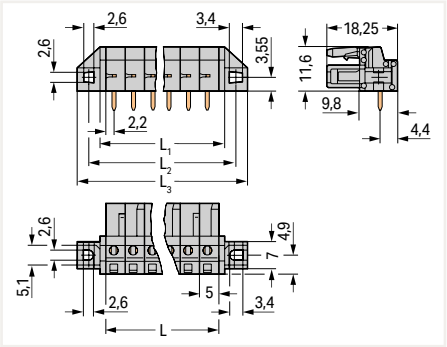
Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0°

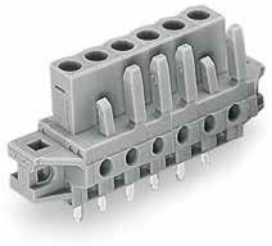


Pole No.	Item No.	PU
2	232-232/031-000	100
3	232-233/031-000	50
4	232-234/031-000	50
5	232-235/031-000	50
6	232-236/031-000	50
7	232-237/031-000	50
8	232-238/031-000	50
9	232-239/031-000	25
10	232-240/031-000	25
11	232-241/031-000	25
12	232-242/031-000	25
13	232-243/031-000	25
14	232-244/031-000	25
15	232-245/031-000	25
16	232-246/031-000	10
17	232-247/031-000	10
18	232-248/031-000	10
19	232-249/031-000	10
20	232-250/031-000	10
21	232-251/031-000	10
22	232-252/031-000	10
23	232-253/031-000	10
24	232-254/031-000	10

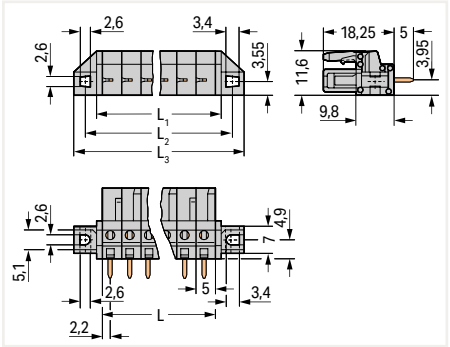


L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

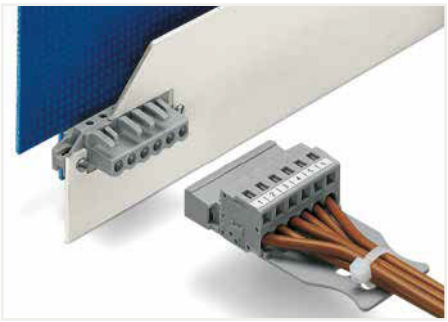
Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-132/031-000	100
3	232-133/031-000	50
4	232-134/031-000	50
5	232-135/031-000	50
6	232-136/031-000	50
7	232-137/031-000	50
8	232-138/031-000	50
9	232-139/031-000	25
10	232-140/031-000	25
11	232-141/031-000	25
12	232-142/031-000	25
13	232-143/031-000	25
14	232-144/031-000	25
15	232-145/031-000	25
16	232-146/031-000	10
17	232-147/031-000	10
18	232-148/031-000	10
19	232-149/031-000	10
20	232-150/031-000	10
21	232-151/031-000	10
22	232-152/031-000	10
23	232-153/031-000	10
24	232-154/031-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only



The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mount applications.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

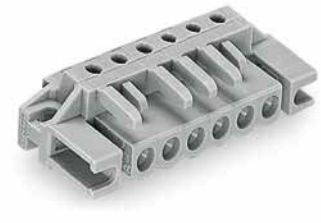
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

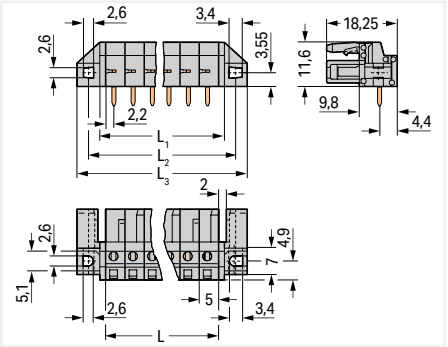
Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Type of mounting: Flush mounting, Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0°

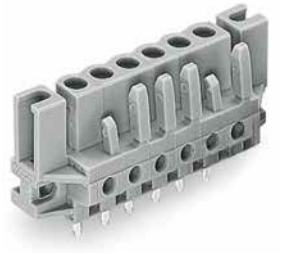


Pole No.	Item No.	PU
2	232-232/047-000	100
3	232-233/047-000	50
4	232-234/047-000	50
5	232-235/047-000	50
6	232-236/047-000	50
7	232-237/047-000	50
8	232-238/047-000	50
9	232-239/047-000	25
10	232-240/047-000	25
11	232-241/047-000	25
12	232-242/047-000	25
13	232-243/047-000	25
14	232-244/047-000	25
15	232-245/047-000	25
16	232-246/047-000	10
17	232-247/047-000	10
18	232-248/047-000	10
19	232-249/047-000	10
20	232-250/047-000	10
21	232-251/047-000	10
22	232-252/047-000	10
23	232-253/047-000	10
24	232-254/047-000	10

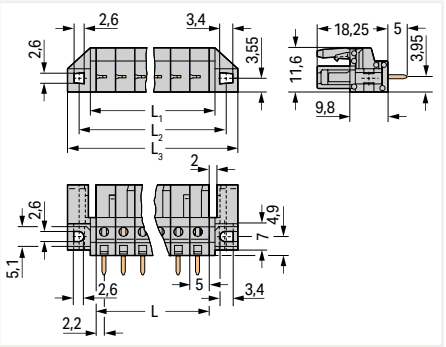


L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-132/047-000	100
3	232-133/047-000	50
4	232-134/047-000	50
5	232-135/047-000	50
6	232-136/047-000	50
7	232-137/047-000	50
8	232-138/047-000	50
9	232-139/047-000	25
10	232-140/047-000	25
11	232-141/047-000	25
12	232-142/047-000	25
13	232-143/047-000	25
14	232-144/047-000	25
15	232-145/047-000	25
16	232-146/047-000	10
17	232-147/047-000	10
18	232-148/047-000	10
19	232-149/047-000	10
20	232-150/047-000	10
21	232-151/047-000	10
22	232-152/047-000	10
23	232-153/047-000	10
24	232-154/047-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only



The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mount applications.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

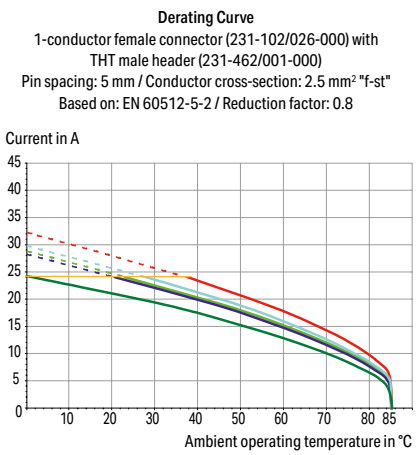
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1 x 1 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 722
Mounting	Page 723, 837
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

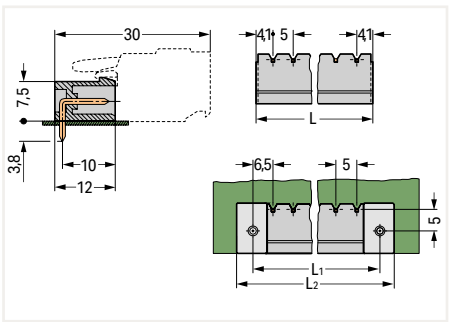
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	231-432/001-000	200
3	231-433/001-000	200
4	231-434/001-000	200
6	231-436/001-000	100
7	231-437/001-000	100
8	231-438/001-000	100
9	231-439/001-000	100
10	231-440/001-000	100
11	231-441/001-000	100
12	231-442/001-000	100
13	231-443/001-000	50
14	231-444/001-000	50
15	231-445/001-000	50
16	231-446/001-000	50
17	231-447/001-000	50
18	231-448/001-000	50
19	231-449/001-000	50
20	231-450/001-000	50
21	231-451/001-000	50
22	231-452/001-000	50
23	231-453/001-000	50
24	231-454/001-000	50

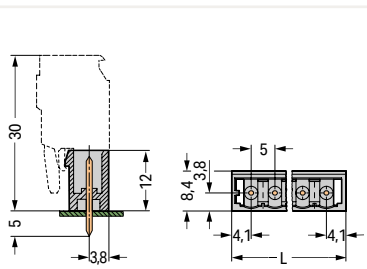


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	231-132/001-000	200
3	231-133/001-000	200
4	231-134/001-000	200
5	231-135/001-000	200
6	231-136/001-000	100
7	231-137/001-000	100
8	231-138/001-000	100
9	231-139/001-000	100
10	231-140/001-000	100
11	231-141/001-000	100
12	231-142/001-000	100
13	231-143/001-000	50
14	231-144/001-000	50
15	231-145/001-000	50
17	231-147/001-000	50
18	231-148/001-000	50
19	231-149/001-000	50
20	231-150/001-000	50
21	231-151/001-000	50
22	231-152/001-000	50
23	231-153/001-000	50
24	231-154/001-000	50

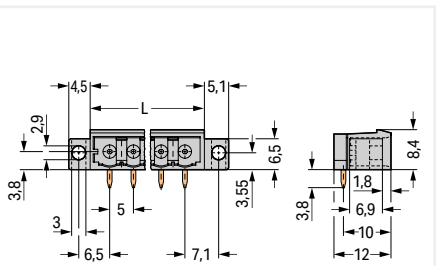


L = (pole no. – 1) x pin spacing + 8.2 mm

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	231-432/040-000	200
3	231-433/040-000	200
5	231-435/040-000	100
6	231-436/040-000	100
14	231-444/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

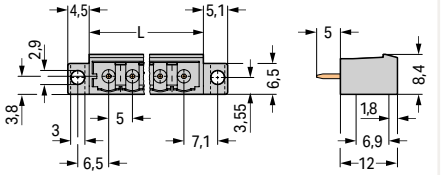
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	231-132/040-000	200
3	231-133/040-000	200
5	231-135/040-000	100
6	231-136/040-000	100
14	231-144/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

9

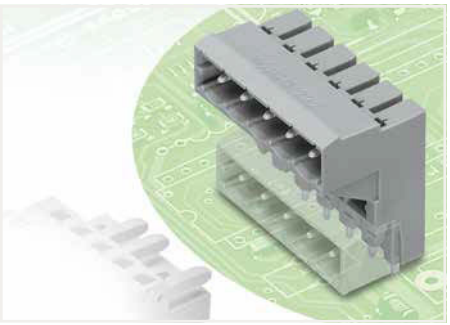
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

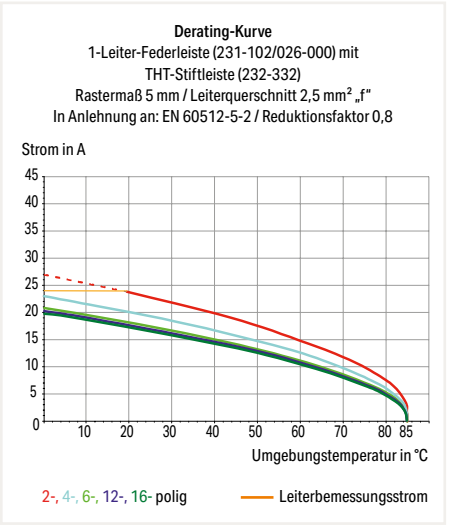
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Male Header for Double-Deck Assembly ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Mating direction to the PCB: 0° ▸ Color: gray



- Male headers for double-deck assembly provide high-density wiring for wire-toboard connections
- Horizontal PCB mounting
- Double-deck design allows male or female headers with angled solder pins to be placed on the lower deck
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per		UL 1059	
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per		CSA	
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector, in line
Solder pin length	5 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 722

Additional information, see "Technical Section"

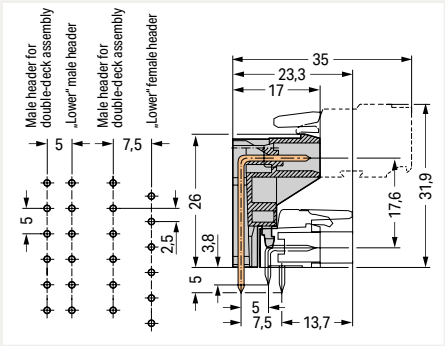
Approvals and corresponding ratings, visit www.wago.com

THT Male Header for Double-Deck Assembly ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Mating direction to the PCB: 0° ▸ Color: gray



Pole No.	Item No.	PU
2	232-332	100
3	232-333	100
4	232-334	100
5	232-335	100
6	232-336	50
7	232-337	50
8	232-338	50
10	232-340	50
12	232-342	50
16	232-346	25



Length = (pole no. – 1) x pin spacing + 8.2 mm
The solder pins of the basic male headers (lower deck) are in a line.
The solder pins of the basic female connectors (lower deck) are staggered by half a pin spacing.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

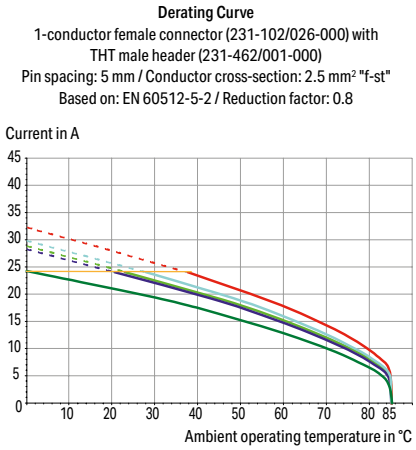
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	16 A	16 A	16 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	-			
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 722
Mounting	Page 723, 837
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

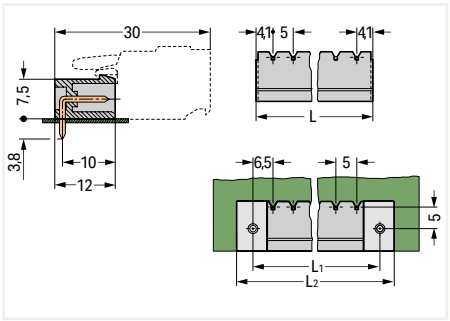
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	231-462/001-000	200
3	231-463/001-000	200
4	231-464/001-000	200
5	231-465/001-000	200
6	231-466/001-000	100
7	231-467/001-000	100
8	231-468/001-000	100
9	231-469/001-000	100
10	231-470/001-000	100
11	231-471/001-000	100
12	231-472/001-000	100
13	231-473/001-000	50
14	231-474/001-000	50
15	231-475/001-000	50
16	231-476/001-000	50
17	231-477/001-000	50
18	231-478/001-000	50
19	231-479/001-000	50
20	231-480/001-000	50
21	231-481/001-000	50
22	231-482/001-000	50
23	231-483/001-000	50
24	231-484/001-000	50

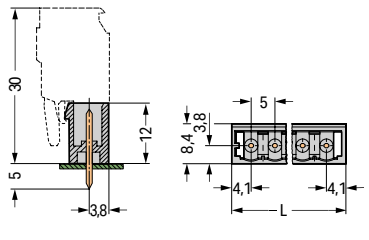


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	231-162/001-000	200
3	231-163/001-000	200
4	231-164/001-000	200
5	231-165/001-000	200
6	231-166/001-000	200
7	231-167/001-000	100
8	231-168/001-000	100
9	231-169/001-000	100
10	231-170/001-000	100
11	231-171/001-000	100
12	231-172/001-000	100
13	231-173/001-000	50
14	231-174/001-000	50
15	231-175/001-000	50
16	231-176/001-000	50
17	231-177/001-000	50
18	231-178/001-000	50
19	231-179/001-000	50
20	231-180/001-000	50
21	231-181/001-000	50
22	231-182/001-000	50
23	231-183/001-000	50
24	231-184/001-000	50

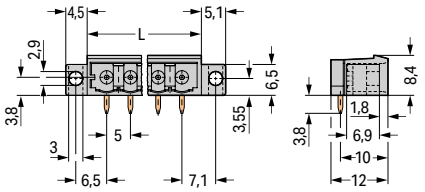


L = (pole no. – 1) x pin spacing + 8.2 mm

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	231-462/040-000	200
3	231-463/040-000	200
5	231-465/040-000	100
6	231-466/040-000	100
14	231-474/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

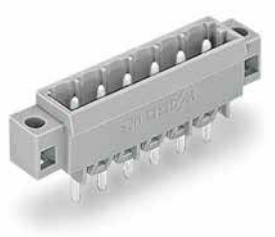
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

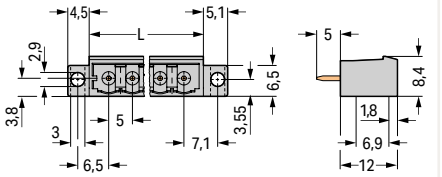
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	231-162/040-000	200
3	231-163/040-000	200
5	231-165/040-000	100
6	231-166/040-000	100
14	231-174/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

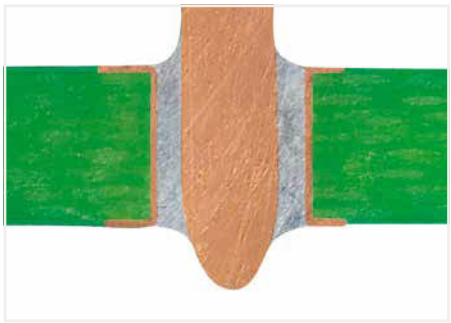
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THR (Through-Hole Reflow) Soldering Process



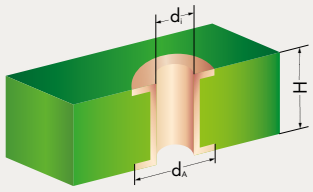
By using high-temperature-resistant plastic and a streamlined pin design, WAGO's THR male headers and PCB terminal blocks meet requirements for SMT process capability while maintaining the necessary stability. Both headers and terminal blocks are simply pushed into the solder paste-filled PCB holes and then soldered along with the SMT components via reflow soldering. The previous wave soldering process is no longer necessary. The result is a perfect connection – both mechanically and electrically.





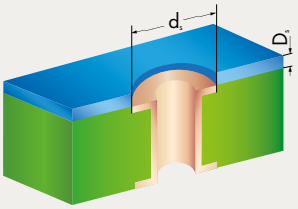
Terminal strips with an additional suction pad in tape-and-reel packaging per IEC 60286-3
WAGO recommends both a temperature profile that adheres to EN 61760-1 and the use of forced convection ovens for processing THR components.

1



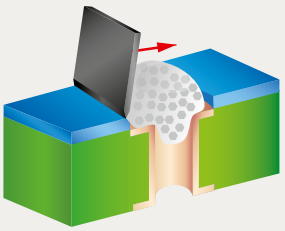
Metal-plated PCB bore hole

2



SMD positioning pattern

3



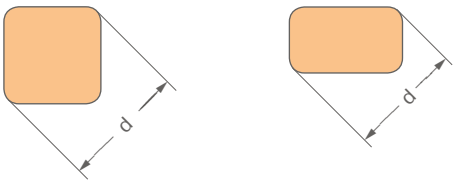
Solder paste application

Series	d_i (mm)	d_A (mm)	H (mm)	d_s (mm)	D_s (µm)	d (mm)	L (mm)
218	$1{,}1^{+0{,}1}$	1,9	< 2	1,8	150	0,9	2,8
231 (1 x 1 mm)	$1{,}4^{+0{,}1}$	2,5	< 2	2,4	150	1,2	2,4
231 (1,2 x 1,2 mm)	$1{,}7^{+0{,}1}$	2,8	< 2	2,7	150	1,5	2,4
236	$1{,}1^{+0{,}1}$	2,2	< 2	2,1	150	0,9	3,6
250	$1{,}1^{+0{,}1}$	2,0	< 2	1,9	150	0,9	3,6
713	$1{,}2^{+0{,}1}$	1,9	< 2	1,8	150	1,0	2,4
733	$1{,}2^{+0{,}1}$	1,9	< 2	1,8	150	1,0	2,4
734	$1{,}4^{+0{,}1}$	2,5	< 2	2,4	150	1,2	2,4
2060 THR	$1{,}5^{+0{,}1}$	2,4	< 2	2,3	150	1,25	2,4
2061 THR	$1{,}5^{+0{,}1}$	2,4	< 2	2,3	150	1,25	1,5 / 2,4

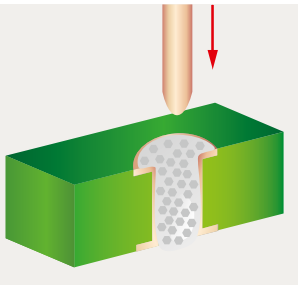
d_i: Plated through-hole diameter
d_A: Outer diameter of metal-plated PCB hole*
H: PCB thickness
d_s: Pattern hole diameter
D_s: Pattern thickness
d: Pin diagonal
L: Pin length

* When laying out the metal-plated bore holes, the clearance and creepage distance requirements – as specified in the equipment standards – must be considered.

Soldering pin form

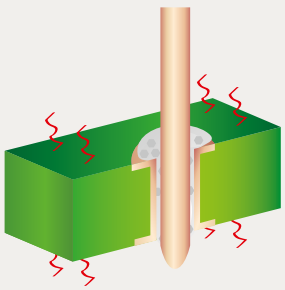


4



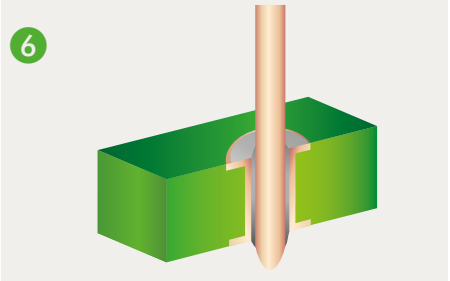
Component assembly, automatic/by hand

5



Reflow soldering process

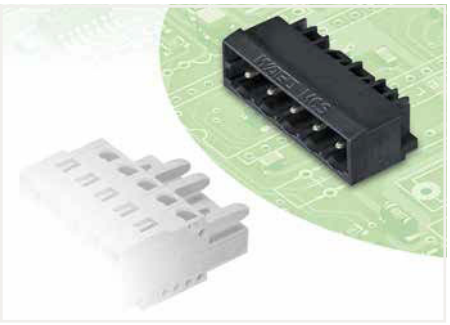
6



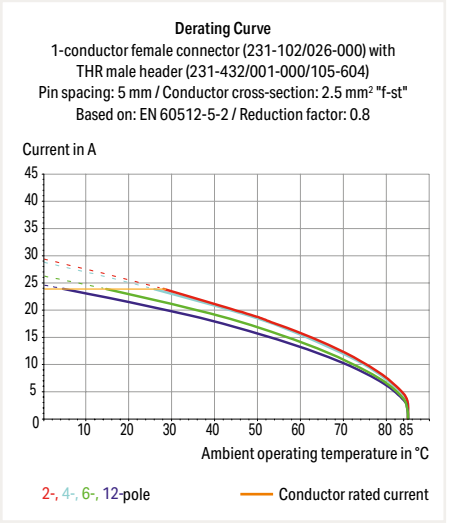
THR soldering joint

THR Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per		UL 1059	
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per		CSA	
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data

Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector, in line
Solder pin length	2.4 mm
Solder pin dimensions	1 x 1 mm
Plated through-hole diameter (THR)	1.4 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR-soldering process	Page 584
Coding	Page 722
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

THR Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

Mating direction to the PCB: 0°

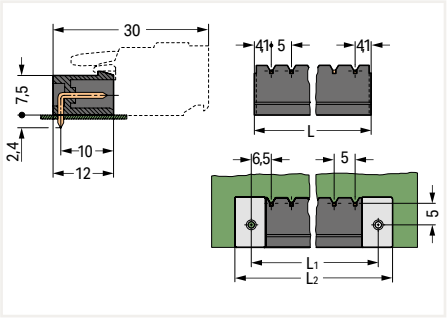
Suitable for automated assembly



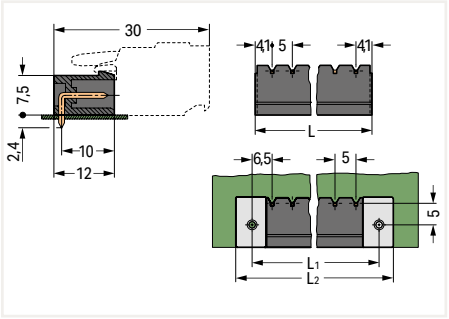


Pole No.	Item No.	PU
2	231-432/001-000/105-604	200
3	231-433/001-000/105-604	200
4	231-434/001-000/105-604	200
5	231-435/001-000/105-604	200
6	231-436/001-000/105-604	100
8	231-438/001-000/105-604	100
9	231-439/001-000/105-604	100
10	231-440/001-000/105-604	100
11	231-441/001-000/105-604	100
12	231-442/001-000/105-604	100

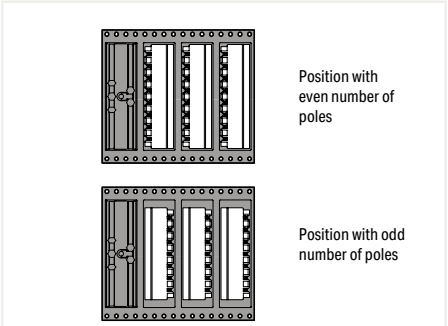
Pole No.	Tape width	Item No.	PU
2	32 mm	231-432/001-000/105-604/997-405	170
3	32 mm	231-433/001-000/105-604/997-405	170
4	56 mm	231-434/001-000/105-604/997-407	170
6	56 mm	231-436/001-000/105-604/997-407	170
7	56 mm	231-437/001-000/105-604/997-407	170
8	56 mm	231-438/001-000/105-604/997-407	170
9	88 mm	231-439/001-000/105-604/997-409	170
10	88 mm	231-440/001-000/105-604/997-409	170
11	88 mm	231-441/001-000/105-604/997-409	170
12	88 mm	231-442/001-000/105-604/997-409	170



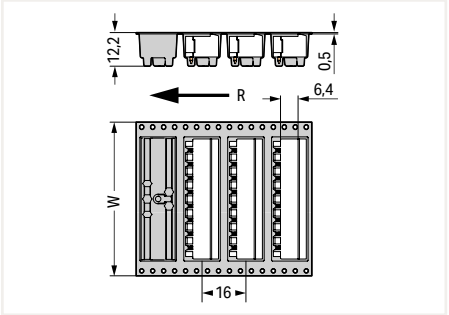
L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 4.8 mm
L_2 = L_1 + 7.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 4.8 mm
L_2 = L_1 + 7.2 mm



Pin position in tape-and-reel packaging



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

9

THR Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

Mating direction to the PCB: 90°

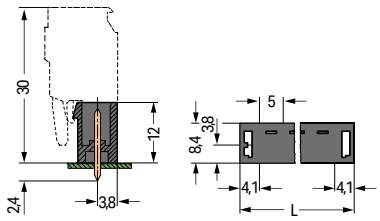
Suitable for automated assembly



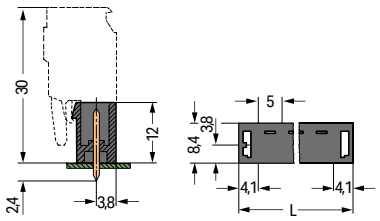


Pole No.	Item No.	PU
2	231-132/001-000/105-604	200
3	231-133/001-000/105-604	200
4	231-134/001-000/105-604	200
5	231-135/001-000/105-604	200
6	231-136/001-000/105-604	100
7	231-137/001-000/105-604	100
8	231-138/001-000/105-604	100
9	231-139/001-000/105-604	100
10	231-140/001-000/105-604	100
11	231-141/001-000/105-604	100
12	231-142/001-000/105-604	100

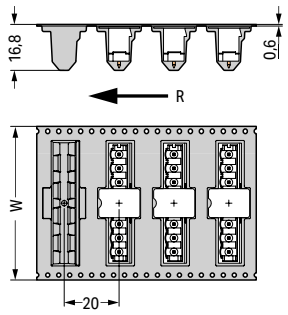
Pole No.	Tape width	Item No.	PU
2	32 mm	231-132/001-000/105-604/997-405	170
3	32 mm	231-133/001-000/105-604/997-405	170
4	56 mm	231-134/001-000/105-604/997-407	170
5	56 mm	231-135/001-000/105-604/997-407	170
6	56 mm	231-136/001-000/105-604/997-407	170
8	56 mm	231-138/001-000/105-604/997-407	170
9	56 mm	231-139/001-000/105-604/997-409	170
10	88 mm	231-140/001-000/105-604/997-409	170
11	88 mm	231-141/001-000/105-604/997-409	170
12	88 mm	231-142/001-000/105-604/997-409	170



L = (pole no. – 1) x pin spacing + 8.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm



W= Tape width
R = Feed direction

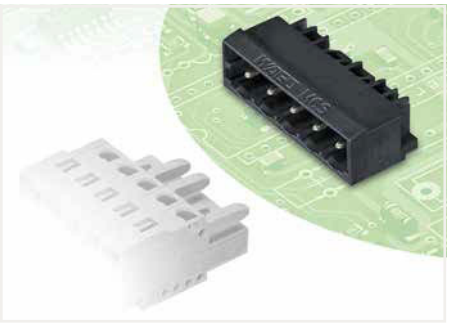
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

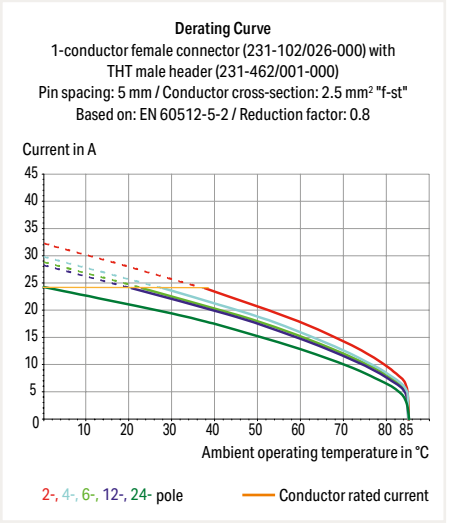
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: black



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	16 A	16 A	16 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	-			
Approvals per				
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	-	-	-	

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 1.2 mm
Plated through-hole diameter (THR)	1.7 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR-soldering process	Page 584
Coding	Page 722
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

THR Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: black

Mating direction to the PCB: 0°

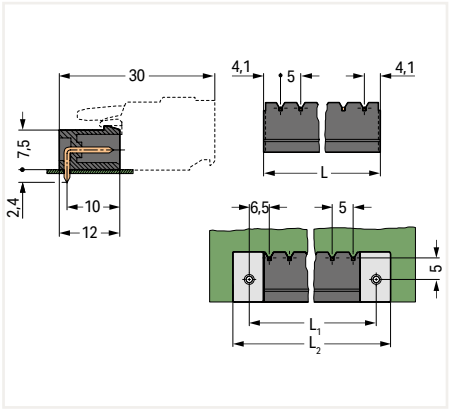
Suitable for automated assembly



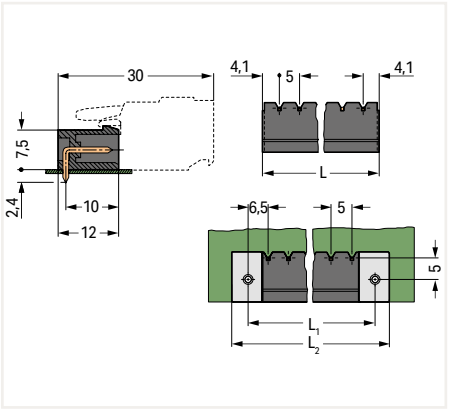


Pole No.	Item No.	PU
2	231-462/001-000/105-604	200
3	231-463/001-000/105-604	200
4	231-464/001-000/105-604	200
5	231-465/001-000/105-604	200
6	231-466/001-000/105-604	100
7	231-467/001-000/105-604	100
8	231-468/001-000/105-604	100
9	231-469/001-000/105-604	100
10	231-470/001-000/105-604	100
11	231-471/001-000/105-604	100
12	231-472/001-000/105-604	100

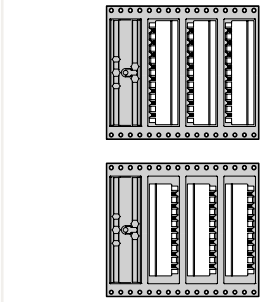
Pole No.	Tape width	Item No.	PU
2	32 mm	231-462/001-000/105-604/997-405	170
3	32 mm	231-463/001-000/105-604/997-405	170
4	56 mm	231-464/001-000/105-604/997-407	170
5	56 mm	231-465/001-000/105-604/997-407	170
6	56 mm	231-466/001-000/105-604/997-407	170
7	56 mm	231-467/001-000/105-604/997-407	170
8	56 mm	231-468/001-000/105-604/997-407	170
9	88 mm	231-469/001-000/105-604/997-409	170
10	88 mm	231-470/001-000/105-604/997-409	170
11	88 mm	231-471/001-000/105-604/997-409	170
12	88 mm	231-472/001-000/105-604/997-409	170



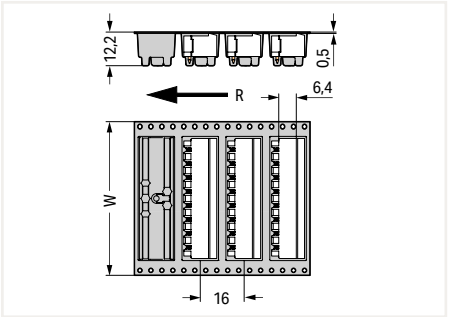
L = (pole no. x pin spacing) + 3.2 mm
L_1 = L + 4.8 mm
L_2 = L_1 + 7.2 mm



L = (pole no. x pin spacing) + 3.2 mm
L_1 = L + 4.8 mm
L_2 = L_1 + 7.2 mm



Pin position in tape-and-reel packaging



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

9

THR Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5 mm (0.197 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: black

Mating direction to the PCB: 90°

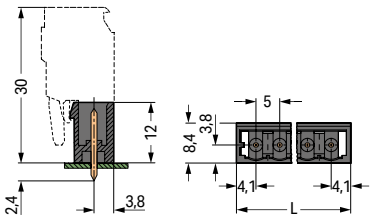
Suitable for automated assembly



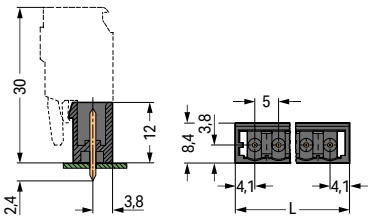


Pole No.	Item No.	PU
2	231-162/001-000/105-604	200
3	231-163/001-000/105-604	200
4	231-164/001-000/105-604	200
5	231-165/001-000/105-604	200
6	231-166/001-000/105-604	100
7	231-167/001-000/105-604	100
8	231-168/001-000/105-604	100
9	231-169/001-000/105-604	100
10	231-170/001-000/105-604	100
11	231-171/001-000/105-604	100
12	231-172/001-000/105-604	100

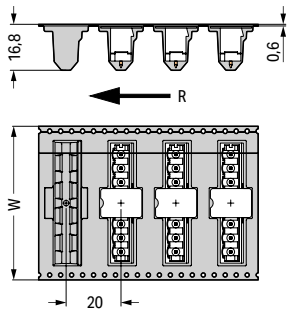
Pole No.	Tape width	Item No.	PU
2	32 mm	231-162/001-000/105-604/997-405	170
3	32 mm	231-163/001-000/105-604/997-405	170
4	56 mm	231-164/001-000/105-604/997-407	170
5	56 mm	231-165/001-000/105-604/997-407	170
6	56 mm	231-166/001-000/105-604/997-407	170
7	56 mm	231-167/001-000/105-604/997-407	170
8	56 mm	231-168/001-000/105-604/997-407	170
9	88 mm	231-169/001-000/105-604/997-409	170
10	88 mm	231-170/001-000/105-604/997-409	170
11	88 mm	231-171/001-000/105-604/997-409	170
12	88 mm	231-172/001-000/105-604/997-409	170



L = (pole no. x pin spacing) + 3.2 mm



L = (pole no. x pin spacing) + 3.2 mm



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

Double-Pin Male Connector ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm (0.197 inch) ▸ Type of mounting: DIN-35 rail ▸ Color: gray



- Allow MCS Female Connectors fitted with wire harness or cable assembly to be plugged together
- Adapter for DIN-35 rail mounting
- Coding via coding keys on both sides

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	12 A	12 A	12 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	-			
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

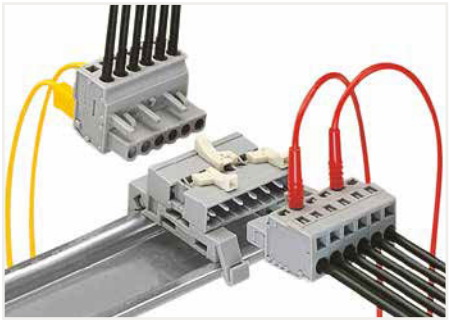
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Carrier rail	Page 836
Coding	Page 722
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

Double-Pin Male Connector ▸ *MCS* MIDI Classic ▸ 232 Series

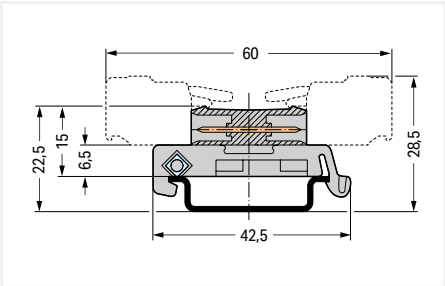
Pin spacing: 5 mm (0.197 inch) ▸ Type of mounting: DIN-35 rail ▸ Color: gray





Angled female connector – straight female connector

Pole No.	Item No.	PU
2	232-502/007-000	100
3	232-503/007-000	50
4	232-504/007-000	50
5	232-505/007-000	50
6	232-506/007-000	50
7	232-507/007-000	25
8	232-508/007-000	25
9	232-509/007-000	25
10	232-510/007-000	25
11	232-511/007-000	25
12	232-512/007-000	25
13	232-513/007-000	25
14	232-514/007-000	25
15	232-515/007-000	25
16	232-516/007-000	25
17	232-517/007-000	25
18	232-518/007-000	25
19	232-519/007-000	25
20	232-520/007-000	25
21	232-521/007-000	10
22	232-522/007-000	10
23	232-523/007-000	10
24	232-524/007-000	10



Total length = (pole no. – 1) x pin spacing + 8.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

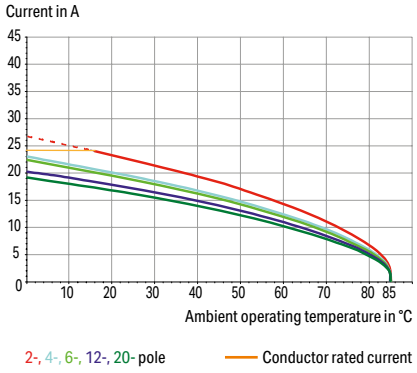
- Other pole numbers

Female Connector for Rail-Mount Terminal Blocks ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 5 mm (0.197 inch) ▸ Color: gray



- Pluggable connectors for rail-mount terminal blocks equipped with CAGE CLAMP® connection
- Female connectors with long contact pins connect to the termination ports of 280 Series Rail-Mount Terminal Blocks
- Female connectors are touch-proof when unmated, providing a pluggable, live output
- With coding fingers

Derating Curve
Female connector (232-232/005-000) with
1-conductor male connector (231-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Testing and measuring Page 721

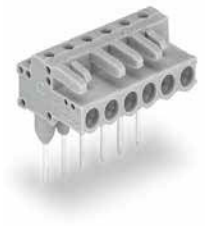
Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

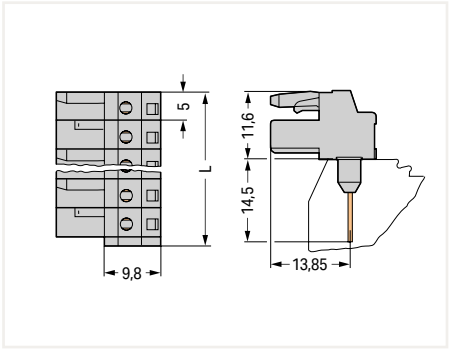
Female Connector for Rail-Mount Terminal Blocks ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

Mating direction to the rail-mount terminal block: 0°

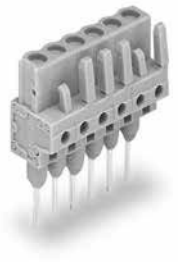


Pole No.	Item No.	PU
2	232-232/005-000	100
3	232-233/005-000	100
4	232-234/005-000	100
5	232-235/005-000	100
6	232-236/005-000	50
7	232-237/005-000	50
8	232-238/005-000	50
9	232-239/005-000	50
10	232-240/005-000	50
11	232-241/005-000	25
12	232-242/005-000	25

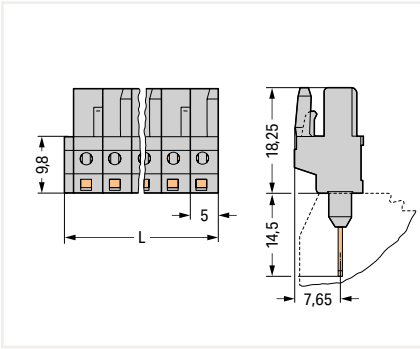


L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only

Mating direction to the rail-mount terminal block: 90°

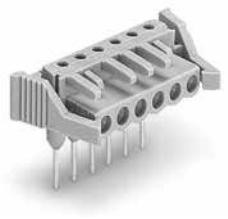


Pole No.	Item No.	PU
2	232-132/005-000	100
3	232-133/005-000	100
4	232-134/005-000	100
5	232-135/005-000	100
6	232-136/005-000	50
7	232-137/005-000	50
8	232-138/005-000	50
9	232-139/005-000	50
10	232-140/005-000	50
11	232-141/005-000	25
12	232-142/005-000	25

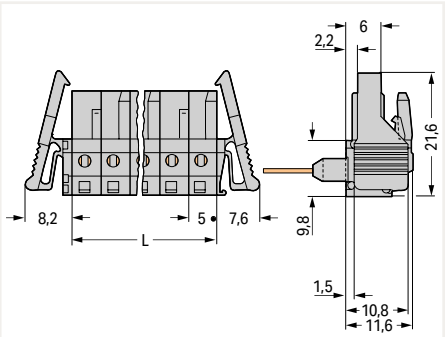


L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only

Locking of plug-in connection: locking lever ▸ Mating direction to the rail-mount terminal block: 0°



Pole No.	Item No.	PU
2	232-232/005-000/039-000	100
3	232-233/005-000/039-000	50
4	232-234/005-000/039-000	50
5	232-235/005-000/039-000	50
6	232-236/005-000/039-000	50
7	232-237/005-000/039-000	50
9	232-239/005-000/039-000	25
10	232-240/005-000/039-000	25
11	232-241/005-000/039-000	25
12	232-242/005-000/039-000	25



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

9

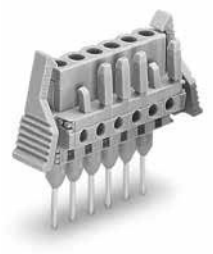
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

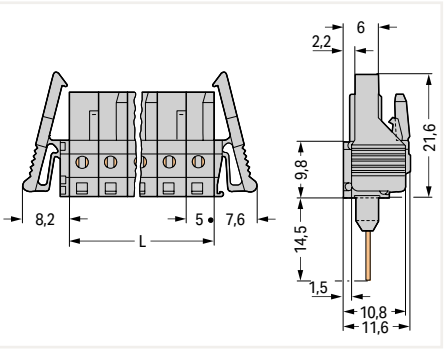
- Other pole numbers

Female Connector for Rail-Mount Terminal Blocks ▸ *MCS* MIDI Classic ▸ 232 Series
Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

Locking of plug-in connection: locking lever ▸ Mating direction to the rail-mount terminal block: 90°



Pole No.	Item No.	PU
2	232-132/005-000/039-000	100
3	232-133/005-000/039-000	50
4	232-134/005-000/039-000	50
5	232-135/005-000/039-000	50
6	232-136/005-000/039-000	50
7	232-137/005-000/039-000	50
8	232-138/005-000/039-000	50
9	232-139/005-000/039-000	25
10	232-140/005-000/039-000	25
11	232-141/005-000/039-000	25
12	232-142/005-000/039-000	25



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

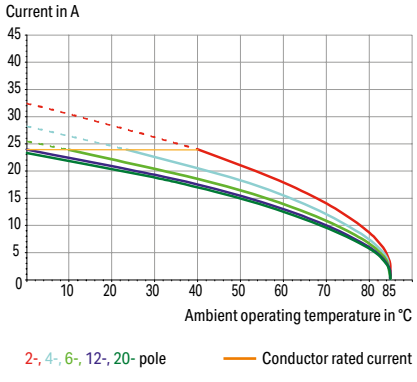
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:
- Other pole numbers

Male Connector for Rail-Mount Terminal Blocks ▸ *MCS* MIDI Classic ▸ 231 Series
Pin spacing: 5 mm (0.197 inch) ▸ Color: gray



- Pluggable connectors for rail-mount terminal blocks equipped with CAGE CLAMP® connection
- Male connectors with long contact pins connect to the termination ports of 280 Series Rail-Mount Terminal Blocks
- Pins can be touched when the connector is unplugged, so power supply should be performed via terminal block (observe rated voltage!)
- With coding fingers

Derating Curve
1-conductor female connector (231-102/026-000) with male connector (231-162/003-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

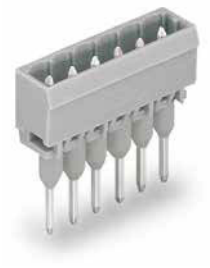
Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

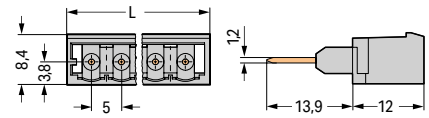
Coding	Page 722
Tools	Page 721
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Male connector for rail-mount terminal blocks ▸ *MCS* MIDI Classic ▸ 231 Series
Pin spacing: 5 mm (0.197 inch) ▸ Color: gray

Mating direction to the rail-mount terminal block: 90°



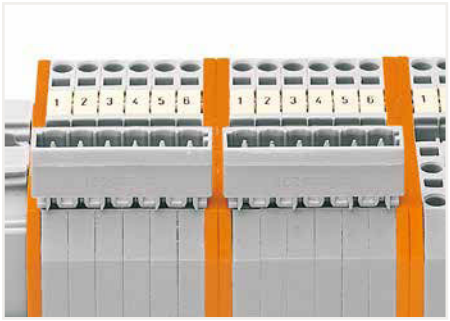
Pole No.	Item No.	PU
2	231-162/003-000	200
3	231-163/003-000	200
4	231-164/003-000	200
5	231-165/003-000	200
6	231-166/003-000	100
7	231-167/003-000	100
8	231-168/003-000	100
9	231-169/003-000	100
10	231-170/003-000	100
11	231-171/003-000	100
12	231-172/003-000	100



L = (pole no. – 1) x pin spacing + 8.2 mm



Inserting a male connector via multipole operating tool.



The extra width of the male connectors when used on front-entry, rail-mount terminal blocks must be compensated for by either two intermediate plates or rail-mount spacer block (block assembly).



Spacer blocks can be bridged via alternate or staggered jumpers.

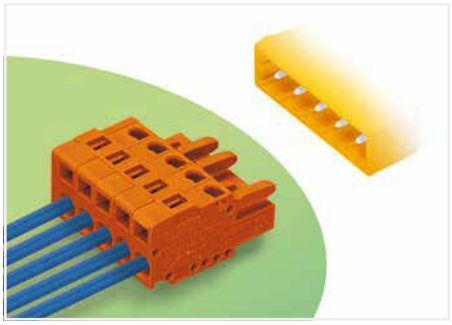
9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

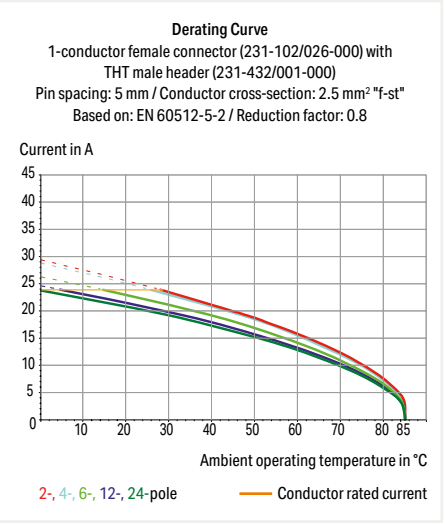
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:
- Other pole numbers

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
General accessory	Page 723
Insulation stop	Page 723
Jumper	Page 729
Marking	Page 833
Mounting	Page 723, 837
Mounting adapter	Page 729
Strain relief	Page 726
Testing and measuring	Page 721, 854
Tools	Page 720, 838
Direct marking	Page 712
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

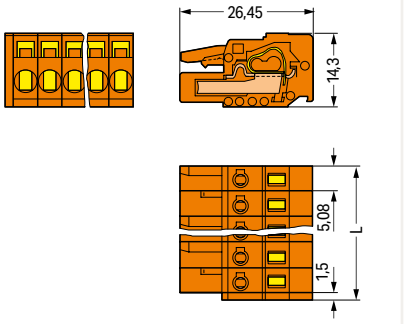
	Plugging without loss of pin spacing



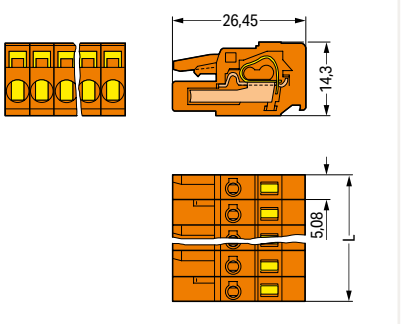


Pole No.	Item No.	PU
2	231-302/026-000	100
3	231-303/026-000	100
4	231-304/026-000	100
5	231-305/026-000	100
6	231-306/026-000	50
7	231-307/026-000	50
8	231-308/026-000	50
9	231-309/026-000	50
10	231-310/026-000	50
11	231-311/026-000	25
12	231-312/026-000	25
13	231-313/026-000	25
14	231-314/026-000	25
15	231-315/026-000	25
16	231-316/026-000	25
17	231-317/026-000	25
18	231-318/026-000	10
19	231-319/026-000	10
20	231-320/026-000	10
21	231-321/026-000	10
22	231-322/026-000	10
23	231-323/026-000	10
24	231-324/026-000	10

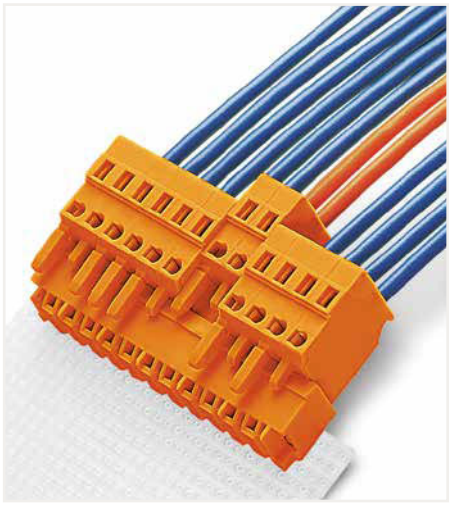
Pole No.	Item No.	PU
2	231-302/102-000	100
3	231-303/102-000	100
4	231-304/102-000	100
5	231-305/102-000	100
6	231-306/102-000	50
7	231-307/102-000	50
8	231-308/102-000	50
9	231-309/102-000	50
10	231-310/102-000	50
11	231-311/102-000	25
12	231-312/102-000	25
13	231-313/102-000	25
14	231-314/102-000	25
15	231-315/102-000	25
16	231-316/102-000	25
17	231-317/102-000	25
18	231-318/102-000	10
19	231-319/102-000	10
20	231-320/102-000	10
21	231-321/102-000	10
22	231-322/102-000	10
23	231-323/102-000	10
24	231-324/102-000	10



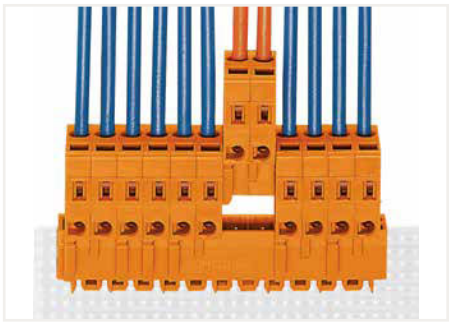
L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only



Total pole number for female connectors = pole number for male header



Female connectors with a built-in end plate require no extra space, while maintaining the nominal cross-section. This means: Total length of female connectors is reduced to „pole no. x pin spacing"!

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

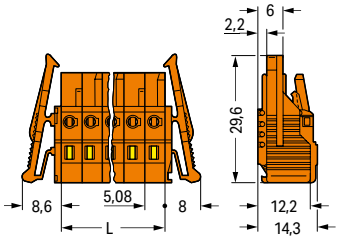
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

Locking of plug-in connection: locking lever



Pole No.	Item No.	PU
2	231-302/037-000	100
3	231-303/037-000	50
4	231-304/037-000	50
5	231-305/037-000	50
6	231-306/037-000	50
7	231-307/037-000	50
8	231-308/037-000	25
9	231-309/037-000	25
10	231-310/037-000	25
11	231-311/037-000	25
12	231-312/037-000	25
13	231-313/037-000	25
14	231-314/037-000	25
15	231-315/037-000	25
16	231-316/037-000	10
17	231-317/037-000	10
18	231-318/037-000	10
19	231-319/037-000	10
20	231-320/037-000	10
21	231-321/037-000	10
22	231-322/037-000	10
23	231-323/037-000	10
24	231-324/037-000	10

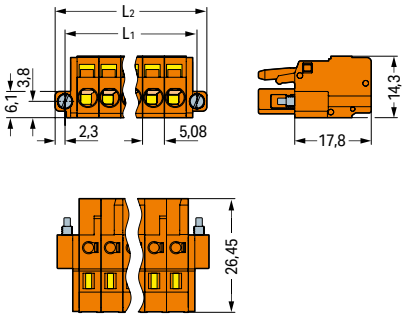


L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

Locking of plug-in connection: Screw flange



Pole No.	Item No.	PU
2	231-302/107-000	100
3	231-303/107-000	100
4	231-304/107-000	50
5	231-305/107-000	50
6	231-306/107-000	50
7	231-307/107-000	50
8	231-308/107-000	50
9	231-309/107-000	25
10	231-310/107-000	25
12	231-312/107-000	25
14	231-314/107-000	25
15	231-315/107-000	25
16	231-316/107-000	25



L_1 = (pole no. x pin spacing) + 5.4 mm
L_2 = (pole no. x pin spacing) + 10 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

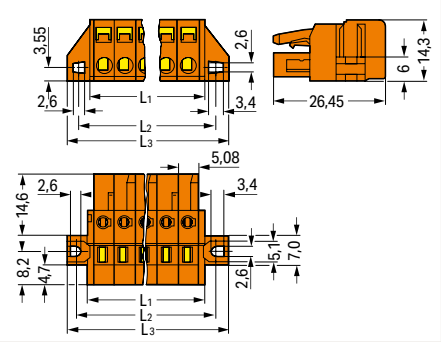
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



Pole No.	Item No.	PU
2	231-302/031-000	100
3	231-303/031-000	50
4	231-304/031-000	50
5	231-305/031-000	50
6	231-306/031-000	50
7	231-307/031-000	50
8	231-308/031-000	50
9	231-309/031-000	25
10	231-310/031-000	25
11	231-311/031-000	25
12	231-312/031-000	25
13	231-313/031-000	25
14	231-314/031-000	25
15	231-315/031-000	25
16	231-316/031-000	10
17	231-317/031-000	10
18	231-318/031-000	10
19	231-319/031-000	10
20	231-320/031-000	10
21	231-321/031-000	10
22	231-322/031-000	10
23	231-323/031-000	10
24	231-324/031-000	10



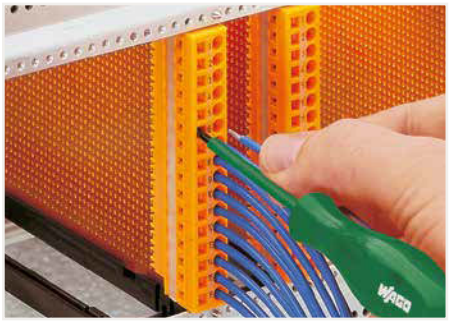
L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8.8 mm
L_3 = (pole no. x pin spacing) + 14.8 mm
2- to 3-pole female connectors – one latch only



Female connectors with mounting flanges can be used as PCB through-panel connectors – conductor termination parallel to CAGE CLAMP® actuation.



PCB female connectors with mounting flanges can be used as through-panel connectors for external wiring.



16-pole female connector with mounting flanges in a 19" rack – conductor termination parallel to CAGE CLAMP® actuation

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:
- Gold-plated or partially gold-plated contact surfaces

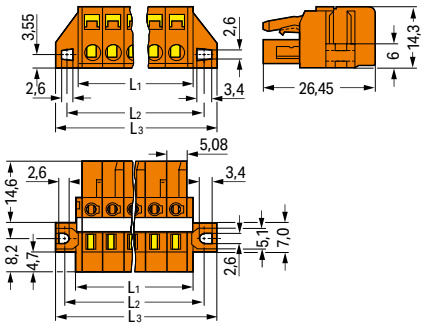
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strip



Pole No.	Item No.	PU
6	231-306/027-000	50
7	231-307/027-000	50
8	231-308/027-000	50
9	231-309/027-000	25
10	231-310/027-000	25
11	231-311/027-000	25
12	231-312/027-000	25
13	231-313/027-000	25
14	231-314/027-000	25
15	231-315/027-000	25
16	231-316/027-000	10
17	231-317/027-000	10
18	231-318/027-000	10
19	231-319/027-000	10
20	231-320/027-000	10
21	231-321/027-000	10
22	231-322/027-000	10
23	231-323/027-000	10
24	231-324/027-000	10



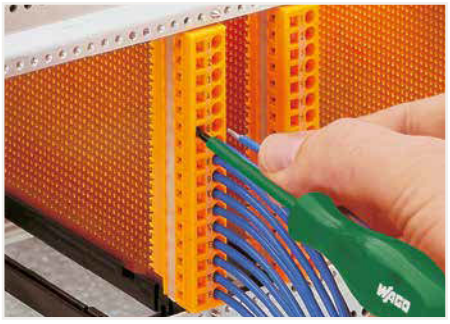
L_1 = (pole no. x pin spacing) + 3 mm
L_2 = (pole no. x pin spacing) + 8,8 mm
L_3 = (pole no. x pin spacing) + 14,8 mm
2- to 3-pole female connectors – one latch only



Female connectors with mounting flanges can be used as PCB through-panel connectors – conductor termination parallel to CAGE CLAMP® actuation.



PCB female connectors with mounting flanges can be used as through-panel connectors for external wiring.



16-pole female connector with mounting flanges in a 19" rack – conductor termination parallel to CAGE CLAMP® actuation

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:
- Gold-plated or partially gold-plated contact surfaces

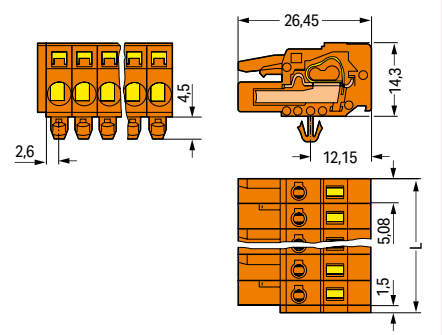
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	231-302/008-000	100
3	231-303/008-000	100
4	231-304/008-000	100
5	231-305/008-000	100
6	231-306/008-000	50
7	231-307/008-000	50
8	231-308/008-000	50
9	231-309/008-000	50
10	231-310/008-000	50
11	231-311/008-000	25
12	231-312/008-000	25
13	231-313/008-000	25
14	231-314/008-000	25
15	231-315/008-000	25
16	231-316/008-000	25
17	231-317/008-000	25
18	231-318/008-000	10
19	231-319/008-000	10
20	231-320/008-000	10
21	231-321/008-000	10
22	231-322/008-000	10
23	231-323/008-000	10
24	231-324/008-000	10



L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only

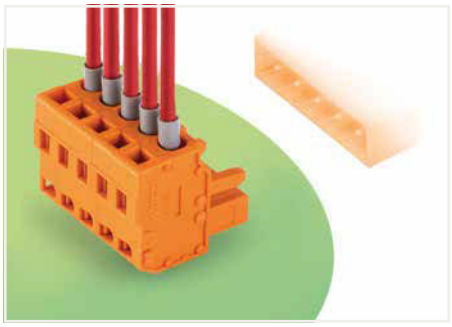
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

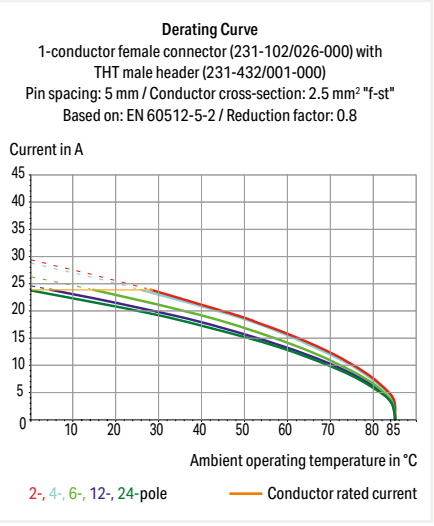
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	14 A	14 A	14 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
General accessory	Page 723
Insulation stop	Page 723
Jumper	Page 729
Marking	Page 833
Strain relief	Page 726
Testing and measuring	Page 721, 854
Tools	Page 720
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

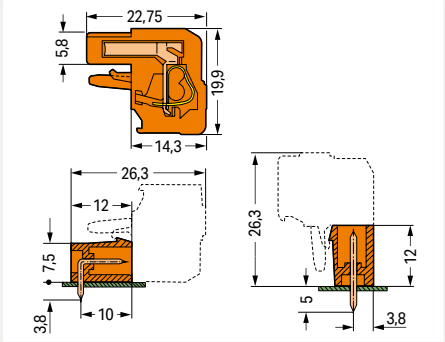
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Color: orange

Conductor entry direction to mating direction: 90°



Pole No.	Item No.	PU
2	232-402/026-000	100
3	232-403/026-000	100
4	232-404/026-000	100
5	232-405/026-000	100
6	232-406/026-000	50
7	232-407/026-000	50
8	232-408/026-000	50
9	232-409/026-000	50
10	232-410/026-000	50
11	232-411/026-000	25
12	232-412/026-000	25
13	232-413/026-000	25
14	232-414/026-000	25
15	232-415/026-000	25
16	232-416/026-000	25
17	232-417/026-000	25
18	232-418/026-000	10
19	232-419/026-000	10
20	232-420/026-000	10
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22	232-422/026-000	10
23	232-423/026-000	10
24	232-424/026-000	10

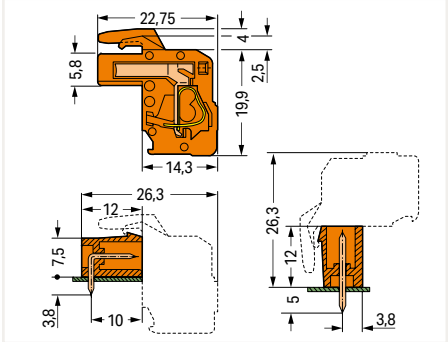


Total length = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2- to 3-pole female connectors – one latch only

Conductor entry direction to mating direction: 270°



Pole No.	Item No.	PU
2	232-302/026-000	100
3	232-303/026-000	100
4	232-304/026-000	100
5	232-305/026-000	100
6	232-306/026-000	50
7	232-307/026-000	50
8	232-308/026-000	50
9	232-309/026-000	50
10	232-310/026-000	50
11	232-311/026-000	25
12	232-312/026-000	25
13	232-313/026-000	25
14	232-314/026-000	25
15	232-315/026-000	25
16	232-316/026-000	25
17	232-317/026-000	25
18	232-318/026-000	10
19	232-319/026-000	10
20	232-320/026-000	10
21	232-321/026-000	10
22	232-322/026-000	10
23	232-323/026-000	10
24	232-324/026-000	10



Total length = (pole no. x pin spacing) + 1.5 mm + 0.9 mm
2- to 3-pole female connectors – one latch only

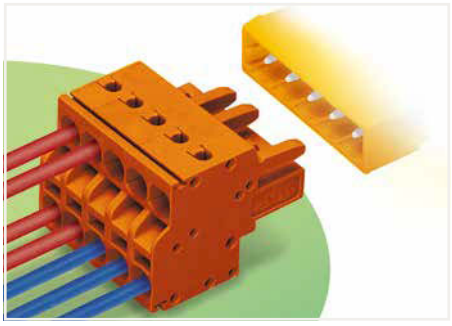
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

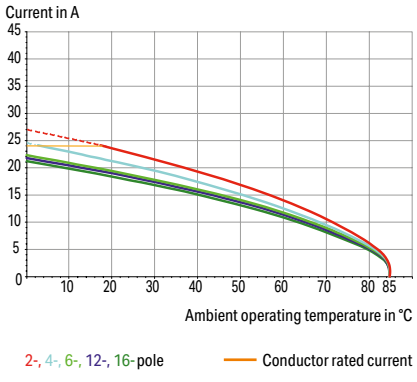
2-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or Data buses
- Bus connection is retained, even when unmated
- Push-in termination of solid and ferruled conductors
- With coding fingers

Derating Curve
2-conductor female connector (231-2102/026-000) with THT male header (231-132/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Insulation stop	Page 723
Marking	Page 833
Strain relief	Page 725
Testing and measuring	Page 721
Tools	Page 721, 838
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

2-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

	Locking of plug-in connection: locking lever	Locking of plug-in connection: Screw flange



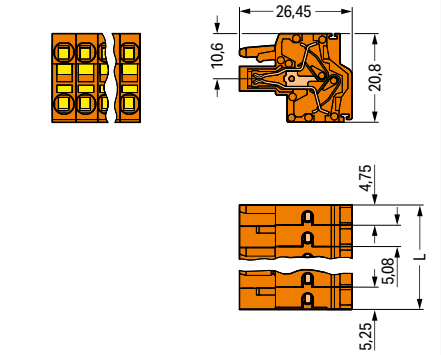




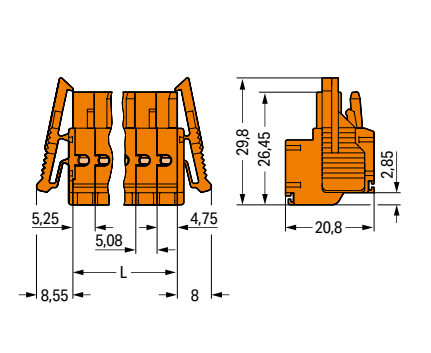
Pole No.	Item No.	PU
2	231-2302/026-000	100
3	231-2303/026-000	100
4	231-2304/026-000	100
5	231-2305/026-000	50
6	231-2306/026-000	50
7	231-2307/026-000	50
8	231-2308/026-000	50
9	231-2309/026-000	50
10	231-2310/026-000	50
11	231-2311/026-000	25
12	231-2312/026-000	25
13	231-2313/026-000	25
14	231-2314/026-000	25
15	231-2315/026-000	25
16	231-2316/026-000	25

Pole No.	Item No.	PU
2	231-2302/037-000	100
3	231-2303/037-000	50
4	231-2304/037-000	50
5	231-2305/037-000	50
6	231-2306/037-000	50
7	231-2307/037-000	50
8	231-2308/037-000	25
9	231-2309/037-000	25
10	231-2310/037-000	25
11	231-2311/037-000	25
12	231-2312/037-000	25
13	231-2313/037-000	25
14	231-2314/037-000	25
15	231-2315/037-000	25
16	231-2316/037-000	10

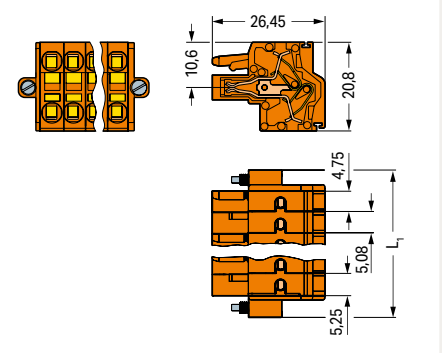
Pole No.	Item No.	PU
2	231-2302/107-000	100
3	231-2303/107-000	100
4	231-2304/107-000	50
5	231-2305/107-000	50
6	231-2306/107-000	50
7	231-2307/107-000	50
8	231-2308/107-000	50
9	231-2309/107-000	25
10	231-2310/107-000	25
12	231-2312/107-000	25
14	231-2314/107-000	25
15	231-2315/107-000	25
16	231-2316/107-000	10



L = (pole no. – 2) x pin spacing + 10 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 2) x pin spacing + 10 mm
2- to 3-pole female connectors – one latch only



L1 = (pole no. – 2) x pin spacing + 20 mm
2- to 3-pole female connectors – one latch only

9

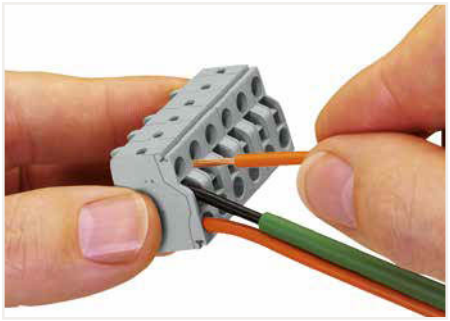
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

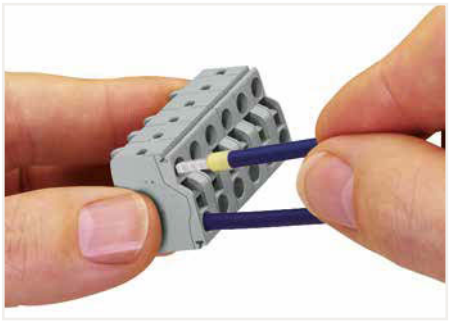
- Gold-plated or partially gold-plated contact surfaces

2-Conductor Female Connector ▶ *MCS* MIDI Classic ▶ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▶ Actuation type: Operating tool ▶ Push-in CAGE CLAMP® ▶ Conductor entry direction to mating direction: 0° ▶ Color: orange



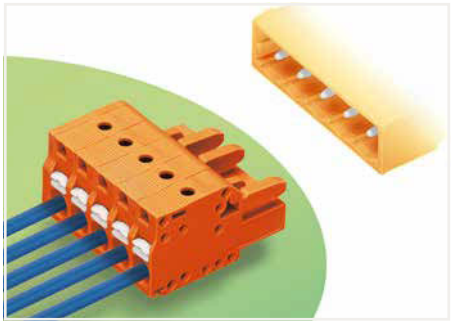
Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

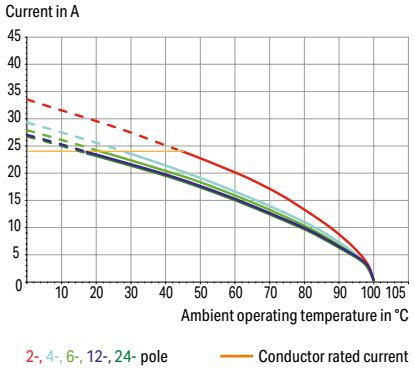
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- With coding fingers

Derating Curve
1-conductor female connector (2231-102/026-000) with THT male header (231-162/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

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Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

	Plugging without loss of pin spacing	Locking of plug-in connection: locking lever



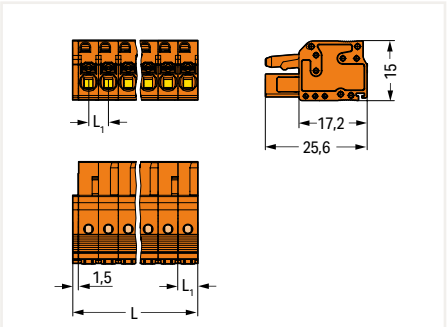




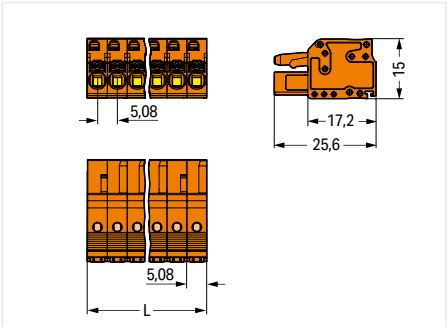
Pole No.	Item No.	PU
2	2231-302/026-000	100
3	2231-303/026-000	100
4	2231-304/026-000	100
5	2231-305/026-000	100
6	2231-306/026-000	50
7	2231-307/026-000	50
8	2231-308/026-000	50
9	2231-309/026-000	50
10	2231-310/026-000	50
11	2231-311/026-000	25
12	2231-312/026-000	25
13	2231-313/026-000	25
14	2231-314/026-000	25
15	2231-315/026-000	25
16	2231-316/026-000	25
17	2231-317/026-000	25
18	2231-318/026-000	10
19	2231-319/026-000	10
20	2231-320/026-000	10
21	2231-321/026-000	10
22	2231-322/026-000	10
23	2231-323/026-000	10
24	2231-324/026-000	10

Pole No.	Item No.	PU
2	2231-302/102-000	100
3	2231-303/102-000	100
4	2231-304/102-000	100
5	2231-305/102-000	100
6	2231-306/102-000	50
7	2231-307/102-000	50
8	2231-308/102-000	50
9	2231-309/102-000	50
10	2231-310/102-000	50
11	2231-311/102-000	25
12	2231-312/102-000	25
13	2231-313/102-000	25
14	2231-314/102-000	25
15	2231-315/102-000	25
16	2231-316/102-000	25
17	2231-317/102-000	25
18	2231-318/102-000	10
19	2231-319/102-000	10
20	2231-320/102-000	10
21	2231-321/102-000	10
22	2231-322/102-000	10
23	2231-323/102-000	10
24	2231-324/102-000	10

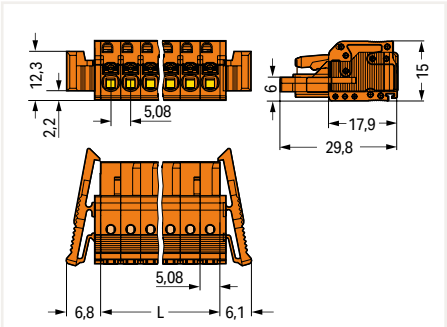
Pole No.	Item No.	PU
2	2231-302/037-000	100
3	2231-303/037-000	50
4	2231-304/037-000	50
5	2231-305/037-000	50
6	2231-306/037-000	50
7	2231-307/037-000	50
8	2231-308/037-000	25
9	2231-309/037-000	25
10	2231-310/037-000	25
11	2231-311/037-000	25
12	2231-312/037-000	25
13	2231-313/037-000	25
14	2231-314/037-000	25
15	2231-315/037-000	25
16	2231-316/037-000	10
17	2231-317/037-000	10
18	2231-318/037-000	10
19	2231-319/037-000	10
20	2231-320/037-000	10
21	2231-321/037-000	10
22	2231-322/037-000	10
23	2231-323/037-000	10
24	2231-324/037-000	10



L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5.08 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

Locking of plug-in connection: Screw flange

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



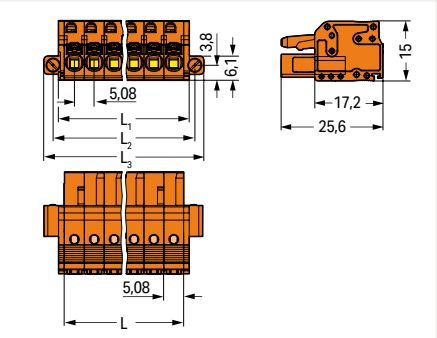




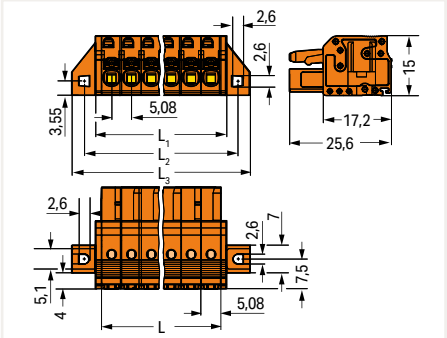
Pole No.	Item No.	PU
2	2231-302/107-000	100
3	2231-303/107-000	100
4	2231-304/107-000	50
5	2231-305/107-000	50
6	2231-306/107-000	50
7	2231-307/107-000	50
8	2231-308/107-000	50
9	2231-309/107-000	25
10	2231-310/107-000	25
12	2231-312/107-000	25
14	2231-314/107-000	25
15	2231-315/107-000	25
16	2231-316/107-000	10

Pole No.	Item No.	PU
2	2231-302/031-000	100
3	2231-303/031-000	50
4	2231-304/031-000	50
5	2231-305/031-000	50
6	2231-306/031-000	50
7	2231-307/031-000	50
8	2231-308/031-000	50
9	2231-309/031-000	50
10	2231-310/031-000	25
11	2231-311/031-000	25
12	2231-312/031-000	25
13	2231-313/031-000	25
14	2231-314/031-000	25
15	2231-315/031-000	25
16	2231-316/031-000	10
17	2231-317/031-000	10
18	2231-318/031-000	10
19	2231-319/031-000	10
20	2231-320/031-000	10
21	2231-321/031-000	10
22	2231-322/031-000	10
23	2231-323/031-000	10
24	2231-324/031-000	10

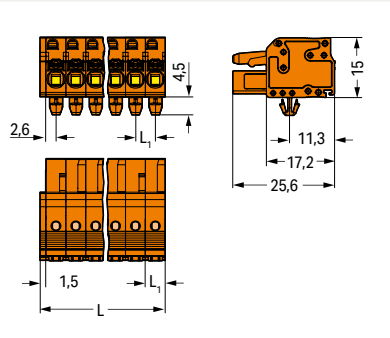
Pole No.	Item No.	PU
2	2231-302/008-000	100
3	2231-303/008-000	100
4	2231-304/008-000	100
5	2231-305/008-000	100
6	2231-306/008-000	50
7	2231-307/008-000	50
8	2231-308/008-000	50
9	2231-309/008-000	50
10	2231-310/008-000	50
11	2231-311/008-000	25
12	2231-312/008-000	25
13	2231-313/008-000	25
14	2231-314/008-000	25
15	2231-315/008-000	25
16	2231-316/008-000	25
17	2231-317/008-000	25
18	2231-318/008-000	10
19	2231-319/008-000	10
20	2231-320/008-000	10
21	2231-321/008-000	10
22	2231-322/008-000	10
23	2231-323/008-000	10
24	2231-324/008-000	10



L = pole no. x pin spacing
L_1 = L + 2.8 mm
L_2 = L + 5.4 mm
L_3 = L + 10 mm
2- to 3-pole female connectors – one latch only



L = pole no. x pin spacing
L_1 = L + 2.8 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only



L = (pole no. x pin spacing) + 1.5 mm
L_1 = 5.08 mm
2- to 3-pole female connectors – one latch only

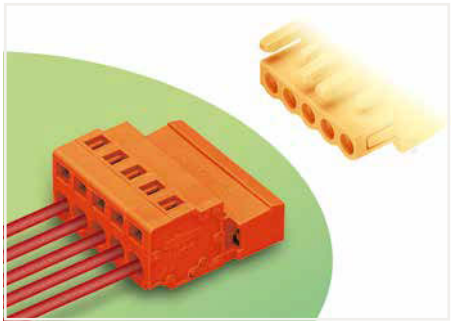
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

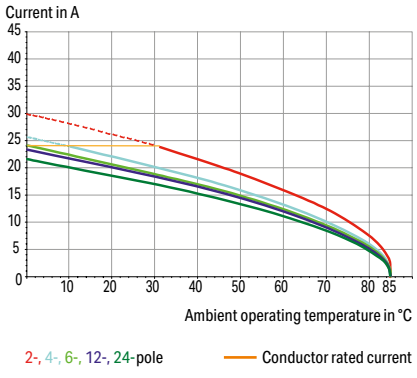
1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers

Derating Curve
1-conductor female connector (231-102/026-000) with 1-conductor male header (231-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 722
Ferrule	Page 847
General accessory	Page 723
Insulation stop	Page 723
Jumper	Page 729
Marking	Page 833
Mounting	Page 723, 837
Mounting adapter	Page 729
Strain relief	Page 726
Tools	Page 720, 838
Direct marking	Page 712
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

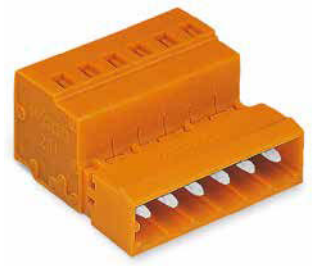
Environmental Requirements

Limit temperature range	-60 … +100 °C

1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

	Locking of plug-in connection: Threaded flange	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



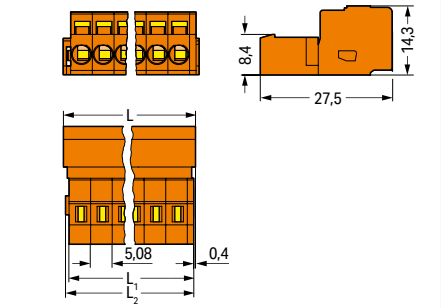




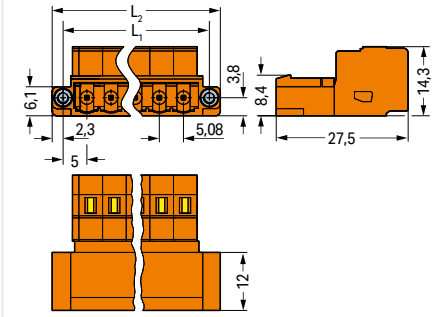
Pole No.	Item No.	PU
2	231-632	100
3	231-633	100
4	231-634	100
5	231-635	50
6	231-636	50
7	231-637	50
8	231-638	50
9	231-639	50
10	231-640	50
11	231-641	25
12	231-642	25
13	231-643	25
14	231-644	25
15	231-645	25
16	231-646	25
17	231-647	25
18	231-648	10
19	231-649	10
20	231-650	10
21	231-651	10
22	231-652	10
23	231-653	10
24	231-654	10

Pole No.	Item No.	PU
2	231-632/109-000	100
3	231-633/109-000	50
4	231-634/109-000	50
5	231-635/109-000	50
6	231-636/109-000	50
7	231-637/109-000	50
8	231-638/109-000	50
9	231-639/109-000	25
10	231-640/109-000	25
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14	231-644/109-000	25
15	231-645/109-000	25
16	231-646/109-000	10

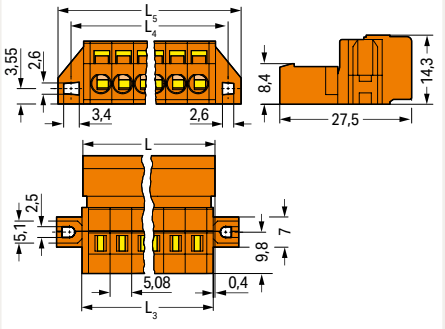
Pole No.	Item No.	PU
2	231-632/019-000	100
3	231-633/019-000	50
4	231-634/019-000	50
5	231-635/019-000	50
6	231-636/019-000	50
7	231-637/019-000	50
8	231-638/019-000	50
9	231-639/019-000	25
10	231-640/019-000	25
11	231-641/019-000	25
12	231-642/019-000	25
13	231-643/019-000	25
14	231-644/019-000	25
15	231-645/019-000	25
16	231-646/019-000	10
17	231-647/019-000	10
18	231-648/019-000	10
19	231-649/019-000	10
20	231-650/019-000	10
21	231-651/019-000	10
22	231-652/019-000	10
23	231-653/019-000	10
24	231-654/019-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm



L_1 = (pole no. x pin spacing) + 5.4 mm
L_2 = (pole no. x pin spacing) + 10 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 5.8 mm
L_5 = L_3 + 11.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

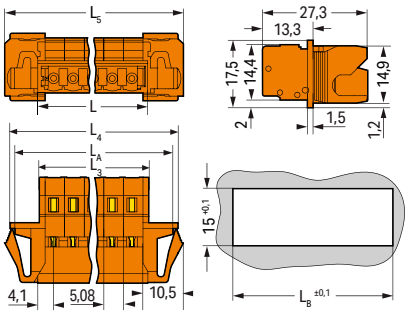
Type of mounting: Feed-through mounting ▸ Mounting type: Snap-in





Male connector, with snap-in flanges for feedthrough applications, for 0.5 … 2.5 mm plate thickness

Pole No.	Item No.	PU
2	231-632/114-000	50
3	231-633/114-000	50
4	231-634/114-000	50
5	231-635/114-000	50
6	231-636/114-000	50
7	231-637/114-000	25
8	231-638/114-000	25
9	231-639/114-000	25
10	231-640/114-000	25
11	231-641/114-000	25
12	231-642/114-000	25
13	231-643/114-000	25
14	231-644/114-000	25
15	231-645/114-000	10
16	231-646/114-000	10
17	231-647/114-000	10
18	231-648/114-000	10
19	231-649/114-000	10
20	231-650/114-000	10
21	231-651/114-000	10
22	231-652/114-000	10
23	231-653/114-000	10
24	231-654/114-000	10



L = (pole no. x pin spacing)+ 3.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

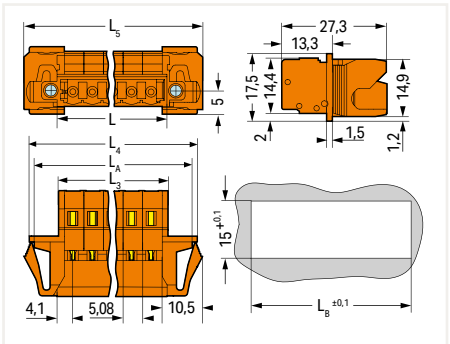
1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

Type of mounting: Feed-through mounting ▸ Mounting type: Snap-in ▸ Locking of plug-in connection: Threaded flange



Pole No.	Item No.	PU
2	231-632/129-000	50
3	231-633/129-000	50
4	231-634/129-000	50
5	231-635/129-000	50
6	231-636/129-000	50
7	231-637/129-000	25
8	231-638/129-000	25
9	231-639/129-000	25
10	231-640/129-000	25
12	231-642/129-000	25
14	231-644/129-000	25
15	231-645/129-000	10
16	231-646/129-000	10

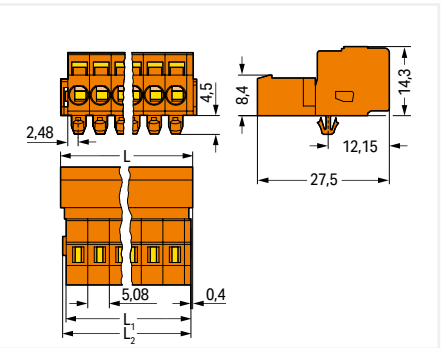


L = (pole no. x pin spacing)+ 3.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	231-632/018-000	100
3	231-633/018-000	100
4	231-634/018-000	100
5	231-635/018-000	50
6	231-636/018-000	50
7	231-637/018-000	50
8	231-638/018-000	50
9	231-639/018-000	50
10	231-640/018-000	50
11	231-641/018-000	25
12	231-642/018-000	25
13	231-643/018-000	25
14	231-644/018-000	25
15	231-645/018-000	25
16	231-646/018-000	25
17	231-647/018-000	25
18	231-648/018-000	10
19	231-649/018-000	10
20	231-650/018-000	10
21	231-651/018-000	10
22	231-652/018-000	10
23	231-653/018-000	10
24	231-654/018-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm

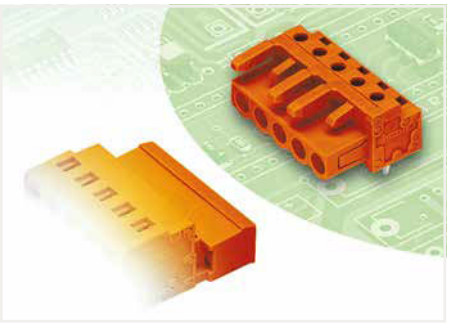
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

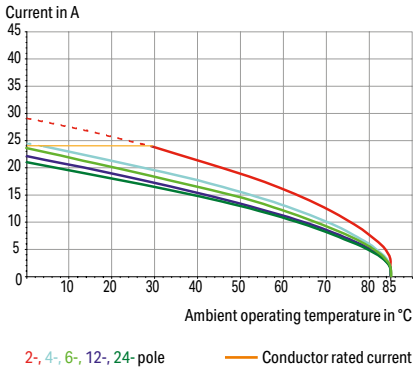
THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers

Derating Curve
THT female header (232-232) with
1-conductor male connector (231-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector, in line
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter (tolerance)	$1.3^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting	Page 723, 837
Testing and measuring	Page 721, 854
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

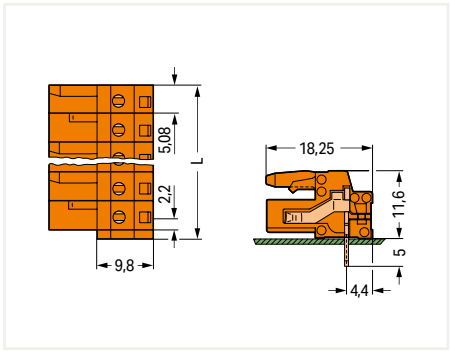
THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Mating direction to the PCB: 0°

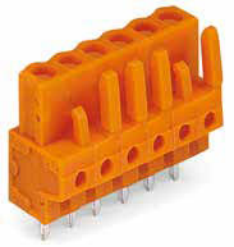


Pole No.	Item No.	PU
2	232-262	100
3	232-263	100
4	232-264	100
5	232-265	100
6	232-266	50
7	232-267	50
8	232-268	50
9	232-269	50
10	232-270	50
11	232-271	25
12	232-272	25
13	232-273	25
14	232-274	25
15	232-275	25
16	232-276	25
17	232-277	25
18	232-278	25
19	232-279	10
20	232-280	10
21	232-281	10
22	232-282	10
23	232-283	10
24	232-284	10

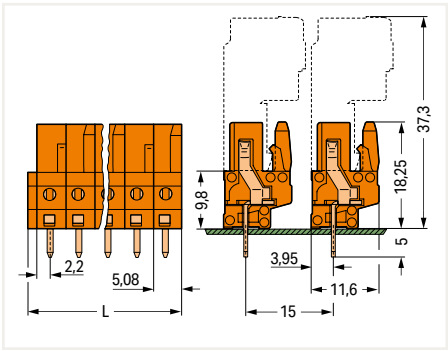


L = (pole no. x pin spacing) + 1.5 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-162	100
3	232-163	100
4	232-164	100
5	232-165	100
6	232-166	50
7	232-167	50
8	232-168	50
9	232-169	50
10	232-170	50
11	232-171	25
12	232-172	25
13	232-173	25
14	232-174	25
15	232-175	25
16	232-176	25
17	232-177	25
18	232-178	25
19	232-179	10
20	232-180	10
21	232-181	10
22	232-182	10
23	232-183	10
24	232-184	10

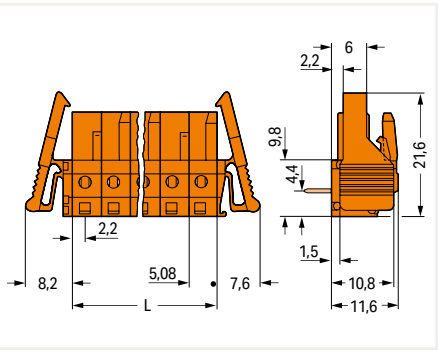


L = (pole no. x pin spacing) + 1.5 mm
2- to 3-pole female connectors – one latch only

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	232-262/039-000	100
3	232-263/039-000	50
4	232-264/039-000	50
5	232-265/039-000	50
6	232-266/039-000	50
7	232-267/039-000	50
8	232-268/039-000	50
9	232-269/039-000	25
10	232-270/039-000	25
11	232-271/039-000	25
12	232-272/039-000	25
13	232-273/039-000	25
14	232-274/039-000	25
15	232-275/039-000	25
16	232-276/039-000	10
17	232-277/039-000	10
18	232-278/039-000	10
19	232-279/039-000	10
20	232-280/039-000	10
21	232-281/039-000	10
22	232-282/039-000	10
23	232-283/039-000	10
24	232-284/039-000	10



L = pole no. x pin spacing
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

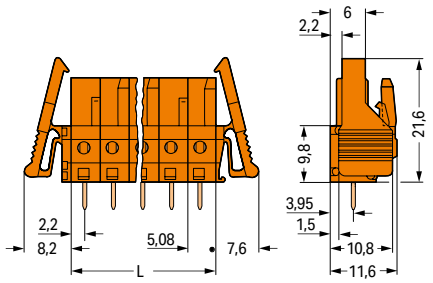
THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-162/039-000	100
3	232-163/039-000	50
4	232-164/039-000	50
5	232-165/039-000	50
6	232-166/039-000	50
7	232-167/039-000	50
8	232-168/039-000	50
9	232-169/039-000	25
10	232-170/039-000	25
11	232-171/039-000	25
12	232-172/039-000	25
13	232-173/039-000	25
14	232-174/039-000	25
15	232-175/039-000	25
16	232-176/039-000	10
17	232-177/039-000	10
18	232-178/039-000	10
19	232-179/039-000	10
20	232-180/039-000	10
21	232-181/039-000	10
22	232-182/039-000	10
23	232-183/039-000	10
24	232-184/039-000	10



L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

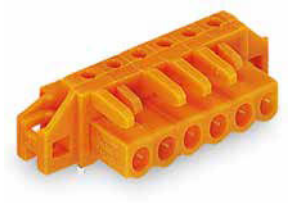
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

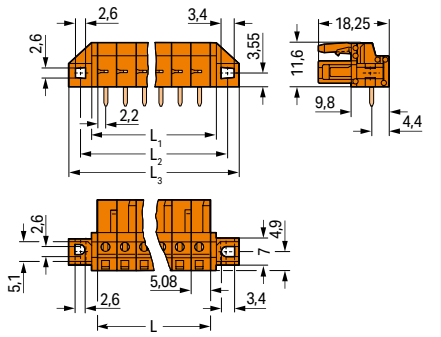
Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0°

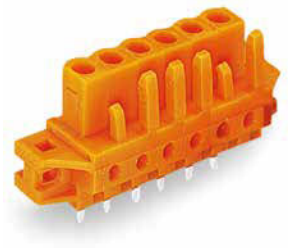


Pole No.	Item No.	PU
2	232-262/031-000	100
3	232-263/031-000	50
4	232-264/031-000	50
5	232-265/031-000	50
6	232-266/031-000	50
7	232-267/031-000	50
8	232-268/031-000	50
9	232-269/031-000	25
10	232-270/031-000	25
11	232-271/031-000	25
12	232-272/031-000	25
13	232-273/031-000	25
14	232-274/031-000	25
15	232-275/031-000	25
16	232-276/031-000	10
17	232-277/031-000	10
18	232-278/031-000	10
19	232-279/031-000	10
20	232-280/031-000	10
21	232-281/031-000	10
22	232-282/031-000	10
23	232-283/031-000	10
24	232-284/031-000	10

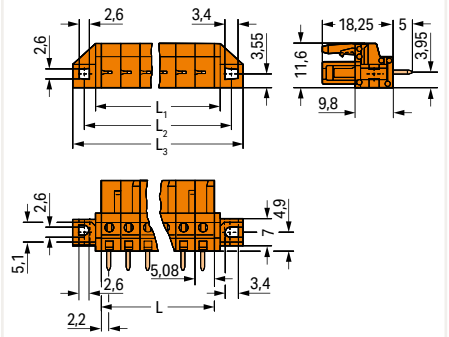


L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-162/031-000	100
3	232-163/031-000	50
4	232-164/031-000	50
5	232-165/031-000	50
6	232-166/031-000	50
7	232-167/031-000	50
8	232-168/031-000	50
9	232-169/031-000	25
10	232-170/031-000	25
11	232-171/031-000	25
12	232-172/031-000	25
13	232-173/031-000	25
14	232-174/031-000	25
15	232-175/031-000	25
16	232-176/031-000	10
17	232-177/031-000	10
18	232-178/031-000	10
19	232-179/031-000	10
20	232-180/031-000	10
21	232-181/031-000	10
22	232-182/031-000	10
23	232-183/031-000	10
24	232-184/031-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only



The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mount applications.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

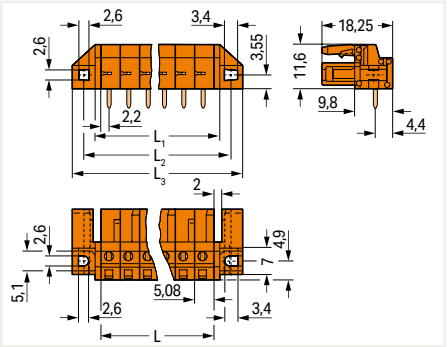
Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Type of mounting: Flush mounting, Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	232-262/047-000	100
3	232-263/047-000	50
4	232-264/047-000	50
5	232-265/047-000	50
6	232-266/047-000	50
7	232-267/047-000	50
8	232-268/047-000	50
9	232-269/047-000	25
10	232-270/047-000	25
11	232-271/047-000	25
12	232-272/047-000	25
13	232-273/047-000	25
14	232-274/047-000	25
15	232-275/047-000	25
16	232-276/047-000	10
17	232-277/047-000	10
18	232-278/047-000	10
19	232-279/047-000	10
20	232-280/047-000	10
21	232-281/047-000	10
22	232-282/047-000	10
23	232-283/047-000	10
24	232-284/047-000	10

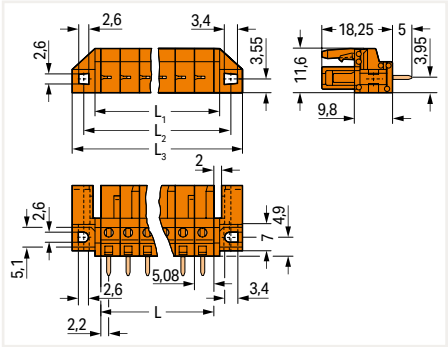


L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-162/047-000	100
3	232-163/047-000	50
4	232-164/047-000	50
5	232-165/047-000	50
6	232-166/047-000	50
7	232-167/047-000	50
8	232-168/047-000	50
9	232-169/047-000	25
10	232-170/047-000	25
11	232-171/047-000	25
12	232-172/047-000	25
13	232-173/047-000	25
14	232-174/047-000	25
15	232-175/047-000	25
16	232-176/047-000	10
17	232-177/047-000	10
18	232-178/047-000	10
19	232-179/047-000	10
20	232-180/047-000	10
21	232-181/047-000	10
22	232-182/047-000	10
23	232-183/047-000	10
24	232-184/047-000	10



L = pole no. x pin spacing
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only



The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mount applications.

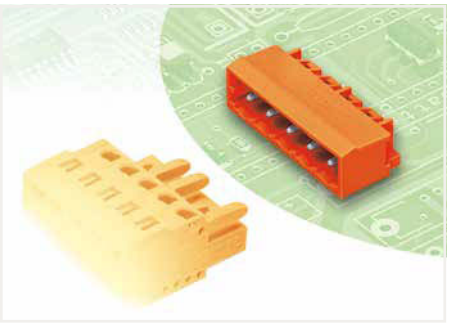
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

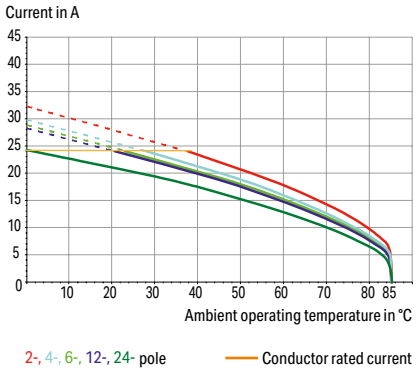
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers

Derating Curve
1-conductor female connector (231-102/026-000) with
THT male header (231-462/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per		UL 1059	
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per		CSA	
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1 x 1 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 722

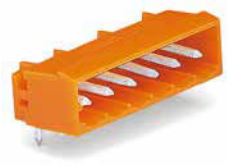
Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

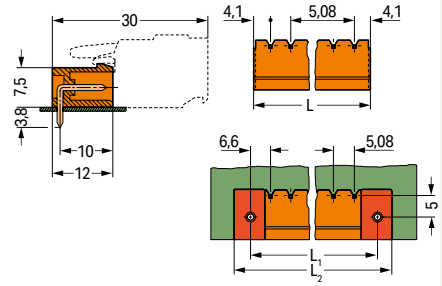
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	231-532/001-000	200
3	231-533/001-000	200
4	231-534/001-000	200
5	231-535/001-000	200
6	231-536/001-000	100
7	231-537/001-000	100
8	231-538/001-000	100
9	231-539/001-000	100
10	231-540/001-000	100
11	231-541/001-000	100
12	231-542/001-000	100
13	231-543/001-000	50
14	231-544/001-000	50
15	231-545/001-000	50
16	231-546/001-000	50
17	231-547/001-000	50
18	231-548/001-000	50
19	231-549/001-000	50
20	231-550/001-000	50
21	231-551/001-000	50
22	231-552/001-000	50
23	231-553/001-000	50
24	231-554/001-000	50

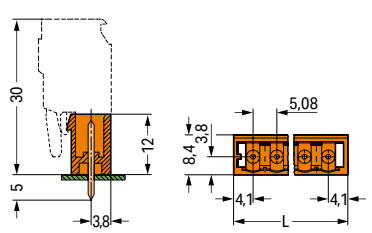


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	231-332/001-000	200
3	231-333/001-000	200
4	231-334/001-000	200
5	231-335/001-000	200
6	231-336/001-000	100
7	231-337/001-000	100
8	231-338/001-000	100
9	231-339/001-000	100
10	231-340/001-000	100
11	231-341/001-000	100
12	231-342/001-000	100
13	231-343/001-000	50
14	231-344/001-000	50
15	231-345/001-000	50
16	231-346/001-000	50
17	231-347/001-000	50
18	231-348/001-000	50
19	231-349/001-000	50
20	231-350/001-000	50
21	231-351/001-000	50
22	231-352/001-000	50
23	231-353/001-000	50
24	231-354/001-000	50

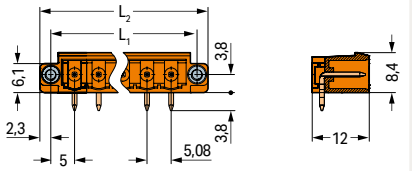


L = (pole no. – 1) x pin spacing + 8.2 mm

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	231-532/108-000	200
3	231-533/108-000	200
4	231-534/108-000	100
5	231-535/108-000	100
6	231-536/108-000	100
7	231-537/108-000	100
8	231-538/108-000	100
9	231-539/108-000	100
10	231-540/108-000	100
12	231-542/108-000	100
14	231-544/108-000	50
15	231-545/108-000	50
16	231-546/108-000	50



L_1 = (pole no. x pin spacing) + 5.4 mm
L_2 = (pole no. x pin spacing) + 10 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

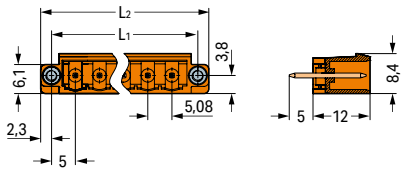
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	231-332/108-000	200
3	231-333/108-000	200
4	231-334/108-000	100
5	231-335/108-000	100
6	231-336/108-000	100
7	231-337/108-000	100
8	231-338/108-000	100
9	231-339/108-000	100
10	231-340/108-000	100
12	231-342/108-000	100
14	231-344/108-000	50
15	231-345/108-000	50
16	231-346/108-000	50



L_1 = (pole no. x pin spacing) + 5.4 mm
L_2 = (pole no. x pin spacing) + 10 mm

9

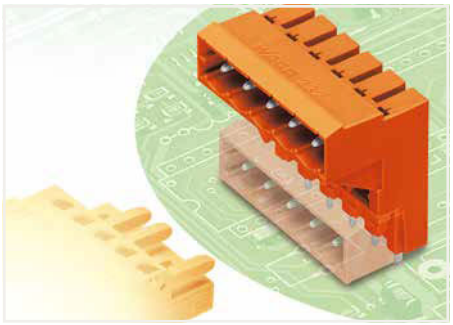
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

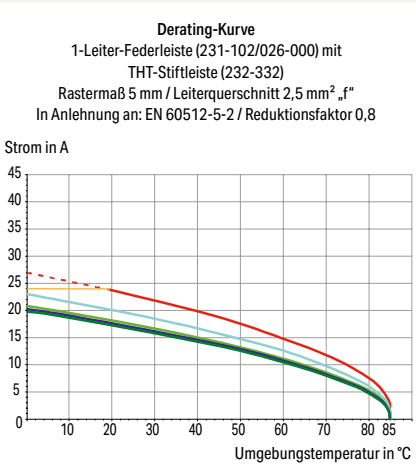
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Male Header for Double-Deck Assembly ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Mating direction to the PCB: 0° ▸ Color: orange



- Male headers for double-deck assembly provide high-density wiring for wire-toboard connections
- Horizontal PCB mounting
- Double-deck design allows male or female headers with angled solder pins to be placed on the lower deck
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin length	5 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

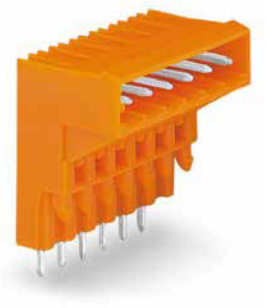
Coding Page 722

Additional information, see "Technical Section"

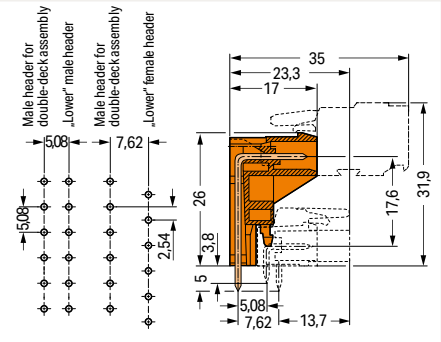
Approvals and corresponding ratings, visit www.wago.com

THT Male Header for Double-Deck Assembly ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Mating direction to the PCB: 0° ▸ Color: orange



Pole No.	Item No.	PU
2	232-362	100
3	232-363	100
4	232-364	100
6	232-366	50
8	232-368	50
10	232-370	50
12	232-372	50
16	232-376	25



Length = (pole no. – 1) x pin spacing + 8.2 mm
The solder pins of the basic male headers (lower deck) are in a line.
The solder pins of the basic female connectors (lower deck) are staggered by half a pin spacing.

9

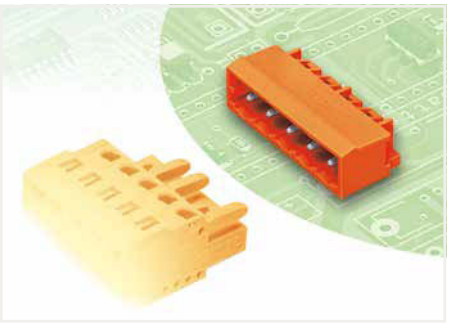
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

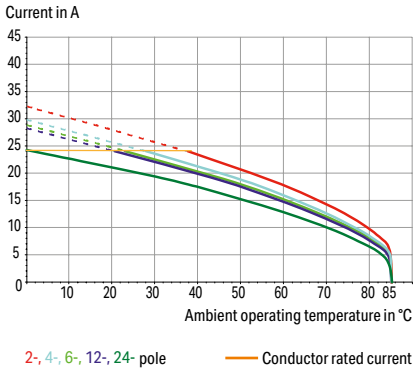
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers

Derating Curve
1-conductor female connector (231-102/026-000) with
THT male header (231-462/001-000)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	16 A	16 A	16 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	-			
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 722

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

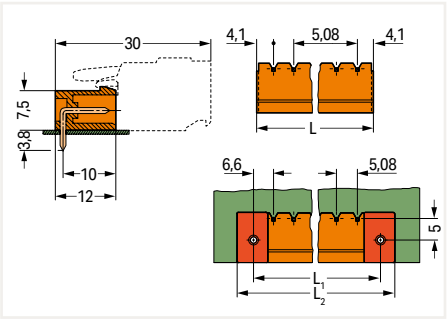
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: orange

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	231-562/001-000	200
3	231-563/001-000	200
4	231-564/001-000	200
5	231-565/001-000	200
6	231-566/001-000	100
7	231-567/001-000	100
8	231-568/001-000	100
9	231-569/001-000	100
10	231-570/001-000	100
11	231-571/001-000	100
12	231-572/001-000	100
13	231-573/001-000	50
14	231-574/001-000	50
15	231-575/001-000	50
16	231-576/001-000	50
17	231-577/001-000	50
18	231-578/001-000	50
19	231-579/001-000	50
20	231-580/001-000	50
21	231-581/001-000	50
22	231-582/001-000	50
23	231-583/001-000	50
24	231-584/001-000	50

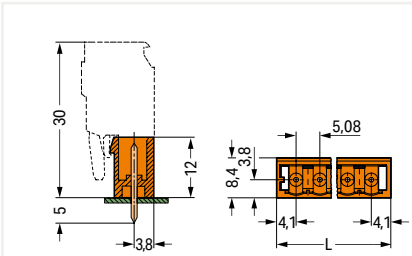


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	231-362/001-000	200
3	231-363/001-000	200
4	231-364/001-000	200
5	231-365/001-000	200
6	231-366/001-000	100
7	231-367/001-000	100
8	231-368/001-000	100
9	231-369/001-000	100
10	231-370/001-000	100
11	231-371/001-000	100
12	231-372/001-000	100
13	231-373/001-000	50
14	231-374/001-000	50
15	231-375/001-000	50
16	231-376/001-000	50
17	231-377/001-000	50
18	231-378/001-000	50
19	231-379/001-000	50
20	231-380/001-000	50
21	231-381/001-000	50
22	231-382/001-000	50
23	231-383/001-000	50
24	231-384/001-000	50

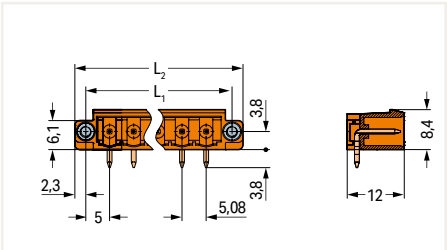


L = (pole no. – 1) x pin spacing + 8.2 mm

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	231-562/108-000	100
3	231-563/108-000	200
4	231-564/108-000	100
5	231-565/108-000	100
6	231-566/108-000	100
7	231-567/108-000	100
8	231-568/108-000	100
9	231-569/108-000	100
10	231-570/108-000	100
12	231-572/108-000	100
14	231-574/108-000	50
15	231-575/108-000	50
16	231-576/108-000	50



L_1 = (pole no. x pin spacing) + 5.4 mm
L_2 = (pole no. x pin spacing) + 10 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

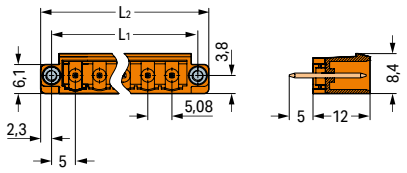
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: orange

Locking of plug-in connection: Threaded flange ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	231-362/108-000	200
3	231-363/108-000	200
4	231-364/108-000	100
5	231-365/108-000	100
6	231-366/108-000	100
7	231-367/108-000	100
8	231-368/108-000	100
9	231-369/108-000	100
10	231-370/108-000	100
12	231-372/108-000	100
14	231-374/108-000	50
15	231-375/108-000	50
16	231-376/108-000	50



L_1 = (pole no. x pin spacing) + 5.4 mm
L_2 = (pole no. x pin spacing) + 10 mm

9

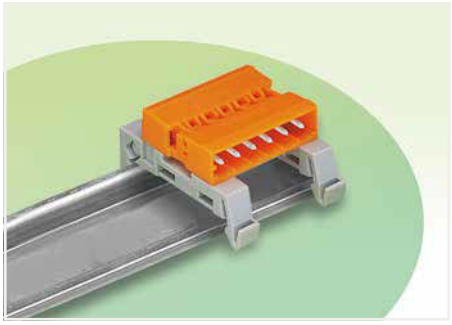
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

Double-Pin Male Connector ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 5.08 mm (0.2 inch) ▸ Type of mounting: DIN-35 rail ▸ Color: orange



- Allow MCS Female Connectors fitted with wire harness or cable assembly to be plugged together
- Adapter for DIN-35 rail mounting
- Coding via coding keys on both sides

Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

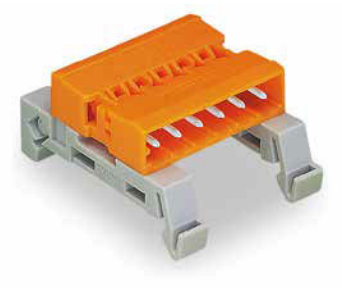
Environmental Requirements	
Limit temperature range	-60 … +100 °C

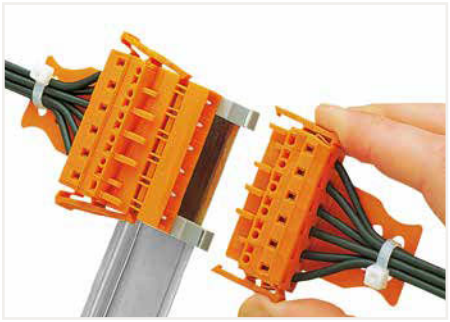
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Carrier rail	Page 836
Coding	Page 722
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

Double-Pin Male Connector ▸ *MCS* MIDI Classic ▸ 232 Series

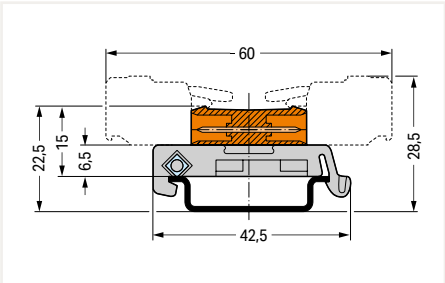
Pin spacing: 5.08 mm (0.2 inch) ▸ Type of mounting: DIN-35 rail ▸ Color: orange





Female connectors with locking levers

Pole No.	Item No.	PU
2	232-532/007-000	100
3	232-533/007-000	50
4	232-534/007-000	50
5	232-535/007-000	50
6	232-536/007-000	50
7	232-537/007-000	25
8	232-538/007-000	25
9	232-539/007-000	25
10	232-540/007-000	25
11	232-541/007-000	25
12	232-542/007-000	25
13	232-543/007-000	25
14	232-544/007-000	25
15	232-545/007-000	25
16	232-546/007-000	25
17	232-547/007-000	25
18	232-548/007-000	25
19	232-549/007-000	10
20	232-550/007-000	25
21	232-551/007-000	10
22	232-552/007-000	10
23	232-553/007-000	10
24	232-554/007-000	10



Total length = (pole no. – 1) x pin spacing + 8.2 mm

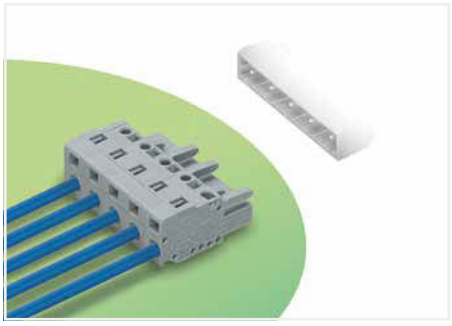
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

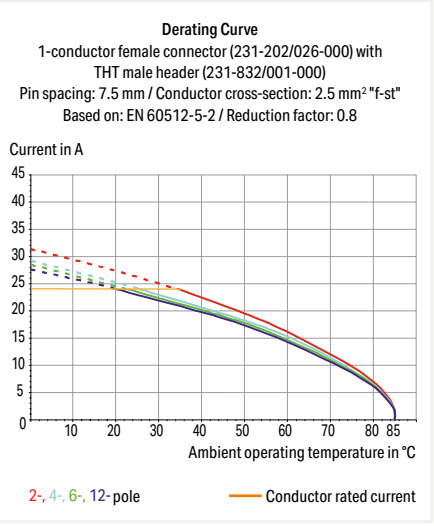
- Other pole numbers

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
General accessory	Page 723
Insulation stop	Page 723
Marking	Page 833
Mounting	Page 723, 837
Mounting adapter	Page 729
Strain relief	Page 727
Testing and measuring	Page 721, 854
Tools	Page 720, 838
Direct marking	Page 712
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

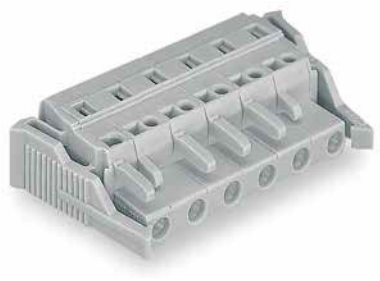
Limit temperature range	-60 … +85 °C

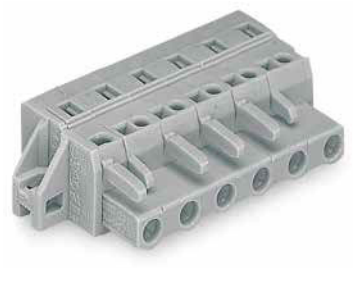
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

	Locking of plug-in connection: locking lever	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



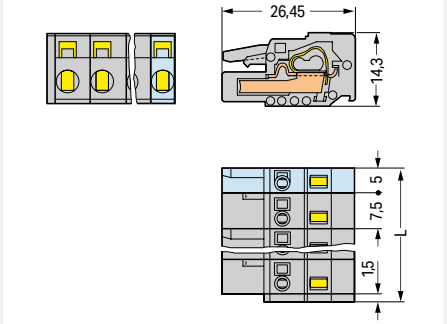




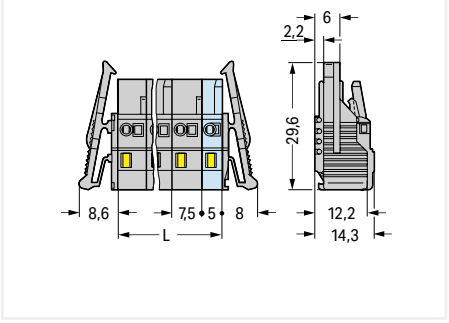
Pole No.	Item No.	PU
2	231-202/026-000	100
3	231-203/026-000	100
4	231-204/026-000	50
5	231-205/026-000	50
6	231-206/026-000	50
7	231-207/026-000	50
8	231-208/026-000	25
9	231-209/026-000	25
10	231-210/026-000	25
11	231-211/026-000	25
12	231-212/026-000	25
13	231-213/026-000	10
16	231-216/026-000	10

Pole No.	Item No.	PU
2	231-202/037-000	50
3	231-203/037-000	50
4	231-204/037-000	50
5	231-205/037-000	50
6	231-206/037-000	25
7	231-207/037-000	25
8	231-208/037-000	25
9	231-209/037-000	25
10	231-210/037-000	25
11	231-211/037-000	10
12	231-212/037-000	10
13	231-213/037-000	10
16	231-216/037-000	10

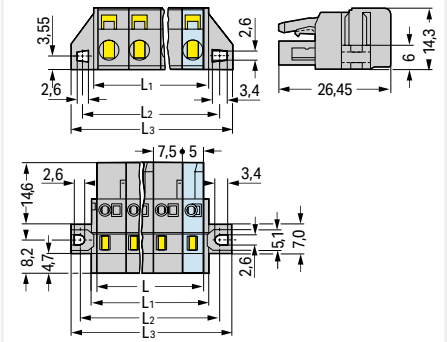
Pole No.	Item No.	PU
2	231-202/031-000	50
3	231-203/031-000	50
4	231-204/031-000	50
5	231-205/031-000	50
6	231-206/031-000	25
7	231-207/031-000	25
8	231-208/031-000	25
9	231-209/031-000	25
10	231-210/031-000	25
11	231-211/031-000	10
12	231-212/031-000	10
13	231-213/031-000	10
16	231-216/031-000	10



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

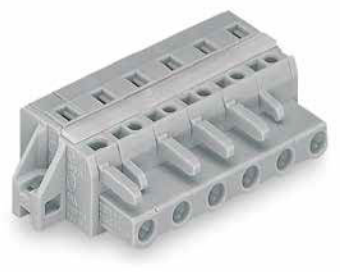
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

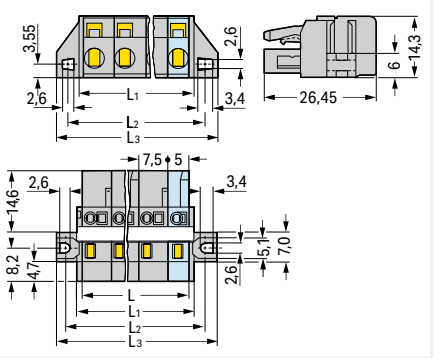
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strip

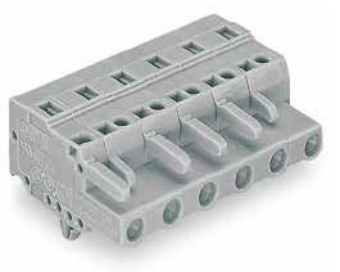


Pole No.	Item No.	PU
6	231-206/027-000	25
7	231-207/027-000	25
8	231-208/027-000	25
9	231-209/027-000	25
10	231-210/027-000	25
11	231-211/027-000	10
12	231-212/027-000	10
13	231-213/027-000	10
16	231-216/027-000	10

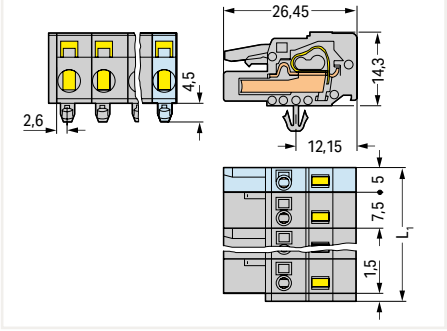


L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	231-202/008-000	100
3	231-203/008-000	100
4	231-204/008-000	50
5	231-205/008-000	50
6	231-206/008-000	50
7	231-207/008-000	50
8	231-208/008-000	25
9	231-209/008-000	25
10	231-210/008-000	25
11	231-211/008-000	25
12	231-212/008-000	25
13	231-213/008-000	10
16	231-216/008-000	10



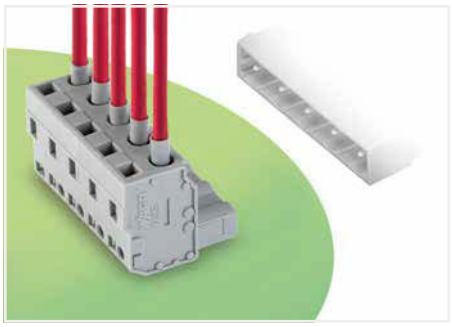
L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

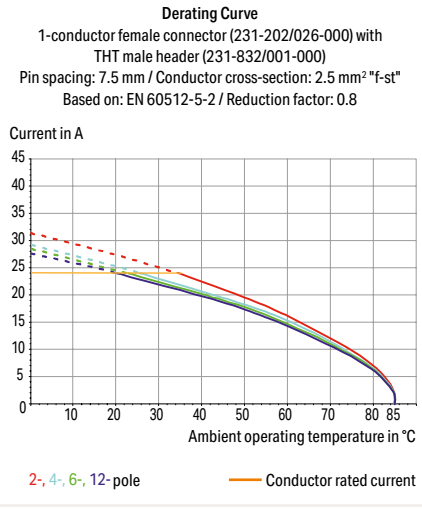
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 732 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 270° ▸ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	14 A	14 A	14 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

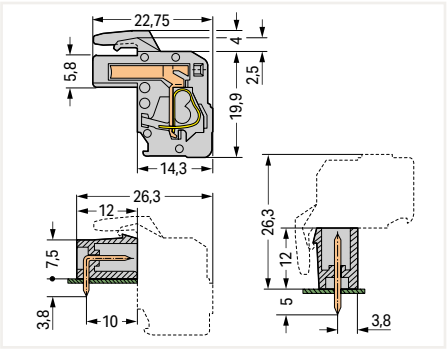
Ferrule	Page 847
Insulation stop	Page 723
Marking	Page 833
Strain relief	Page 727
Testing and measuring	Page 721, 854
Tools	Page 720
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 732 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 270° ▸ Color: gray



Pole No.	Item No.	PU
2	732-102/026-000	100
3	732-103/026-000	100
4	732-104/026-000	50
5	732-105/026-000	25
6	732-106/026-000	50
7	732-107/026-000	50
8	732-108/026-000	25
9	732-109/026-000	25
10	732-110/026-000	25
11	732-111/026-000	25
12	732-112/026-000	25
16	732-116/026-000	10



Total length = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm + 0.9 mm

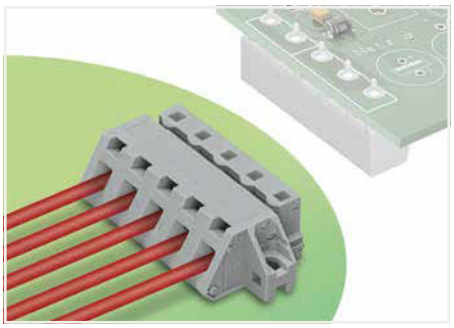
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

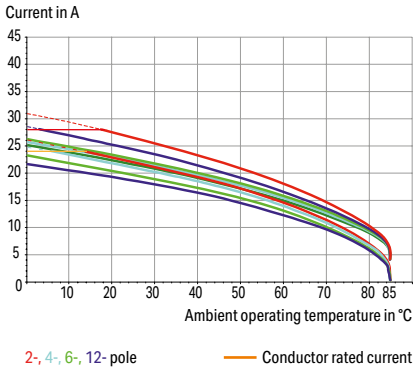
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90° ▸ Color: gray



- Universal connection for all conductor types
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- Mounting adapter allows versions with snap-in mounting feet to be DIN-rail mounted
- Easy conductor termination, even when halves are mated

Derating Curve
1-conductor female connector (731-532/031-000) with THT male header (231-232/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	7 … 8 mm / 0.28 … 0.31 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Marking	Page 833
Mounting	Page 723, 837
Strain relief	Page 727
Testing and measuring	Page 721
Tools	Page 720, 838
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90° ▸ Color: gray

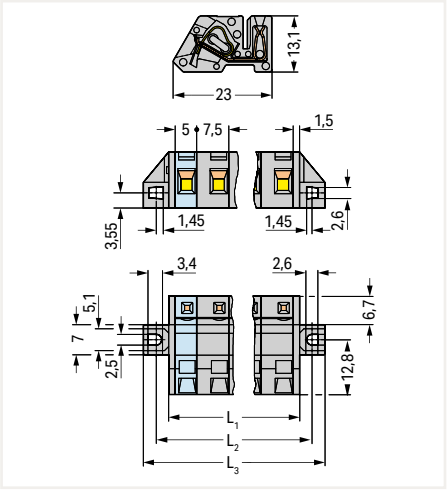
Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange





Angled female connector used as through-panel connector.
Termination ports and operating slots are located outside the housing – panel thickness up to 2 mm.

Pole No.	Item No.	PU
2	731-532/031-000	50
3	731-533/031-000	50
4	731-534/031-000	50
5	731-535/031-000	25
6	731-536/031-000	25
7	731-537/031-000	25
8	731-538/031-000	25
9	731-539/031-000	25
10	731-540/031-000	25
11	731-541/031-000	10
12	731-542/031-000	10
13	731-543/031-000	10
16	731-546/031-000	10



L_1 = (pole no. – 1) x pin spacing + 5 mm + 3 mm
L_2 = (pole no. – 1) x pin spacing + 5 mm + 8.8 mm
L_3 = (pole no. – 1) x pin spacing + 5 mm 14.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 90° ▸ Color: gray

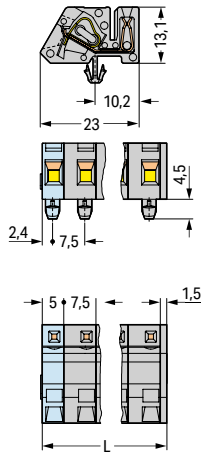
Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot





Angled female connector with DIN-35 rail-mount adapter (209-120)

Pole No.	Item No.	PU
2	731-532/008-000	100
3	731-533/008-000	100
4	731-534/008-000	50
5	731-535/008-000	50
6	731-536/008-000	50
7	731-537/008-000	50
8	731-538/008-000	25
9	731-539/008-000	25
10	731-540/008-000	25
11	731-541/008-000	25
12	731-542/008-000	25
13	731-543/008-000	10
16	731-546/008-000	10



L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

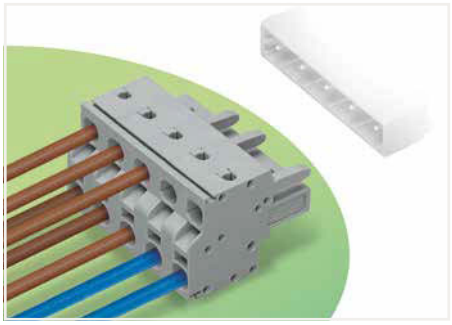
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

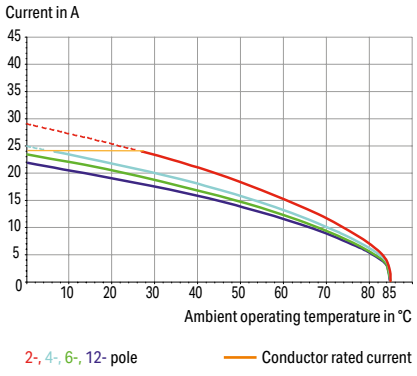
2-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or Data buses
- Bus connection is retained, even when unmated
- Push-in termination of solid and ferruled conductors
- With coding fingers

Derating Curve
2-conductor female connector (231-2202/026-000) with THT male header (231-262/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +85 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

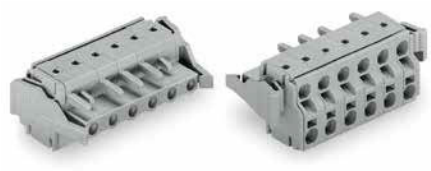
Ferrule	Page 847
General accessory	Page 723
Insulation stop	Page 723
Marking	Page 833
Strain relief	Page 725
Testing and measuring	Page 721, 854
Tools	Page 838
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

2-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

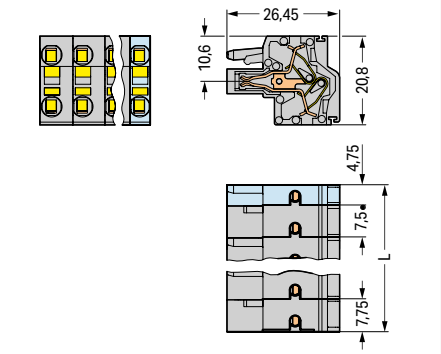
Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

Locking of plug-in connection: locking lever



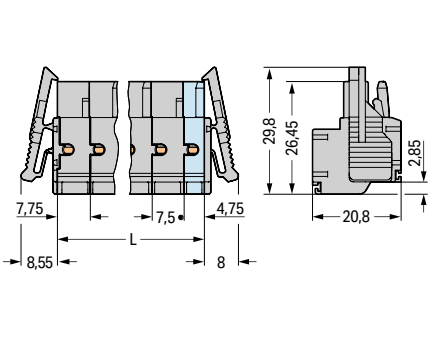


Pole No.	Item No.	PU
2	231-2202/026-000	100
3	231-2203/026-000	100
4	231-2204/026-000	50
5	231-2205/026-000	50
6	231-2206/026-000	50
7	231-2207/026-000	50
8	231-2208/026-000	25
9	231-2209/026-000	25
10	231-2210/026-000	25
11	231-2211/026-000	25
12	231-2212/026-000	25

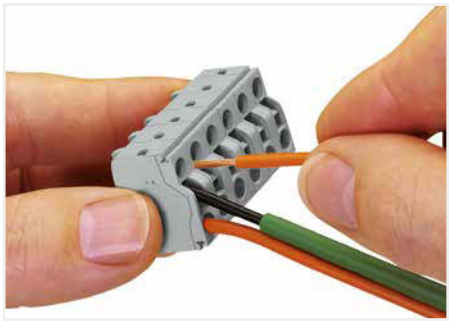


L = (pole no. – 2) x pin spacing + 12.5 mm
2- to 3-pole female connectors – one latch only

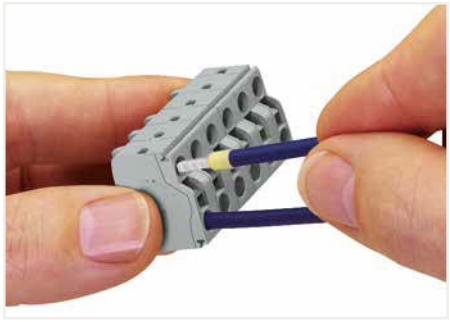
Pole No.	Item No.	PU
2	231-2202/037-000	50
3	231-2203/037-000	50
4	231-2204/037-000	50
5	231-2205/037-000	50
6	231-2206/037-000	25
7	231-2207/037-000	25
8	231-2208/037-000	25
9	231-2209/037-000	25
10	231-2210/037-000	25
11	231-2211/037-000	10
12	231-2212/037-000	10



L = (pole no. – 2) x pin spacing + 12.5 mm
2- to 3-pole female connectors – one latch only



Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

9

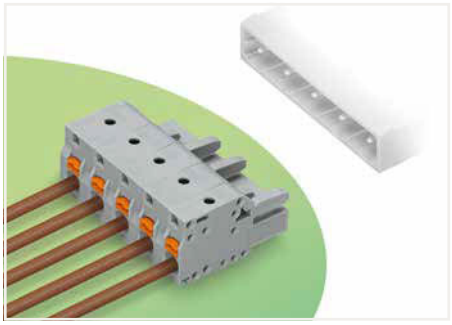
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

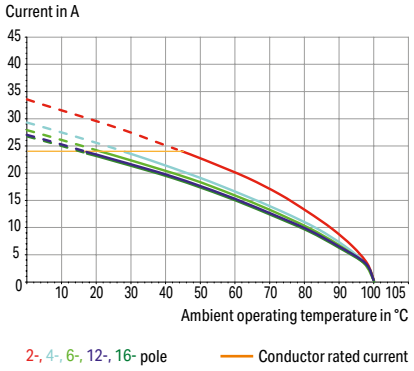
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- With coding fingers

Derating Curve
1-conductor female connector (2231-202/026-000) with THT male header (231-262/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approvals per		UL 1059	
Use Group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per		CSA	
Use Group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

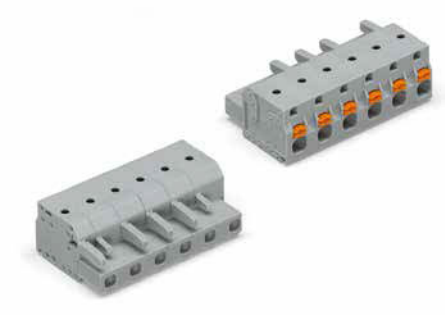
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

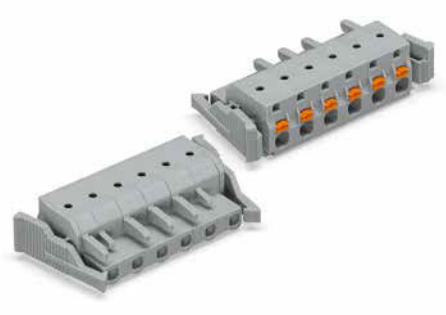
Ferrule	Page 847
Insulation stop	Page 723
Marking	Page 833
Mounting	Page 728
Strain relief	Page 725
Testing and measuring	Page 721, 854
Tools	Page 838
Cutout dimensions	Page 716
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

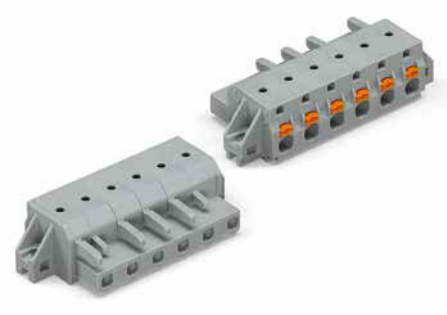
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

	Locking of plug-in connection: locking lever	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



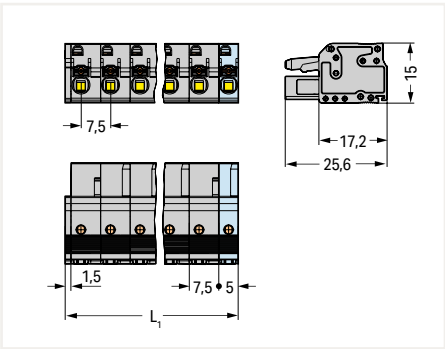




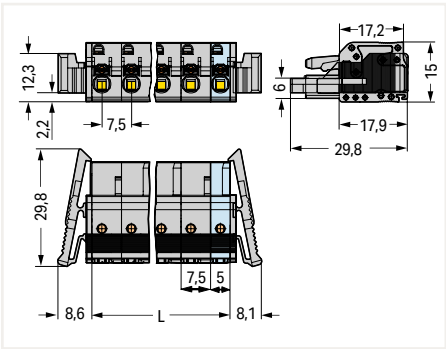
Pole No.	Item No.	PU
2	2231-202/026-000	100
3	2231-203/026-000	100
4	2231-204/026-000	50
5	2231-205/026-000	50
6	2231-206/026-000	50
7	2231-207/026-000	50
8	2231-208/026-000	25
9	2231-209/026-000	25
10	2231-210/026-000	25
11	2231-211/026-000	25
12	2231-212/026-000	25
13	2231-213/026-000	10
16	2231-216/026-000	10

Pole No.	Item No.	PU
2	2231-202/037-000	50
3	2231-203/037-000	50
4	2231-204/037-000	50
5	2231-205/037-000	50
6	2231-206/037-000	25
7	2231-207/037-000	25
8	2231-208/037-000	25
9	2231-209/037-000	25
10	2231-210/037-000	25
11	2231-211/037-000	10
12	2231-212/037-000	10
13	2231-213/037-000	10
16	2231-216/037-000	10

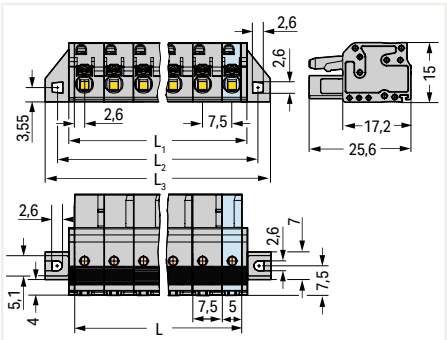
Pole No.	Item No.	PU
2	2231-202/031-000	50
3	2231-203/031-000	50
4	2231-204/031-000	50
5	2231-205/031-000	50
6	2231-206/031-000	25
7	2231-207/031-000	25
8	2231-208/031-000	25
9	2231-209/031-000	25
10	2231-210/031-000	25
11	2231-211/031-000	10
12	2231-212/031-000	10
13	2231-213/031-000	10
16	2231-216/031-000	10



L_1 = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5 mm
L_1 = L + 2.8 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

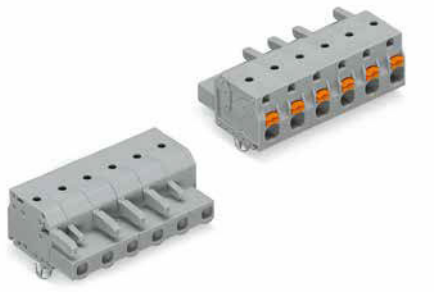
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

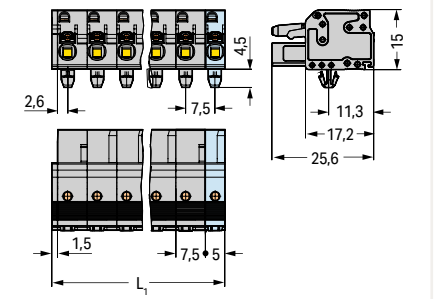
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	2231-202/008-000	100
3	2231-203/008-000	100
4	2231-204/008-000	50
5	2231-205/008-000	50
6	2231-206/008-000	50
7	2231-207/008-000	50
8	2231-208/008-000	25
9	2231-209/008-000	25
10	2231-210/008-000	25
11	2231-211/008-000	25
12	2231-212/008-000	25
13	2231-213/008-000	10
16	2231-216/008-000	10



L_1 = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2- to 3-pole female connectors – one latch only

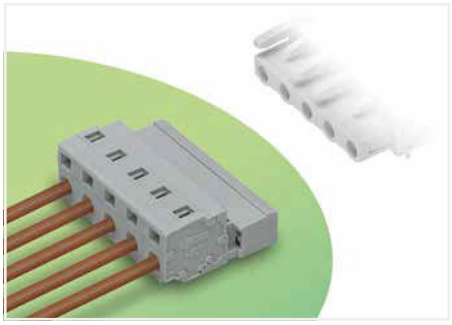
9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:
- Gold-plated or partially gold-plated contact surfaces

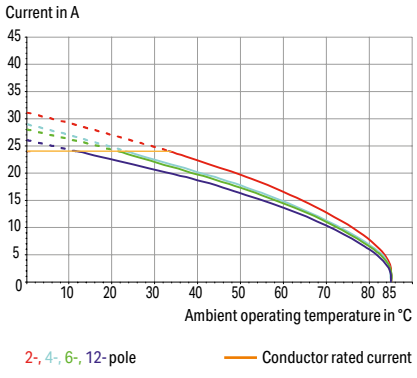
1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with 1-conductor male connector (731-602)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

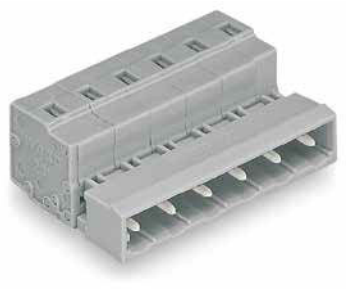
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

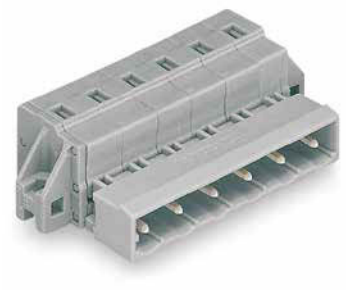
Coding	Page 722
Ferrule	Page 847
General accessory	Page 723
Insulation stop	Page 723
Marking	Page 833
Mounting	Page 723, 837
Mounting adapter	Page 729
Strain relief	Page 727
Tools	Page 720, 838
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

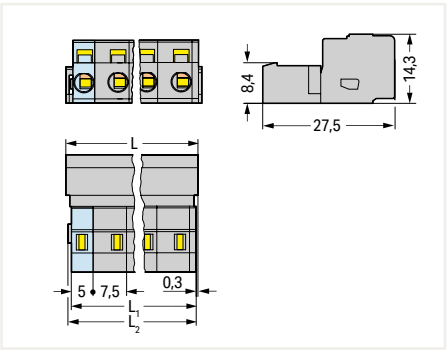
	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



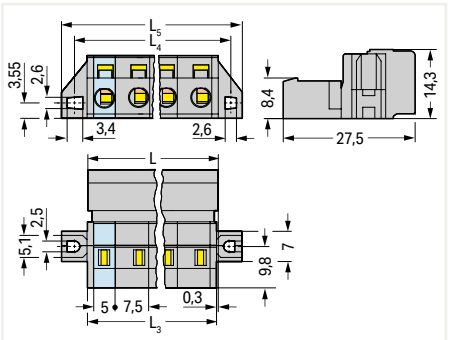


Pole No.	Item No.	PU
2	731-602	100
3	731-603	100
4	731-604	50
5	731-605	50
6	731-606	50
7	731-607	50
8	731-608	25
9	731-609	25
10	731-610	25
11	731-611	25
12	731-612	25
13	731-613	10
16	731-616	10

Pole No.	Item No.	PU
2	731-602/019-000	50
3	731-603/019-000	50
4	731-604/019-000	50
5	731-605/019-000	50
6	731-606/019-000	25
7	731-607/019-000	25
8	731-608/019-000	25
9	731-609/019-000	25
10	731-610/019-000	25
11	731-611/019-000	10
12	731-612/019-000	10
13	731-613/019-000	10
16	731-616/019-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 5.8 mm
L_5 = L_3 + 11.8 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

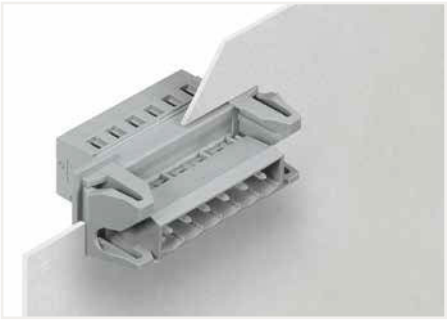
- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

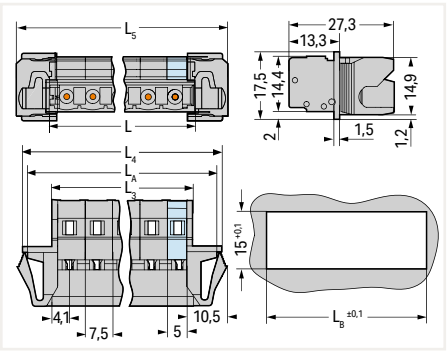
Type of mounting: Feed-through mounting ▸ Mounting type: Snap-in





Male connector, with snap-in flanges for feedthrough applications, for 0.5 … 2.5 mm plate thickness

Pole No.	Item No.	PU
2	731-602/114-000	50
3	731-603/114-000	50
4	731-604/114-000	50
5	731-605/114-000	25
6	731-606/114-000	25
7	731-607/114-000	25
8	731-608/114-000	25
9	731-609/114-000	25
10	731-610/114-000	10
11	731-611/114-000	10
12	731-612/114-000	10
13	731-613/114-000	10
16	731-616/114-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

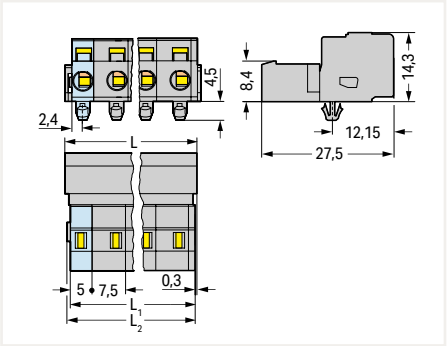
1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: gray

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	731-602/018-000	100
3	731-603/018-000	100
4	731-604/018-000	50
5	731-605/018-000	50
6	731-606/018-000	50
7	731-607/018-000	50
8	731-608/018-000	25
9	731-609/018-000	25
10	731-610/018-000	25
11	731-611/018-000	25
12	731-612/018-000	25
13	731-613/018-000	10
16	731-616/018-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

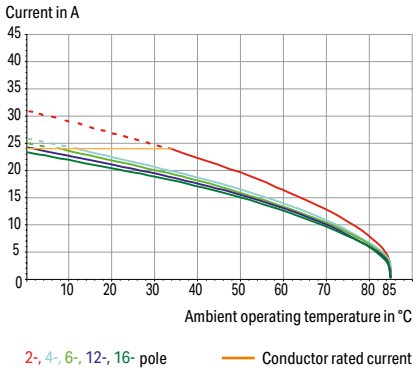
THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers

Derating Curve
THT female header (232-832) with
1-conductor male connector (731-602)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	12 A	12 A	12 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	-			
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire female connector, in line
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter (tolerance)	$1.3^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +85 °C

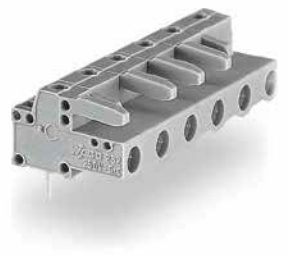
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting	Page 723, 837
Testing and measuring	Page 721, 854
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

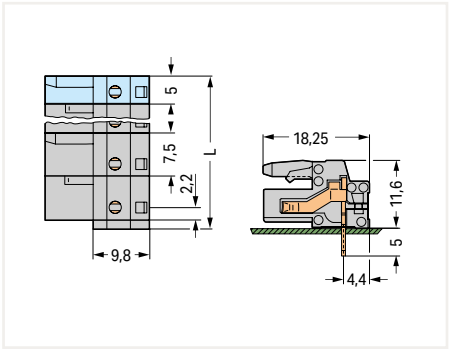
THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	232-832	100
3	232-833	100
4	232-834	50
5	232-835	50
6	232-836	50
7	232-837	50
8	232-838	25
9	232-839	25
10	232-840	25
11	232-841	25
12	232-842	25
13	232-843	10
16	232-846	10

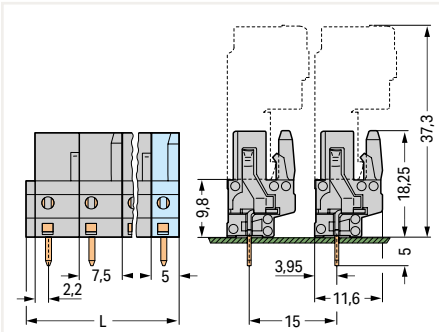


L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-732	100
3	232-733	100
4	232-734	50
5	232-735	50
6	232-736	50
7	232-737	50
8	232-738	25
9	232-739	25
10	232-740	25
11	232-741	25
12	232-742	25
13	232-743	10
16	232-746	10

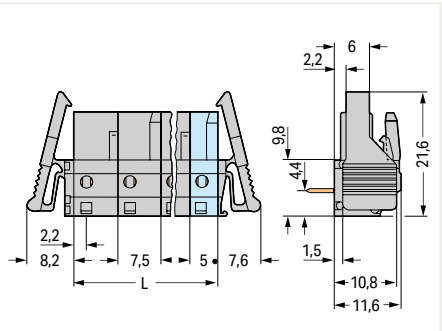


L = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm
2- to 3-pole female connectors – one latch only

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	232-832/039-000	50
3	232-833/039-000	50
4	232-834/039-000	50
5	232-835/039-000	50
6	232-836/039-000	25
7	232-837/039-000	25
8	232-838/039-000	25
9	232-839/039-000	25
10	232-840/039-000	25
11	232-841/039-000	10
12	232-842/039-000	10
13	232-843/039-000	10
16	232-846/039-000	10



L = (pole no. – 1) x pin spacing + 5 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

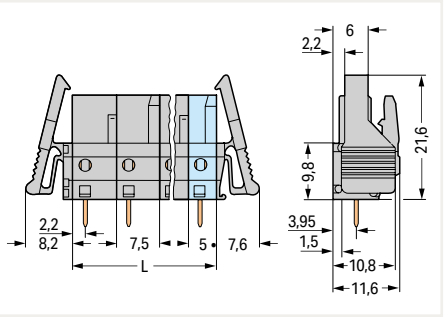
THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-732/039-000	50
3	232-733/039-000	50
4	232-734/039-000	50
5	232-735/039-000	50
6	232-736/039-000	25
7	232-737/039-000	25
8	232-738/039-000	25
9	232-739/039-000	25
10	232-740/039-000	25
11	232-741/039-000	10
12	232-742/039-000	10
13	232-743/039-000	10
16	232-746/039-000	10



L = (pole no. – 1) x pin spacing + 5 mm
2- to 3-pole female connectors – one latch only

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

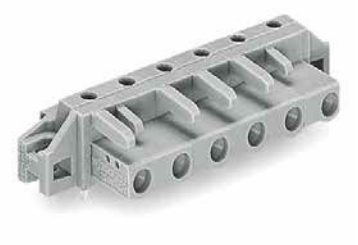
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

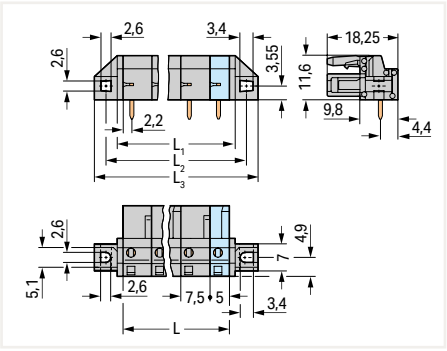
Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0°

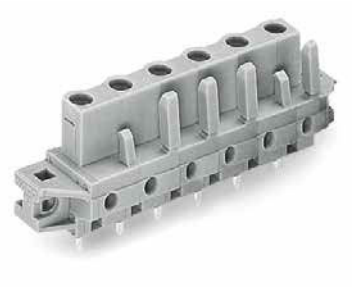


Pole No.	Item No.	PU
2	232-832/031-000	50
3	232-833/031-000	50
4	232-834/031-000	50
5	232-835/031-000	50
6	232-836/031-000	25
7	232-837/031-000	25
8	232-838/031-000	25
9	232-839/031-000	25
10	232-840/031-000	25
11	232-841/031-000	10
12	232-842/031-000	10
13	232-843/031-000	10
16	232-846/031-000	10

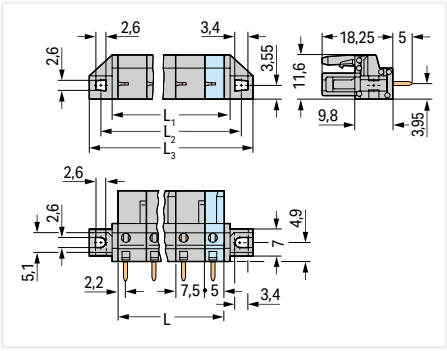


L = (pole no. – 1) x pin spacing + 5 mm
L1 = L + 3 mm
L2 = L + 8.8 mm
L3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

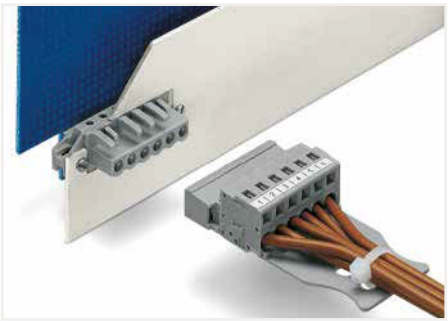
Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-732/031-000	50
3	232-733/031-000	50
4	232-734/031-000	50
5	232-735/031-000	50
6	232-736/031-000	25
7	232-737/031-000	25
8	232-738/031-000	25
9	232-739/031-000	25
10	232-740/031-000	25
11	232-741/031-000	10
12	232-742/031-000	25
13	232-743/031-000	10
16	232-746/031-000	10



L = (pole no. – 1) x pin spacing + 5 mm
L1 = L + 3 mm
L2 = L + 8.8 mm
L3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only



The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mount applications.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

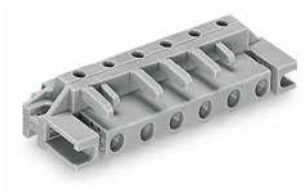
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

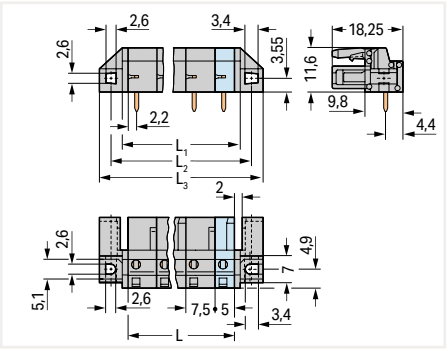
Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: gray

Type of mounting: Flush mounting, Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0°

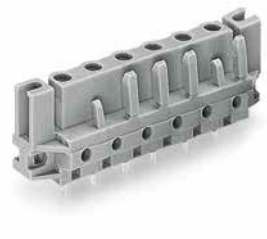


Pole No.	Item No.	PU
2	232-832/047-000	50
3	232-833/047-000	50
4	232-834/047-000	50
5	232-835/047-000	50
6	232-836/047-000	25
7	232-837/047-000	25
8	232-838/047-000	25
9	232-839/047-000	25
10	232-840/047-000	25
11	232-841/047-000	10
12	232-842/047-000	10
13	232-843/047-000	10
16	232-846/047-000	10

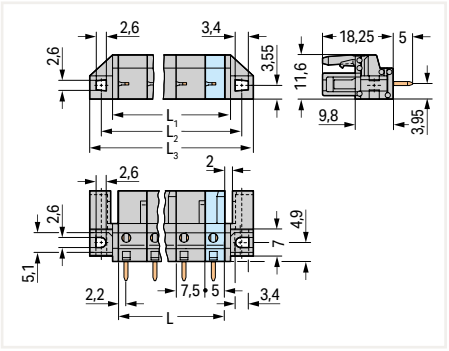


L = (pole no. – 1) x pin spacing + 5 mm
L1 = L + 3 mm
L2 = L + 8.8 mm
L3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-732/047-000	100
3	232-733/047-000	50
4	232-734/047-000	50
5	232-735/047-000	50
6	232-736/047-000	25
7	232-737/047-000	50
8	232-738/047-000	25
9	232-739/047-000	25
10	232-740/047-000	25
11	232-741/047-000	25
12	232-742/047-000	25
13	232-743/047-000	10
16	232-746/047-000	10



L = (pole no. – 1) x pin spacing + 5 mm
L1 = L + 3 mm
L2 = L + 8.8 mm
L3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only



The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mount applications.

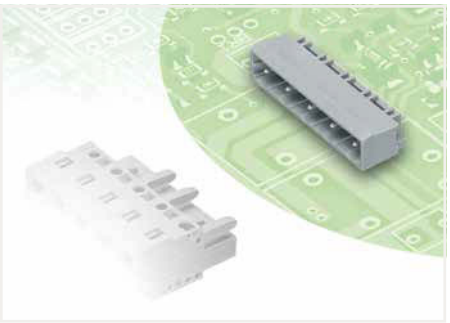
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

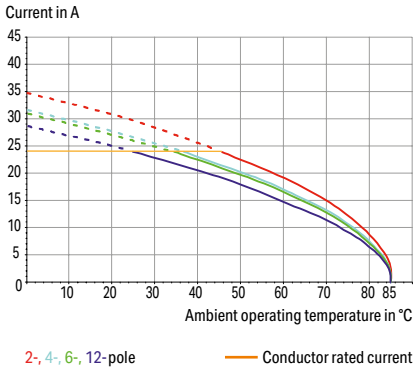
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with
THT male header (231-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1 x 1 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 722
Mounting	Page 723, 837
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

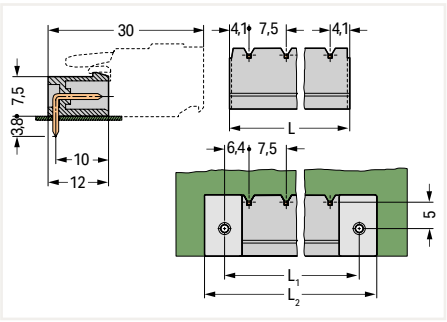
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	231-832/001-000	200
3	231-833/001-000	200
4	231-834/001-000	100
5	231-835/001-000	100
6	231-836/001-000	100
7	231-837/001-000	50
8	231-838/001-000	50
9	231-839/001-000	50
10	231-840/001-000	50
11	231-841/001-000	50
12	231-842/001-000	50
13	231-843/001-000	50
16	231-846/001-000	50

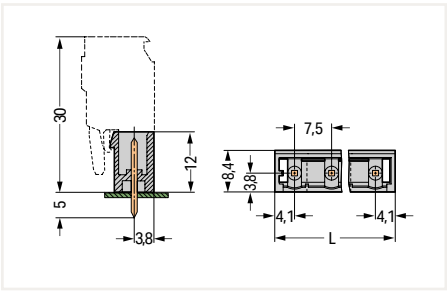


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	231-232/001-000	200
3	231-233/001-000	200
4	231-234/001-000	100
5	231-235/001-000	100
6	231-236/001-000	100
7	231-237/001-000	50
8	231-238/001-000	50
9	231-239/001-000	50
10	231-240/001-000	50
11	231-241/001-000	50
12	231-242/001-000	50
13	231-243/001-000	50
16	231-246/001-000	50

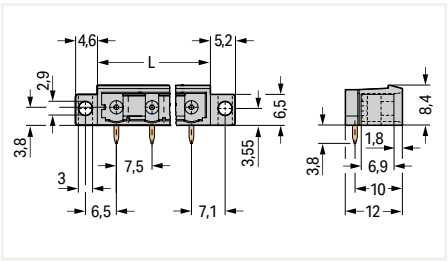


L = (pole no. – 1) x pin spacing + 8.2 mm

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
10	231-840/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

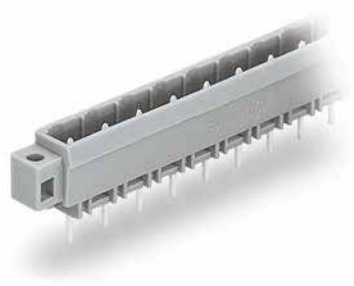
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

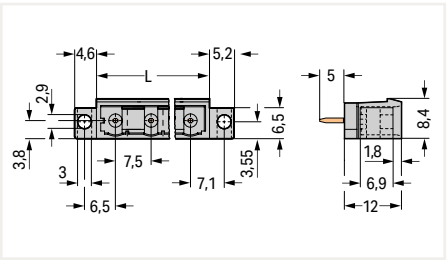
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
10	231-240/040-000	25



L = (pole no. – 1) x pin spacing + 8.2 mm

9

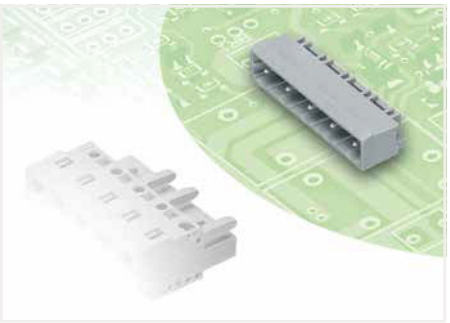
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

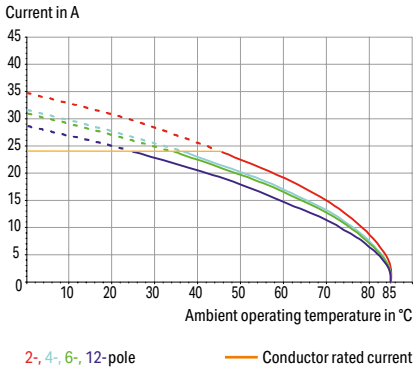
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: gray



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with THT male header (231-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 722
Mounting	Page 723, 837
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

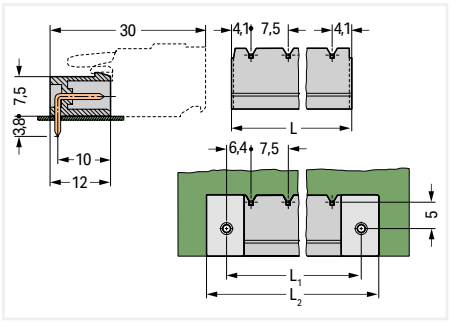
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	231-862/001-000	200
3	231-863/001-000	200
4	231-864/001-000	100
5	231-865/001-000	100
6	231-866/001-000	100
7	231-867/001-000	50
8	231-868/001-000	50
9	231-869/001-000	50
10	231-870/001-000	50
11	231-871/001-000	50
12	231-872/001-000	50
13	231-873/001-000	50
16	231-876/001-000	50

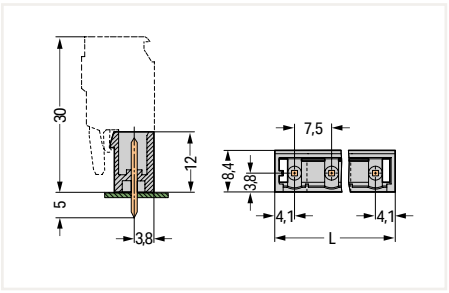


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90°

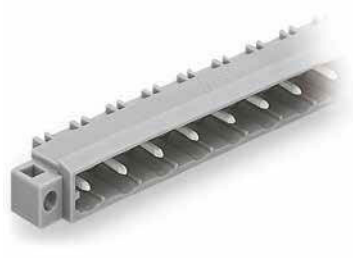


Pole No.	Item No.	PU
2	231-262/001-000	200
3	231-263/001-000	200
4	231-264/001-000	100
5	231-265/001-000	100
6	231-266/001-000	100
7	231-267/001-000	50
8	231-268/001-000	50
9	231-269/001-000	50
10	231-270/001-000	50
11	231-271/001-000	50
12	231-272/001-000	50
13	231-273/001-000	50
16	231-276/001-000	50

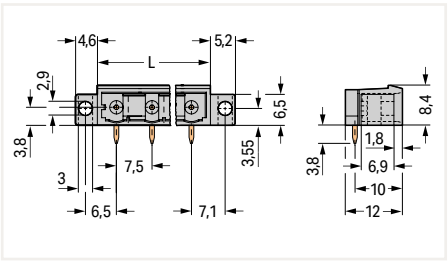


L = (pole no. – 1) x pin spacing + 8.2 mm

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
10	231-870/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

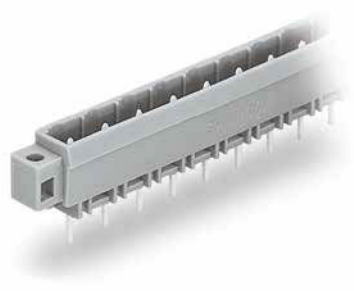
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

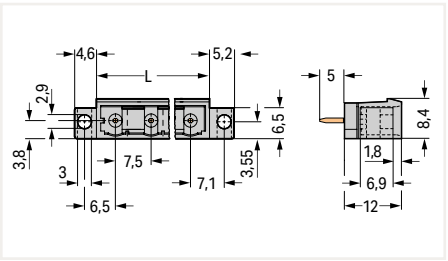
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: gray

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
10	231-270/040-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

9

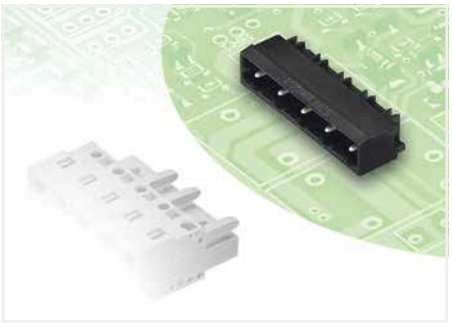
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

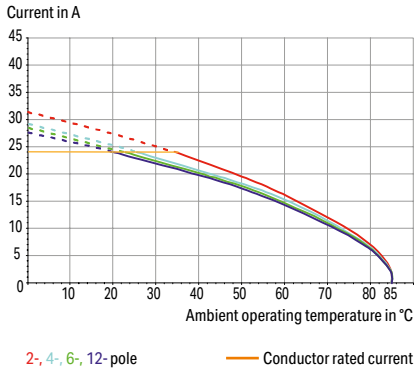
THR Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with
THR male header (231-832/001-000/105-604)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	12 A	12 A	12 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	-			

Material Data

Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire male connector, in line
Solder pin length	2.4 mm
Solder pin dimensions	1 x 1 mm
Plated through-hole diameter (THR)	1.4 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements

Limit temperature range	-60 … +100 °C

9

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR-soldering process	Page 584
Coding	Page 722
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

THR Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

Mating direction to the PCB: 0°

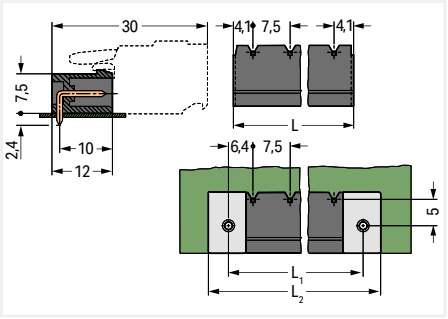
Suitable for automated assembly



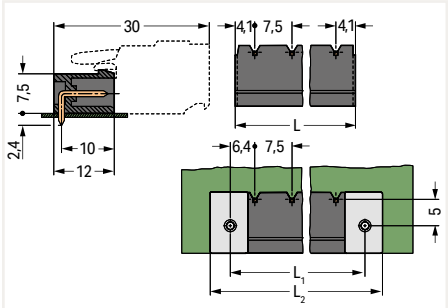


Pole No.	Item No.	PU
2	231-832/001-000/105-604	200
3	231-833/001-000/105-604	200
4	231-834/001-000/105-604	100
5	231-835/001-000/105-604	100
6	231-836/001-000/105-604	100
7	231-837/001-000/105-604	50
8	231-838/001-000/105-604	50
9	231-839/001-000/105-604	50
10	231-840/001-000/105-604	50
11	231-841/001-000/105-604	50
12	231-842/001-000/105-604	50

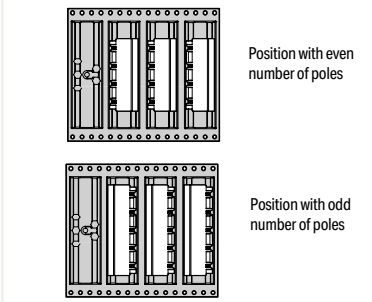
Pole No.	Tape width	Item No.	PU
2	32 mm	231-832/001-000/105-604/997-405	330
3	56 mm	231-833/001-000/105-604/997-407	330
4	56 mm	231-834/001-000/105-604/997-407	330
5	56 mm	231-835/001-000/105-604/997-407	330
6	88 mm	231-836/001-000/105-604/997-409	330
7	88 mm	231-837/001-000/105-604/997-409	330
8	88 mm	231-838/001-000/105-604/997-409	330
9	88 mm	231-839/001-000/105-604/997-409	330



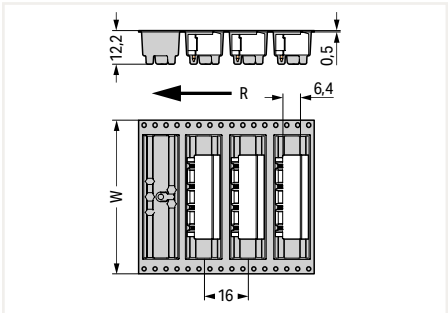
L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm



Pin position in tape-and-reel packaging



W= Tape width
R = Feed direction

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

THR Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: black

Mating direction to the PCB: 90°

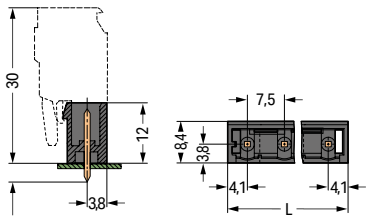
Suitable for automated assembly



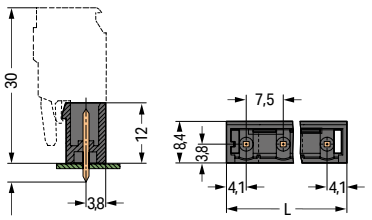


Pole No.	Item No.	PU
2	231-232/001-000/105-604	200
3	231-233/001-000/105-604	200
4	231-234/001-000/105-604	100
5	231-235/001-000/105-604	100
6	231-236/001-000/105-604	100
7	231-237/001-000/105-604	50
8	231-238/001-000/105-604	50
9	231-239/001-000/105-604	50
10	231-240/001-000/105-604	50
11	231-241/001-000/105-604	50
12	231-242/001-000/105-604	50

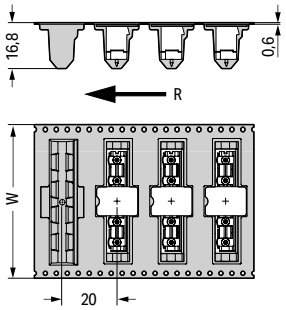
Pole No.	Tape width	Item No.	PU
2	32 mm	231-232/001-000/105-604/997-405	170
3	56 mm	231-233/001-000/105-604/997-407	170
4	56 mm	231-234/001-000/105-604/997-407	170
5	56 mm	231-235/001-000/105-604/997-407	170
6	88 mm	231-236/001-000/105-604/997-409	170
7	88 mm	231-237/001-000/105-604/997-409	170
8	88 mm	231-238/001-000/105-604/997-409	170
9	88 mm	231-239/001-000/105-604/997-409	170



L = (pole no. – 1) x pin spacing + 8.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm



W= Tape width
R = Feed direction

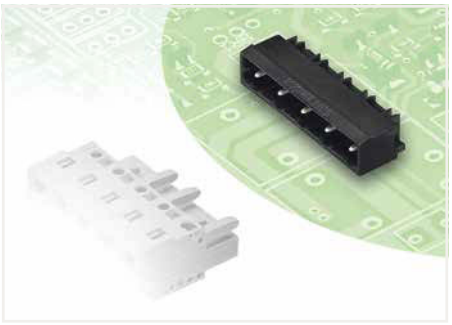
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

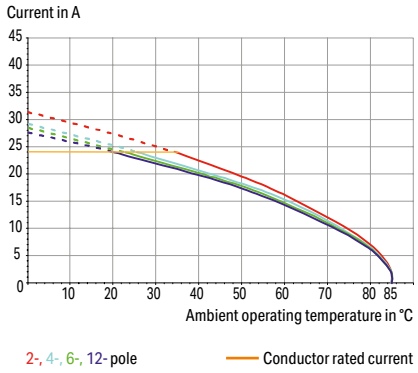
THR Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: black



- THR male headers for reflow soldering in SMT applications
- Available in tape-and-reel packaging for automated pick-and-place PCB assembly
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- Also available in bulk packaging for manual placement
- Male headers may be mounted horizontally or vertically
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with THR male header (231-832/001-000/105-604)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	16 A	16 A	16 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	-			

Material Data	
Material group	I
Insulating material	Polyphtalamide (PPA GF)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin length	2.4 mm
Solder pin dimensions	1.2 x 1.2 mm
Plated through-hole diameter (THR)	1.7 $^{(+0.1)}$ mm
Reel diameter of tape-and-reel packaging	330 mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

THR-soldering process	Page 584
Coding	Page 722
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

THR Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: black

Mating direction to the PCB: 0°

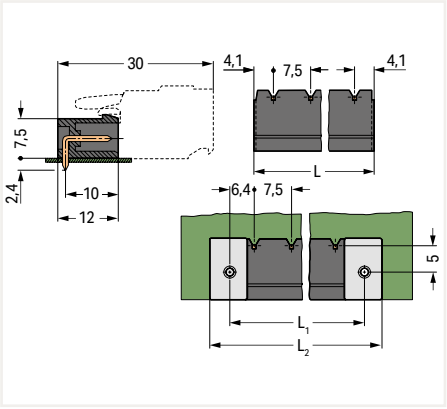
Suitable for automated assembly



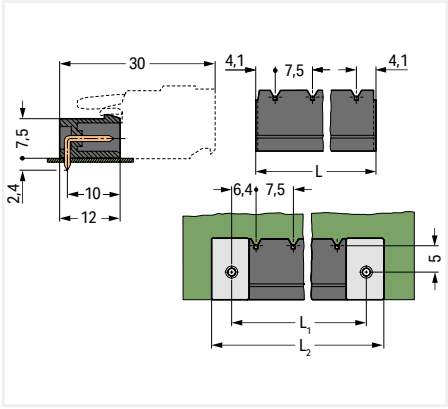


Pole No.	Item No.	PU
2	231-862/001-000/105-604	200
3	231-863/001-000/105-604	200
4	231-864/001-000/105-604	100
5	231-865/001-000/105-604	100
6	231-866/001-000/105-604	100
7	231-867/001-000/105-604	50
8	231-868/001-000/105-604	50
9	231-869/001-000/105-604	50
10	231-870/001-000/105-604	50
11	231-871/001-000/105-604	50
12	231-872/001-000/105-604	50

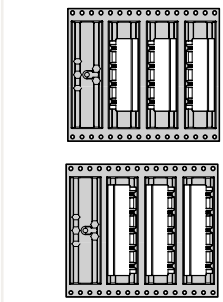
Pole No.	Tape width	Item No.	PU
2	32 mm	231-862/001-000/105-604/997-405	330
3	56 mm	231-863/001-000/105-604/997-407	330
4	56 mm	231-864/001-000/105-604/997-407	330
5	56 mm	231-865/001-000/105-604/997-407	330
6	88 mm	231-866/001-000/105-604/997-409	330
7	88 mm	231-867/001-000/105-604/997-409	330
8	88 mm	231-868/001-000/105-604/997-409	330
9	88 mm	231-869/001-000/105-604/997-409	330



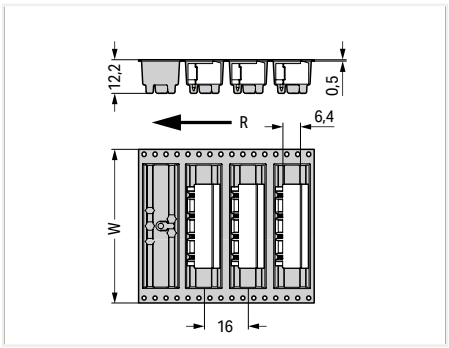
L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm



Pin position in tape-and-reel packaging



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

9

THR Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: black

Mating direction to the PCB: 90°

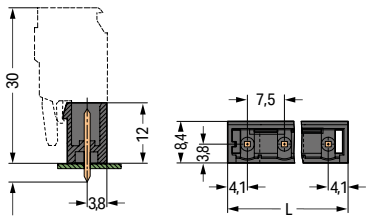
Suitable for automated assembly



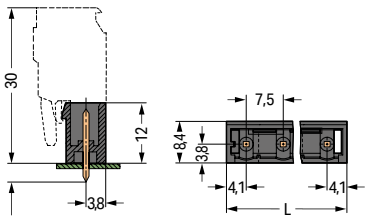


Pole No.	Item No.	PU
2	231-262/001-000/105-604	200
3	231-263/001-000/105-604	200
4	231-264/001-000/105-604	100
5	231-265/001-000/105-604	100
6	231-266/001-000/105-604	50
7	231-267/001-000/105-604	50
8	231-268/001-000/105-604	50
9	231-269/001-000/105-604	50
10	231-270/001-000/105-604	50
11	231-271/001-000/105-604	50
12	231-272/001-000/105-604	50

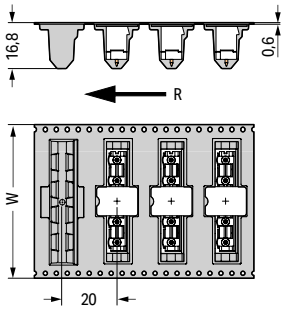
Pole No.	Tape width	Item No.	PU
2	32 mm	231-262/001-000/105-604/997-405	170
3	56 mm	231-263/001-000/105-604/997-407	170
4	56 mm	231-264/001-000/105-604/997-407	170
5	56 mm	231-265/001-000/105-604/997-407	170
6	88 mm	231-266/001-000/105-604/997-409	170
7	88 mm	231-267/001-000/105-604/997-409	170
8	88 mm	231-268/001-000/105-604/997-409	170
9	88 mm	231-269/001-000/105-604/997-409	170



L = (pole no. – 1) x pin spacing + 8.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm



W= Tape width
R = Feed direction

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

Double-Pin Male Connector ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.5 mm (0.295 inch) ▸ Type of mounting: DIN-35 rail ▸ Color: gray



- Allow MCS Female Connectors fitted with wire harness or cable assembly to be plugged together
- Adapter for DIN-35 rail mounting
- Coding via coding keys on both sides

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	12 A	12 A	12 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	-			
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

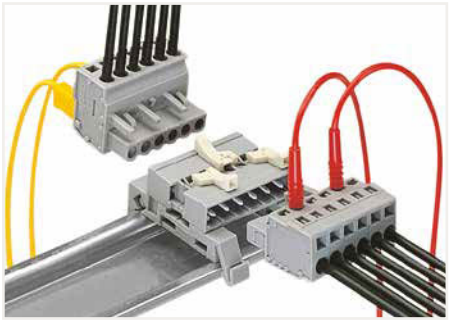
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Carrier rail	Page 836
Coding	Page 722
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

Double-Pin Male Connector ▸ *MCS* MIDI Classic ▸ 232 Series

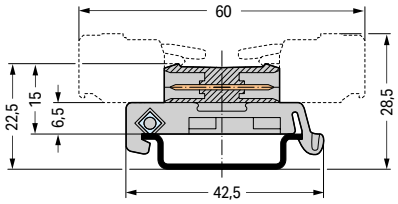
Pin spacing: 7.5 mm (0.295 inch) ▸ Type of mounting: DIN-35 rail ▸ Color: gray





Angled female connector – straight female connector

Pole No.	Item No.	PU
2	232-562/007-000	50
3	232-563/007-000	50
4	232-564/007-000	25
5	232-565/007-000	50
6	232-566/007-000	25
7	232-567/007-000	10
8	232-568/007-000	10
9	232-569/007-000	10
10	232-570/007-000	10
11	232-571/007-000	10
12	232-572/007-000	10



Total length = (pole no. – 1) x pin spacing + 8.2 mm

9

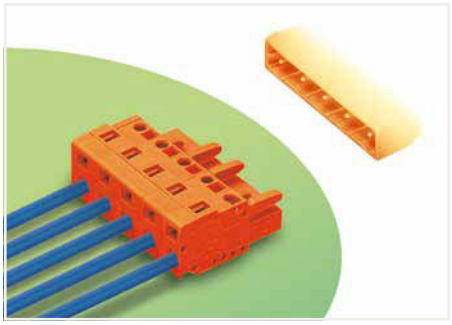
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers

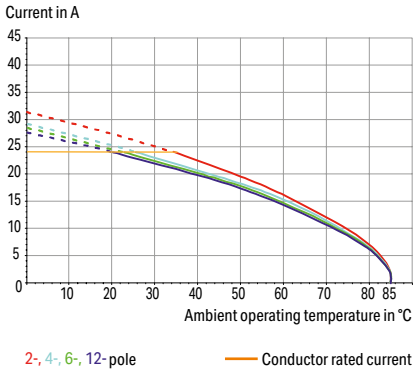
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with THT male header (231-832/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
General accessory	Page 723
Insulation stop	Page 723
Marking	Page 833
Mounting	Page 723, 837
Mounting adapter	Page 729
Strain relief	Page 727
Testing and measuring	Page 721, 854
Tools	Page 720, 838
Direct marking	Page 712
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

	Locking of plug-in connection: locking lever	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



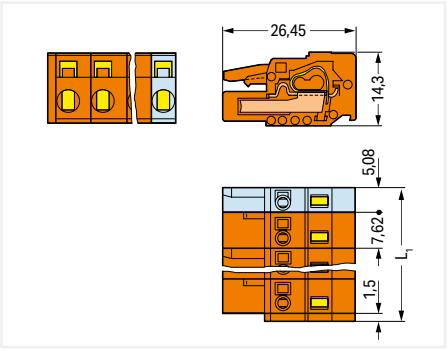




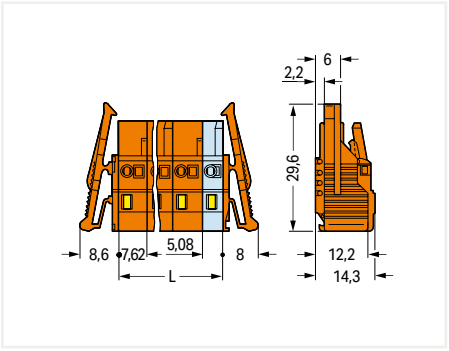
Pole No.	Item No.	PU
2	231-702/026-000	100
3	231-703/026-000	100
4	231-704/026-000	50
5	231-705/026-000	50
6	231-706/026-000	50
7	231-707/026-000	50
8	231-708/026-000	25
9	231-709/026-000	25
10	231-710/026-000	25
11	231-711/026-000	25
12	231-712/026-000	25

Pole No.	Item No.	PU
2	231-702/037-000	50
3	231-703/037-000	50
4	231-704/037-000	50
5	231-705/037-000	50
6	231-706/037-000	25
7	231-707/037-000	25
8	231-708/037-000	25
9	231-709/037-000	25
10	231-710/037-000	25
11	231-711/037-000	10
12	231-712/037-000	10

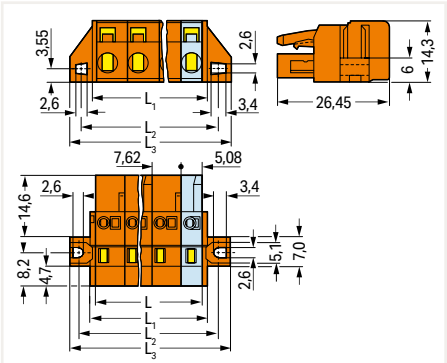
Pole No.	Item No.	PU
2	231-702/031-000	50
3	231-703/031-000	50
4	231-704/031-000	50
5	231-705/031-000	50
6	231-706/031-000	25
7	231-707/031-000	25
8	231-708/031-000	25
9	231-709/031-000	25
10	231-710/031-000	25
11	231-711/031-000	10
12	231-712/031-000	10



L_1 = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5.08 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

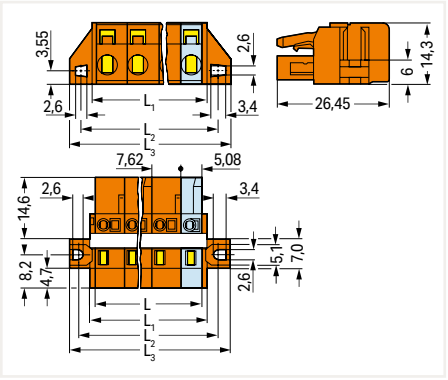
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange ▸ with reinforcing strip



Pole No.	Item No.	PU
6	231-706/027-000	25
7	231-707/027-000	25
8	231-708/027-000	25
9	231-709/027-000	25
10	231-710/027-000	25
11	231-711/027-000	10
12	231-712/027-000	10

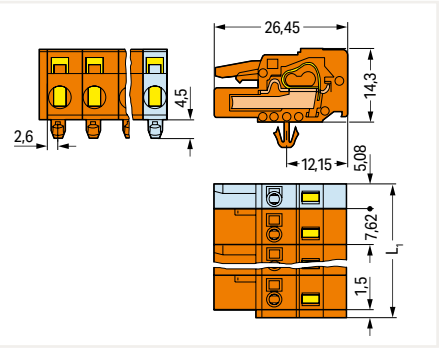


L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	231-702/008-000	100
3	231-703/008-000	100
4	231-704/008-000	50
5	231-705/008-000	50
6	231-706/008-000	50
7	231-707/008-000	50
8	231-708/008-000	25
9	231-709/008-000	25
10	231-710/008-000	25
11	231-711/008-000	25
12	231-712/008-000	25



L_1 = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm
2- to 3-pole female connectors – one latch only

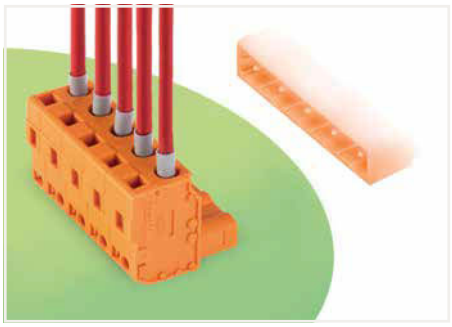
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PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:
- Gold-plated or partially gold-plated contact surfaces

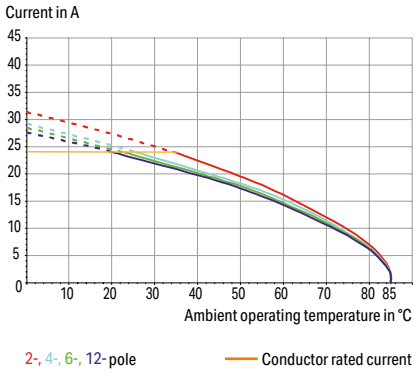
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 732 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 270° ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with THT male header (231-832/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	14 A	14 A	14 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

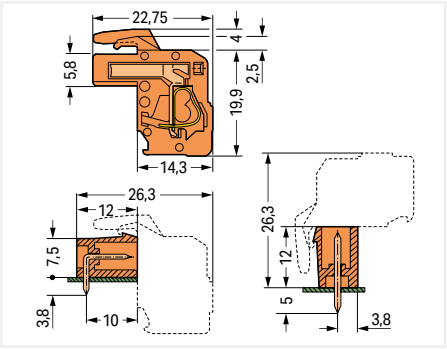
Ferrule	Page 847
Insulation stop	Page 723
Marking	Page 833
Strain relief	Page 727
Testing and measuring	Page 721, 854
Tools	Page 720
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 732 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 270° ▸ Color: orange



Pole No.	Item No.	PU
2	732-122/026-000	100
3	732-123/026-000	100
4	732-124/026-000	50
5	732-125/026-000	50
6	732-126/026-000	50
7	732-127/026-000	50
8	732-128/026-000	25
9	732-129/026-000	25
10	732-130/026-000	25
11	732-131/026-000	25
12	732-132/026-000	25



Total length = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm + 0.9 mm

9

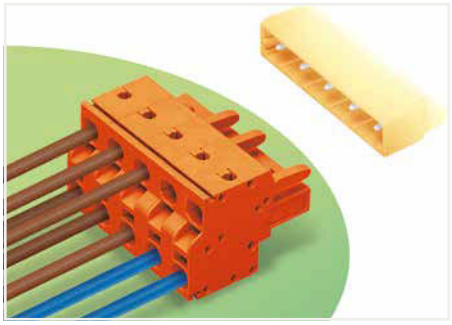
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

2-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange



- Universal connection for all conductor types
- Two conductor entries per pole
- For looping through power or Data buses
- Bus connection is retained, even when unmated
- Push-in termination of solid and ferruled conductors
- With coding fingers

Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	20 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Insulation stop	Page 723
Marking	Page 833
Strain relief	Page 725
Testing and measuring	Page 721
Direct marking	Page 712
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

2-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 231 Series

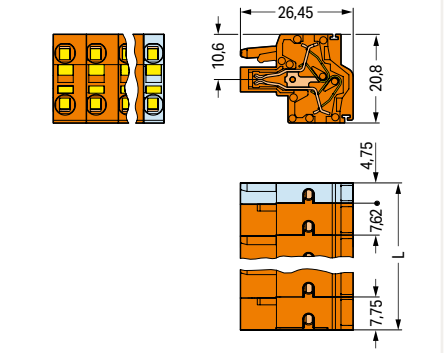
Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

	Locking of plug-in connection: locking lever



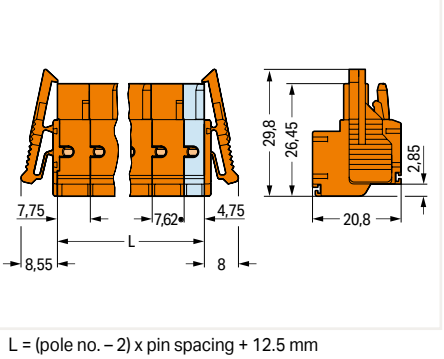


Pole No.	Item No.	PU
2	231-2702/026-000	100
3	231-2703/026-000	100
4	231-2704/026-000	50
5	231-2705/026-000	50
6	231-2706/026-000	50
7	231-2707/026-000	50
8	231-2708/026-000	25
9	231-2709/026-000	25
10	231-2710/026-000	25
11	231-2711/026-000	25
12	231-2712/026-000	25

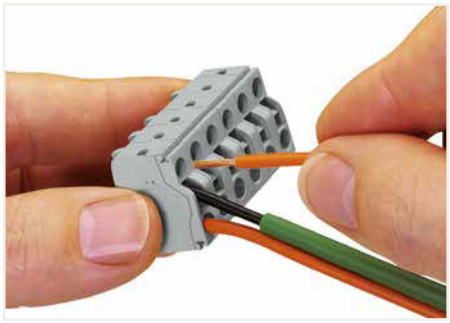


L = (pole no. – 2) x pin spacing + 12.5 mm
2- to 3-pole female connectors – one latch only

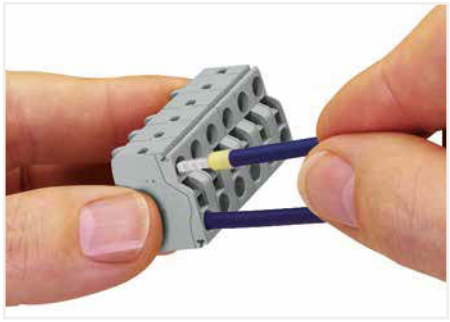
Pole No.	Item No.	PU
2	231-2702/037-000	50
3	231-2703/037-000	50
4	231-2704/037-000	50
5	231-2705/037-000	50
6	231-2706/037-000	25
7	231-2707/037-000	25
8	231-2708/037-000	25
9	231-2709/037-000	25
10	231-2710/037-000	25
11	231-2711/037-000	10
12	231-2712/037-000	10



L = (pole no. – 2) x pin spacing + 12.5 mm
2- to 3-pole female connectors – one latch only



Operating Push-in CAGE CLAMP® is easy, fast and identical to that of CAGE CLAMP®. The screwdriver is fully inserted into the operating slot, holding Push-in CAGE CLAMP® open. After the conductor has been inserted into the clamping unit and the screwdriver been withdrawn, the conductor is clamped safely. Solid and fine-stranded conductors < 0.5 mm² (20 AWG) are terminated and removed using a screwdriver.



Solid conductors ≥ 0.5 mm² (20 AWG), as well as ferruled, fine-stranded conductors can be terminated by simply pushing them into unit. Integrated test ports allow touch contact with current bar via test probes in both horizontal and vertical directions.

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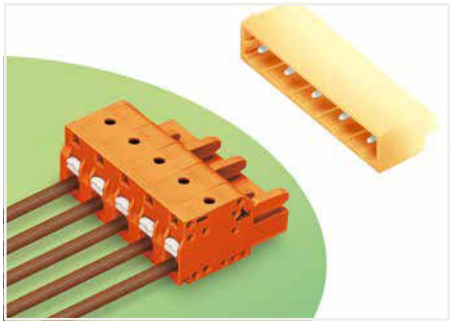
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

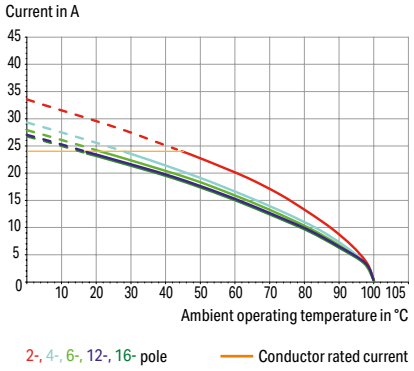
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange



- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- With coding fingers

Derating Curve
1-conductor female connector (2231-202/026-000) with THT male header (231-262/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approvals per		UL 1059	
Use Group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per		CSA	
Use Group	B	C	D
Rated voltage	300 V	300 V	300 V
Rated current	15 A	15 A	10 A

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	10 … 11 mm / 0.39 … 0.43 inch
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +100 °C

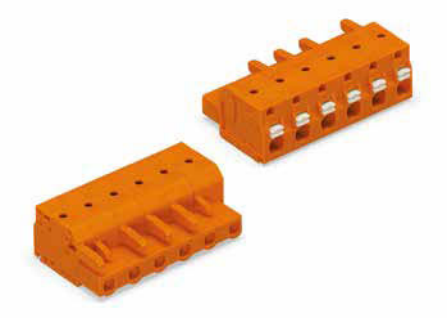
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Insulation stop	Page 723
Marking	Page 833
Mounting	Page 728
Strain relief	Page 725
Testing and measuring	Page 721, 854
Tools	Page 838
Cutout dimensions	Page 716
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

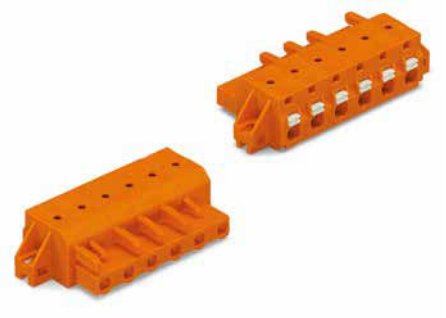
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

	Locking of plug-in connection: locking lever	Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



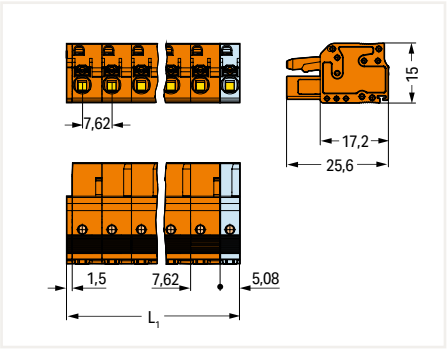




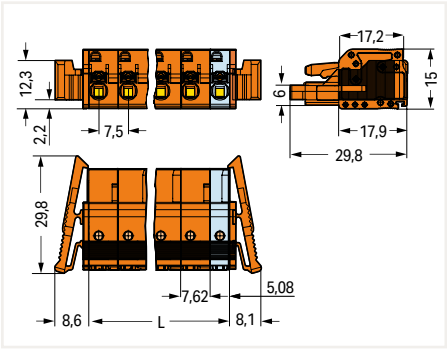
Pole No.	Item No.	PU
2	2231-702/026-000	100
3	2231-703/026-000	100
4	2231-704/026-000	50
5	2231-705/026-000	50
6	2231-706/026-000	50
7	2231-707/026-000	50
8	2231-708/026-000	25
9	2231-709/026-000	25
10	2231-710/026-000	25
11	2231-711/026-000	25
12	2231-712/026-000	25

Pole No.	Item No.	PU
2	2231-702/037-000	50
3	2231-703/037-000	50
4	2231-704/037-000	50
5	2231-705/037-000	50
6	2231-706/037-000	25
7	2231-707/037-000	25
8	2231-708/037-000	25
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10	2231-710/037-000	25
11	2231-711/037-000	10
12	2231-712/037-000	10

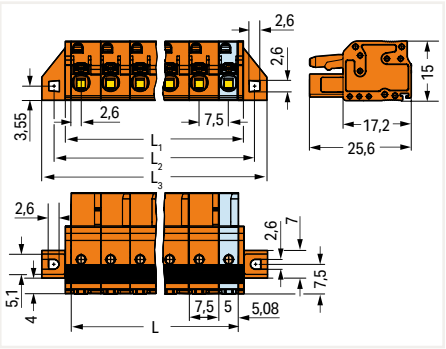
Pole No.	Item No.	PU
2	2231-702/031-000	50
3	2231-703/031-000	50
4	2231-704/031-000	50
5	2231-705/031-000	50
6	2231-706/031-000	25
7	2231-707/031-000	25
8	2231-708/031-000	25
9	2231-709/031-000	25
10	2231-710/031-000	25
11	2231-711/031-000	10
12	2231-712/031-000	10



L_1 = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5.08 mm
2- to 3-pole female connectors – one latch only



L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 2.8 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Gold-plated or partially gold-plated contact surfaces

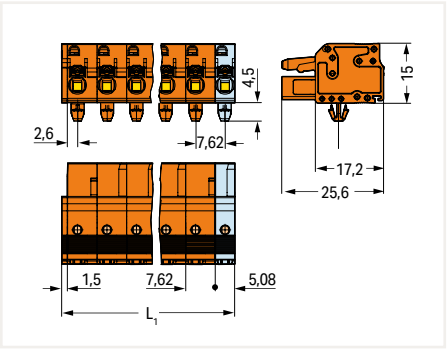
1-Conductor Female Connector ▸ *MCS* MIDI Classic ▸ 2231 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Push-button ▸ Push-in CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	2231-702/008-000	100
3	2231-703/008-000	100
4	2231-704/008-000	50
5	2231-705/008-000	50
6	2231-706/008-000	50
7	2231-707/008-000	50
8	2231-708/008-000	25
9	2231-709/008-000	25
10	2231-710/008-000	25
11	2231-711/008-000	25
12	2231-712/008-000	25



L_1 = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm
2- to 3-pole female connectors – one latch only

9

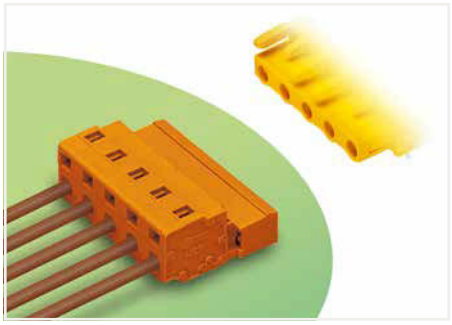
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

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- Gold-plated or partially gold-plated contact surfaces

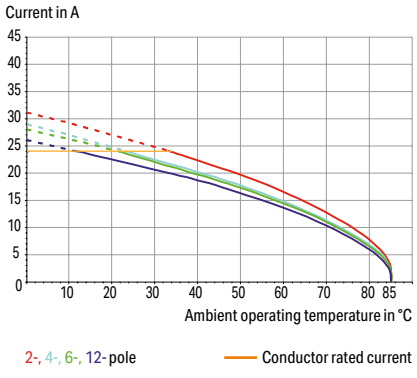
1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with 1-conductor male connector (731-602)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

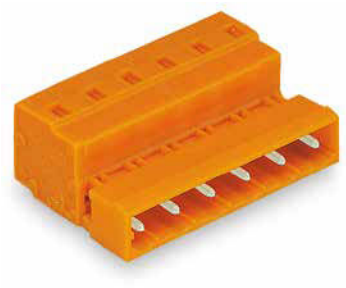
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 722
Ferrule	Page 847
General accessory	Page 723
Insulation stop	Page 723
Marking	Page 833
Mounting	Page 723, 837
Mounting adapter	Page 729
Strain relief	Page 727
Tools	Page 720, 838
Direct marking	Page 712
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

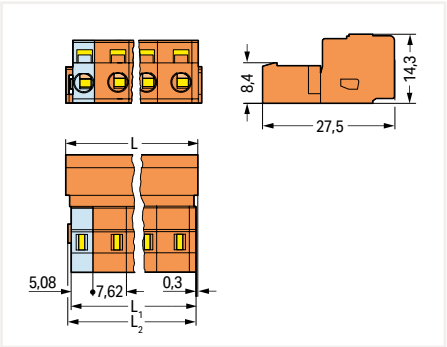
Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange



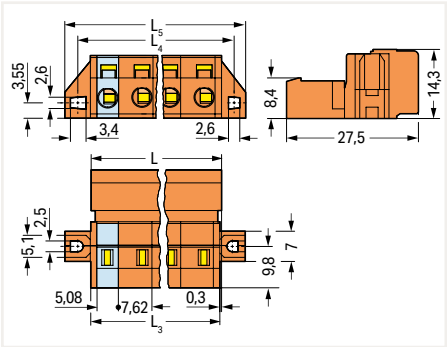


Pole No.	Item No.	PU
2	731-632	100
3	731-633	100
4	731-634	50
5	731-635	50
6	731-636	50
7	731-637	50
8	731-638	25
9	731-639	25
10	731-640	25
11	731-641	25
12	731-642	25

Pole No.	Item No.	PU
2	731-632/019-000	50
3	731-633/019-000	50
4	731-634/019-000	50
5	731-635/019-000	50
6	731-636/019-000	25
7	731-637/019-000	25
8	731-638/019-000	25
9	731-639/019-000	25
10	731-640/019-000	25
11	731-641/019-000	10
12	731-642/019-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 5.8 mm
L_5 = L_3 + 11.8 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

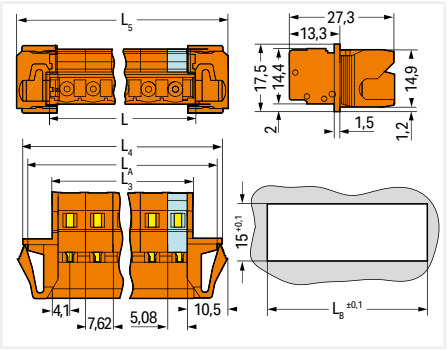
Type of mounting: Feed-through mounting ▸ Mounting type: Snap-in





Male connector, with snap-in flanges for feedthrough applications, for 0.5 … 2.5 mm plate thickness

Pole No.	Item No.	PU
2	731-632/114-000	50
3	731-633/114-000	50
4	731-634/114-000	50
5	731-635/114-000	25
6	731-636/114-000	25
7	731-637/114-000	25
8	731-638/114-000	25
9	731-639/114-000	25
10	731-640/114-000	10
11	731-641/114-000	10
12	731-642/114-000	10



L = (pole no. – 1) x pin spacing + 8.2 mm
L_3 = L – 0.2 mm
L_4 = L_3 + 15.2 mm
L_5 = L_3 + 18 mm
L_A = L_3 + 12.6 mm
L_B = L_3 + 13.2 mm

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

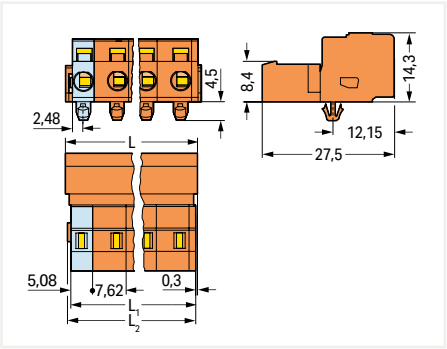
1-Conductor Male Connector ▸ *MCS* MIDI Classic ▸ 731 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ CAGE CLAMP® ▸ Conductor entry direction to mating direction: 0° ▸ Color: orange

Type of mounting: Panel mounting ▸ Mounting type: Snap-in mounting foot



Pole No.	Item No.	PU
2	731-632/018-000	100
3	731-633/018-000	100
4	731-634/018-000	50
5	731-635/018-000	50
6	731-636/018-000	50
7	731-637/018-000	50
8	731-638/018-000	25
9	731-639/018-000	25
10	731-640/018-000	25
11	731-641/018-000	25
12	731-642/018-000	25



L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L – 1.7 mm
L_2 = L – 1.2 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Gold-plated or partially gold-plated contact surfaces

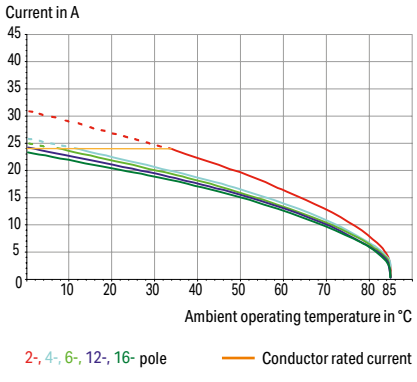
THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- For board-to-board and board-to-wire connections
- Touch-proof PCB outputs
- Easy-to-identify PCB inputs and outputs
- With coding fingers

Derating Curve
THT female header (232-832) with
1-conductor male connector (731-602)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire female connector, in line
Solder pin length	5 mm
Solder pin dimensions	0.6 x 1 mm
Drilled hole diameter (tolerance)	$1.3^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +85 °C

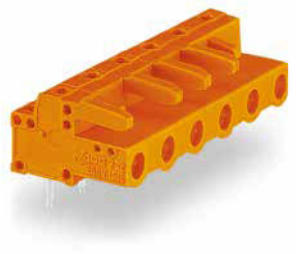
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Mounting	Page 723, 837
Testing and measuring	Page 721, 854
Cutout dimensions	Page 716
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

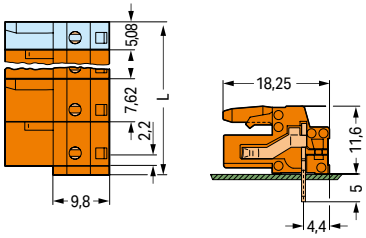
THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Mating direction to the PCB: 0°

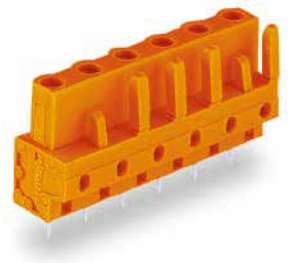


Pole No.	Item No.	PU
2	232-862	100
3	232-863	100
4	232-864	50
5	232-865	50
6	232-866	50
7	232-867	50
8	232-868	25
9	232-869	25
10	232-870	25
11	232-871	25
12	232-872	25

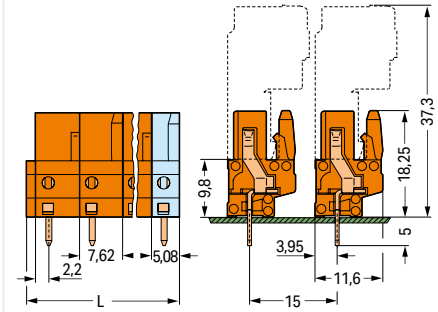


L = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-762	100
3	232-763	100
4	232-764	50
5	232-765	50
6	232-766	50
7	232-767	50
8	232-768	25
9	232-769	25
10	232-770	25
11	232-771	25
12	232-772	25

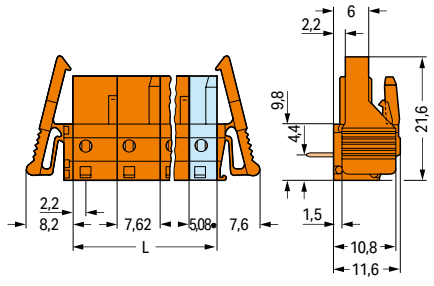


L = (pole no. – 1) x pin spacing + 5.08 mm + 1.5 mm
2- to 3-pole female connectors – one latch only

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	232-862/039-000	50
3	232-863/039-000	50
4	232-864/039-000	50
5	232-865/039-000	50
6	232-866/039-000	25
7	232-867/039-000	25
8	232-868/039-000	25
9	232-869/039-000	25
10	232-870/039-000	25
11	232-871/039-000	10
12	232-872/039-000	10



L = (pole no. – 1) x pin spacing + 5.08 mm
Distance to first solder pin: 2.2 mm
2- to 3-pole female connectors – one latch only

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

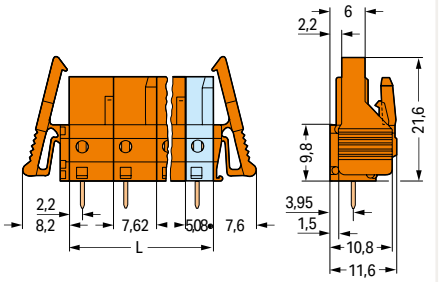
THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Locking of plug-in connection: locking lever ▸ Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-762/039-000	50
3	232-763/039-000	50
4	232-764/039-000	50
5	232-765/039-000	50
6	232-766/039-000	25
7	232-767/039-000	25
8	232-768/039-000	25
9	232-769/039-000	25
10	232-770/039-000	25
11	232-771/039-000	10
12	232-772/039-000	10



L = (pole no. – 1) x pin spacing + 5.08 mm
2- to 3-pole female connectors – one latch only

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

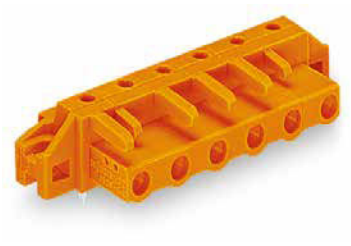
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

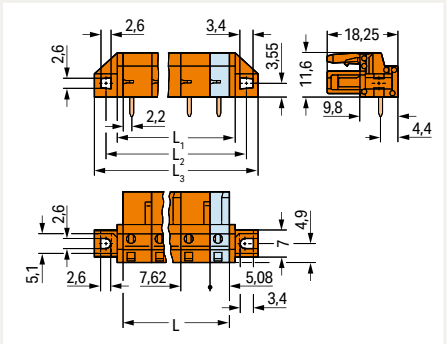
Pin spacing: 7.62 mm (0.3 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Type of mounting: Feed-through mounting, Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0°

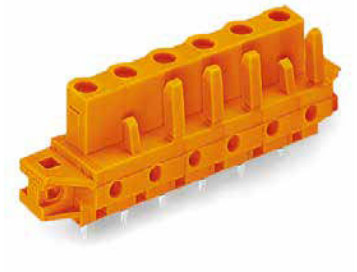


Pole No.	Item No.	PU
2	232-862/031-000	50
3	232-863/031-000	50
4	232-864/031-000	50
5	232-865/031-000	50
6	232-866/031-000	25
7	232-867/031-000	25
8	232-868/031-000	25
9	232-869/031-000	25
10	232-870/031-000	25
11	232-871/031-000	10
12	232-872/031-000	10

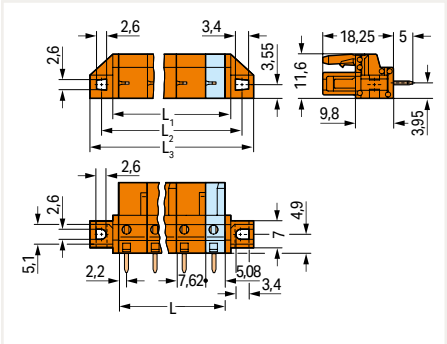


L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-762/031-000	50
3	232-763/031-000	50
4	232-764/031-000	50
5	232-765/031-000	50
6	232-766/031-000	25
7	232-767/031-000	25
8	232-768/031-000	25
9	232-769/031-000	25
10	232-770/031-000	25
11	232-771/031-000	10
12	232-772/031-000	10



L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only



The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mount applications.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Female Header ▸ *MCS* MIDI Classic ▸ 232 Series

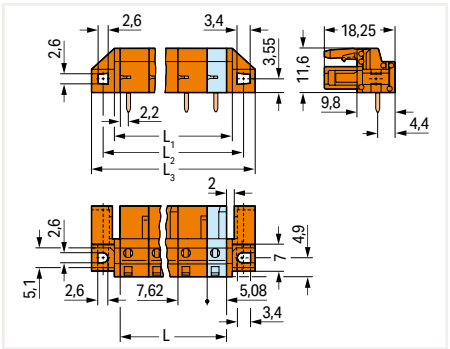
Pin spacing: 7.62 mm (0.3 inch) ▸ Solder pin dimensions: 0.6 x 1 mm ▸ Color: orange

Type of mounting: Flush mounting, Panel mounting ▸ Mounting type: Mounting flange

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	232-862/047-000	50
3	232-863/047-000	50
4	232-864/047-000	50
5	232-865/047-000	50
6	232-866/047-000	25
7	232-867/047-000	25
8	232-868/047-000	25
9	232-869/047-000	25
10	232-870/047-000	25
11	232-871/047-000	10
12	232-872/047-000	10

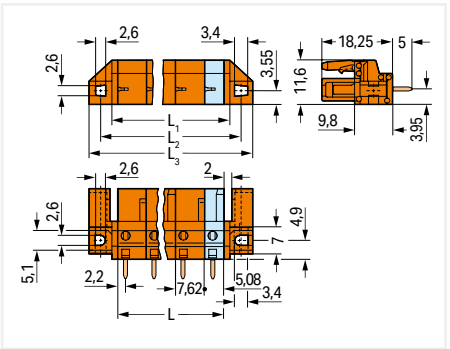


L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	232-762/047-000	50
3	232-763/047-000	50
4	232-764/047-000	50
5	232-765/047-000	50
6	232-766/047-000	25
7	232-767/047-000	25
8	232-768/047-000	25
9	232-769/047-000	25
10	232-770/047-000	25
11	232-771/047-000	10
12	232-772/047-000	10



L = (pole no. – 1) x pin spacing + 5.08 mm
L_1 = L + 3 mm
L_2 = L + 8.8 mm
L_3 = L + 14.8 mm
2- to 3-pole female connectors – one latch only



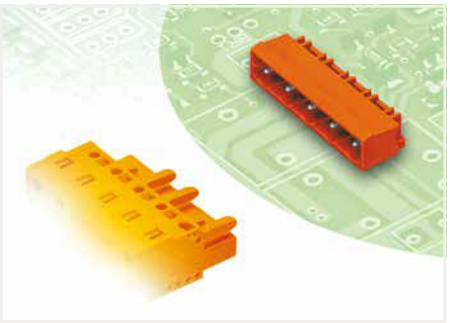
The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mount applications.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

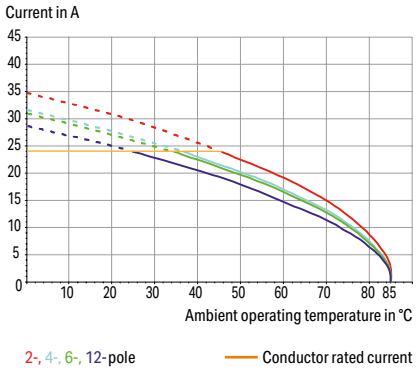
- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series
Pin spacing: 7.62 mm (0.3 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with
THT male header (231-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	12 A	12 A	12 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1 x 1 mm
Drilled hole diameter (tolerance)	$1.4^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 722

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

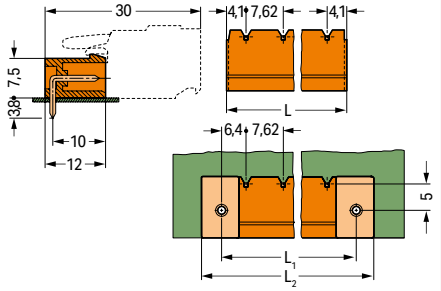
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Solder pin dimensions: 1 x 1 mm ▸ Color: orange

Mating direction to the PCB: 0°

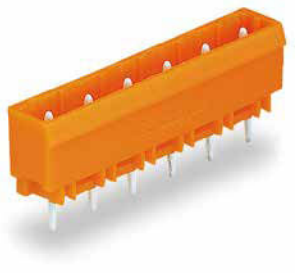


Pole No.	Item No.	PU
2	231-932/001-000	100
3	231-933/001-000	200
4	231-934/001-000	100
5	231-935/001-000	100
6	231-936/001-000	50
7	231-937/001-000	50
8	231-938/001-000	50
9	231-939/001-000	50
10	231-940/001-000	50
11	231-941/001-000	50
12	231-942/001-000	50

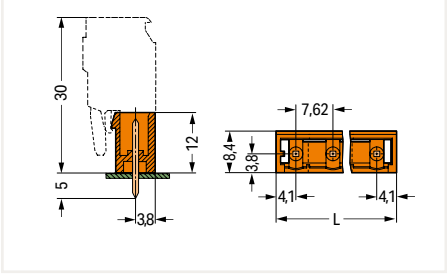


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	231-732/001-000	200
3	231-733/001-000	200
4	231-734/001-000	100
5	231-735/001-000	100
6	231-736/001-000	100
7	231-737/001-000	50
8	231-738/001-000	50
9	231-739/001-000	50
10	231-740/001-000	50
11	231-741/001-000	50
12	231-742/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

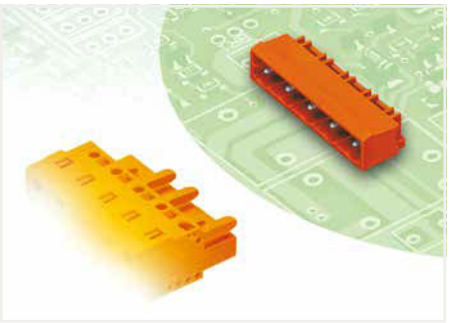
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

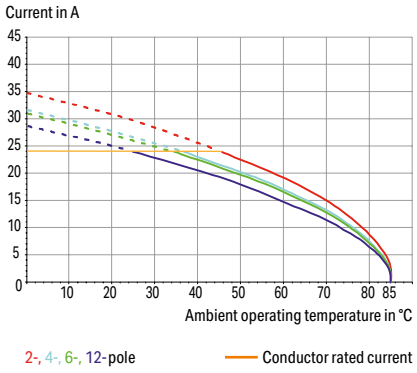
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: orange



- Horizontal or vertical PCB mounting via straight or angled solder pins
- 1.2 x 1.2 mm solder pins allow nominal current up to 16 A, enhancing stability of shorter headers
- With coding fingers

Derating Curve
1-conductor female connector (231-202/026-000) with THT male header (231-862/001-000)
Pin spacing: 7.5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data			
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	500 V	630 V	1000 V
Rated impulse voltage	6 kV	6 kV	6 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A
Approvals per	UL 1977		
Rated voltage	600 V		
Rated current	-		
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	15 A	-	10 A

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +100 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 722

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

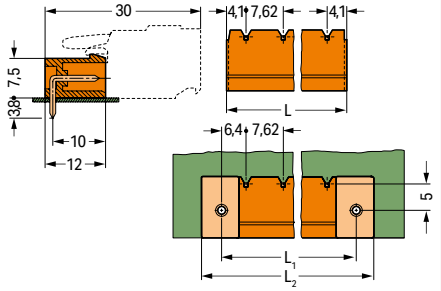
THT Male Header ▸ *MCS* MIDI Classic ▸ 231 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: orange

Mating direction to the PCB: 0°

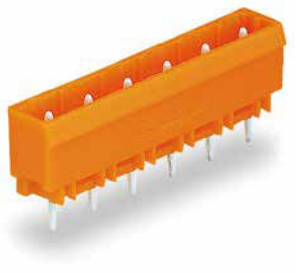


Pole No.	Item No.	PU
2	231-962/001-000	200
3	231-963/001-000	200
4	231-964/001-000	100
5	231-965/001-000	100
6	231-966/001-000	100
7	231-967/001-000	50
8	231-968/001-000	50
9	231-969/001-000	50
10	231-970/001-000	50
11	231-971/001-000	50
12	231-972/001-000	50

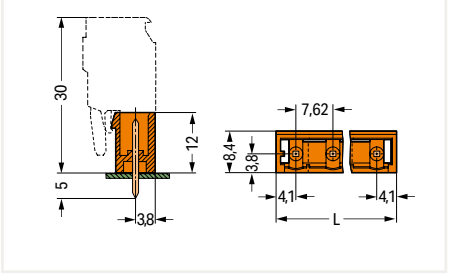


L = (pole no. – 1) x pin spacing + 8.2 mm
L_1 = L + 5 mm
L_2 = L_1 + 7.4 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	231-762/001-000	200
3	231-763/001-000	200
4	231-764/001-000	100
5	231-765/001-000	100
6	231-766/001-000	100
7	231-767/001-000	50
8	231-768/001-000	50
9	231-769/001-000	50
10	231-770/001-000	50
11	231-771/001-000	50
12	231-772/001-000	50



L = (pole no. – 1) x pin spacing + 8.2 mm

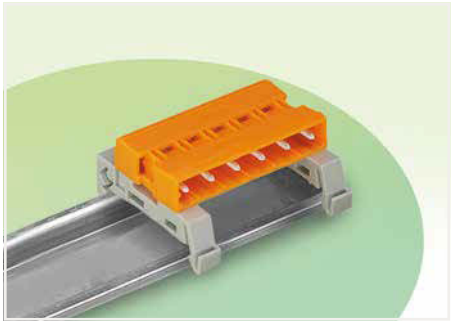
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- 3.8 mm pin projection for male headers with straight solder pins
- Gold-plated or partially gold-plated contact surfaces

Double-Pin Male Connector ▸ *MCS* MIDI Classic ▸ 232 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Type of mounting: DIN-35 rail ▸ Color: orange



- Allow MCS Female Connectors fitted with wire harness or cable assembly to be plugged together
- Adapter for DIN-35 rail mounting
- Coding via coding keys on both sides

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	12 A	12 A	12 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Rated current	-			
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +100 °C

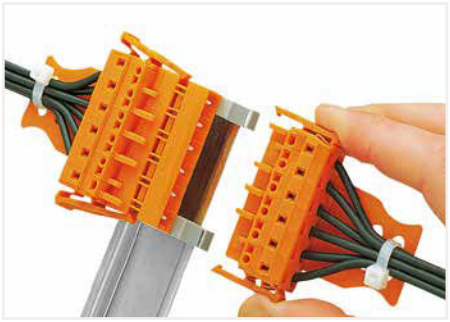
The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Carrier rail	Page 836
Coding	Page 722
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

Double-Pin Male Connector ▸ *MCS* MIDI Classic ▸ 232 Series

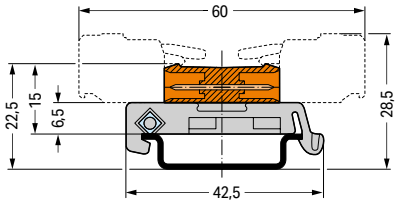
Pin spacing: 7.62 mm (0.3 inch) ▸ Type of mounting: DIN-35 rail ▸ Color: orange





Female connectors with locking levers

Pole No.	Item No.	PU
2	232-582/007-000	50
3	232-583/007-000	50
4	232-584/007-000	25
5	232-585/007-000	25
6	232-586/007-000	25
7	232-587/007-000	10
8	232-588/007-000	10
9	232-589/007-000	10
10	232-590/007-000	10
11	232-591/007-000	10
12	232-592/007-000	10



Total length = (pole no. – 1) x pin spacing + 8.2 mm

9

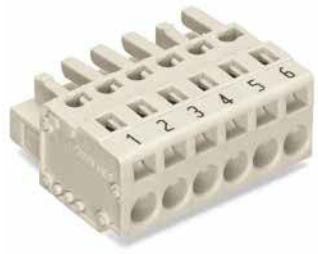
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

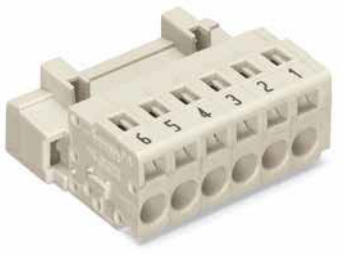
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers

Direct Marking
MCS MIDI and *MCS* MIDI Classic







The pole numbers of male and female connectors for CAGE CLAMP® termination can be marked via factory direct marking.

Two standard marking orientations are available:
1. Marking perpendicular to conductor entry
2. Marking parallel to conductor entry

Other custom marking options are available upon request.

Direct marking is not suitable for MCS PCB Male Headers. WAGO recommends pole marking on the PCB for these headers.

Female headers with solder pins are exposed to aggressive flux agents during wave soldering. Custom direct marking procedures are available upon request for these items.

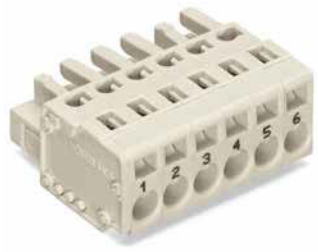
The marking type is always defined by the second 4-digit block of the item no. suffix for items with standard colors and materials.
Example: 721-106/. . . . - xxxx
xxxx = Item no. suffix for direct marking

Direct marking of 1-conductor female connectors; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047

Version	Item No. Example
1-conductor female connector; 5 mm pin spacing; 6-pole; light gray	**721-106/026-047**
1-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**721-106/037-047**
1-conductor female connector; with strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/026-047/ 034-000**
1-conductor female connector; with locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/026-047/ 034-000**

Direct marking of 1-conductor male connectors; perpendicular to conductor entry; pole no. … 1; item no. suffix.: /. . . - 044

Version	Item No. Example
1-conductor male connector; 6-pole; light gray	**721-606/000-044**
1-conductor male connector; with mounting flanges; 6-pole; light gray	**721-606/019-044**
1-conductor male connector; with mounting flanges and strain relief plate; 6-pole; light gray	**721-606/019-044/ 034-000**





Direct marking of 1-conductor female connectors; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037

Version	Item No. Example
1-conductor female connector; 5 mm pin spacing; 6-pole; light gray	**721-106/026-9037**
1-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**721-106/037-9037**
1-conductor female connector; with strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-106/026-9037/ 034-000**
1-conductor female connector; with locking levers and strain relief plate; 5 mm pin spacing 6-pole; light gray	**721-106/037-9037/ 034-000**

Direct marking of 1-conductor male connectors; parallel to conductor entry; pole no. … 1; item no. suffix.: /. . . - 9034

Version	Item No. Example
1-conductor male connector; 5 mm pin spacing; 6-pole; light gray	**721-606/000-9034**
1-conductor male connector; with mounting flanges; 5 mm pin spacing; 6-pole; light gray	**721-606/019-9034**
1-conductor male connector; with mounting flanges and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**721-606/019-9034/ 034-000**

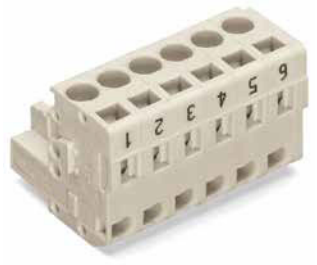
Direct Marking
MCS MIDI and *MCS* MIDI Classic



Direct marking of 1-conductor female connectors with push-buttons; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor female connector; with push-buttons; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-047**
1-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-047**
1-conductor female connector; with push-buttons and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-047/ 134-000**
1-conductor female connector; with push-buttons; locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-047/ 134-000**



Direct marking of 2-conductor female connectors; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
2-conductor female connector; 6-pole; light gray	**721-2106/026-047**
2-conductor female connector; with locking levers; 6-pole; light gray	**721-2106/037-047**
2-conductor female connector; with locking levers and strain relief plate; 6-pole; light gray	**721-2106/026-047/ 134-000**



Direct marking of 1-conductor angled female connectors; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor angled female connector; 6-pole; light gray	**722-206/026-047**
1-conductor angled female connector; with strain relief plate; 6-pole; light gray	**722-206/026-047/ 034-000**



Direct marking of 1-conductor female connectors with push-buttons; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
1-conductor female connector; with push-buttons; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-9037**
1-conductor female connector; with push-buttons and locking levers; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-9037**
1-conductor female connector; with push-buttons and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-9037/ 134-000**
1-conductor female connector; with push-buttons; locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-9037/ 134-000**



Direct marking of 2-conductor female connectors; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
2-conductor female connector; 5 mm pin spacing; 6-pole; light gray	**721-2106/026-9037**
2-conductor female connector; with locking levers; 5 mm pin spacing; 6-pole; light gray	**721-2106/037-9037**
2-conductor female connector; with locking levers and strain relief plate; 5 mm pin spacing 6-pole; light gray	**721-2106/026-9037/ 134-000**



Direct marking of 1-conductor angled female connectors; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047	
Version	**Item No. Example**
1-conductor angled female connector; 5 mm pin spacing; 6-pole; light gray	**722-206/026-9037**
1-conductor angled female connector; with strain relief plate; 5 mm pin spacing; 6-pole; light gray	**722-206/026-9037/ 034-000**

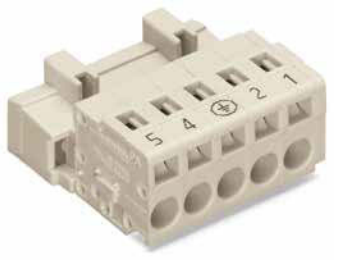
9

Direct Marking
MCS MIDI and *MCS* MIDI Classic



Direct marking of 2-conductor angled female connectors with flanges for panel mounting; perpendicular to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 047

Version	Item No. Example
1-conductor angled female connector; with flanges for panel mounting; 5 mm pin spacing; 6-pole; light gray	**721-306/031-047**
1-conductor angled female connector; with flanges for panel mounting; with snap-in mounting feet; 5 mm pin spacing; 6-pole; light gray	**721-306/008-047**

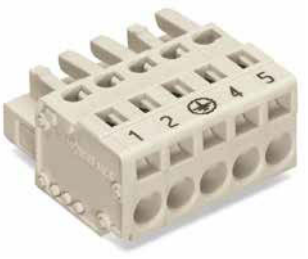


Direct marking of 3- to 5-pole; 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment;
item no. suffix.: /. . . - 042

Version	Item No. Example
1-conductor male connector; with preceding ground contact; 5 mm pin spacing 5-pole; light gray	**721-605/000-042**

1-conductor male connectors in 3- to 5-pole versions (721 and 723 Series) are available with the following markings:

3-pole: 3 - 3 - 1
4-pole: 4 - 3 - 2 - 1
5-pole: 5 - 3 - ⏚ - 2 - 1



Direct marking of 3- to 5-pole; 1-conductor female connectors for 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment; item no. suffix.: /. . . - 045

Version	Item No. Example
1-conductor female connector; with preceding ground contact; 5 mm pin spacing 5-pole; light gray	**721-105/026-045**

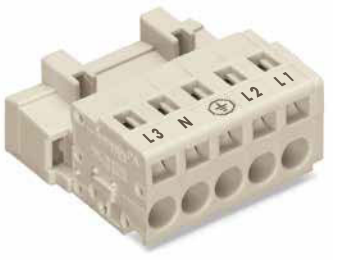
1-conductor female connectors in 3- to 5-pole versions (721, 2721, 722 and 723 Series) for 1-conductor male connectors with preceding ground contact are available with the following markings:

3-pole: 1 - 3 - 3
4-pole: 1 - 2 - 3 - 4
5-pole: 1 - 2 - ⏚ - 4 - 5



Direct marking of 1-conductor angled female connectors with flanges for panel mounting; parallel to conductor entry; 1 … pole no.; item no. suffix.: /. . . - 9037

Version	Item No. Example
1-conductor female connector; with push-buttons; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-9037**
1-conductor female connector; with push-buttons and locking levers; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-9037**
1-conductor female connector; with push-buttons and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/026-9037/134-000**
1-conductor female connector; with push-buttons; locking levers and strain relief plate; 5 mm pin spacing; 6-pole; light gray	**2721-106/037-9037/134-000**



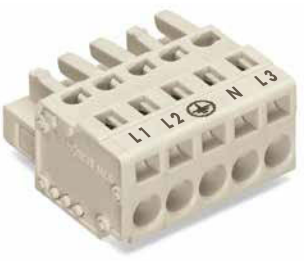
Direct marking of 3- to 5-pole; 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment;
item no. suffix.: /. . . - 041

Version	Item No. Example
1-conductor male connector; with preceding ground contact; 5 mm pin spacing 5-pole; light gray	**721-605/000-041**

1-conductor male connectors in 3- to 5-pole versions (721 and 723 Series) are available with the following markings:

3-pole: N - 3 - L 1
4-pole: L 2 - 3 - N - L 1
5-pole: L 3 - N - 3 - L 2 - L 1

Pole no. … 1; item no. suffix.: /. . . - 043



Direct marking of 3- to 5-pole; 1-conductor female connectors for 1-conductor male connectors with preceding ground contact; perpendicular to conductor entry; pole assignment; item no. suffix.: /. . . - 046

Version	Item No. Example
1-conductor female connector; with preceding ground contact; 5 mm pin spacing 5-pole; light gray	**721-105/026-046**

1-conductor female connectors in 3- to 5-pole versions (721, 2721, 722 and 723 Series) for 1-conductor male connectors with preceding ground contact are available with the following markings:

3-pole: L 1 - 3 - N
4-pole: L 1 - N - 3 - L 2
5-pole: L 1 - L 2 - 3 - N - L 3

1 … pole no.; item no. suffix.: /. . . - 047

Cutout Dimensions
MCS MIDI

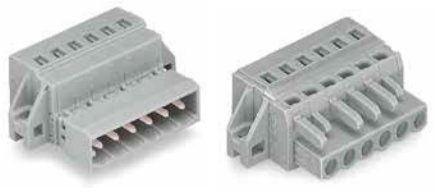




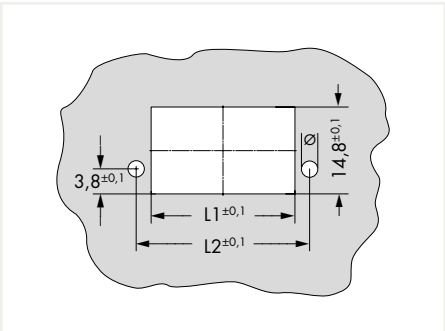
Table 1:
Cutout for 231. 721. 723 and 731 Series Male and Female Connectors with Mounting Flanges

	Pin Spacing 5 mm		Pin Spacing 5.08 mm		Pin Spacing 7.5 mm		Pin Spacing 7.62 mm	
Pole No.	L1	L2	L1	L2	L1	L2	L1	L2
2	13.4	18.4	13.6	18.6	15.9	20.9	16	21
3	18.4	23.4	18.6	23.6	23.4	28.4	23.6	28.6
4	23.4	28.4	23.7	28.7	30.9	35.9	31.3	36.3
5	28.4	33.4	28.8	33.8	38.4	43.4	38.9	43.9
6	33.5	38.3	34	38.8	46	50.8	46.6	51.4
7	38.5	43.3	39.1	43.9	53.5	58.3	54.2	59
8	43.5	48.3	44.1	48.9	61	65.8	61.8	66.6
9	48.5	53.3	49.2	54	68.5	73.3	69.5	74.3
10	53.5	58.3	54.3	59.1	76	80.8	77.1	81.9
11	58.5	63.3	59.4	64.2	83.5	88.3	84.7	89.5
12	63.5	68.3	64.5	69.3	91	95.8	92.3	97.1
13	68.6	73.2	69.6	74.2	98.6	103.2	100	104.6
14	73.6	78.2	74.7	79.3	106.1	110.7	107.7	112.3
15	78.6	83.2	79.8	84.4	113.6	118.2	115.3	119.9
16	83.6	88.2	84.9	89.5	121.1	125.7	122.9	127.5
17	88.6	93.2	90	94.6	128.6	133.2	130.5	135.1
18	93.6	98.2	95	99.6	136.1	140.7	138.1	142.7
19	98.7	103.1	100.2	104.6	143.7	148.1	145.9	150.3
20	103.7	108.1	105.3	109.7	151.2	155.6	153.5	157.9
21	108.7	113.1	110.4	114.8	158.7	163.1	161.1	165.5
22	113.7	118.1	115.5	119.9	166.2	170.6	168.7	173.1
23	118.7	123.1	120.5	124.9	173.7	178.1	176.3	180.7
24	123.7	128.1	125.6	130	181.2	185.6	184	188.4

Self-tapping screws, for 1.8 mm ± 0.1 mm Ø mounting hole		
Dimensions	**Item No.**	PU (SPU)
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts, for 2.5 mm ± 0.1 mm Ø mounting hole		
Dimensions	**Item No.**	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts, for 3.0 mm ± 0.1 mm Ø mounting hole		
Dimensions	**Item No.**	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).



PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Cutout Dimensions
MCS MIDI

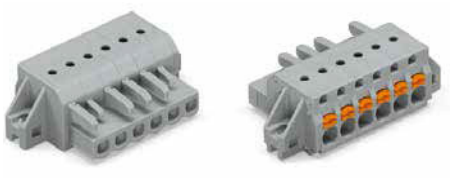




Table 2:
Cutout for 2721 and 2231 Series Female Connectors with Mounting Flanges

	Pin Spacing 5 mm		Pin Spacing 5.08 mm		Pin Spacing 7.5 mm		Pin Spacing 7.62 mm	
Pole No.	L1	L2	L1	L2	L1	L2	L1	L2
2	13.2	18.4	13.4	18.6	15.7	20.9	15.8	21
3	18.2	23.4	18.4	23.6	23.2	28.4	23.4	28.6
4	23.2	28.4	23.5	28.7	30.7	35.9	31.1	36.3
5	28.2	33.4	28.6	33.8	38.2	43.4	38.7	43.9
6	33.4	38.3	33.9	38.8	45.9	50.8	46.5	51.4
7	38.4	43.3	39	43.9	53.4	58.3	54.1	59
8	43.4	48.3	44	48.9	60.9	65.8	61.7	66.6
9	48.4	53.3	49.1	54	68.4	73.3	69.4	74.3
10	53.4	58.3	54.2	59.1	75.9	80.8	77	81.9
11	58.4	63.3	59.3	64.2	83.4	88.3	84.6	89.5
12	63.4	68.3	64.4	69.3	90.9	95.8	92.2	97.1
13	68.6	73.2	69.6	74.2	98.6	103.2	100	104.6
14	73.6	78.2	74.7	79.3	106.1	110.7	107.7	112.3
15	78.6	83.2	79.8	84.4	113.6	118.2	115.3	119.9
16	83.6	88.2	84.9	89.5	121.1	125.7	122.9	127.5
17	88.6	93.2	90	94.6	128.6	133.2	130.5	135.1
18	93.6	98.2	95	99.6	136.1	140.7	138.1	142.7
19	98.8	103.1	100.3	104.6	143.8	148.1	146	150.3
20	103.8	108.1	105.4	109.7	151.3	155.6	153.6	157.9
21	108.8	113.1	110.5	114.8	158.8	163.1	161.2	165.5
22	113.8	118.1	115.6	119.9	166.3	170.6	168.8	173.1
23	118.8	123.1	120.6	124.9	173.8	178.1	176.4	180.7
24	123.8	128.1	125.7	130	181.3	185.6	184.1	188.4

Self-tapping screws,
for 1.8 mm ± 0.1 mm Ø mounting hole

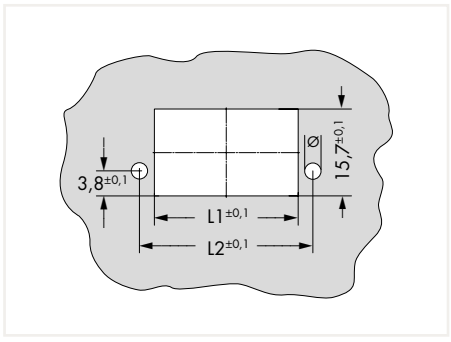
Dimensions	Item No.	PU (SPU)
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

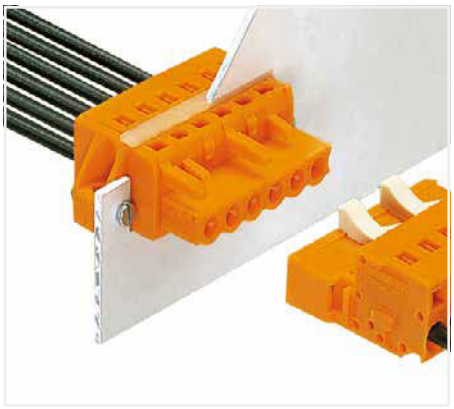
Dimensions	Item No.	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).



PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Cutout Dimensions
MCS MIDI

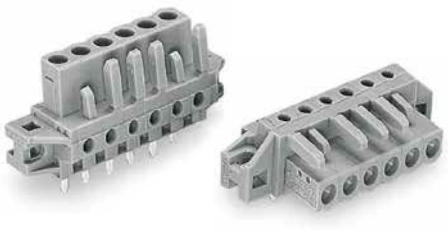




Table 3:
Cutout for 232 and 722 Series THT Female Headers with Mounting Flanges

	Pin Spacing 5 mm		Pin Spacing 5.08 mm		Pin Spacing 7.5 mm		Pin Spacing 7.62 mm	
Pole No.	L1	L2	L1	L2	L1	L2	L1	L2
2	13.4	18.4	13.6	18.6	15.9	20.9	16	21
3	18.4	23.4	18.6	23.6	23.4	28.4	23.6	28.6
4	23.4	28.4	23.7	28.7	30.9	35.9	31.3	36.3
5	28.4	33.4	28.8	33.8	38.4	43.4	38.9	43.9
6	33.5	38.3	34	38.8	46	50.8	46.6	51.4
7	38.5	43.3	39.1	43.9	53.5	58.3	54.2	59
8	43.5	48.3	44.1	48.9	61	65.8	61.8	66.6
9	48.5	53.3	49.2	54	68.5	73.3	69.5	74.3
10	53.5	58.3	54.3	59.1	76	80.8	77.1	81.9
11	58.5	63.3	59.4	64.2	83.5	88.3	84.7	89.5
12	63.5	68.3	64.5	69.3	91	95.8	92.3	97.1
13	68.6	73.2	69.6	74.2	98.6	103.2	100	104.6
14	73.6	78.2	74.7	79.3	106.1	110.7	107.7	112.3
15	78.6	83.2	79.8	84.4	113.6	118.2	115.3	119.9
16	83.6	88.2	84.9	89.5	121.1	125.7	122.9	127.5
17	88.6	93.2	90	94.6	128.6	133.2	130.5	135.1
18	93.6	98.2	95	99.6	136.1	140.7	138.1	142.7
19	98.7	103.1	100.2	104.6	143.7	148.1	145.9	150.3
20	103.7	108.1	105.3	109.7	151.2	155.6	153.5	157.9
21	108.7	113.1	110.4	114.8	158.7	163.1	161.1	165.5
22	113.7	118.1	115.5	119.9	166.2	170.6	168.7	173.1
23	118.7	123.1	120.5	124.9	173.7	178.1	176.3	180.7
24	123.7	128.1	125.6	130	181.2	185.6	184	188.4

Self-tapping screws,
for 1.8 mm ± 0.1 mm Ø mounting hole

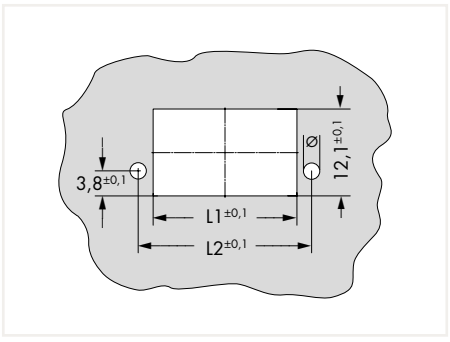
Dimensions	Item No.	PU (SPU)
B 2.2 x 9,5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

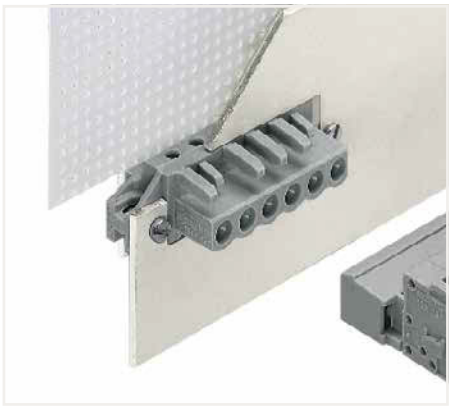
Dimensions	Item No.	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).



PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Cutout Dimensions
MCS MIDI

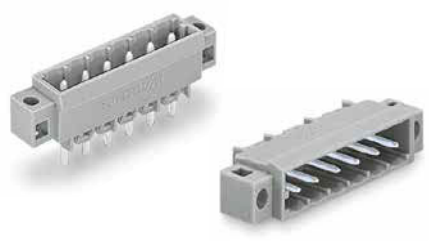




Table 4:
Cutout for 231 Series THT Male Headers with Mounting Flanges

	Pin Spacing 5 mm			Pin Spacing 7,5 mm		
Pole No.	L1	L2	L3	L1	L2	L3
2	13.6	8.9	9.5	16.1	10.6	10.8
3	18.6	11.4	12	23.6	14.3	14.5
4	23.6	13.9	14.5	31.1	18.1	18.3
5	28.6	16.4	17	38.6	21.8	22
6	33.8	19	19.6	46.3	25.7	25.9
7	38.8	21.5	22.1	53.8	29.4	29.6
8	43.8	24	24.6	61.3	33.2	33.4
9	48.8	26.5	27.1	68.8	36.9	37.1
10	53.8	29	29.6	76.3	40.7	40.9
11	58.8	31.5	32.1	83.8	44.4	44.6
12	63.8	34	34.6	91.3	48.2	48.4
13	69	36.6	37.2	99	52	52.2
14	74	39.1	39.7	106.5	55.8	56
15	79	41.6	42.2	114	59.5	59.7
16	84	44.1	44.7	121.5	63.3	63.5
17	89	46.6	47.2	129	67	67.2
18	94	49.1	49.7	136.5	70.8	71
19	99.2	51.7	52.3	144.2	74.6	74.8
20	104.2	54.2	54.8	151.7	78.4	78.6
21	109.2	56.7	57.3	159.2	82.1	82.3
22	114.2	59.2	59.8	166.7	85.9	86.1
23	119.2	61.7	62.3	174.2	89.6	89.8
24	124.2	64.2	64.8	181.7	93.4	93.6

Self-tapping screws,
for 1.8 mm ± 0.1 mm Ø mounting hole

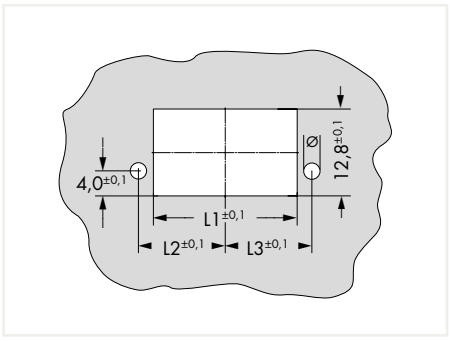
Dimensions	Item No.	PU (SPU)
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)

Screws with nuts,
for 2.5 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2 x 12 mm	**231-195**	200 (100)

Screws with nuts,
for 3.0 mm ± 0.1 mm Ø mounting hole

Dimensions	Item No.	PU (SPU)
M 2.5 x 10 mm	**231-295**	200 (100)



Drilled hole Ø depends on the type of screw used (see mounting screws).



PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Additional information on through-panel mounting and cutout dimensions is available upon request.

Operating Tools
MCS MIDI





Operating lever; for male and female connectors equipped with CAGE CLAMP® connection; 5/5.08 mm and 7.5/7.62 mm pin spacing		
Color	Item No.	PU (SPU)
natural	**231-131**	100 (25)
rot	**231-291**	100 (25)

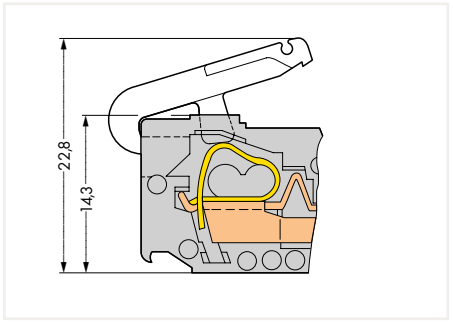
Operating tool; for male and female connectors equipped with CAGE CLAMP® connection; 5/5.08 mm and 7.5/7.62 mm pin spacing		
Color	Item No.	PU (SPU)
natural	**231-159**	100 (25)
rot	**231-231**	100 (25)



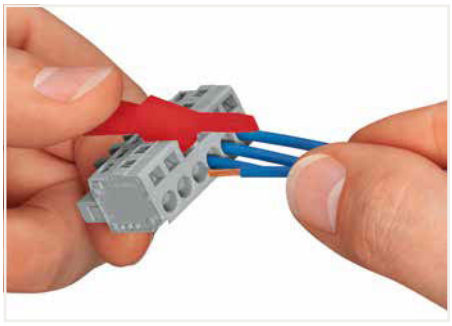
Inserting a conductor via operating lever.



Conductor termination parallel to CAGE CLAMP® actuation



Operating levers are not suitable for panel-mount, angled female connectors.



Conductor termination perpendicular to CAGE CLAMP® actuation

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Operating Tools and Test Plug Adapters
MCS MIDI







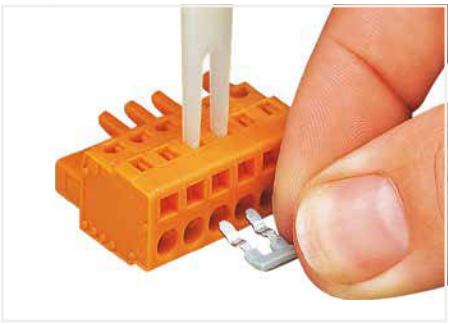
Multipole operating tool; insulated; operation parallel to conductor entry; suitable for male and female connectors with CAGE CLAMP®; 5/5.08 mm pin spacing		
	Item No.	PU (SPU)
1-pole	**209-130**	100 (1)
2-pole	**280-432**	100 (1)
3-pole	**280-433**	100 (1)
4-pole	**280-434**	40 (1)
5-pole	**280-435**	40 (1)
6-pole	**280-436**	40 (1)
7-pole	**280-437**	30 (1)
8-pole	**280-438**	30 (1)
9-pole	**280-439**	30 (1)
10-pole	**280-440**	30 (1)

Operating tool; insulated; operation perpendicular to conductor entry; suitable for male and female connectors with CAGE CLAMP®; 5/5.08 pin spacing		
	Item No.	PU (SPU)
2-pole	**209-132**	40 (1)

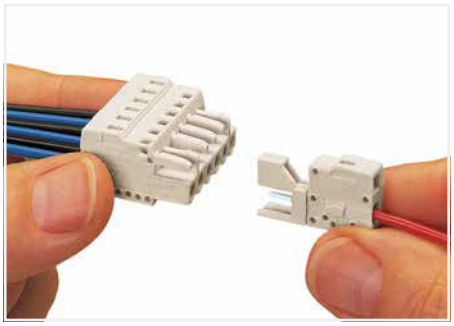
Test plug adapter; for female connectors; light gray		
Pin Spacing	Item No.	PU
5/5.08 mm	**231-661**	100
7.5/7.62 mm	**231-662**	100



Inserting male or female connectors with long contact pins into 280 Series Rail-Mount Terminal Blocks via multi-pole operating tool (max. 10-pole for field assembly). Using CAGE CLAMP®-equipped male and female connectors (5/5.08 mm pin spacing), this operating tool allows up to ten CAGE CLAMP® units to be opened simultaneously, e.g., when inserting 231-90x Comb-Style Jumper Bars. Wiring male or female connectors should be performed in a suitable mount.



Operating tool for 231-902 Comb-Style Jumper Bars



Test plug adapter with CAGE CLAMP® connection

Electrical Data	
Ratings per	IEC/EN 60664-1
Overvoltage category	III
Pollution degree	2
Rated voltage	320 V
Rated surge voltage	4 kV
Rated current	12 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.33 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Coding Keys
MCS MIDI





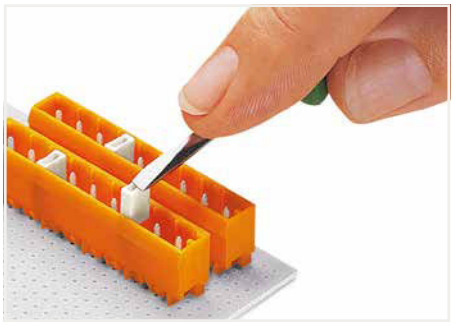


Coding key; for male headers		
Color	Item No.	PU (SPU)
◯ light gray	**231-500**	200 (100)

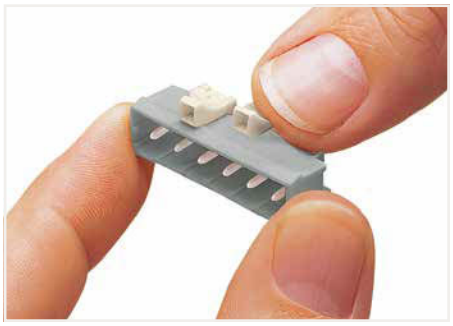
Coding key; for male headers; 5/5.08 mm pin spacing		
Color	Item No.	PU
◯ light gray	**231-129**	100

Coding key; for male headers; 7.5/7.62 mm pin spacing		
Color	Item No.	PU
◯ light gray	**231-130**	100

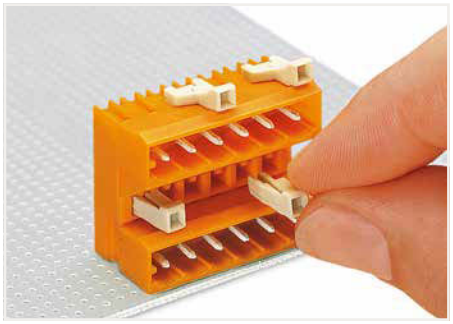
Coding pin; for male headers for double-deck assembly; snaps into lower level		
Color	Item No.	PU
◯ light gray	**231-160**	100



Inserting separators for group formation directly into MCS MIDI Classic Male Headers.
Group formation using separators means that pole count is reduced by at least one pole. Female connectors with integrated end plates and 5/5.08 mm pin spacing are available for group formation without loss of poles. Group formation without loss of poles is possible using standard female connectors (7.5/7.62 mm pin spacing) without separators.



Snap-on coding key for male headers with solder pins and CAGE CLAMP®-equipped male connectors.
The last pole of male and female connectors with 7.5 mm pin spacing has a width of 5 mm;
for 7.62 mm pin spacing, the pole width is 5.08 mm.
Always use a 231-129 Coding Key for coding this pole.



Coding a THT double-deck male header – lower level.

9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Lockout Caps; Insulation Stops and Locking Devices
MCS MIDI







Lockout caps; for male and female connectors equipped with CAGE CLAMP® connection

Color	Item No.	PU (SPU)
gray	**231-668**	500 (100)
orange	**231-669**	500 (100)

Insulation stop; for male and female connectors equipped with CAGE CLAMP® or Push-in CAGE CLAMP® connection; 5/5.08 mm pin spacing

Color	Conductor Size	Item No.	PU
white	0.08 … 0.2 mm² "s" 0.08 … 0.14 mm² "f-st"	**231-670**	200
light gray	0.25 … 0.5 mm²	**231-671**	200
dark gray	0.27 … 1 mm²	**231-672**	200

Locking devices; for angled THT male headers with solder pins

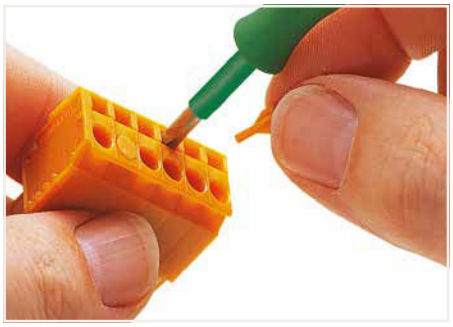
Color	Item No.	PU
gray	**231-193**	100
orange	**231-393**	100

7.5/7.62 mm pin spacing

Color	Conductor Size	Item No.	PU
white	0.08 … 0.2 mm² "e" 0.08 … 0.14 mm² "f-st"	**231-673**	200
light gray	0.25 … 0.5 mm²	**231-674**	200
dark gray	0.27 … 1 mm²	**231-675**	200

Screws for locking devices

Type	Item No.	PU
Screw with nut		
M2 x 12 mm	**231-195**	100
Self-tapping screw; 1.8 mm Ø mounting hole		
B 2.2 x 13 mm	**231-194**	100



Sealing unnecessary clamping points in CAGE CLAMP®-equipped male and female connectors (e.g., when doubling the pin spacing to meet clearance and creepage distance requirements, or when higher rated voltage is required). Lockout pins are not suitable for panel-mount, angled female connectors.



The wiring of programmable logic controllers and microprocessor-operated control circuits often relies on very small, fine-stranded conductors. These conductors are highly flexible and deform when pushed against the conductor stop in terminal blocks. As a result, the conductor insulation – not the copper conductor – may be clamped, causing intermittent contact or no contact at all. Common to all terminal block types currently offered, this problem creates unnecessary downtime for troubleshooting.

Insulation stops for connectors reliably ensure proper termination. Insulation stops automatically bundle the cores of fine-stranded conductors when inserted into the clamping unit, preventing splaying. This also limits the conductor entry to a defined cross sectional area – ensuring the actual conductor, not the insulation, will enter the clamping unit

Insulation stops are available as dividable 5-pole strips for MCS MIDI Male and Female Connectors. Insulation stop usage will not affect the conductor strip lengths for the aforementioned connectors.

Insulation stops are not suitable for panel-mount female connectors.



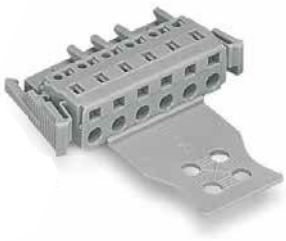
Locking devices enhance connection reliability between male headers with angled solder pins and the PCB. This substantially reduces mechanical stress on both solder pins and joints, particularly when dealing with small lengths and frequent mating cycles.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Strain Relief Plate; Factory assembled; for Male and Female Connectors with CAGE CLAMP® Connection

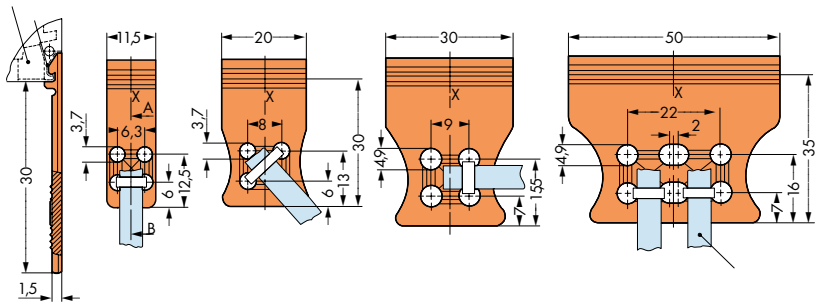
MCS MIDI





Pin spacing 5/5.08 mm; orange		
Pole No.	Width	Item No. Suffix*
2 … 3	11.5 mm	**…/032-000**
4 … 5	20 mm	**…/033-000**
6 … 9	30 mm	**…/034-000**
10 … 24	50 mm	**…/035-000**

Pin spacing 7.5/7.62 mm; gray		
Pole No.	Width	Item-No. Suffix*
2 … 3	11.5 mm	**…/032-000**
4 … 5	20 mm	**…/033-000**
6 … 9	30 mm	**…/034-000**
10 … 24	50 mm	**…/035-000**



Both CAGE CLAMP®-equipped male and female connectors can be fitted with a strain relief plate. The strain relief plates must be pre-assembled (glued) prior to delivery for connector models equipped with CAGE CLAMP® connection. These strain relief plates are available in four different widths and are allocated to the specific pin spacing and pole number (as shown above). Angled female connectors for panel mounting cannot be fitted with strain relief plates.

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.

Cable ties and binding tools are not offered by WAGO.
The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.



Ordering example:
1-conductor female connector,
with strain relief plate,
5.08 mm pin spacing, 12-pole, orange:
231-312/026-000/035-000



Ordering example:
1-conductor female connector,
with strain relief plate,
5 mm pin spacing, 3-pole, gray:
231-103/026-000/032-000



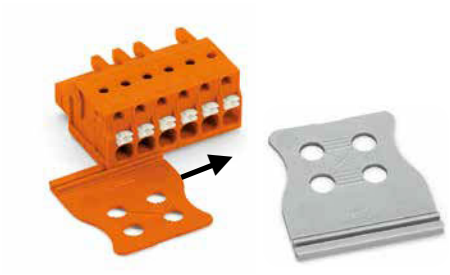
Gray strain relief plates are used for light gray 721, 722 and 723 Series Male and Female Connectors equipped with CAGE CLAMP® connection.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

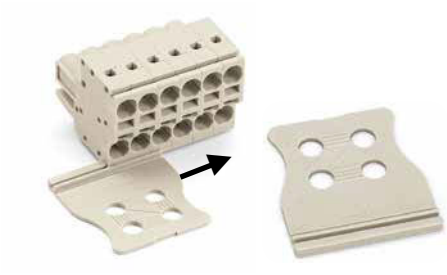
Strain Relief Plate; for Male and Female Connectors with Push-in CAGE CLAMP® Connection; 2721, 2231 Series and 2-conductor 231, 721 Series

MCS MIDI

For inserting; 5/5.08 mm pin spacing



For inserting; 7.5/7.62 mm pin spacing



Factory assembled



Light gray			
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	**734-127**	100 (25)
3 … 4	12.5 mm	**734-128**	100 (25)
5 … 7	25 mm	**734-129**	100 (25)
8 … 11	35 mm	**734-126**	100 (25)
12 … 16	55 mm	**734-426**	50 (25)
17 … 24	75 mm	**734-427**	50 (25)

Light gray			
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	**734-127**	100 (25)
2 … 3	12.5 mm	**734-128**	100 (25)
4 … 6	25 mm	**734-129**	100 (25)
7 … 9	35 mm	**734-126**	100 (25)
10 … 12	55 mm	**734-426**	50 (25)
13 … 16	75 mm	**734-427**	50 (25)

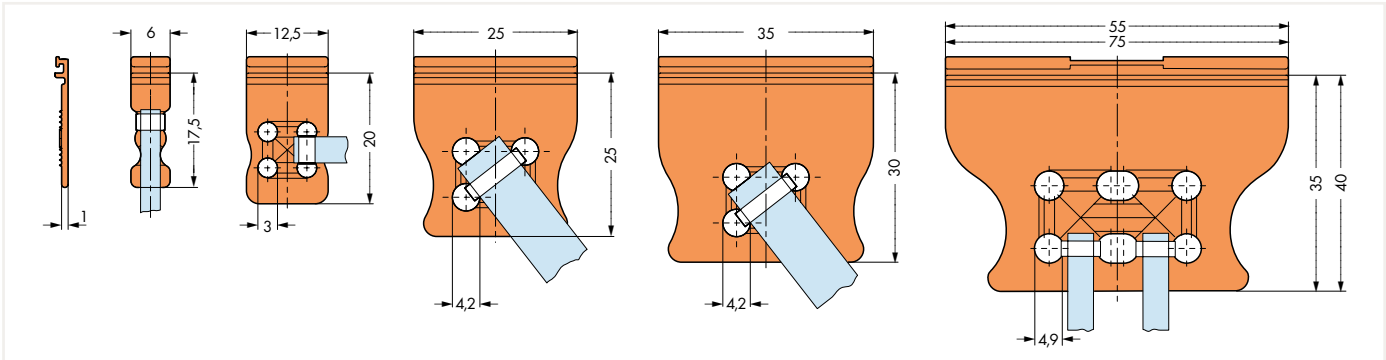
Pin spacing 5/5.08 mm and 7.5/7.62 mm		
Pole No.	Width	Item No. Suffix
2	6 mm	**…/132-000**
2 … 3	12.5 mm	**…/133-000**
4 … 6	25 mm	**…/134-000**
7 … 9	35 mm	**…/135-000**
10 … 12	55 mm	**…/136-000**
13 … 16	75 mm	**…/137-000**

Gray			
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	**734-327**	100 (25)
3 … 4	12.5 mm	**734-328**	100 (25)
5 … 7	25 mm	**734-329**	100 (25)
8 … 11	35 mm	**734-326**	100 (25)
12 … 16	55 mm	**734-430**	50 (25)
17 … 24	75 mm	**734-431**	50 (25)

Gray			
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	**734-327**	100 (25)
2 … 3	12.5 mm	**734-328**	100 (25)
4 … 6	25 mm	**734-329**	100 (25)
7 … 9	35 mm	**734-326**	100 (25)
10 … 12	55 mm	**734-430**	50 (25)
13 … 16	75 mm	**734-431**	50 (25)

Orange			
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	**734-227**	100 (25)
3 … 4	12.5 mm	**734-228**	100 (25)
5 … 7	25 mm	**734-229**	100 (25)
8 … 11	35 mm	**734-226**	100 (25)
12 … 16	55 mm	**734-428**	50 (25)
17 … 24	75 mm	**734-429**	50 (25)

Orange			
Pole No.	Width	Item No.	PU (SPU)
2	6 mm	**734-227**	100 (25)
2 … 3	12.5 mm	**734-228**	100 (25)
4 … 6	25 mm	**734-229**	100 (25)
7 … 9	35 mm	**734-226**	100 (25)
10 … 12	55 mm	**734-428**	50 (25)
13 … 16	75 mm	**734-429**	50 (25)



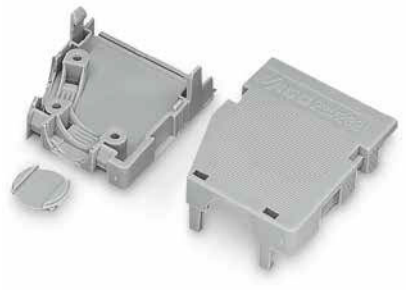
Female connectors with Push-in CAGE CLAMP® can be retrofitted with a strain relief plate or pre-assembled with one at the factory. These strain relief plates are available in six different widths and are allocated to the specific pin spacing and pole number (as shown left). The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways.

*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.

Cable ties and binding tools are not offered by WAGO.
The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Snap-On Type Strain Releif Housing; consisting of Strain Relief Support and Housing
MCS MIDI







Pin spacing 5 mm; gray		
Pole No.	Item No.	PU
2	**232-602**	25
3	**232-603**	25
4	**232-604**	25
5	**232-605**	25
6	**232-606**	25
7	**232-607**	25
8	**232-608**	25
9	**232-609**	25
10	**232-610**	25
12	**232-612**	25

Pin spacing 5.08 mm; orange		
Pole No.	Item No.	PU
2	**232-632**	25
3	**232-633**	25
4	**232-634**	25
5	**232-635**	25
6	**232-636**	25
7	**232-637**	25
8	**232-638**	25
9	**232-639**	25
10	**232-640**	25
12	**232-642**	25
16	**232-646**	25

Cable clamp; for strain relief		
Pole No.	Item No.	PU
4 … 6	**209-177**	25
7 … 16	**209-174**	25

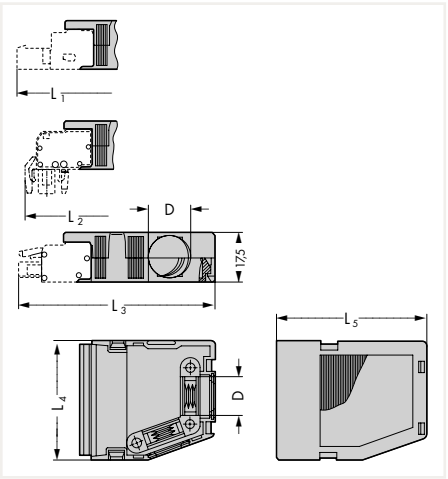


Mounting screws; for cable clamp		
Pole No.	Item No.	PU
4 … 6	**209-176**	50
7 … 16	**209-173**	50

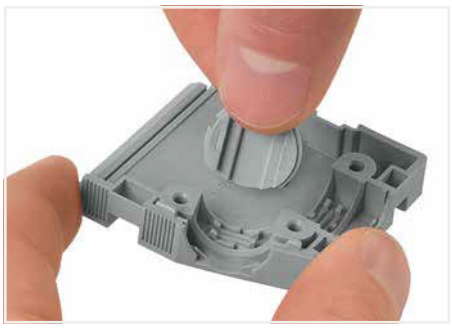
2- to 3-pole; only suitable for cable ties; 1 cable outlet (rear side); max. 3.6 mm cable tie width
4- to 6-pole; suitable for cable clamp; 1 x cable outlet (rear side)
7- to 8-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 1 x cable outlet (side); 1 cover (included)
9- to 16-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 2 x cable outlets (side); 2 covers (included)

Cable ties and binding tools are not offered by WAGO.

9



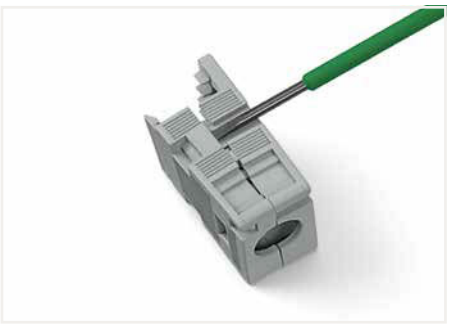
Strain Relief Housing Dimensions (in mm):							
Pole No.	L_4 (5 mm)	L_4 (5.08 mm)	L_1	L_2	L_3	L_5	Cable Ø (max.)
2	13	13	59	55.5	58	41.5	6
3	18	18	59	55.5	58	41.5	7.5
4	23	23	59	55.5	58	41.5	9.5
5	28	28	59	55.5	58	41.5	9.5
6	33	33	59	55.5	58	41.5	9.5
7	38	38	71.5	68	70.5	54	14
8	43	43	71.5	68	70.5	54	14
9	48	48.7	71.5	68	70.5	54	14
10	53	53.8	71.5	68	70.5	54	14
12	63	64	71.5	68	70.5	54	14
16	85	85	71.5	68	70.5	54	14



Snapping a cover into the unused cable outlet.



Snapping on a strain relief housing, demonstrated with a female connector with locking levers. Cable exits laterally – strain relief by cable tie (up to a width of 4 mm).



Disassembling a strain relief housing is only possible using an operating tool (e.g., 210-719).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Snap-On Type Strain Releif Housing; consisting of Strain Relief Support and Housing
MCS MIDI







Pin spacing 7.5 mm; light gray		
Pole No.	Item No.	PU
2	**232-662**	25
3	**232-663**	25
4	**232-664**	25
5	**232-665**	25
7	**232-667**	25
10	**232-670**	25

Pin spacing 7.62 mm; orange		
Pole No.	Item No.	PU
2	**232-682**	25
3	**232-683**	25
4	**232-684**	25
5	**232-685**	25
7	**232-687**	25

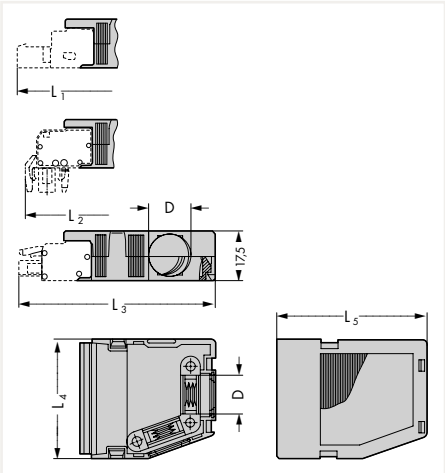
Cable clamp; for strain relief		
Pole No.	Item No.	PU
4 … 6	**209-177**	25
7 … 16	**209-174**	25



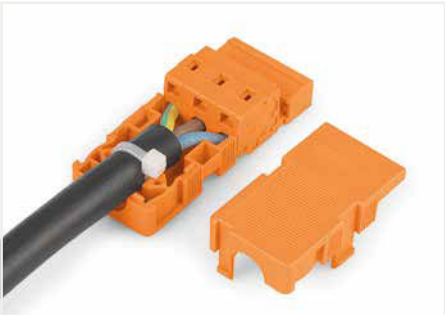
Mounting screws; for cable clamp		
Pole No.	Item No.	PU
4 … 6	**209-176**	50
7 … 16	**209-173**	50

2-pole; only suitable for cable ties; 1 cable outlet (rear side), max. cable tie width 3.6 mm;
3- to 4-pole; suitable for cable clamp; 1 x cable outlet (rear side);
5-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 1 x cable outlets (side); 1 cover (included)
7-pole; suitable for cable clamp; 1 x cable outlet (rear side) and 2 x cable outlets (side); 2 covers (included)

Cable ties and binding tools are not offered by WAGO.



Strain Relief Housing Dimensions (in mm):							
Pole No.	L_4 (5 mm)	L_4 (5.08 mm)	L_1	L_2	L_3	L_5	Cable Ø (max.)
2	15.5	15.5	59	55.5	58	41.5	6
3	23	23	59	55.5	58	41.5	9.5
4	30.5	30.5	59	55.5	58	41.5	9.5
5	38	38	71.5	68	70.5	54	14
7	53	53.8	71.5	68	70.5	54	14



3-pole female connector with strain relief housing



4-pole male connector with strain relief housing



Gray strain relief plates are used for light gray 721, 722 and 723 Series Male and Female Connectors equipped with CAGE CLAMP® connection.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Mounting Adapters
MCS MIDI

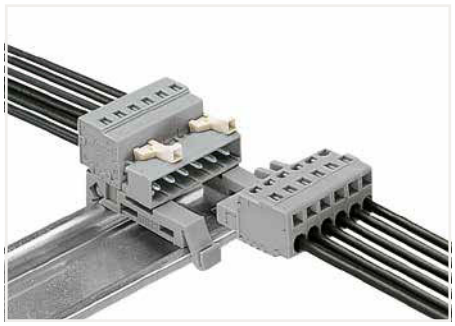




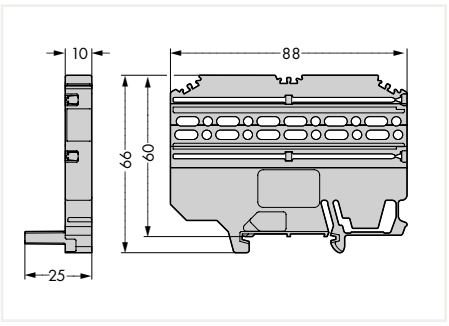
Mounting adapter for DIN-35 rail; for male and female connectors with snap-in mounting feet		
Color	Item No.	PU
gray	**209-137**	25

Multi mounting adapter; for DIN-35 rail, for male and female connectors with snap-in mounting feet		
Color	Item No.	PU
gray	**209-148**	25

Mounting adapter; for DIN-35 rail; for angled female connectors with snap-in feet for panel mounting		
Color	Item No.	PU (SPU)
gray	**209-120**	500(25)



Female connector with snap-in mounting feet and 209-189 Mounting Adapter on DIN-35 rail







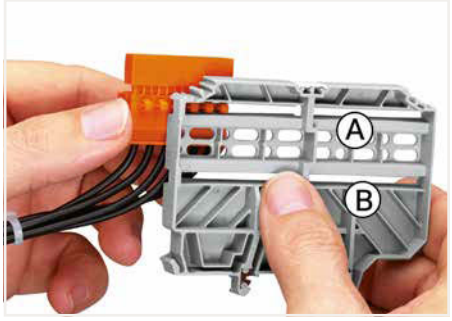
Multi mounting adapter (209-120) on DIN-35 rail and angled female connector with snap-in feet for panel mounting



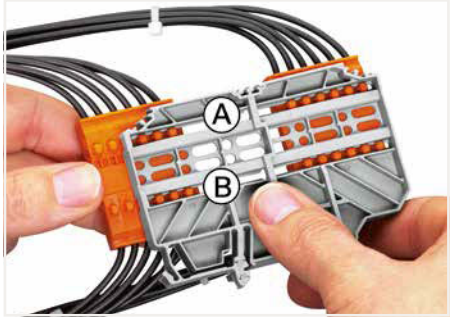
The pluggable male or female connector can also be fitted with a strain relief plate.



The adapter can be marked either with WSB, Mini-WSB or WMB markers.



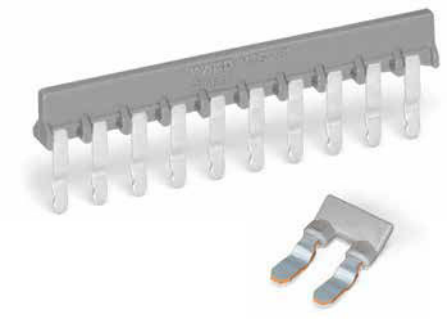
Both male and female connectors remain pluggable when they are mounted on the multi mounting adapter via its oblong holes or open grooves (A/B).



If a connector is pushed from the side into the open grooves (A/B) of the multi mounting adapter, the plug connection will be reliably protected from unintentional disconnection when mounted.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Comb-Style Jumper Bars
MCS MIDI



Comb-style jumper bar; for male and female connectors with CAGE CLAMP®; with CAGE CLAMP®; 5/5.08 mm pin spacing		
	Item No.	PU (SPU)
2-pole	**231-902**	200 (25)
3-pole	**231-903**	200 (25)
5-pole	**231-905**	100 (25)
7-pole	**231-907**	100 (25)
10-pole	**231-910**	100 (25)

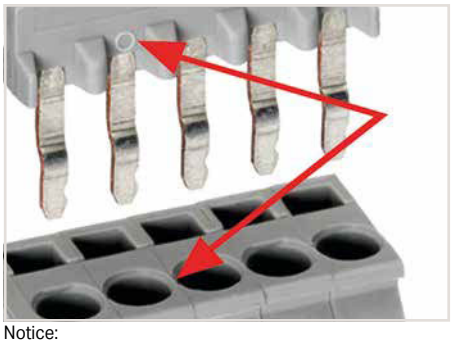
Electrical Data	
Ratings per	IEC/EN 60664-1
Overvoltage category	III
Pollution degree	2
Rated voltage	320 V
Rated surge voltage	4 kV
Rated current	12 A (2-pole) 16 A (3 … 7-pole)

Notice:
Not suitable for female connectors equipped with Push-in CAGE CLAMP® connection and angled, panel-mount female connectors.

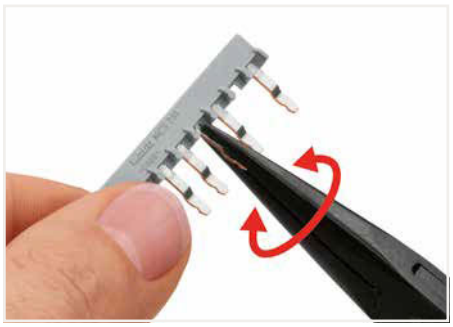
Comb-style jumper bar reduces maximum conductor cross-section to 1.5 mm².



Notice:
Insert jumper bar according to direction of symbols.
□ symbol correlates to the direction of the operating slot.



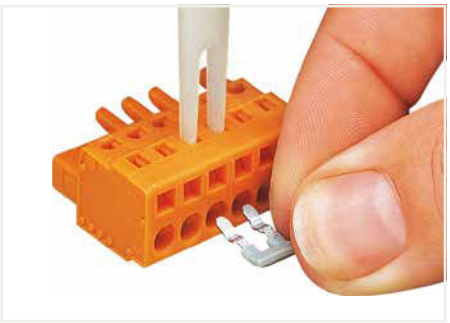
Notice:
Insert jumper bar according to direction of symbols.
○ symbol correlates to the direction of the conductor entry.



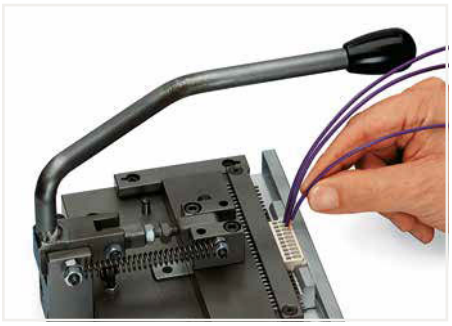
Custom comb-style jumper bars are created by breaking off jumper contacts (3 contacts and more).



Inserting a comb-style jumper bar via multipole operating tool – with the female or male connector being supported in a suitable holding device.



Commoning a female connector with 231-902 Comb-Style Jumper Bar via 2-pole operating tool.



Both male and female connectors can be pre-assembled with comb-style jumper bars upon request.

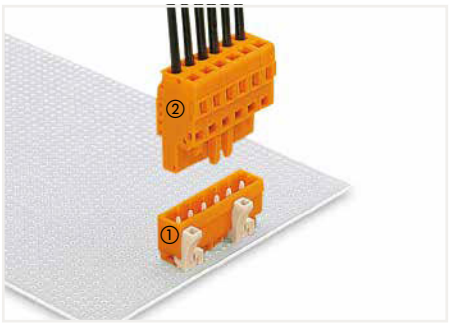


Notice: Comb-style jumper bars reduce the conductor cross-section to 1.5 mm² "s" + "f-st."

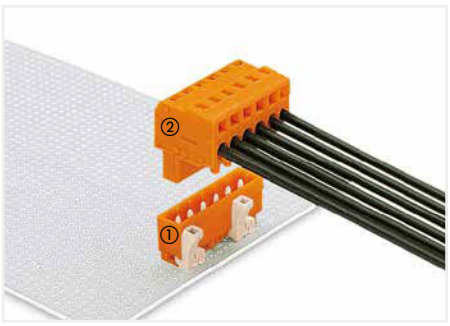
9

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

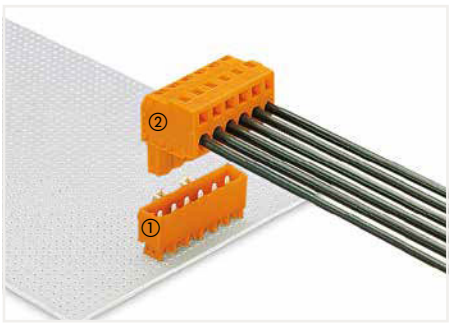
Application Examples
PCB Connectors and Headers
MCS MIDI Classic



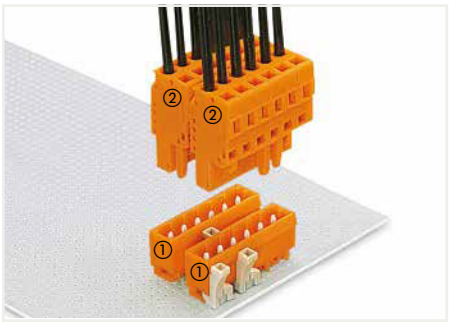
①*Male header with straight solder pins
②*Female connector with CAGE CLAMP®



①*Male header with straight solder pins
②*Angled female connector, conductor entry same direction as latches

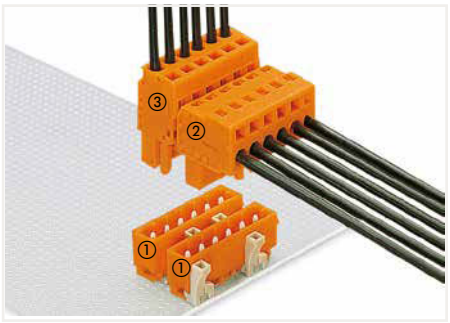


① Male header with straight solder pins
② Angled female connector, conductor entry opposite of latches



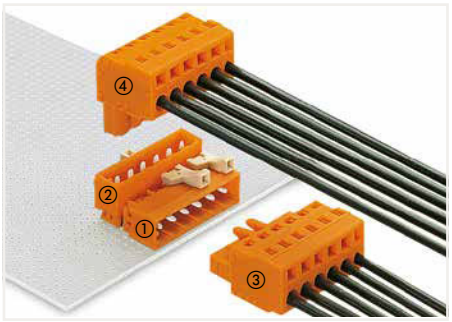
①*Male headers with straight solder pins**
②*Female connectors with CAGE CLAMP®

**Rear male header must be coded prior to soldering!

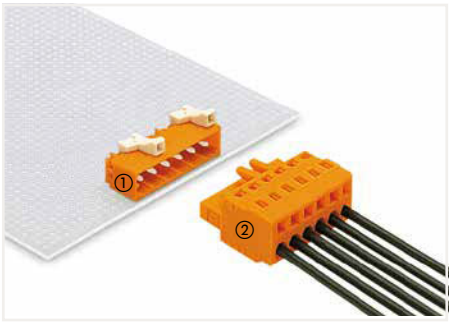


①*Male headers with straight solder pins**
②*Angled female connector, conductor entry same direction as latches
③*Female connector with CAGE CLAMP®

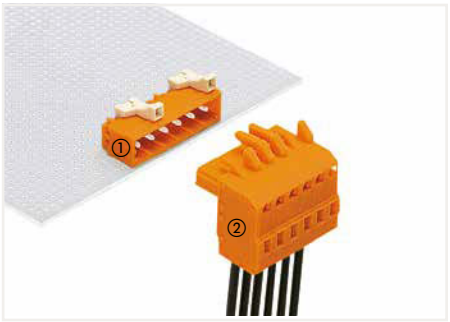
**Rear male header must be coded prior to soldering!



① Male header with angled solder pins
② Male header with straight solder pins
③ Female connector with CAGE CLAMP®
④ Angled female connector, conductor entry opposite of latches



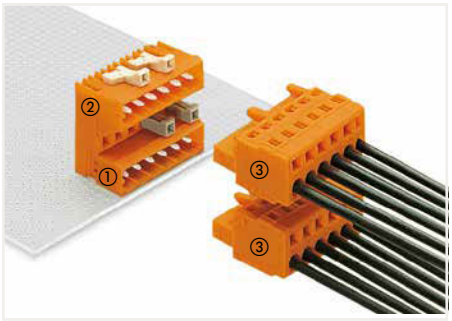
①*Male header with angled solder pins
②*Female connector with CAGE CLAMP®



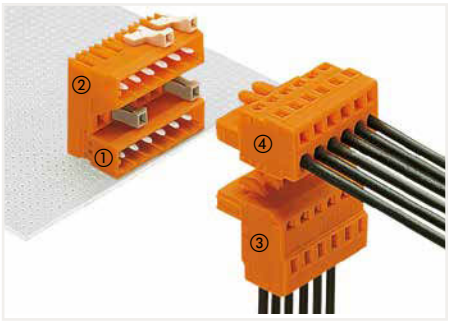
① Male header with angled solder pins
② Angled female connector, conductor entry opposite of latches



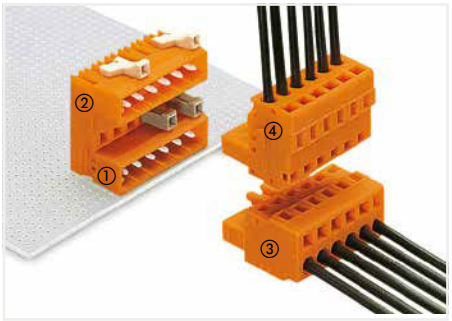
①*Male header with angled solder pins
②*Angled female connector, conductor entry same direction as latches



① Male header with angled solder pins
② Male header for double-deck assembly
③ Female connectors with CAGE CLAMP®



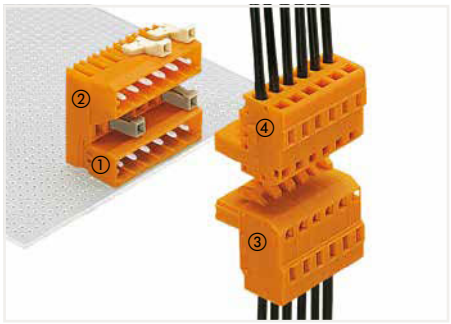
① Male header with angled solder pins
② Male header for double-deck assembly
③ Angled female connector, conductor entry opposite of latches
④ Female connector with CAGE CLAMP®



① Male header with angled solder pins
② Male header for double-deck assembly
③ Female connector with CAGE CLAMP®
④ Angled female connector, conductor entry same direction as latches

*also available in version "100 % protected against mismating" (see Section 5)

Application Examples
PCB Connectors and Headers
MCS MIDI Classic

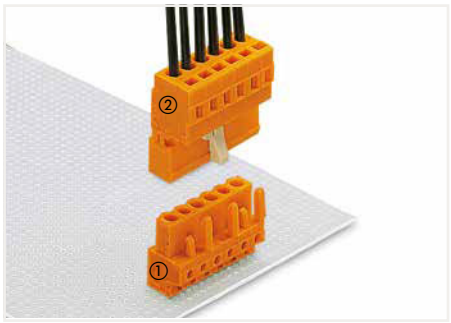


① Male header with angled solder pins
② Male header for double-deck assembly
③ Angled female connector, conductor entry opposite of latches
④ Angled female connector, conductor entry same direction as latches

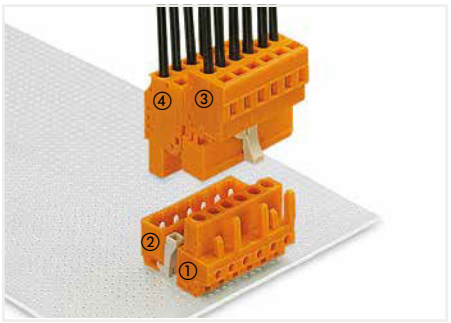
Angled female connectors are available with conductor entries in the same direction as latches, or opposite of latches. This allows different conductor entry directions with the same mounting direction of the male headers. Angled female connectors with conductor entry opposite of latches are not available in versions that are 100 % protected against mismating.
Male headers and female connectors allow touch-proof supply to the PCB. Female headers and male connectors equipped with CAGE CLAMP® allow touch-proof supply from the PCB.
These combinations can also be used for coding different circuits.



Female connectors with strain relief plate

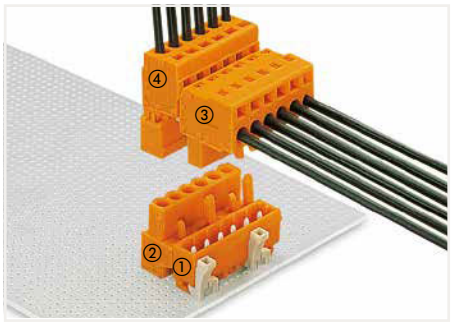


①*Female connector with straight solder pins
②*Male connector with CAGE CLAMP®

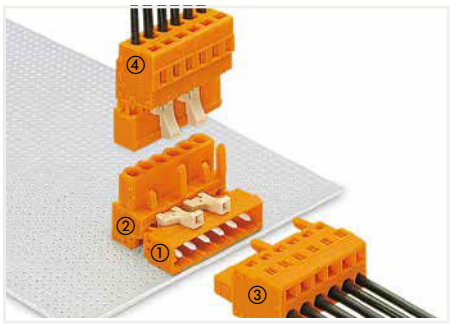


①*Female connector with straight solder pins
②*Male header with straight solder pins**
③*Male connector with CAGE CLAMP®
④*Female connector with CAGE CLAMP®

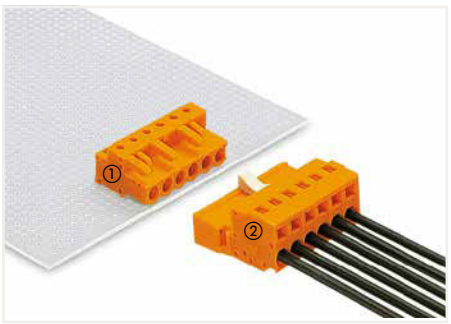
**Male header must be coded prior to soldering!



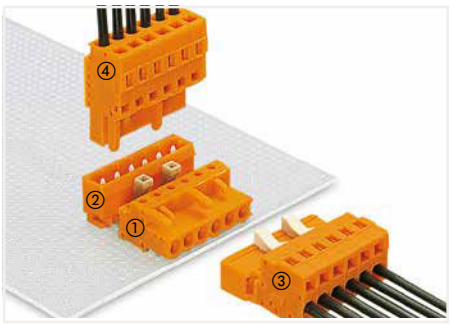
①*Male header with straight solder pins
②*Female header with straight solder pins
③*Angled female connector, conductor entry same direction as latches
④*Male connector with CAGE CLAMP®



①*Male header with angled solder pins
②*Female header with straight solder pins
③*Female connector with CAGE CLAMP®
④*Male connector with CAGE CLAMP®

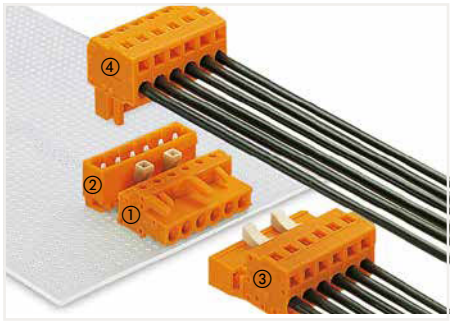


①*Female header with angled solder pins
②*Male connector with CAGE CLAMP®

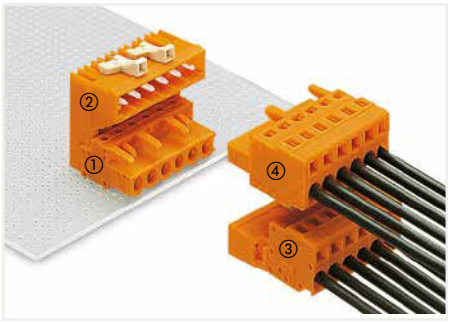


①*Female header with angled solder pins
②*Male header with straight solder pins**
③*Male connector with CAGE CLAMP®
④*Female connector with CAGE CLAMP®

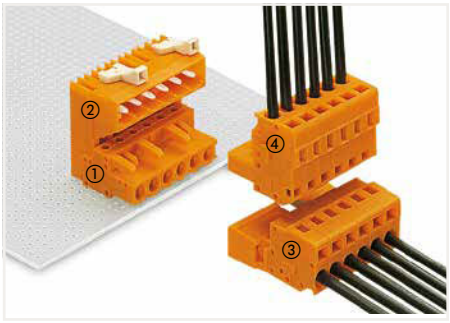
**Male header must be coded prior to soldering!



①*Female header with angled solder pins
②*Male header with straight solder pins**
③*Male connector with CAGE CLAMP®
④*Angled female connector, conductor entry same direction as latches



① Female header with angled solder pins
② Male header for double-deck assembly
③ Male connector with CAGE CLAMP®
④ Female connector with CAGE CLAMP®

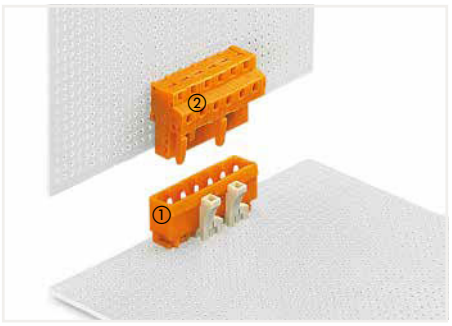


① Female header with angled solder pins
② Male header for double-deck assembly
③ Male connector with CAGE CLAMP®
④ Angled female connector, conductor entry same direction as latches

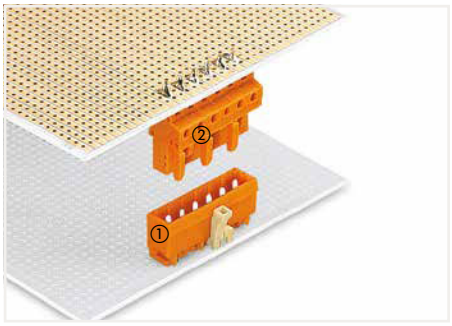
**Male header must be coded prior to soldering!

*also available in version "100 % protected against mismating" (see Section 5)

Application Examples
PCB Headers and Connectors
MCS MIDI Classic

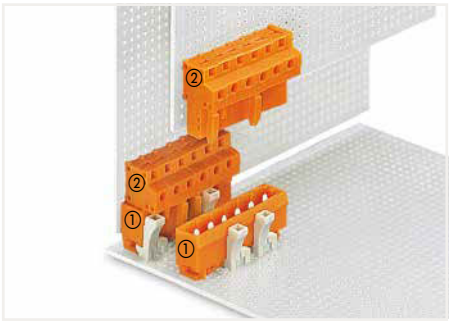


①*Male header with straight solder pins
②*Female header with angled solder pins

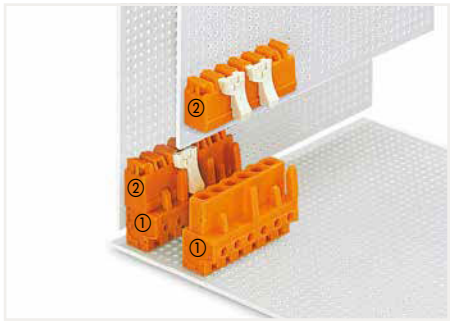


①*Male header with straight solder pins
②*Female header with straight solder pins

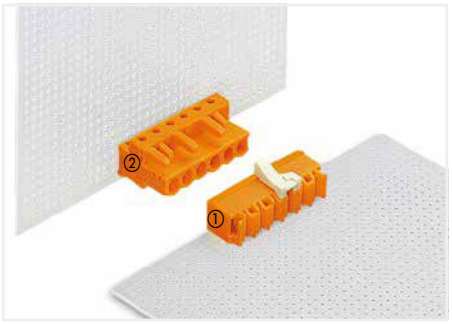
Total height when mated:
22.5 mm (0.886 inch)



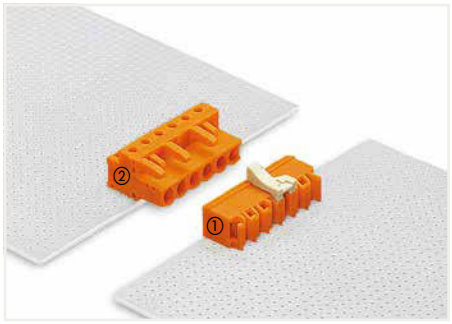
①*Male headers with straight solder pins
②*Female headers with angled solder pins



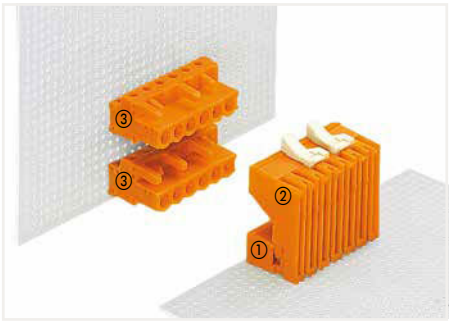
①*Female headers with straight solder pins
②*Male headers with angled solder pins



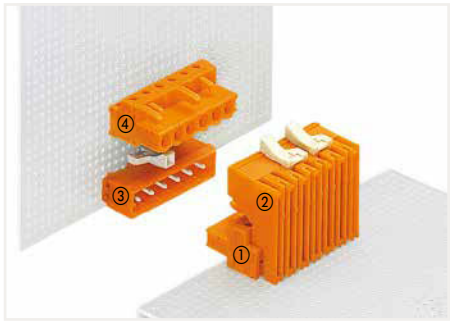
①*Male header with angled solder pins
②*Female header with straight solder pins



①*Male header with angled solder pins
②*Female header with angled solder pins



① Male header with angled solder pins
② Male header for double-deck assembly
③ Female header with straight solder pins

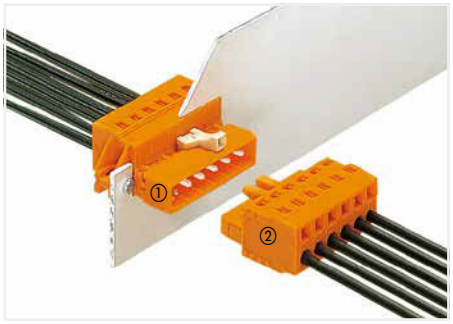


① Female header with angled solder pins
② Male header for double-deck assembly
③ Male header with straight solder pins
④ Female header with straight solder pins

Panel Feedthrough Connectors



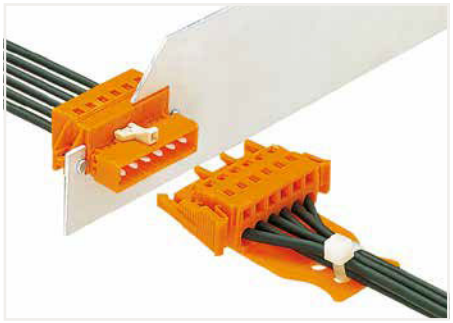
Snap-on type strain relief housings



①*Male connector with mounting flanges and CAGE CLAMP®
②*Female connector with CAGE CLAMP®



①*Female connector with mounting flanges and CAGE CLAMP®
②*Male connector with CAGE CLAMP®



Female connector with locking levers and strain relief plate

*also available in version "100 % protected against mismating" (see Section 5); Cutout dimensions, see page 510

Application Examples
PCB Panel Feedthrough Headers



Panel feedthrough male header in large cutout
Coding via coding keys:
Coding finger(s) opposite to coding key(s) must be broken off.



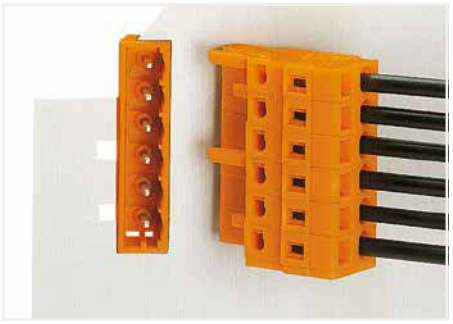
①*Male header with angled solder pins
②*Female connector with CAGE CLAMP®



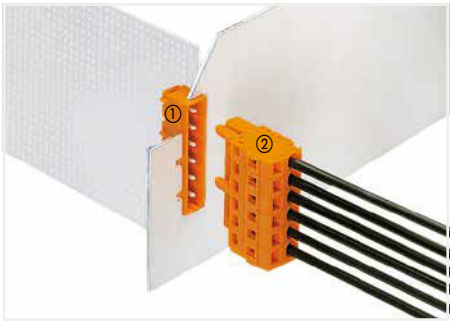
① Male header with angled solder pins
② Angled female connector, conductor entry opposite of latches



①*Male header with angled solder pins
②*Angled female connector, conductor entry same direction as latches

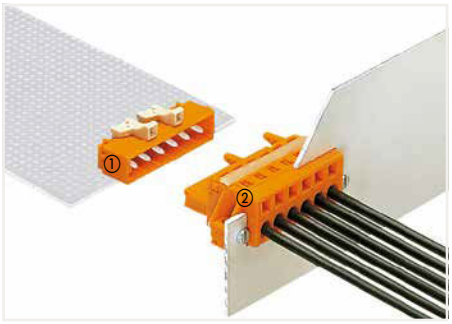


Panel feedthrough male header in small cutout
Coding via coding slots:
Leave the coding finger(s) on female connector in coding slot position(s).
Break off remaining fingers.



①*Male header with angled solder pins
②*Female connector with CAGE CLAMP®

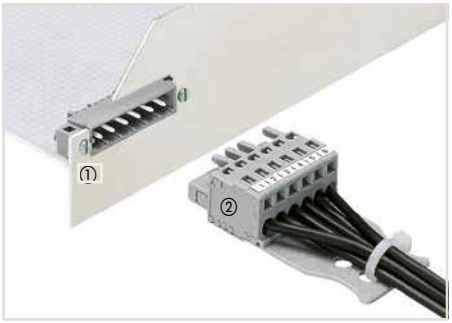
Angled female connectors with mounting flanges are also available in version "100 % protected against mismating."



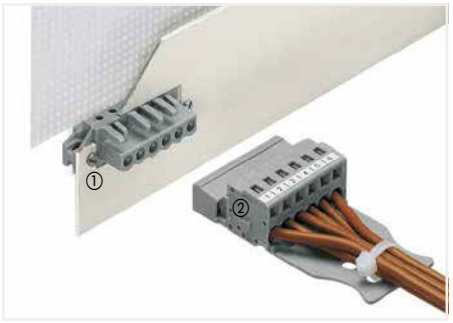
①*Male header with angled solder pins
②*Female connector with mounting flanges and CAGE CLAMP®



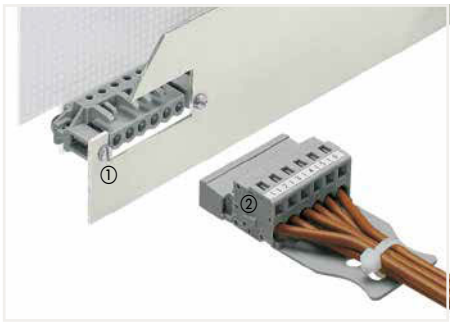
①*Female header with angled solder pins
②*Male connector with mounting flanges and CAGE CLAMP®



① Male header with mounting flanges and solder pins
② Female connector with CAGE CLAMP®
Angled female connectors with mounting flanges are also available in version "100 % protected against mismating."



①*Female header with feedthrough flanges and solder pins
②*Male connector with CAGE CLAMP®



①*Female header with spacers and solder pins
②*Male connector with CAGE CLAMP®

*also available in version "100 % protected against mismating" (see Section 5); Cutout dimensions, see page 510

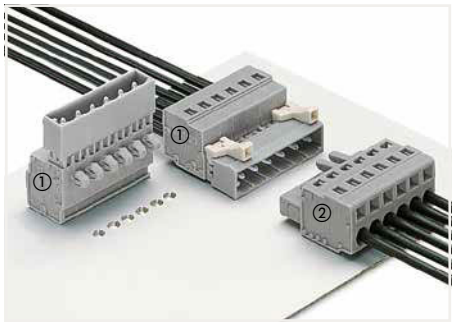
Application Examples
Connectors for Different Mounting Types and Rail-Mount Connectors
MCS MIDI Classic



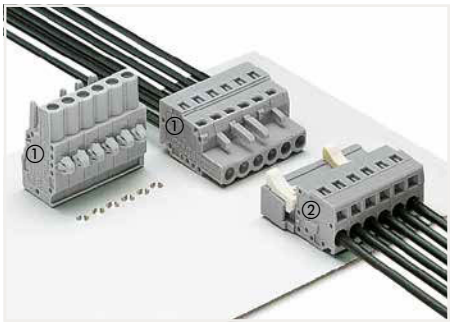
①*Male connector with CAGE CLAMP®
②*Female connector with CAGE CLAMP®



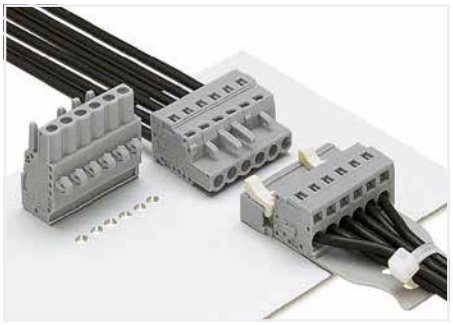
Male connector with CAGE CLAMP® and strain relief plate
Female connector with locking levers and strain relief plate



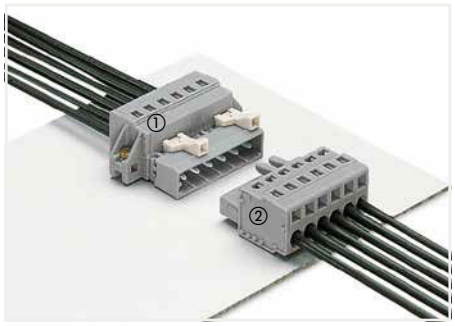
①*Male connector with snap-in mounting feet and CAGE CLAMP®
②*Female connector with CAGE CLAMP®



①*Female connector with snap-in mounting feet and CAGE CLAMP®
②*Male connector with CAGE CLAMP®



Male connector with CAGE CLAMP® and strain relief plate



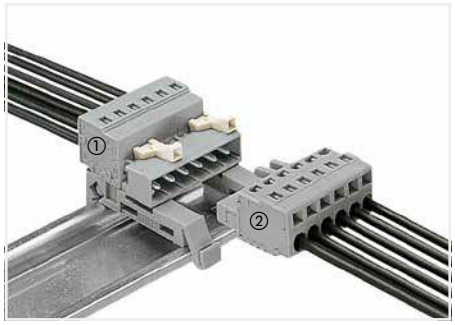
①*Male connector with mounting flanges and CAGE CLAMP®
②*Female connector with CAGE CLAMP®



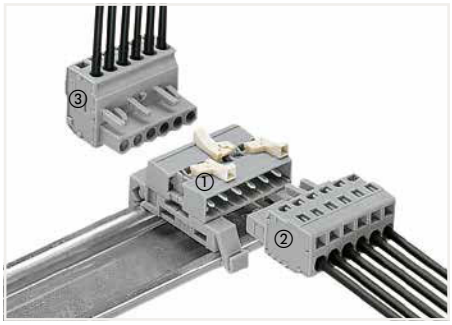
①*Male connector with mounting flanges and CAGE CLAMP®
②*Angled female connector, conductor entry same direction as latches



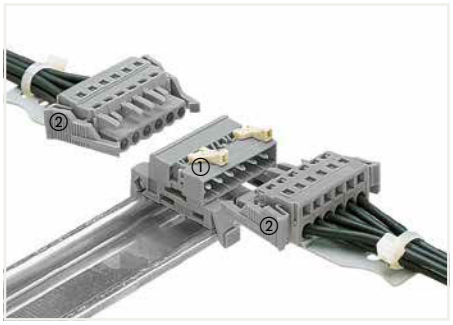
①*Female connector with mounting flanges and CAGE CLAMP®
②*Male connector with CAGE CLAMP®



①*Male connector with snap-in mounting feet and CAGE CLAMP®, on DIN-35 rail-mount adapters**
②*Female connector with CAGE CLAMP®
For 5/5.08 mm pin spacing, starting with 3 poles
For 7.5/7.62 mm pin spacing, starting with 2 poles



① Double-pin male connector with mounting feet, for DIN-35 rail
② Female connector with CAGE CLAMP®
③ Angled female connector with CAGE CLAMP®, conductor exit same direction as latches



① Double-pin male connector with mounting feet, for DIN-35 rail
② Female connectors with locking levers and CAGE CLAMP®

**Distance between mounting adapters: 30 … 40 mm

*also available in version "100 % protected against mismating" (see Section 5)

Application Examples
Connectors for Front-Entry, Rail-Mount Terminal Blocks
MCS MIDI Classic



①*Male connector with straight, long contact pins
②*Female connector with CAGE CLAMP®



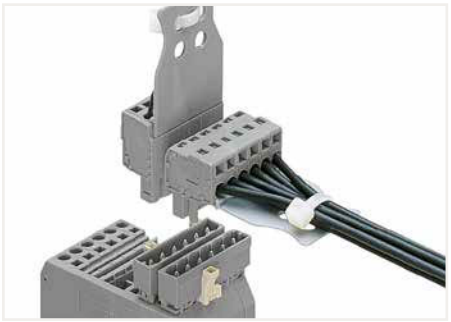
①*Male connectors with straight, long contact pins
②*Female connectors with CAGE CLAMP®



①*Male connector with straight, long contact pins
②*Angled female connector, conductor entry
same direction as latches



①*Male connectors with straight, long contact pins
②*Angled female connector, conductor entry
same direction as latches
③*Female connector with CAGE CLAMP®



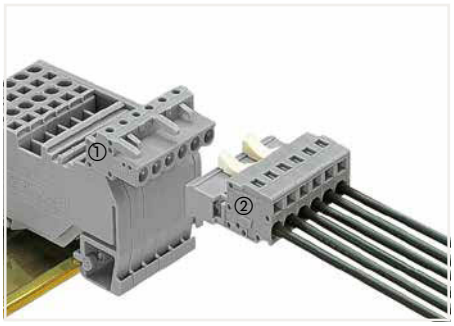
Female connector with strain relief plate
Angled female connector with strain relief plate



①*Female connector with straight, long contact pins
②*Male connector with CAGE CLAMP®



①*Male connector with straight, long contact pins
②*Female connector with straight, long contact pins
③*Angled female connector, conductor entry
same direction as latches
④*Male connector with CAGE CLAMP®



①*Female connector with angled, long contact pins
②*Male connector with CAGE CLAMP®



①*Female connector with angled, long contact pins
②*Female connector with straight, long contact pins
③*Male connectors with CAGE CLAMP®

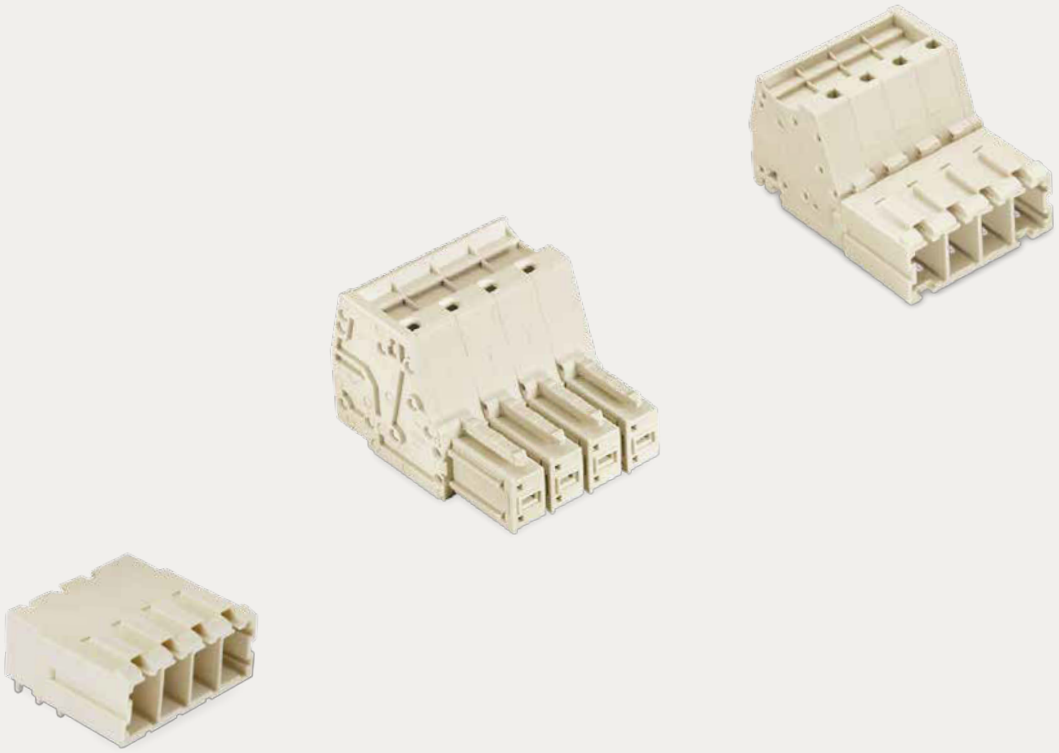


①*Female connector with angled, long contact pins
②*Male connector with straight, long contact pins
③*Male connector with CAGE CLAMP®
④*Female connector with CAGE CLAMP®



① Female connector with angled, long
contact pins
② Male connector with straight, long contact pins
③ Male connector with CAGE CLAMP®
④ Angled female connector,
conductor entry opposite of latches

*also available in version "100 % protected against mismating" (see Section 5)



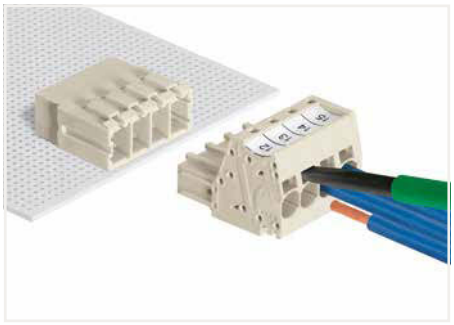
WAGO *MULTI CONNECTION SYSTEM* MAXI

Connectors / Headers
WAGO *MULTI CONNECTION SYSTEM* MAXI 6 ▸ Pin Spacing: 7.62 mm ▸ 10 mm²
WAGO *MULTI CONNECTION SYSTEM* MAXI 16 ▸ Pin Spacing: 10.16 mm ▸ 16 mm²

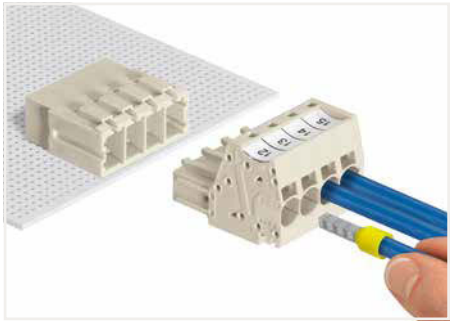
		Nominal Cross-Section	Page
	*MCS* MAXI 6 1-Conductor Female Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	7.62 mm	740
	*MCS* MAXI 6 1-Conductor Male Connectors ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	7.62 mm	742
	*MCS* MAXI 6 THT Male Headers	7.62 mm	744
	*MCS* MAXI 16 1-Conductor Female Connectors ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP®	10.16 mm	746
	*MCS* MAXI 16 1-Conductor Male Connectors ▸ Actuation type: Lever▸ Push-in CAGE CLAMP®	10.16 mm	748
	*MCS* MAXI 16 THT Male Headers	10.16 mm	750
	*MCS* MAXI Accessories Accessories and Tools		754 829

PUSH-IN CAGE CLAMP®

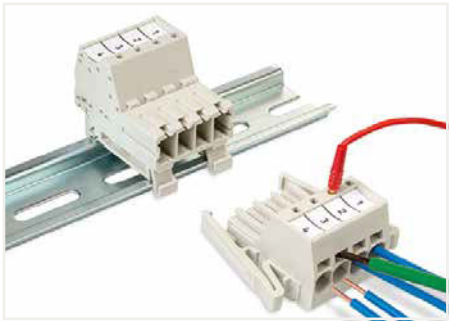
MCS MAXI 6
Description and Installation



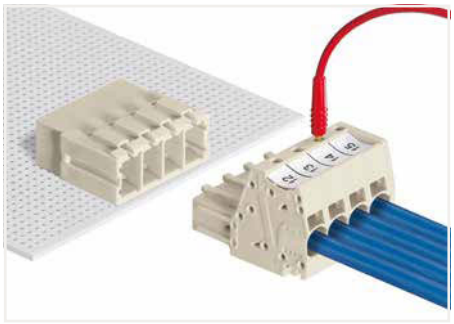
Inserting fine-stranded conductors via (5.5 x 0.8) mm screwdriver.



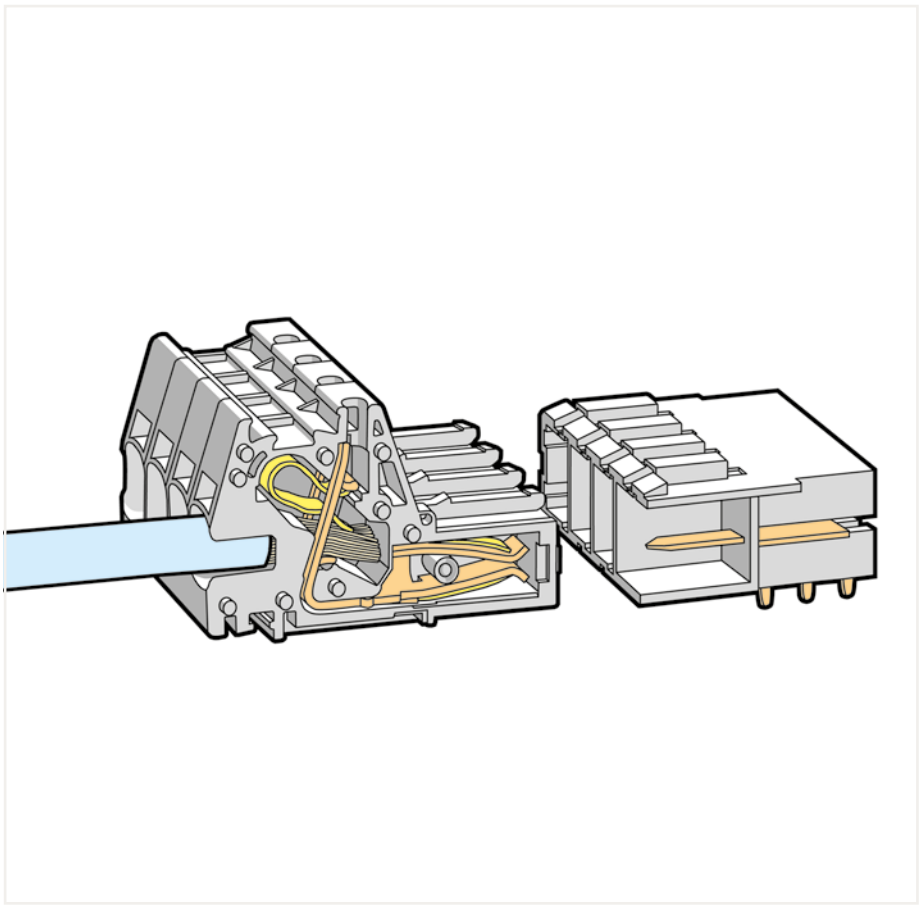
Inserting solid and ferruled conductors via push-in termination.

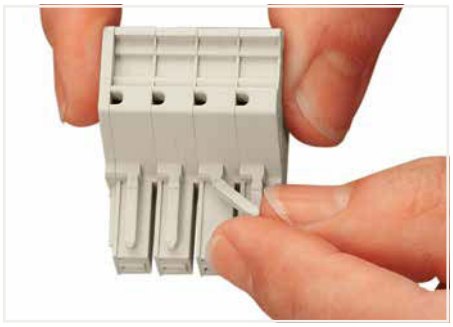


Male connector mounted on a DIN-35 rail via integrated mounting adapter.

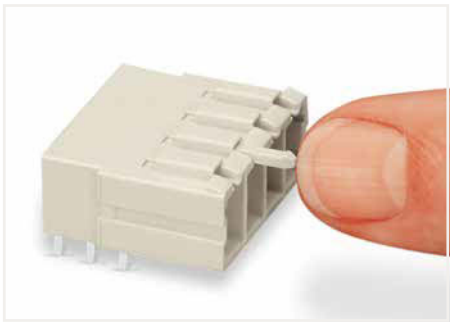


Testing with 2 mm Ø test plug.





Break or cut off coding pin from female connector.



Insert coding pin into male header (break first) until it engages.

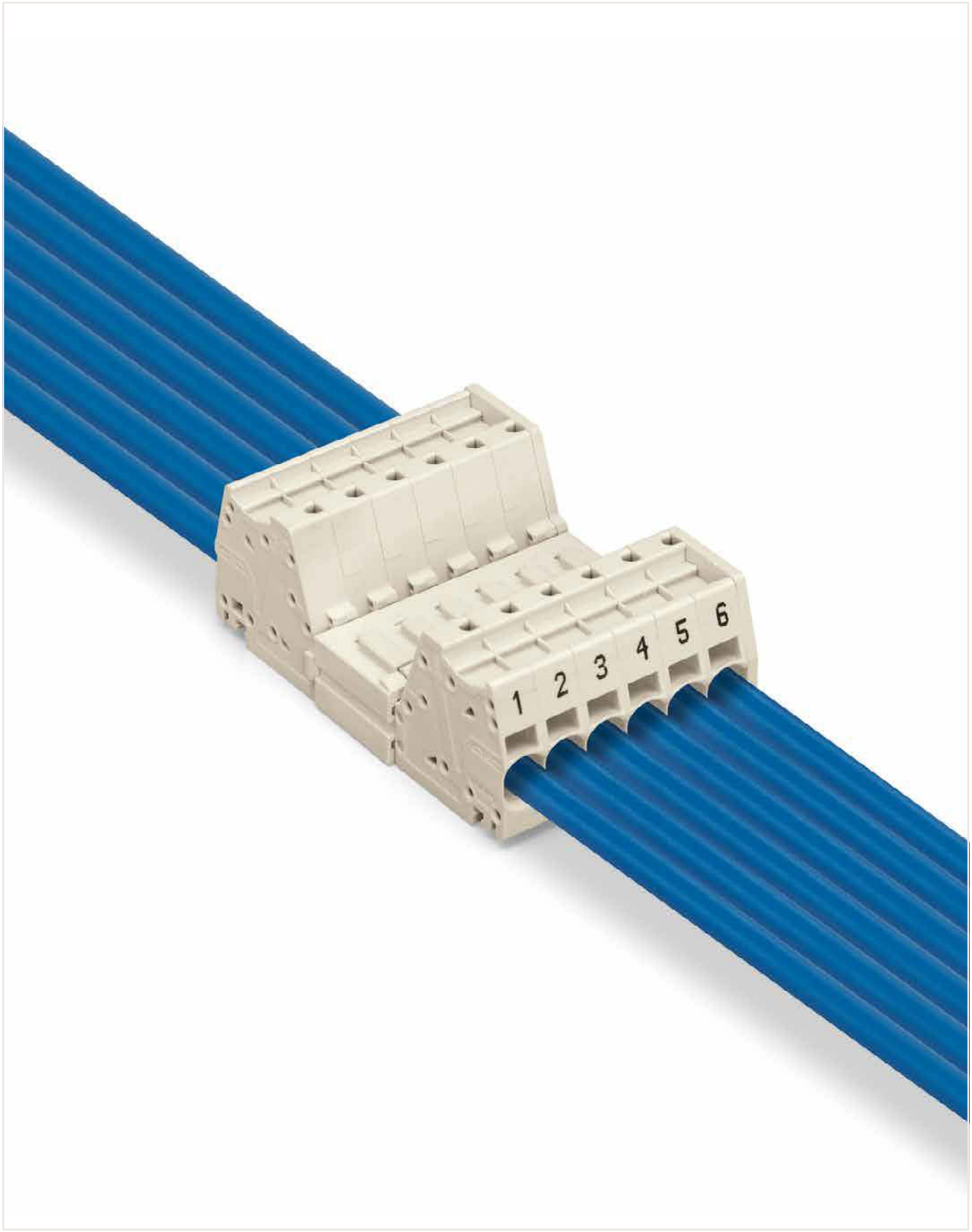


Marking via WMB or Mini-WSB marking strips.



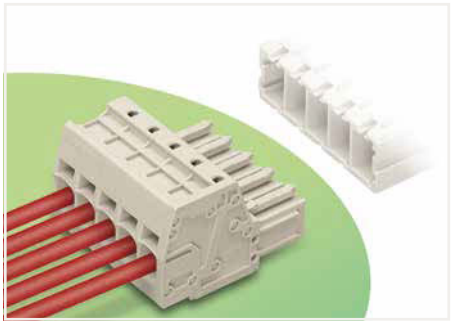
Labeling via direct marking.

10

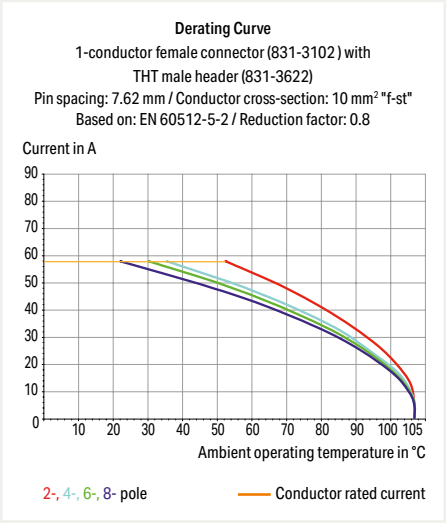

1
2
3
4
5
6

1-Conductor Female Connector ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Color: light gray



- Universal connection for all conductor types
- Push-in termination of solid or ferruled conductors
- Integrated test ports for 2 mm Ø test plugs
- 600 V UL per UL 1059
- 100 % protected against mismating
- Coding via coding fingers



Electrical Data				
Ratings per		IEC/EN 60664-1		
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	800 V	1000 V	1000 V	
Rated impulse voltage	8 kV	8 kV	8 kV	
Rated current	41 A	41 A	41 A	
Approvals per		UL 1059		
Use Group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	42 A	-	
Approvals per		CSA		
Use Group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	41 A	-	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	13 … 15 mm / 0.51 … 0.59 inch
Solid conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 6 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 6 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Ferrule	Page 847
Marking	Page 757
Strain relief	Page 754
Testing and measuring	Page 854
Tools	Page 838
Direct marking	Page 752
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Female Connector ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Color: light gray

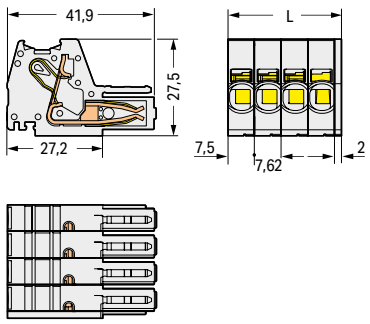
	Locking of plug-in connection: locking lever



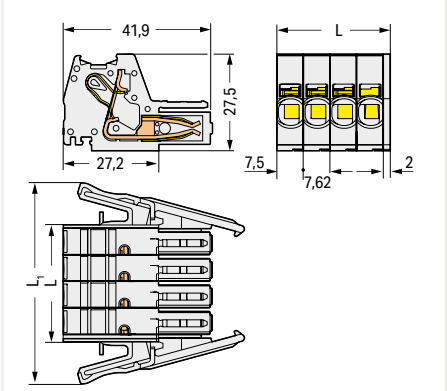


Pole No.	Item No.	PU
2	831-3102	48
3	831-3103	48
4	831-3104	24
5	831-3105	24
6	831-3106	24
7	831-3107	12
8	831-3108	12
9	831-3109	12

Pole No.	Item No.	PU
2	831-3102/037-000	24
3	831-3103/037-000	24
4	831-3104/037-000	12
5	831-3105/037-000	12
6	831-3106/037-000	12
7	831-3107/037-000	12
8	831-3108/037-000	12
9	831-3109/037-000	12



L = (pole no. – 1) x pin spacing + 9.5 mm



L = (pole no. – 1) x pin spacing + 10.5 mm
L_1 = L + 23.7 mm

10

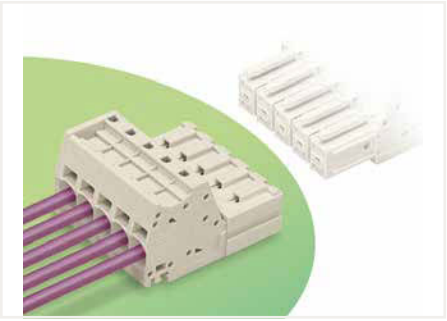
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers

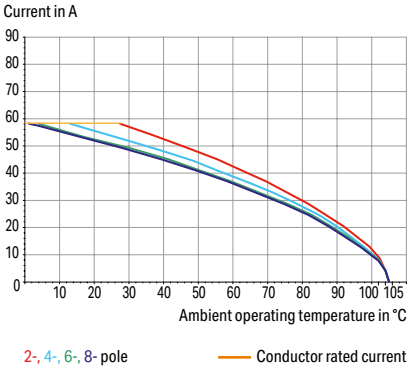
1-Conductor Male Connector ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Color: light gray



- Universal connection for all conductor types
- Push-in termination of solid or ferruled conductors
- Integrated test ports for 2 mm Ø test plugs
- 600 V UL per UL 1059
- 100 % protected against mismating
- Coding via coding fingers

Derating Curve
1-conductor female connector (831-3102) with
1-conductor male connector (831-3202)
Pin spacing: 7.62 mm / Conductor cross-section: 10 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



Electrical Data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	800 V	1000 V	1000 V
Rated impulse voltage	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	-	600 V	-
Rated current	-	42 A	-
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	-	600 V	-
Rated current	-	41 A	-

Connection Data

Connection technology	Push-in CAGE CLAMP®
Strip length	13 … 15 mm / 0.51 … 0.59 inch
Solid conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor with ferrule with plastic collar	0.5 … 6 mm²
Fine-stranded conductor with ferrule without plastic collar	0.5 … 6 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements

Limit temperature range	-60 … +105 °C

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding	Page 755
Ferrule	Page 847
Marking	Page 757
Mounting	Page 756
Strain relief	Page 754
Testing and measuring	Page 854
Tools	Page 838
Direct marking	Page 752
Additional information, see "Technical Section"	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Male Connector ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Actuation type: Operating tool ▸ Push-in CAGE CLAMP® ▸ Color: light gray

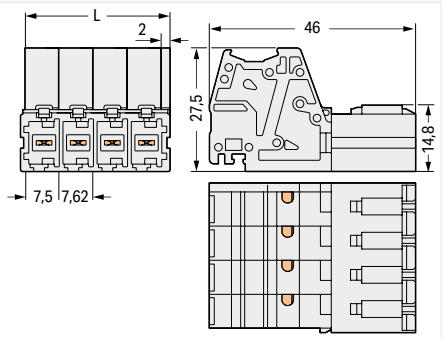
	Type of mounting: DIN-35 rail



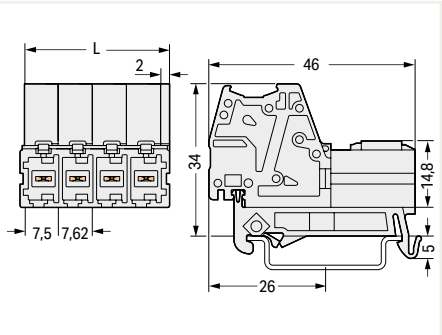


Pole No.	Item No.	PU
2	831-3202	48
3	831-3203	24
4	831-3204	24
5	831-3205	24
6	831-3206	24
7	831-3207	12
8	831-3208	12
9	831-3209	12

Pole No.	Item No.	PU
2	831-3202/007-000	48
3	831-3203/007-000	48
4	831-3204/007-000	24
5	831-3205/007-000	24
6	831-3206/007-000	24
7	831-3207/007-000	12
8	831-3208/007-000	12
9	831-3209/007-000	12



L = (pole no. – 1) x pin spacing + 9.5 mm



L = (pole no. – 1) x pin spacing + 9.5 mm

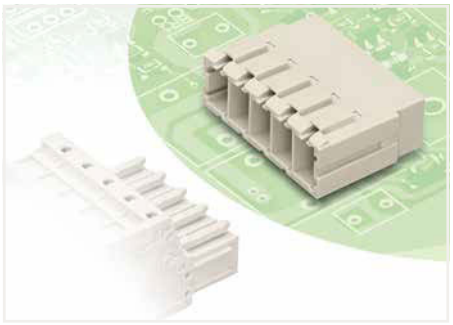
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PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

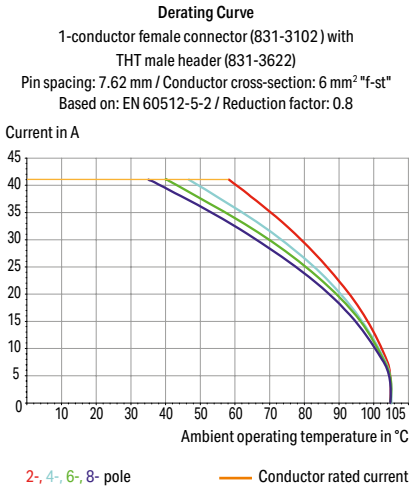
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers

THT Male Header ▸ *MCS* MAXI 6 ▸ 831 Series
Pin spacing: 7.62 mm (0.3 inch) ▸ Solder pin dimensions: 1 x 1.2 mm ▸ Color: light gray



- Male headers may be mounted horizontally or vertically via straight or angled solder pins
- Three solder pins per pole provide high electrical and mechanical stability
- 100 % protected against mismating
- Coding via coding fingers



Electrical Data				
Ratings per		IEC/EN 60664-1		
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	41 A	41 A	41 A	
Approvals per		UL 1059		
Use Group	B	C	D	
Rated voltage	-	300 V	600 V	
Rated current	-	42 A	5 A	
Approvals per		CSA		
Use Group	B	C	D	
Rated voltage	-	300 V	600 V	
Rated current	-	41 A	5 A	

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin length	4 mm
Solder pin dimensions	1 x 1.2 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

10

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 755

Additional information, see "Technical Section"

Approvals and corresponding ratings, visit www.wago.com

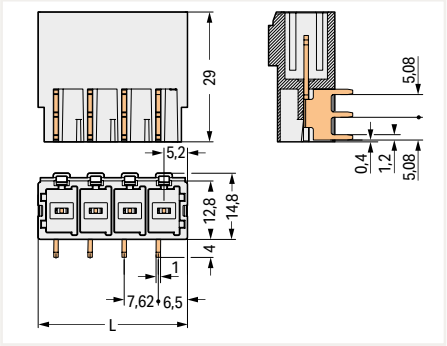
THT Male Header ▸ *MCS* MAXI 6 ▸ 831 Series

Pin spacing: 7.62 mm (0.3 inch) ▸ Solder pin dimensions: 1 x 1.2 mm ▸ Color: light gray

Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	831-3622	48
3	831-3623	48
4	831-3624	24
5	831-3625	24
6	831-3626	24
7	831-3627	12
8	831-3628	12
9	831-3629	12

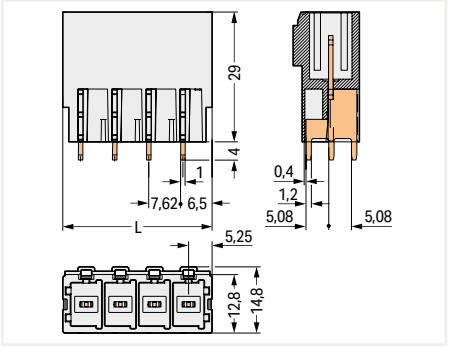


L = (pole no. – 1) x pin spacing + 10.5 mm

Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	831-3602	48
3	831-3603	48
4	831-3604	24
5	831-3605	24
6	831-3606	24
7	831-3607	12
8	831-3608	12
9	831-3609	12



L = (pole no. – 1) x pin spacing + 10.5 mm

10

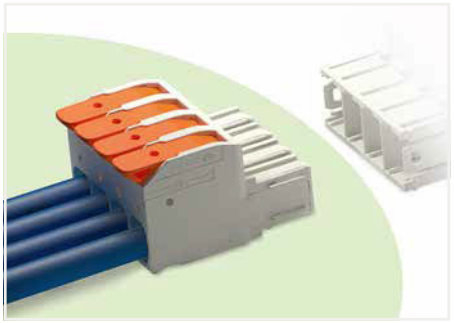
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Protection against PCB mounting errors

1-Conductor Female Connector ▸ *MCS* MAXI 16 ▸ 832 Series

Pin spacing: 10.16 mm (0.4 inch) ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray



- Intuitive and tool-free lever actuation
- Universal connection for all conductor types
- Push-in terminations of solid and ferruled conductors
- Test slot 0° and 90° to conductor entry
- 100 % protected against mismating
- Coding via coding fingers

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	1000 V	1000 V	1000 V	
Rated impulse voltage	8 kV	8 kV	8 kV	
Rated current	76 A	76 A	76 A	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor with ferrule with plastic collar	0.75 … 16 mm²
Fine-stranded conductor with ferrule without plastic collar	0.75 … 16 mm²

Material Data	
Material group	I
Insulating material	Polybutylene terephthalate (PBT)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Silver-plated

Environmental Requirements	
Limit temperature range	-60 … +120 °C

10

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 755

Additional information, see “Technical Section”

Approvals and corresponding ratings, visit www.wago.com

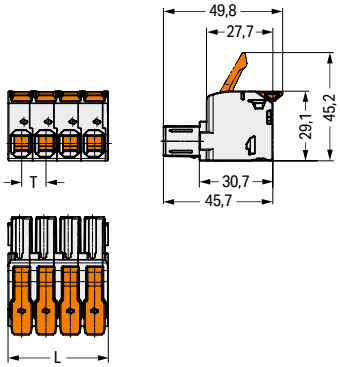
1-Conductor Female Connector ▸ *MCS* MAXI 16 ▸ 832 Series

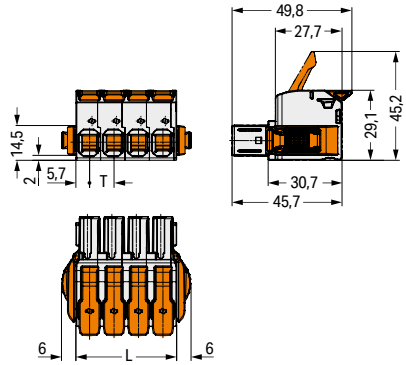
Pin spacing: 10.16 mm (0.4 inch) ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray

	Locking of plug-in connection: locking lever
	

Pole No.	Item No.	PU
2	832-1102	50
3	832-1103	50
4	832-1104	20
5	832-1105	20
6	832-1106	10

Pole No.	Item No.	PU
2	832-1102/037-000	25
3	832-1103/037-000	25
4	832-1104/037-000	20
5	832-1105/037-000	10
6	832-1106/037-000	10





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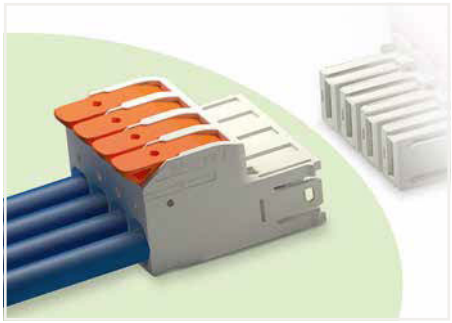
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers

1-Conductor Male Connector ▸ *MCS* MAXI 16 ▸ 832 Series

Pin spacing: 10.16 mm (0.4 inch) ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray



- Intuitive and tool-free lever actuation
- Universal connection for all conductor types
- Push-in terminations of solid and ferruled conductors
- Test slot 0° and 90° to conductor entry
- 100 % protected against mismating
- Coding via coding fingers

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	1000 V	1000 V	1000 V	
Rated impulse voltage	8 kV	8 kV	8 kV	
Rated current	76 A	76 A	76 A	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	18 … 20 mm / 0.71 … 0.79 inch
Solid conductor	0.75 … 16 mm² / 18 … 4 AWG
Fine-stranded conductor	0.75 … 25 mm² / 18 … 4 AWG
Fine-stranded conductor with ferrule with plastic collar	0.75 … 16 mm²
Fine-stranded conductor with ferrule without plastic collar	0.75 … 16 mm²

Material Data	
Material group	I
Insulating material	Polybutylene terephthalate (PBT)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Silver-plated

Environmental Requirements	
Limit temperature range	-60 … +120 °C

10

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 755

Additional information, see “Technical Section”

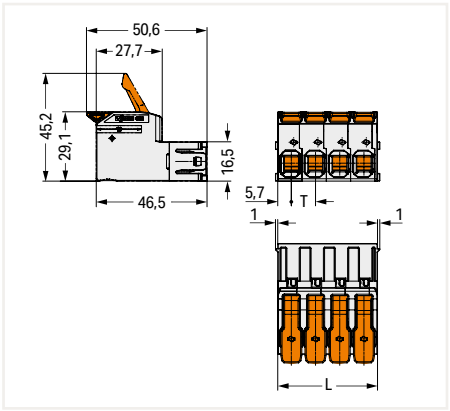
Approvals and corresponding ratings, visit www.wago.com

1-Conductor Male Connector ▸ *MCS* MAXI 16 ▸ 832 Series

Pin spacing: 10.16 mm (0.4 inch) ▸ Actuation type: Lever ▸ Push-in CAGE CLAMP® ▸ Color: light gray



Pole No.	Item No.	PU
2	832-1202	50
3	832-1203	25
4	832-1204	20
5	832-1205	20
6	832-1206	10



L = pole no. x pin spacing + 1.3 mm

10

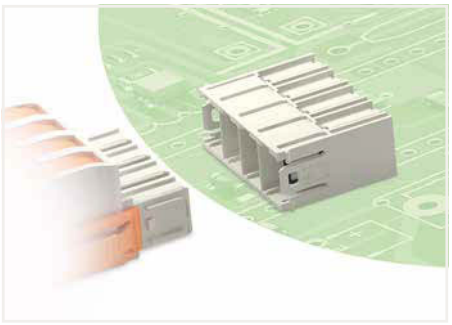
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers

THT Male Header ▸ *MCS* MAXI 16 ▸ 832 Series

Pin spacing: 10.16 mm (0.4 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray



- Male header may be mounted horizontally or vertically via straight or angled solder pins
- Three solder pins per pole provide high electrical and mechanical stability
- Mating face (IP2XB) with higher protection against accidental contact
- 100 % protected against mismating
- Coding via coding fingers

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	800 V	1000 V	1000 V	
Rated impulse voltage	8 kV	8 kV	8 kV	
Rated current	76 A	76 A	76 A	

Material Data	
Material group	I
Insulating material	Polybutylene terephthalate (PBT)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Silver-plated

Mechanical Data	
Solder pin arrangement	Over the entire male connector, in line
Solder pin length	4 mm
Solder pin dimensions	1.2 x 1.2 mm
Drilled hole diameter (tolerance)	$1.7^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +120 °C

10

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Coding Page 755

Additional information, see “Technical Section”

Approvals and corresponding ratings, visit www.wago.com

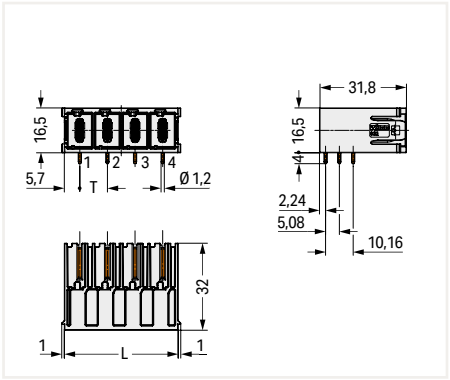
THT Male Header ▸ *MCS* MAXI 16 ▸ 832 Series

Pin spacing: 10.16 mm (0.4 inch) ▸ Solder pin dimensions: 1.2 x 1.2 mm ▸ Color: light gray

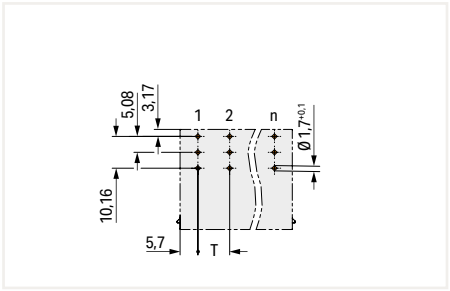
Mating direction to the PCB: 0°



Pole No.	Item No.	PU
2	832-3622	50
3	832-3623	50
4	832-3624	20
5	832-3625	20
6	832-3626	10



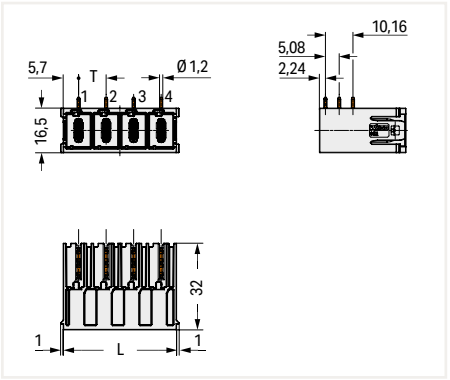
L = pole no. x pin spacing + 1.3 mm



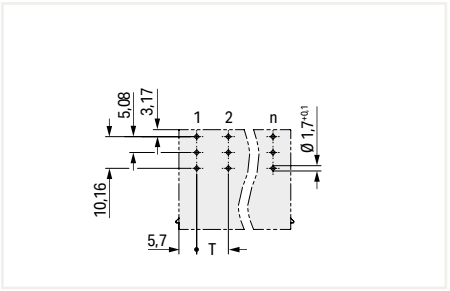
Mating direction to the PCB: 180°



Pole No.	Item No.	PU
2	832-3642	50
3	832-3643	50
4	832-3644	20
5	832-3645	20
6	832-3646	10



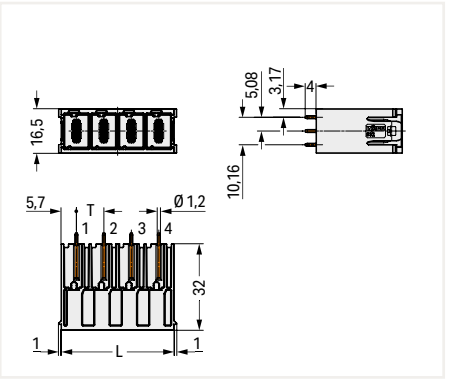
L = pole no. x pin spacing + 1.3 mm



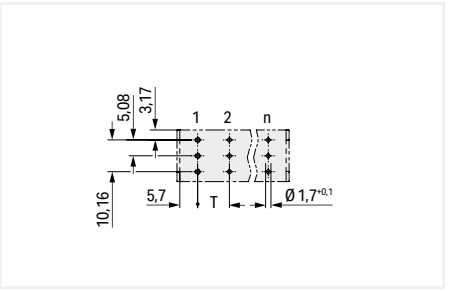
Mating direction to the PCB: 90°



Pole No.	Item No.	PU
2	832-3602	50
3	832-3603	50
4	832-3604	20
5	832-3605	20
6	832-3606	10



L = pole no. x pin spacing + 1.3 mm



10

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Protection against PCB mounting errors

Direct Marking
MCS MAXI 6





Direct marking of female connectors; parallel to conductor entry; 1 ... pole no.; item no. suffix.: /. . . - 9037	
Version	**Item No. Example**
1-conductor female connector; 6-pole; light gray	**831-3106/000-9037**
1-conductor female connector; with locking levers; 6-pole; light gray	**831-3106/037-9037**

Direct marking of male connectors; parallel to conductor entry; pole no. ... 1; item no. suffix.: /. . . - 9034	
Version	**Item No. Example**
1-conductor male connector; 6-pole; light gray	**831-3206/000-9034**
1-conductor male connector; for DIN-35 rail mounting; 6-pole, light gray	**831-3206/007-9034**

Strain Relief Plates and Coding Pins
MCS MAXI 6

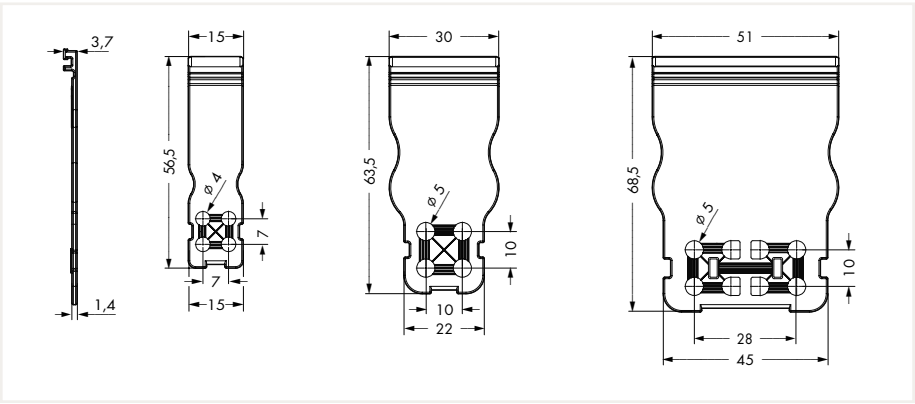




Strain relief plate; for inserting; light gray			
Pole No.	Width	Item No.	PU
2 … 3	15 mm	831-503	96 (24)
4 … 6	30 mm	831-505	48 (24)
7 … 9	51 mm	831-506	48 (24)

Strain relief plate; factory assembled; light gray		
Pole No.	Width	Item No. Suffix *
2 … 3	15 mm	…/133-000
4 … 6	30 mm	…/135-000
7 … 9	51 mm	…/136-000

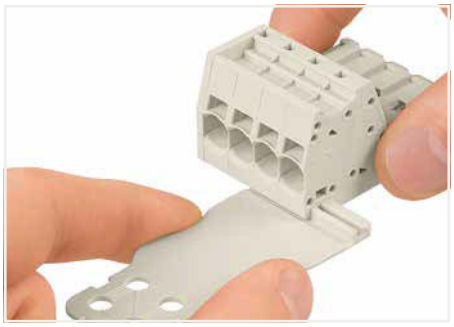
*An "item no. suffix," referring to the width of the strain relief plate, is added to the "basic item no." and determines the type of male or female connector.



10

The arrangement of the attachments for cable ties allows single conductors or multi-core cables to be secured in different ways. The width of the cable ties must correspond to the hole dimensions of the strain relief plates shown above.

Cable ties and binding tools are not offered by WAGO.



Strain relief plate for field assembly



Strain relief plate; pre-assembled; 1-conductor female connector; 4-pole; 7.62 mm pin spacing; light gray (831-3104/135-000)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

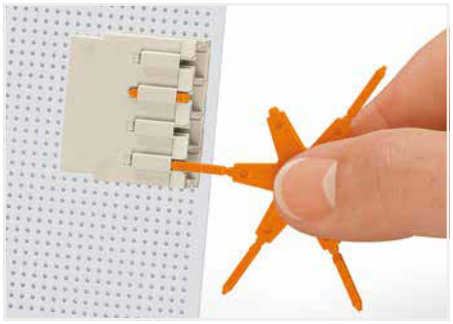
Coding Pins
MCS MAXI 6; *MCS* MAXI 16



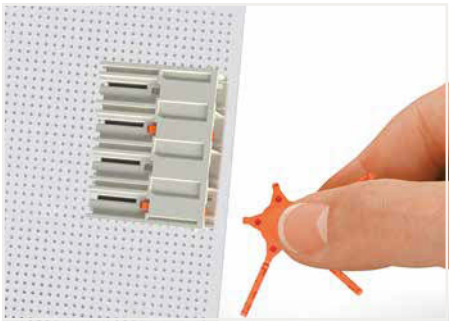
Coding pin carrier; with six coding pins; for THT male headers		
Color	**Item No.**	PU (SPU)
orange	**831-500**	100 (25)



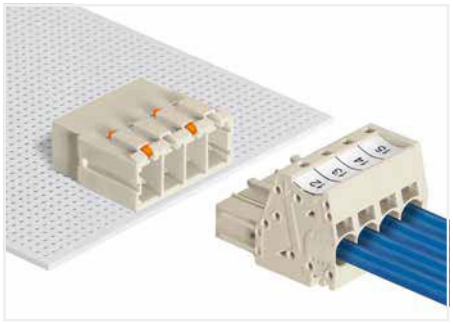
Coding pin carrier; with six coding pins; for male and female connectors *MCS* MAXI 16		
Color	**Item No.**	PU (SPU)
orange	**832-500**	100 (25)



Coding a THT male header by inserting a coding pin.



Coding a THT male header by inserting a coding pin.



Coded connectors

10

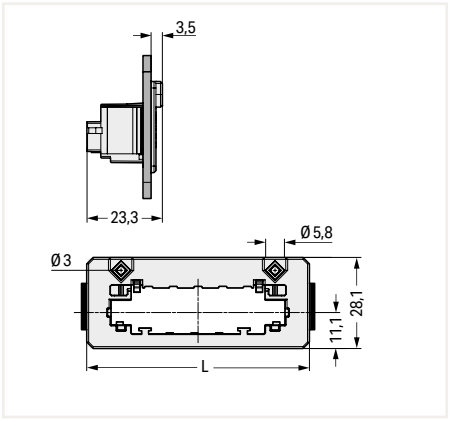
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Snap-In Frames and Lockout Pins
MCS MAXI 6

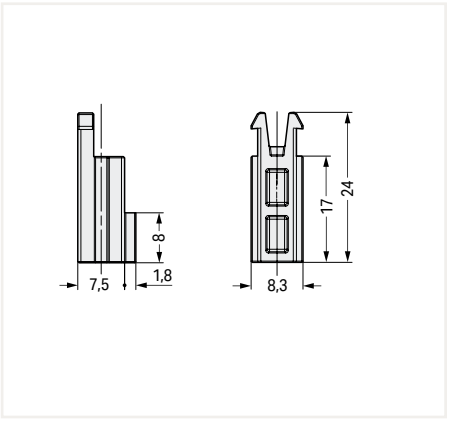


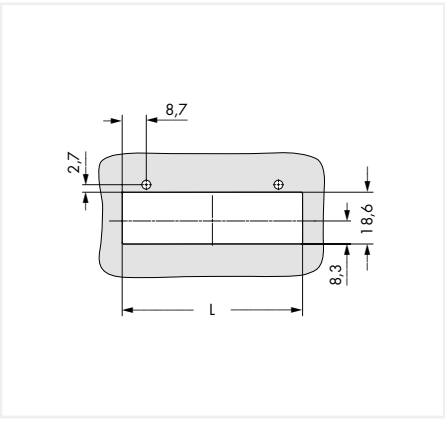
Snap-in frame for MCS MAXI male connectors; light gray			
Pole No.	Width	Item-No.	PU
2	45.84 mm	831-302	48
3	53.46 mm	831-303	48
4	61.08 mm	831-304	24
5	68.7 mm	831-305	12

Lockout pins for snap-in frames		
Color	Item-No.	PU
light gray	831-321	100



L = (pole no. x 7.62 mm) + 30.6 mm





L = (pole no. x 7.62 mm) + 26.8 mm
Panel cutout for snap-in frame

10

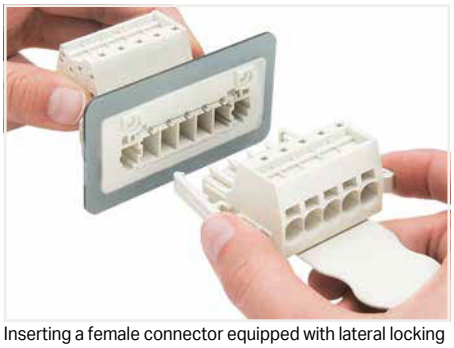


Insert the snap-in frame into the cutout.



Insert the male connector into the snap-in frame.

- Snap-in frames for through-panel *MCS* MAXI 6 connectors
- Fast and easy installation – without tools
- Compatible with *MCS* MAXI 6 male and female connectors
- For panel thickness ranging
- Optional screw mounting



Inserting a female connector equipped with lateral locking levers.

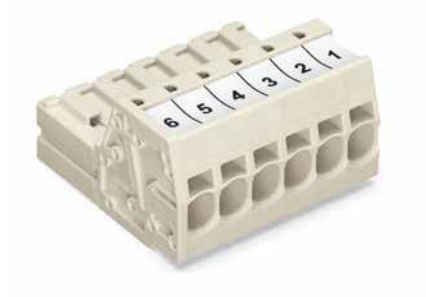


Inserting a female connector without lateral locking levers – lockout pins are inserted on both sides of the snap-in frame.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Marking Strips
MCS MAXI 6





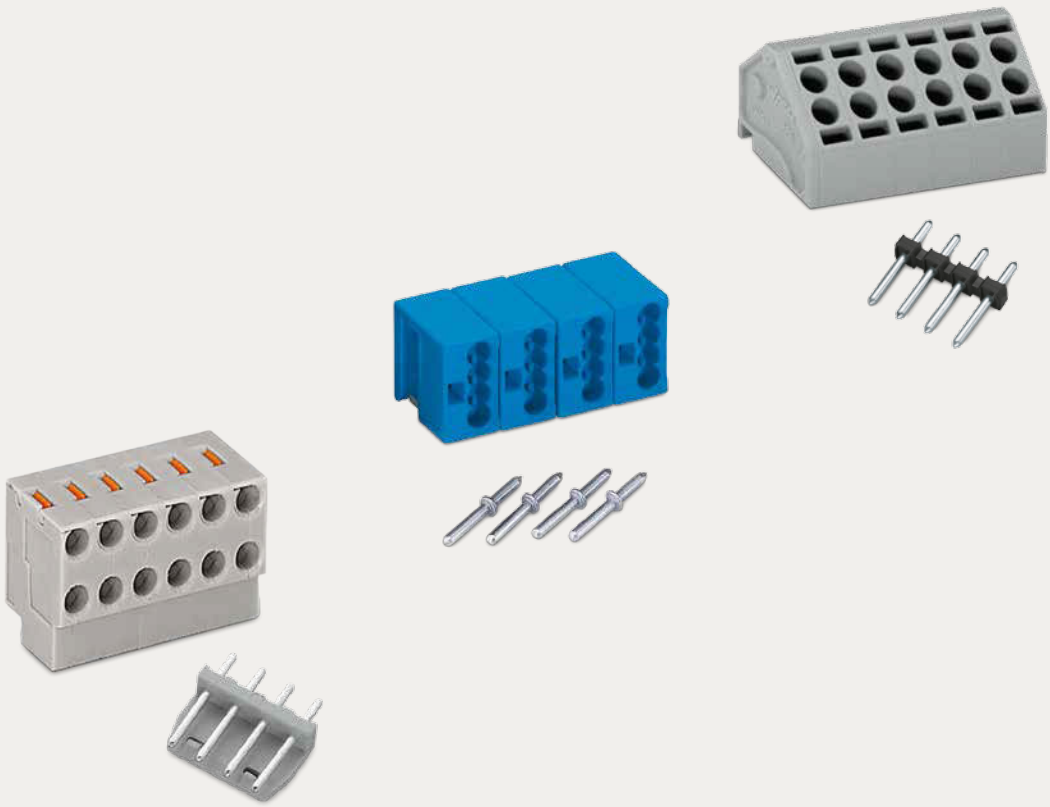
Marking strip; 1 ... pole no.; for marking female connectors; perpendicular to conductor entry		
Pole No.	**Item No.**	PU
2	**2009-110/762-802**	100
3	**2009-110/762-803**	100
4	**2009-110/762-804**	100
5	**2009-110/762-805**	100
6	**2009-110/762-806**	100
7	**2009-110/762-807**	100
8	**2009-110/762-808**	100
9	**2009-110/762-809**	100

Marking strip; pole no. ... 1; for marking male connectors; perpendicular to conductor entry		
Pole No.	**Item No.**	PU
2	**2009-110/762-852**	50
3	**2009-110/762-853**	50
4	**2009-110/762-854**	50
5	**2009-110/762-855**	50
6	**2009-110/762-856**	50
7	**2009-110/762-857**	50
8	**2009-110/762-858**	50
9	**2009-110/762-859**	50

MCS MAXI male and female connectors can also be marked via Mini-WSB or WMB markers (see Section 12).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Available upon request (depending on quantity required):
Customized marking

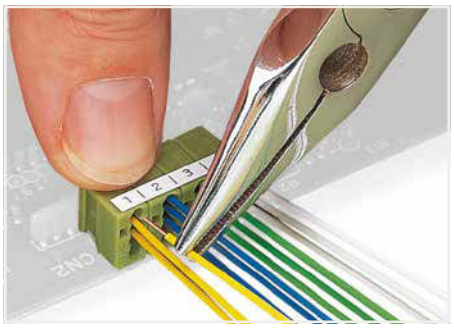


WAGO Pluggable PCB Connectors

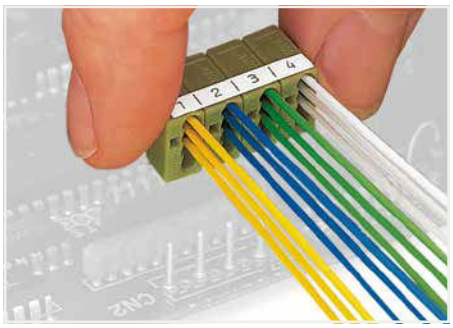
Pluggable WAGO PCB Connectors

		Nominal Cross-Section	Series	Page
	2-Conductor Compact PCB Connectors ▸ 0.4 … 0.8 mm Ø "sol." ▸ PUSH WIRE®	3,5 mm	252	762
	2-Conductor PCB Connector Strips (Pinstrip Pluggable) ▸ 0.2 … 1.5 mm² (16 AWG) ▸ Push-in CAGE CLAMP®	5 mm	806	764
	4-Conductor Modular PCB Connectors ▸ 0.4 … 0.8 mm Ø "sol." ▸ PUSH WIRE®	5,75 mm	243	766
	Accessories and Tools			829

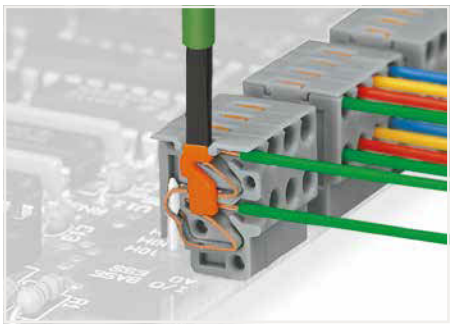
Pluggable PCB Connectors
252 and 243 Series
Description and Installation



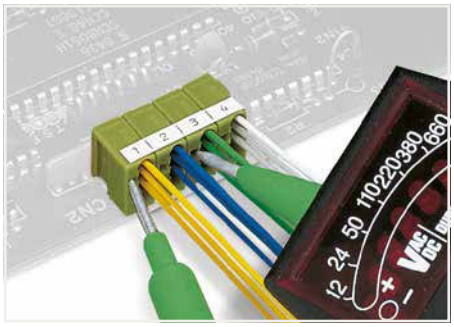
Inserting a conductor using pliers until it hits backstop – directly on the PCB or wiring prior to mounting on PCB.



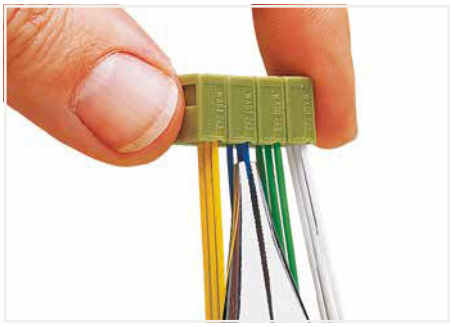
Removing a PCB connector strip to replace the board.



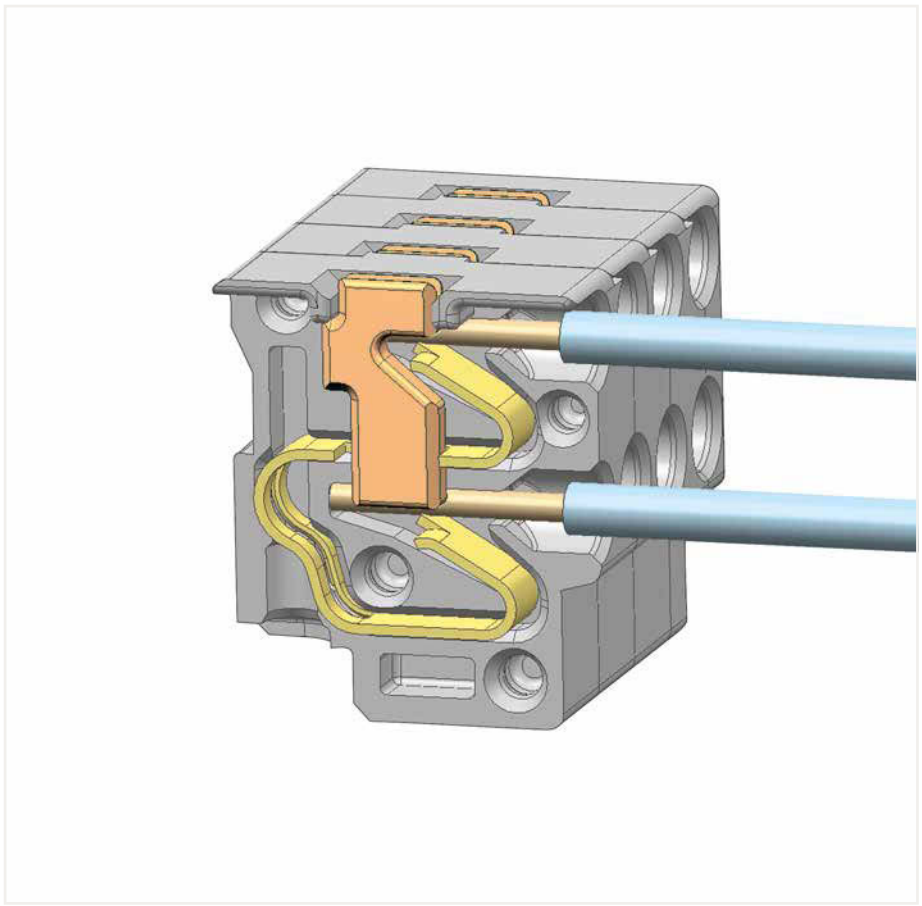
Removing a conductor via push-button – 252 Series



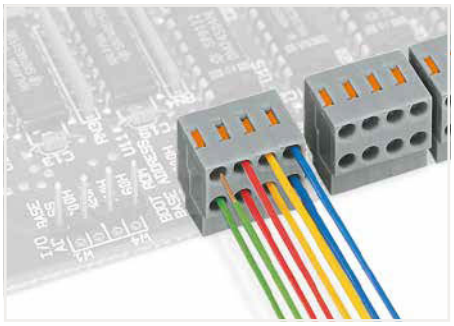
Testing – 243 Series



Removing a conductor using pliers – twisting alternately left and right – 243 Series



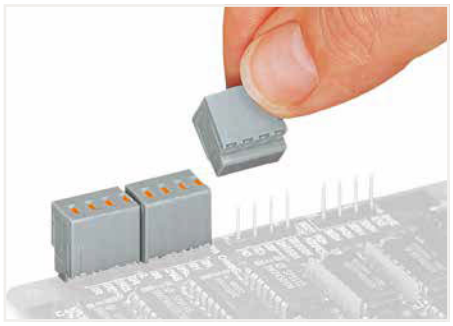
252 Series



Conductor termination directly on the PCB or wiring prior to mounting on PCB – 252 Series



Solder pin strip with strain relief, 4-pole



Plugging a compact PCB connector – 252 Series.

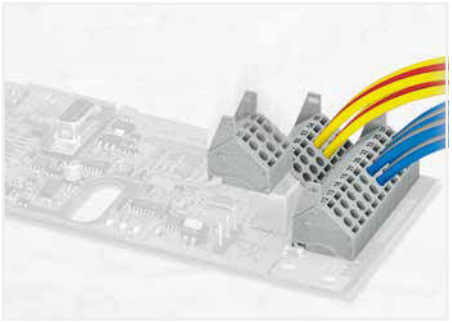
11

Pluggable PCB Connectors
806 Series
Description and Installation

PUSH-IN CAGE CLAMP®



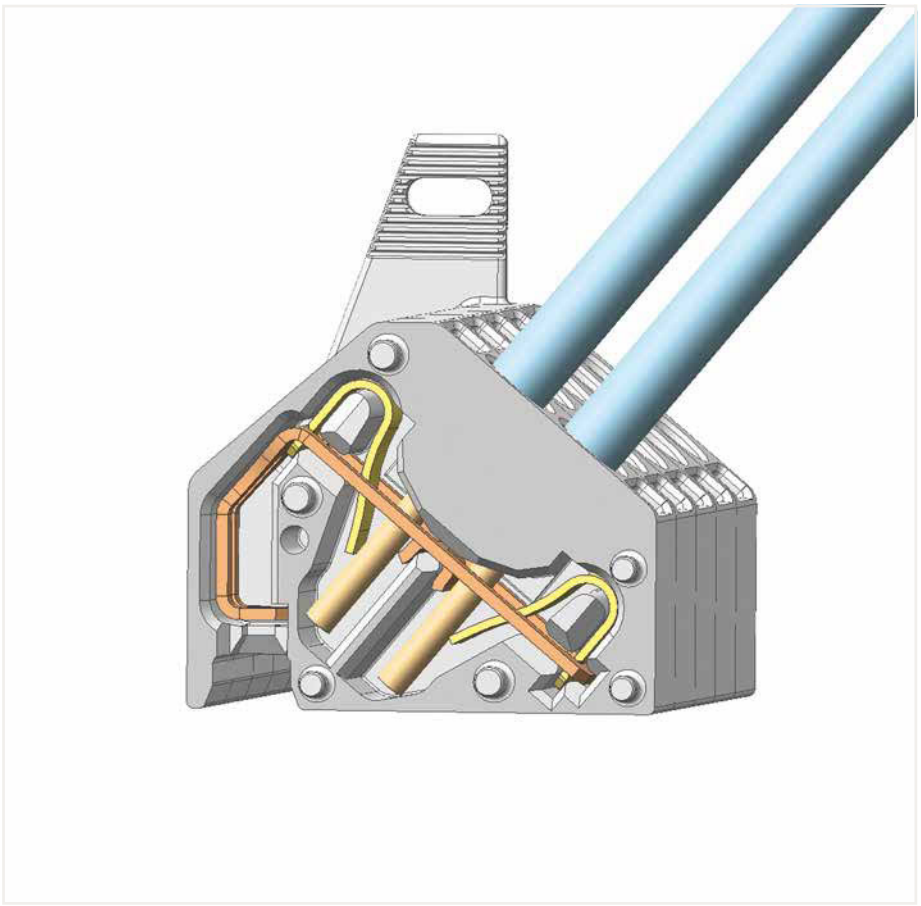
Inserting solid conductors via push-in termination. Inserting/removing fine-stranded conductors: Open the clamping unit using a screwdriver and insert a stripped conductor until it hits backstop.



Conductor termination directly on the PCB or wiring prior to mounting on PCB



Mixed-color PCB connector strips (with or without spacer) are available upon request.

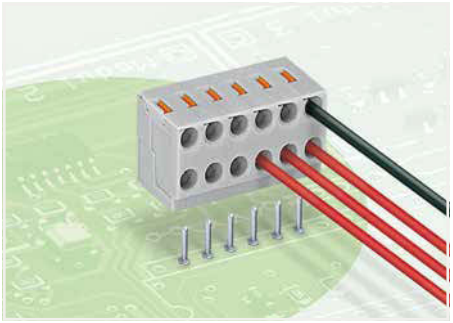


806 Series

11

2-Conductor PCB Connector ▸ 252 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ 0.8 mm² ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Terminal strip ▸ Color: gray



- Compact, 2-conductor PCB connectors with push-buttons and PUSH WIRE® connection
- Push-in termination of solid conductors – conductor removal via push-buttons
- Double entries for power supply and distribution
- Quick and easy PCB replacement
- Loop connection is retained, even when unmated
- Group arrangement is possible without losing any poles

Electrical Data			
Pin spacing	**3.5 mm (0.138 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	2 A	2 A	2 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	2 A	-	2 A

Connection Data	
Connection technology	PUSH WIRE®
Strip length	6 … 7 mm / 0.24 … 0.28 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.4 … 0.8 mm² / 26 … 20 AWG
Conductor diameter	0.4 … 0.8 mm / 26 … 20 AWG

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Copper alloy
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

11

Marking Page 832
Tools Page 838
Additional information, see “Technical Section”
Approvals and corresponding ratings, visit www.wago.com

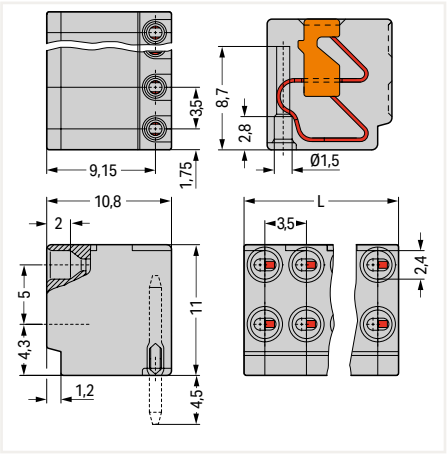
2-Conductor PCB Connector ▸ 252 Series

PUSH WIRE® ▸ Actuation type: Push-button ▸ 0.8 mm² ▸ Pin spacing: 3.5 mm (0.138 inch) ▸ Terminal strip ▸ Color: gray

for individual solder pins



Pole No.	Item No.	PU (SPU)
2	252-102	600 (100)
3	252-103	400 (100)
4	252-104	300 (100)
5	252-105	300 (100)
6	252-106	200 (100)
7	252-107	200 (100)
8	252-108	200 (50)
9	252-109	200 (50)
10	252-110	150 (50)

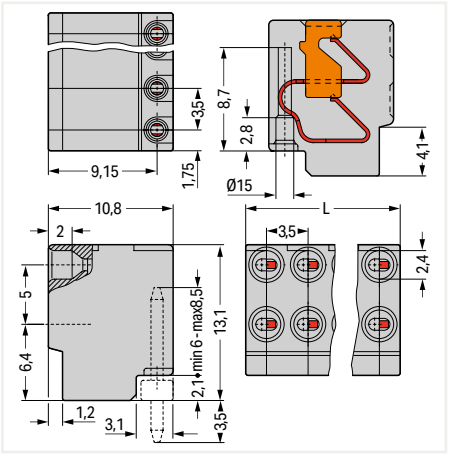


L = pole no. x pin spacing

for solder pin strips



Pole No.	Item No.	PU (SPU)
2	252-152	600 (100)
3	252-153	400 (100)
4	252-154	300 (100)
5	252-155	300 (100)
6	252-156	200 (100)
7	252-157	200 (100)
8	252-158	200 (50)
9	252-159	200 (50)
10	252-160	150 (50)



L = pole no. x pin spacing

11

Item-Specific Accessories



Solder pin; Solder pin diameter: 1mm; for PCBs up to 2 mm thick

Pole No.	Item No.	PU
1	243-131	1000

Item-Specific Accessories



Solder pin; Solder pin diameter: 1mm; pin spacing 3.5 mm / 0.138 inch

Pole No.	Item No.	PU
2	252-902	500
3	252-903	500
4	252-904	500
5	252-905	500
6	252-906	500
7	252-907	500
8	252-908	500
9	252-909	500
10	252-910	500



Solder pin; Solder pin diameter: 1mm

Pole No.	Item No.	PU
4	252-954	1000

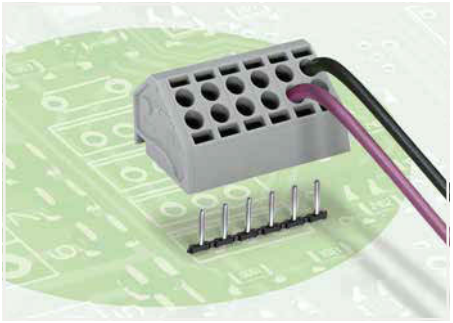
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Direct marking

2-Conductor PCB Connector ▸ 806 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Terminal strip ▸ Color: gray



- Compact, 2-conductor PCB connector strips (pinstrip pluggable) with Push-in CAGE CLAMP® connection and screwdriver-actuation
- Push-in termination of solid and ferruled conductors
- Double entries for power supply and potential distribution
- Quick and easy PCB replacement, without disrupting looped-through potentials

Electrical Data			
Pin spacing	**5 mm (0.197 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	250 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	10 A	10 A	10 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	-	-
Rated current	10 A	-	-

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry angle to the PCB	45 °
Solid conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor	0.2 … 1.5 mm² / 24 … 16 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin diameter	1 mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

2-Conductor PCB Connector ▸ 806 Series

Push-in CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 1.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Terminal strip ▸ Color: gray

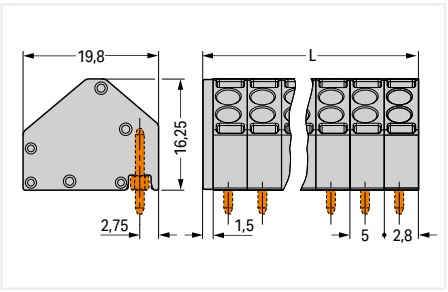


with removable aid

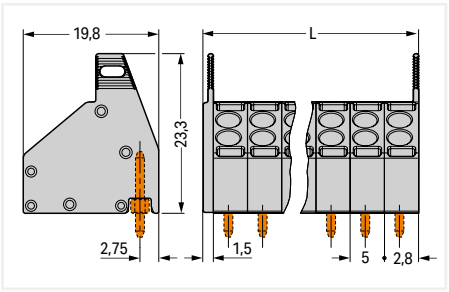


Pole No.	Item No.	PU
2	806-102	400
3	806-103	250
4	806-104	200
5	806-105	175
6	806-106	150
7	806-107	125
8	806-108	100
9	806-109	100
10	806-110	80
11	806-111	80
12	806-112	60

Pole No.	Item No.	PU
2	806-202	704
3	806-203	484
4	806-204	352
5	806-205	308
6	806-206	220
7	806-207	220
8	806-208	176
9	806-209	132
10	806-210	132
11	806-211	132
12	806-212	132



L = (pole no. x pin spacing) + 1.5 mm



L = (pole no. x pin spacing) + 1.5 mm

Accessories; for all products on this page



Solder pin; Solder pin diameter: 1mm; pin spacing 5 mm / 0.197 inch

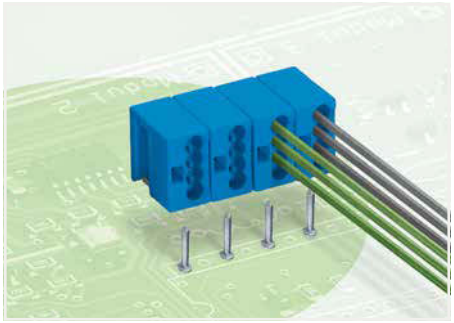
Pole No.	Item No.	PU
2	806-902	100
3	806-903	100
4	806-904	100
5	806-905	100
6	806-906	100
7	806-907	100
8	806-908	100
9	806-909	100
10	806-910	100
11	806-911	100
12	806-912	100

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking

4-Conductor PCB Connector ▸ 243 Series
PUSH WIRE® ▸ 1 mm² ▸ Pin spacing: 5.75 mm (0.226 inch)



- Compact, 4-conductor PCB connectors with PUSH WIRE® connection
- Can be assembled to connector strips via dovetail joints
- Push-in termination of solid conductors
- Four entries for power supply and potential distribution
- Quick and easy PCB replacement, without disrupting looped-through potentials

Electrical Data				
Pin spacing	**5.75 mm (0.226 inch)**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	6 A	6 A	6 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	150 V	-	150 V	
Rated current	7 A	-	7 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	150 V	-	150 V	
Rated current	7 A	-	7 A	

Connection Data	
Connection technology	PUSH WIRE®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.5 … 1 mm² / 24 … 18 AWG
Conductor diameter	0.5 … 1 mm / 24 … 18 AWG

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Copper alloy
Contact plating	Tin-plated

Mechanical Data	
Solder pin length	4.5 mm
Solder pin diameter	1 mm
Drilled hole diameter (tolerance)	$1.2^{(+0.05 \ldots -0.05)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Marking Page 833

Additional information, see “Technical Section”

Approvals and corresponding ratings, visit www.wago.com

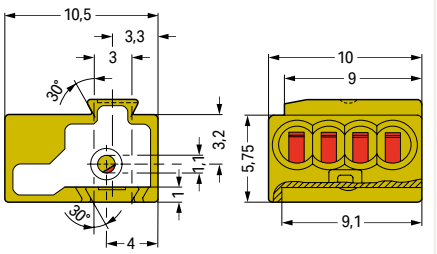
4-Conductor PCB Connector ▸ 243 Series

PUSH WIRE® ▸ 1 mm² ▸ Pin spacing: 5.75 mm (0.226 inch)

Modular terminal block



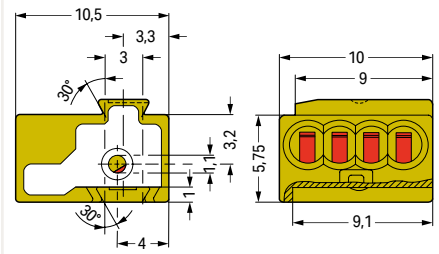
Color	Item No.	PU
gray	243-721	400
blue	243-722	400
orange	243-723	400
light gray	243-726	400
light green	243-724	400
dark gray	243-725	400



Terminal strip



Color	Pole No.	Item No.	PU (SPU)
gray	4	243-744/000-007	50
blue	2	243-742/000-006	50
blue	4	243-744/000-006	50
blue	5	243-745/000-006	400 (50)
blue	6	243-746/000-006	50
orange	2	243-742/000-012	50
orange	3	243-743/000-012	50
orange	4	243-744/000-012	50
orange	5	243-745/000-012	400 (50)
light green	2	243-742	50
light green	3	243-743	50
light green	4	243-744	50
light green	5	243-745	50
light green	6	243-746	50
light green	7	243-747	50
light green	8	243-748	50



Accessories; for all products on this page



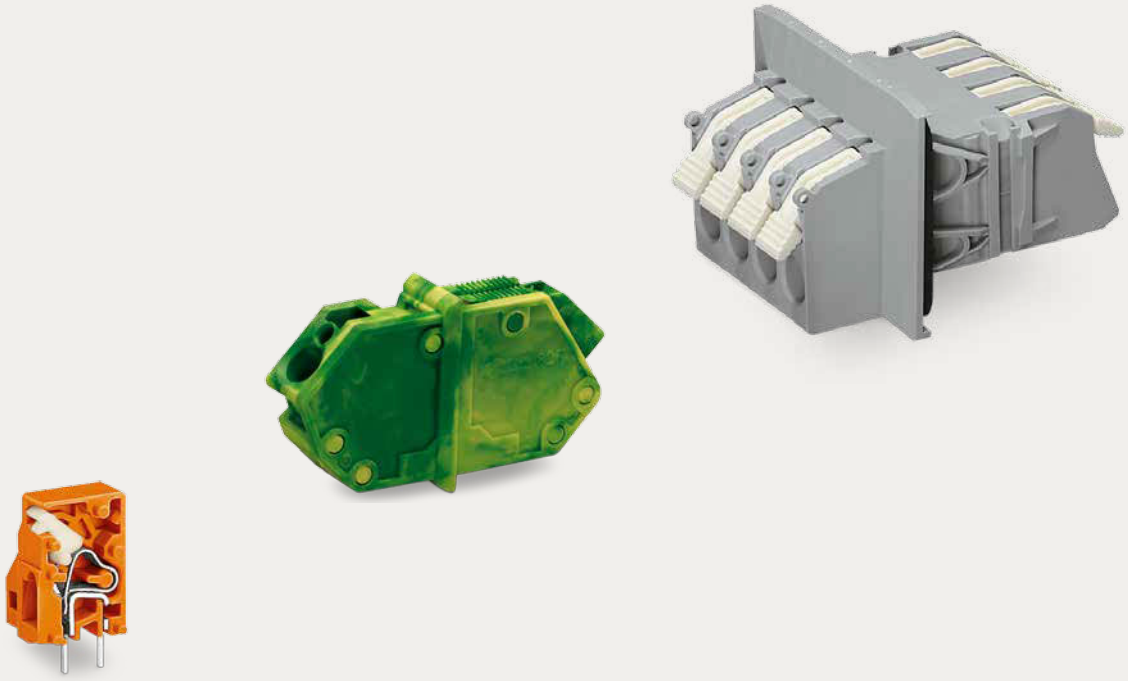
Solder pin; Solder pin diameter: 1mm; for PCBs up to 2 mm thick

Pole No.	Item No.	PU
1	243-131	1000

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Mixed-color terminal strips
- Direct marking



WAGO Feedthrough Terminal Blocks

WAGO Feedthrough Terminal Blocks

		Nominal cross-section	Series	Pages
	Modular, Panel Feedthrough end Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	4 mm²	826	772
	Feedthrough Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	4 mm²	226	776
	Feedthrough Terminal Blocks ▸ Actuation type: Lever ▸ CAGE CLAMP®	16 mm²	828	786
	PCB Terminal Blocks ▸ Actuation type: Push-button ▸ CAGE CLAMP®	2.5 mm²	741	788
	PCB Terminal Blocks ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	2.5 mm²	231	796
	1-Conductor Feedthrough Terminal Strips ▸ Actuation type: Operating tool ▸ CAGE CLAMP®	2.5 mm²	731	800
	Accessories and Tools			829

12

Feedthrough Terminal Blocks
826 Series
Description and Installation

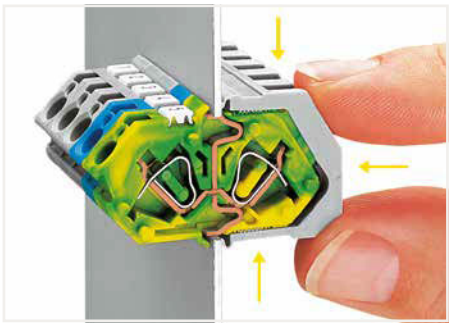
CAGE CLAMP®



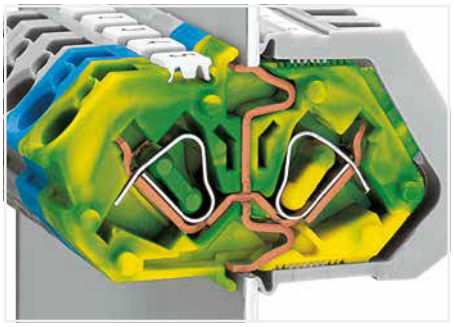
Insert the terminal strip into the cutout until the stop hits the enclosure wall.



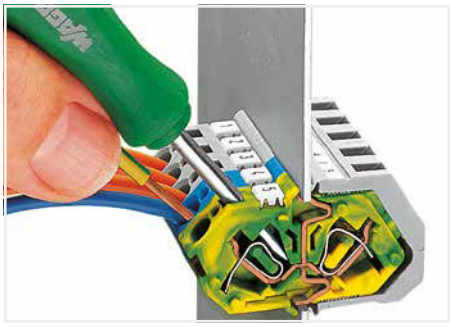
Secure the terminal strip to the inner side of the cutout via retaining clips.



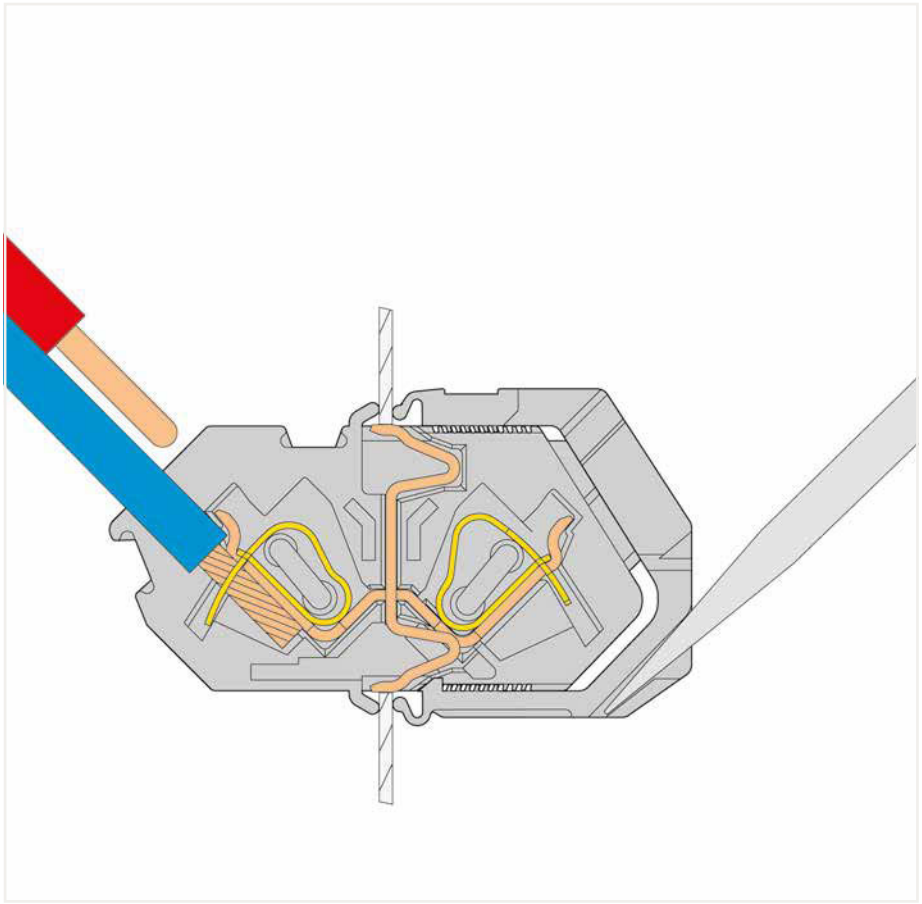
Push retaining clips until stop and press together in the direction of the terminal strip center.



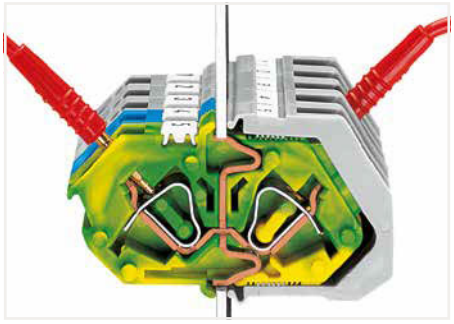
Automatic, double contact of the ground contact to the enclosure wall



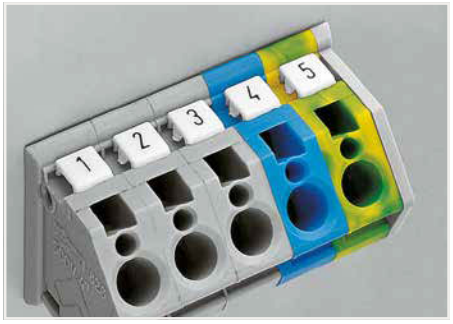
Inserting a conductor via screwdriver.



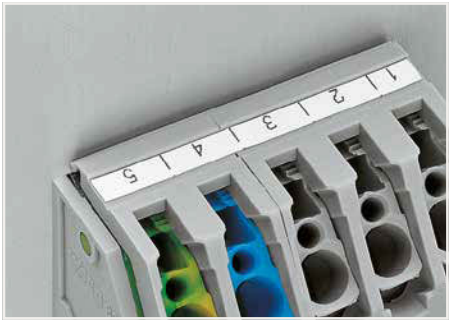
826 Series



Testing with 2 mm or 2.3 mm Ø test plug.



Labeling via Mini-WSB makers – directly on the terminal blocks.



Self-adhesive marking strips adhere directly on the retaining clips.

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CAGE CLAMP®

Feedthrough Terminal Blocks 231, 731 and 226 Series
Description and Installation



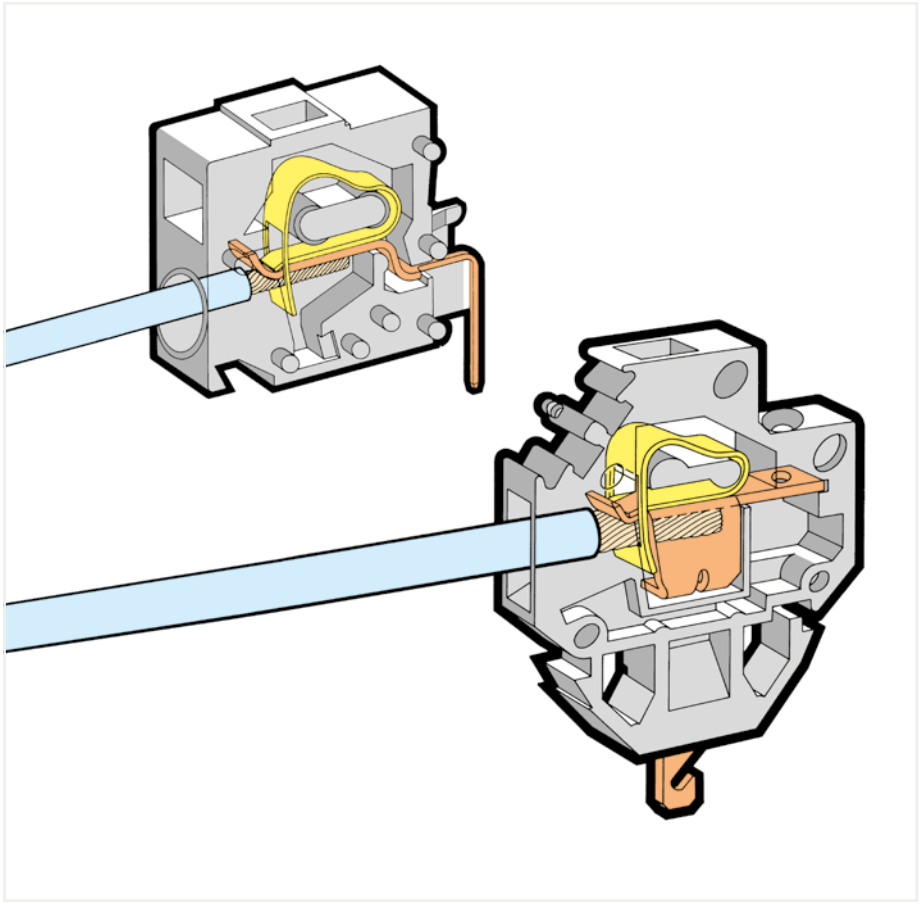
Feedthrough PCB terminal strips – front-entry conductor termination



Feedthrough PCB terminal strips can be used as front-panel feedthrough for external conductor termination.



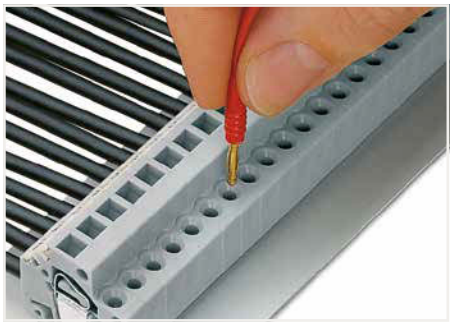
With flanges for PCB or front-panel mounting – either flush with enclosure or protruding



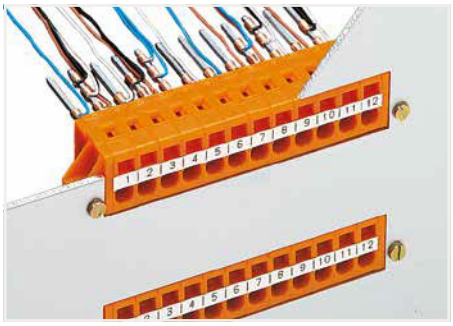
231, 731 and 226 Series



Snapping a 226 Series Feedthrough Terminal Block into the cutout.



Testing with 2 mm Ø test plug – touch contact.



Feedthrough terminal strips with mounting flanges

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Feedthrough Terminal Block ▸ 826 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Locking claw ▸ 4 mm² ▸ Pin spacing: 7 mm (0.276 inch) ▸ Color: gray



- Feedthrough terminal blocks with screwdriver-actuated CAGE CLAMP® on both sides
- Easy, tool-free installation
- Direct ground contact with enclosure/panel
- Test ports available on both sides

Electrical Data				
Pin spacing	**7 mm (0.276 inch)**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	32 A	32 A	32 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	150 V	300 V	
Rated current	20 A	20 A	10 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	150 V	300 V	
Rated current	20 A	20 A	10 A	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

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Ferrule	Page 847
Marking	Page 833
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

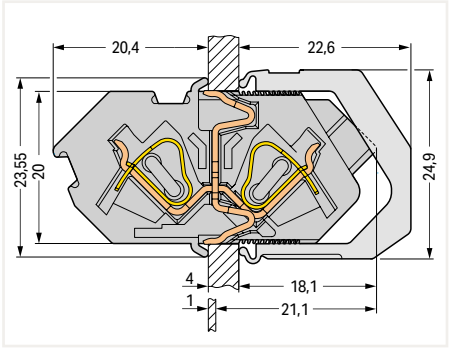
Feedthrough Terminal Block ▸ 826 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Locking claw ▸ 4 mm² ▸ Pin spacing: 7 mm (0.276 inch) ▸ Color: gray

Modular terminal block



Color	Item No.	PU (SPU)
gray	826-160	50 (25)

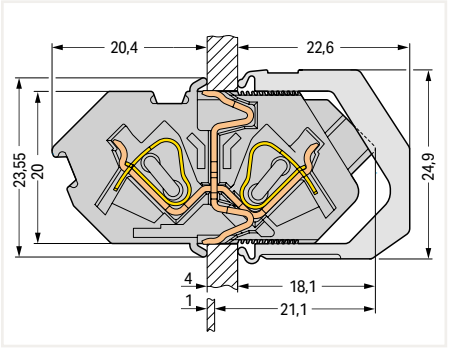


Cut-out dimensions: H = 20.1⁺0.1 mm; L = (pole no. x 7 mm) + 1.6⁺0.1 mm

Modular terminal block ▸ Included inklusive Abschlussplatte



Color	Item No.	PU (SPU)
gray	826-159	50 (25)



Cut-out dimensions: H = 20.1⁺0.1 mm; L = (pole no. x 7 mm) + 1.6⁺0.1 mm

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Accessories; for all products on this page



Retaining clip, as replacement; Color gray

Pole No.	Item No.	PU (SPU)
2	826-155	50 (25)
3	826-156	50 (25)
4	826-157	50 (25)



End plate; 1.5 mm

Color	Item No.	PU (SPU)
gray	826-158	100 (25)
blue	826-158/000-006	100 (25)
green-yellow	826-158/000-016	100 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Direct marking

Feedthrough Terminal Block ▸ 826 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Locking claw ▸ 4 mm² ▸ Pin spacing: 7 mm (0.276 inch) ▸ Color: gray

Modular terminal block ▸ Included inklusive Abschlussplatte und Rastkappe

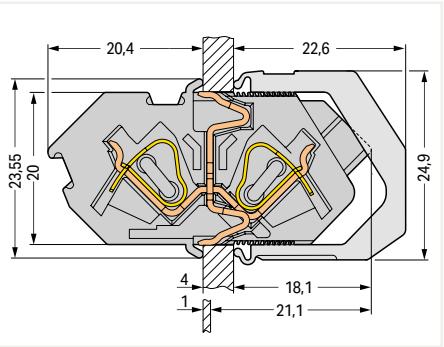


Color	Item No.	PU
gray	826-161	50

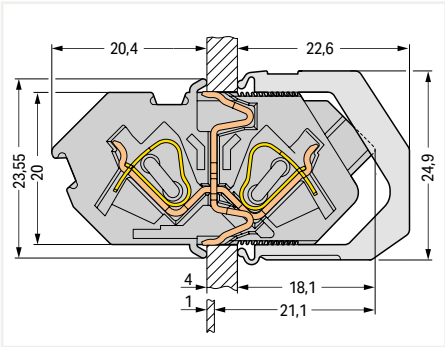
Terminal strip ▸ Included inklusive Abschlussplatte und Rastkappe



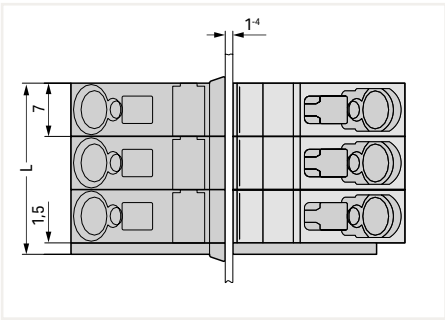
Pole No.	Item No.	PU
2	826-162	50
3	826-163	50
4	826-164	50
5	826-165	50
6	826-166	50
7	826-167	25
8	826-168	25
9	826-169	25
10	826-170	25
11	826-171	10
12	826-172	10



Cut-out dimensions: H = 20.1⁺0.1 mm; L = (pole no. x 7 mm) + 1.6⁺0.1 mm



Cut-out dimensions: H = 20.1⁺0.1 mm; L = (pole no. x 7 mm) + 1.6⁺0.1 mm



L = (pole no. x 7 mm) + 1.6 mm

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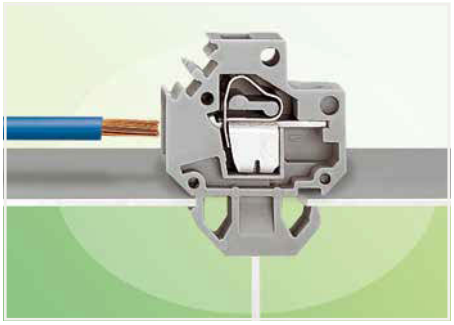
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Direct marking

Feedthrough Terminal Block ▸ 226 Series

CAGE CLAMP® ▸ Wire-wrap pin ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in mounting foot ▸ 4 mm² ▸ Pin spacing: 6 mm (0.236 inch) ▸ Modular terminal block ▸ Color: gray



- Modular feedthrough terminal blocks with screwdriver-actuated CAGE CLAMP®
- Tool-free insertion into sheet metal cutout
- Conductor entry parallel to enclosure wall saves space

Electrical Data				
Pin spacing	6 mm (0.236 inch)			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	4 A	4 A	4 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	300 V	600 V	
Rated current	4 A	4 A	4 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	300 V	600 V	
Rated current	4 A	4 A	4 A	

Connection Data	
Connection technology	CAGE CLAMP®
Number of connection points (connection type)	1
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Connection technology 2	Wire-wrap pin
Number of connection points	1

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

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Ferrule	Page 847
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

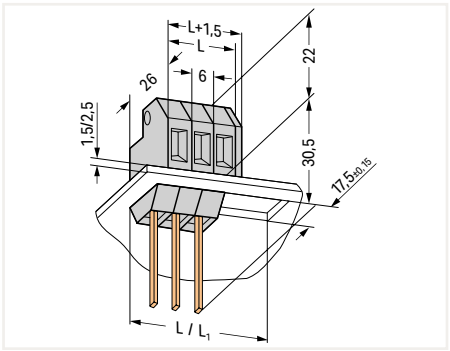
Feedthrough Terminal Block ▸ 226 Series

CAGE CLAMP® ▸ Wire-wrap pin ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in mounting foot ▸ 4 mm² ▸ Pin spacing: 6 mm (0.236 inch) ▸ Modular terminal block ▸ Color: gray

Housing sheet thickness (max.): 1.5 mm



Color	Item No.	PU
gray	226-102	150

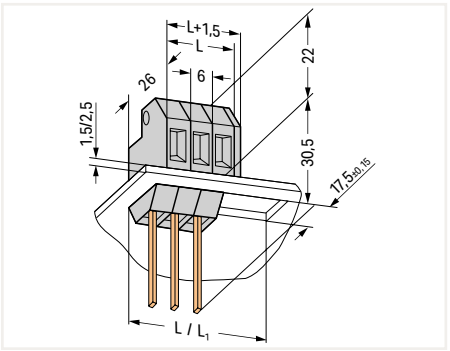


L = pole no. x 6 mm
L_1 = L + 1.5 mm

Housing sheet thickness (max.): 2.5 mm



Color	Item No.	PU
gray	226-112	150



L = pole no. x 6 mm
L_1 = L + 1.5 mm

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Accessories; for all products on this page



intermediate plate; 6 mm; Feed-through mounting; Color gray

Housing sheet thickness (max.)	Item No.	PU (SPU)
1.5 mm	226-109	100 (25)
2.5 mm	226-119	100 (25)



End plate, 1.5 mm, Design long

Color	Item No.	PU (SPU)
gray	226-110	100 (25)



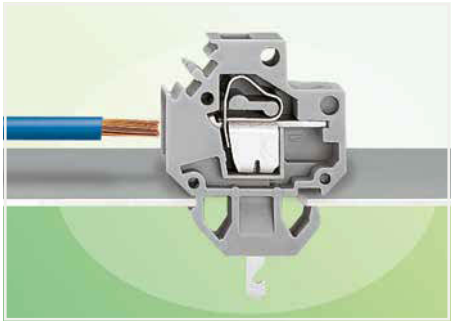
End plate, 1.5 mm, Design short

Color	Item No.	PU (SPU)
gray	226-120	100 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Feedthrough Terminal Block ▸ 226 Series

CAGE CLAMP® ▸ Solder contact ▸ Quick connect contact ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in mounting foot ▸ 4 mm² ▸ Pin spacing: 6 mm (0.236 inch) ▸ Modular terminal block ▸ Color: gray



- Modular feedthrough terminal blocks with screwdriver-actuated CAGE CLAMP®
- Tool-free insertion into sheet metal cutout
- Conductor entry parallel to enclosure wall saves space

Electrical Data				
Pin spacing	6 mm (0.236 inch)			
Solder contact				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	20 A	20 A	20 A	
Quick connect contact				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	4 kV	4 kV	4 kV	
Rated impulse voltage	320 V	320 V	630 V	
Rated current	6 A	6 A	6 A	
Solder contact / Quick connect contact				
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	300 V	600 V	
Rated current	6 A	6 A	5 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	300 V	600 V	
Rated current	6 A	6 A	5 A	

Connection Data	
Connection technology	CAGE CLAMP®
Number of connection points (connection type)	1
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Connection technology 2	Solder contact
Number of connection points	1
Connection technology 3	Quick connect contact

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
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Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

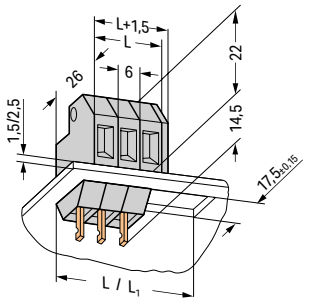
Feedthrough Terminal Block ▸ 226 Series

CAGE CLAMP® ▸ Solder contact ▸ Quick connect contact ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in mounting foot ▸ 4 mm² ▸ Pin spacing: 6 mm (0.236 inch) ▸ Modular terminal block ▸ Color: gray

Housing sheet thickness (max.): 1.5 mm



	Item No.	PU
	226-101	200
	226-104	200

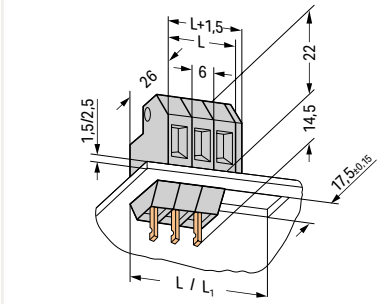


L = pole number x 6 mm
L_1 = L + 1.5 mm

Housing sheet thickness (max.): 2.5 mm



	Item No.	PU
	226-111	200
	226-114	200



L = pole number x 6 mm
L_1 = L + 1.5 mm

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Accessories; for all products on this page



intermediate plate; 6 mm; Feed-through mounting; Color gray

Housing sheet thickness (max.)	Item No.	PU (SPU)
1.5 mm	226-109	100 (25)
2.5 mm	226-119	100 (25)



End plate, 1.5 mm, Design long

Color	Item No.	PU (SPU)
gray	226-110	100 (25)



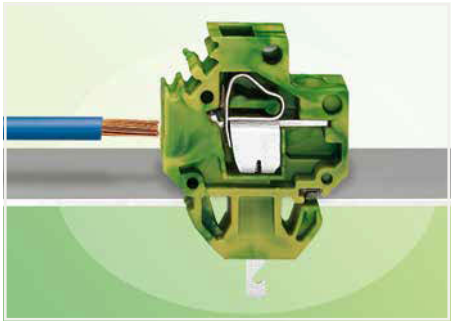
End plate, 1.5 mm, Design short

Color	Item No.	PU (SPU)
gray	226-120	100 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Ground Conductor Feedthrough Terminal Block ▸ 226 Series

CAGE CLAMP® ▸ Solder contact ▸ Quick connect contact ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in mounting foot ▸ 4 mm² ▸ Pin spacing: 6 mm (0.236 inch) ▸ Modular terminal block ▸ Housing sheet thickness (max.): 1.5 mm ▸ Color: green-yellow



- Modular feedthrough terminal blocks with screwdriver-actuated CAGE CLAMP®
- Tool-free insertion into sheet metal cutout
- Conductor entry parallel to enclosure wall saves space

Electrical Data				
Pin spacing	6 mm (0.236 inch)			
Solder contact				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	20 A	20 A	20 A	
Quick connect contact				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	4 kV	4 kV	4 kV	
Rated impulse voltage	320 V	320 V	630 V	
Rated current	6 A	6 A	6 A	
Solder contact / Quick connect contact				
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	300 V	600 V	
Rated current	6 A	6 A	5 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	300 V	600 V	
Rated current	6 A	6 A	5 A	

Connection Data	
Connection technology	CAGE CLAMP®
Number of connection points (connection type)	1
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Connection technology 2	Solder contact
Number of connection points	1
Connection technology 3	Quick connect contact

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

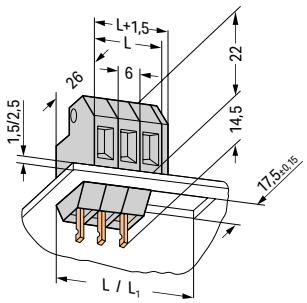
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Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

Ground Conductor Feedthrough Terminal Block ▸ 226 Series

CAGE CLAMP® ▸ Solder contact ▸ Quick connect contact ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in mounting foot ▸ 4 mm² ▸ Pin spacing: 6 mm (0.236 inch) ▸ Modular terminal block ▸ Housing sheet thickness (max.): 1.5 mm ▸ Color: green-yellow



Color	Item No.	PU
green-yellow	226-107	200



L = pole number x 6 mm
L_1 = L + 1.5 mm

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Accessories; for all products on this page



intermediate plate; 6 mm; Feed-through mounting; Color gray

Housing sheet thickness (max.)	Item No.	PU (SPU)
1.5 mm	226-109	100 (25)
2.5 mm	226-119	100 (25)



End plate, 1.5 mm, Design long

Color	Item No.	PU (SPU)
gray	226-110	100 (25)



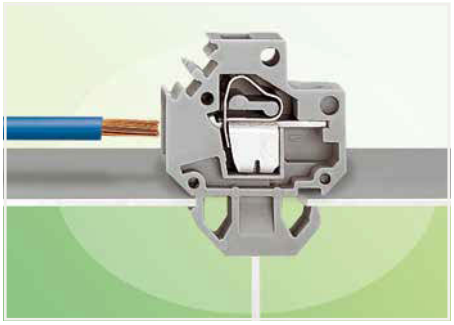
End plate, 1.5 mm, Design short

Color	Item No.	PU (SPU)
gray	226-120	100 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Feedthrough terminal block ▸ 226 Series

CAGE CLAMP® ▸ Contact pin ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in mounting foot ▸ 4 mm² ▸ Pin spacing: 6 mm (0.236 inch) ▸ Modular terminal block ▸ Color: gray



- Modular feedthrough terminal blocks with screwdriver-actuated CAGE CLAMP®
- Tool-free insertion into sheet metal cutout
- Conductor entry parallel to enclosure wall saves space

Electrical Data				
Pin spacing	**6 mm (0.236 inch)**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	4 A	4 A	4 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	300 V	600 V	
Rated current	4 A	4 A	4 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	300 V	600 V	
Rated current	4 A	4 A	4 A	

Connection Data	
Connection technology	CAGE CLAMP®
Number of connection points (connection type)	1
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Connection technology 2	Contact pin
Number of connection points	1

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

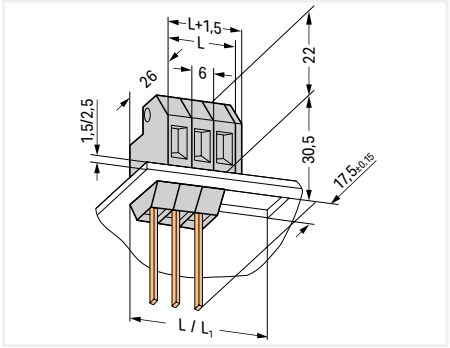
Feedthrough terminal block ▸ 226 Series

CAGE CLAMP® ▸ Contact pin ▸ Actuation type: Operating tool ▸ Mounting type: Snap-in mounting foot ▸ 4 mm² ▸ Pin spacing: 6 mm (0.236 inch) ▸ Modular terminal block ▸ Color: gray

Housing sheet thickness (max.): 1.5 mm



Color	Item No.	PU
gray	226-103	150

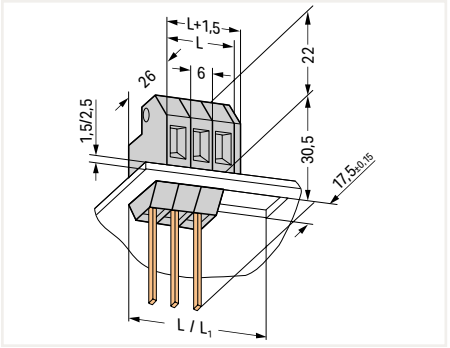


L = pole no. x 6 mm
L_1 = L + 1.5 mm

Housing sheet thickness (max.): 2.5 mm



Color	Item No.	PU
gray	226-113	150



L = pole no. x 6 mm
L_1 = L + 1.5 mm

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Accessories; for all products on this page



intermediate plate; 6 mm; Feed-through mounting; Color gray

Housing sheet thickness (max.)	Item No.	PU (SPU)
1.5 mm	226-109	100 (25)
2.5 mm	226-119	100 (25)



End plate, 1.5 mm, Design long

Color	Item No.	PU (SPU)
gray	226-110	100 (25)



End plate, 1.5 mm, Design short

Color	Item No.	PU (SPU)
gray	226-120	100 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Ground Conductor Feedthrough Terminal Block ▸ 226 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ with direct GND contact ▸ Mounting type: Snap-in mounting foot ▸ 4 mm² ▸ Pin spacing: 6 mm (0.236 inch) ▸ Modular terminal block ▸ Housing sheet thickness (max.): 1.5 mm ▸ Color: green-yellow



- Modular feedthrough terminal blocks with screwdriver-actuated CAGE CLAMP®
- Tool-free insertion into sheet metal cutout
- Conductor entry parallel to enclosure wall saves space

Connection Data	
Connection technology	CAGE CLAMP®
Number of connection points (connection type)	1
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 2.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Number of connection points	1

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

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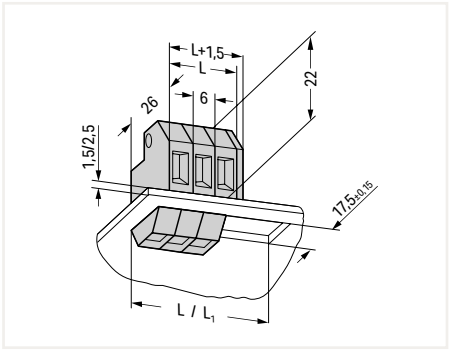
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Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

Ground Conductor Feedthrough Terminal Block ▸ 226 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ with direct GND contact ▸ Mounting type: Snap-in mounting foot ▸ 4 mm² ▸ Pin spacing: 6 mm (0.236 inch) ▸ Modular terminal block ▸ Housing sheet thickness (max.): 1.5 mm ▸ Color: green-yellow



Color	Item No.	PU
green-yellow	226-108	200



L = pole number x 6 mm
L_1 = L + 1.5 mm

12

Accessories; for all products on this page



intermediate plate; 6 mm; Feed-through mounting; Color gray

Housing sheet thickness (max.)	Item No.	PU (SPU)
1.5 mm	226-109	100 (25)
2.5 mm	226-119	100 (25)



End plate, 1.5 mm, Design long

Color	Item No.	PU (SPU)
gray	226-110	100 (25)



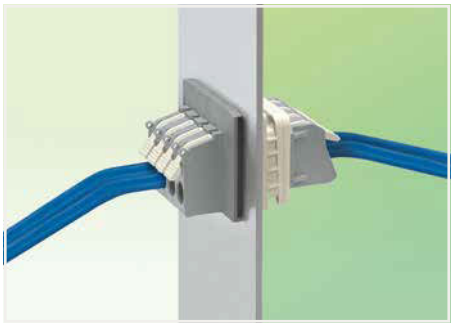
End plate, 1.5 mm, Design short

Color	Item No.	PU (SPU)
gray	226-120	100 (25)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Feedthrough Terminal Block ▸ 828 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ Mounting type: Locking claw ▸ 16 mm² ▸ Pin spacing: 11.5 mm (0.453 inch) ▸ Terminal strip ▸ Housing sheet thickness (max.): 3 mm ▸ Color: gray



- Panel feedthrough terminal blocks with screwdriver-actuated CAGE CLAMP® on both sides
- Easy, tool-free installation
- Tool-free termination – fingers open/close levers
- Several clamping units can be held open simultaneously – convenient for terminating multi-core cables
- 600 V UL

Electrical Data				
Pin spacing	**11.5 mm (0.453 inch)**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	1000 V	1000 V	1000 V	
Rated impulse voltage	8 kV	8 kV	8 kV	
Rated current	41 A	41 A	41 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	600 V	600 V	-	
Rated current	30 A	30 A	-	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	600 V	600 V	-	
Rated current	30 A	30 A	-	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	12 … 13 mm / 0.47 … 0.51 inch
Solid conductor	1.5 … 16 mm² / 16 … 6 AWG
Fine-stranded conductor	1.5 … 16 mm² / 16 … 6 AWG
Fine-stranded conductor with ferrule with plastic collar	1.5 … 10 mm²
Fine-stranded conductor with ferrule without plastic collar	1.5 … 10 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

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Ferrule Page 847

Additional information, see “Technical Section”

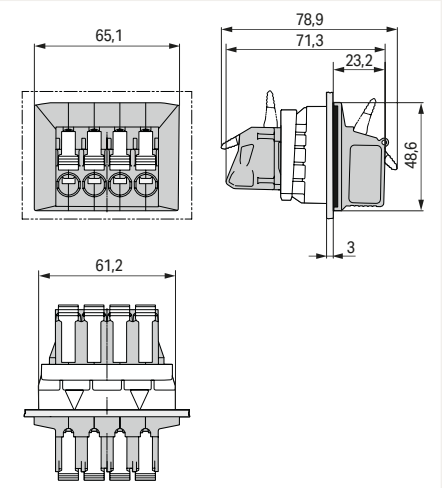
Approvals and corresponding ratings, visit www.wago.com

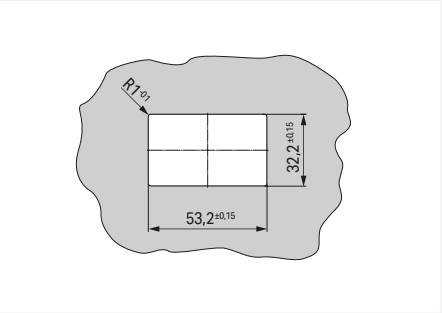
Feedthrough Terminal Block ▸ 828 Series

CAGE CLAMP® ▸ Actuation type: Lever ▸ Mounting type: Locking claw ▸ 16 mm² ▸ Pin spacing: 11.5 mm (0.453 inch) ▸ Terminal strip ▸ Housing sheet thickness (max.): 3 mm ▸ Color: gray



Color	Pole No.	Item No.	PU
gray	4	828-334	15







Insert terminal strip from the outside.



Snap the panel thickness adapter on from the inside.



Secure to panel via locking clip.



Mounted feedthrough terminal strip (as seen from inside)

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Adapters for varying sheet panel thicknesses
- Direct marking

Feedthrough PCB Terminal Block ▸ 741 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray



- Feedthrough terminal blocks with push-button actuated CAGE CLAMP®
- Simple, push-button wiring
- Test slot integrated into upper-portion of conductor entry for test pins

Electrical Data									
Pin spacing	**5 mm (0.197 inch)**			**7.5 mm (0.295 inch)**			**10 mm (0.394 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	16 A	-	10 A	16 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

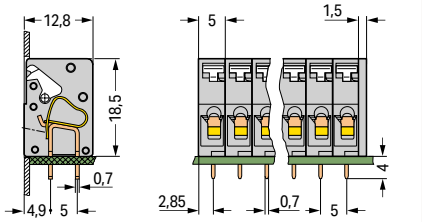
Feedthrough PCB Terminal Block ▸ 741 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 5 mm (0.197 inch)



Pole No.	Item No.	PU (SPU)
2	741-102	400 (100)
3	741-103	280 (70)
4	741-104	220 (55)
5	741-105	180 (45)
6	741-106	140 (35)
7	741-107	120 (30)
8	741-108	100 (25)
9	741-109	100 (25)
10	741-110	80 (20)
12	741-112	60 (15)
16	741-116	40 (10)

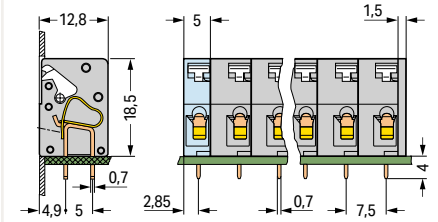


Total length = pole no. x pin spacing + 1.5 mm

Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU (SPU)
2	741-302	340 (85)
3	741-303	220 (55)
4	741-304	160 (40)
5	741-305	120 (30)
6	741-306	100 (25)
7	741-307	80 (20)
8	741-308	80 (20)
9	741-309	60 (15)
10	741-310	60 (15)

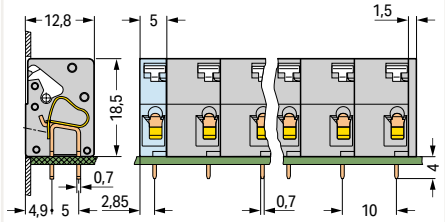


Total length = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

Pin spacing: 10 mm (0.394 inch)



Pole No.	Item No.	PU (SPU)
2	741-502	280 (70)
3	741-503	160 (40)
4	741-504	120 (30)
5	741-505	100 (25)
6	741-506	80 (20)
7	741-507	60 (15)
8	741-508	60 (15)



Total length = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

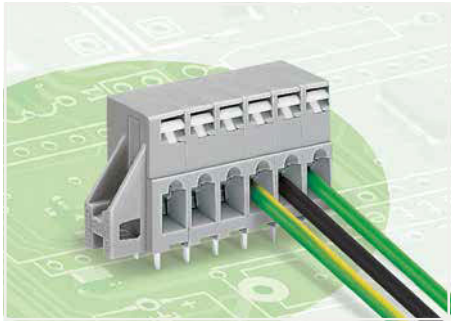
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Direct marking

Feedthrough PCB Terminal Block ▸ 741 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray



- Feedthrough PCB terminal strips with push-button actuated CAGE CLAMP®
- Simple, push-button wiring
- Test slot integrated into upper-portion of conductor entry for test pins
- Mounting flanges for additional mechanical stability

Electrical Data

Pin spacing	5 mm (0.197 inch)			7.5 mm (0.295 inch)			10 mm (0.394 inch)		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A

Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A

Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	16 A	-	10 A	16 A	-	10 A

Connection Data

Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²

Material Data

Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data

Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 $^{(+0.1)}$ mm

Environmental Requirements

Limit temperature range	-60 … +105 °C

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Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

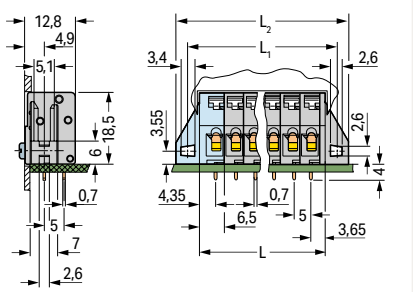
Feedthrough PCB Terminal Block ▸ 741 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Terminal strip ▸ Color: gray

Pin spacing: 5 mm (0.197 inch)



Pole No.	Item No.	PU (SPU)
2	741-132	180 (45)
3	741-133	160 (40)
4	741-134	140 (35)
5	741-135	120 (30)
6	741-136	100 (25)
7	741-137	80 (20)
8	741-138	80 (20)
9	741-139	80 (20)
10	741-140	60 (15)
12	741-142	60 (15)
16	741-146	40 (10)

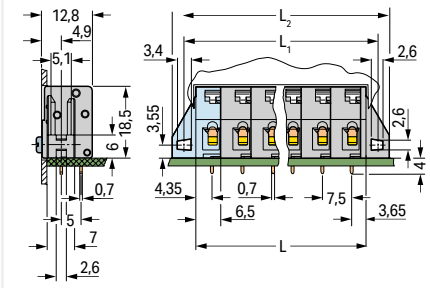


L = (pole no. – 1) x pin spacing + 6.5 mm + 1.5 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

Pin spacing: 7.5 mm (0.295 inch)



Pole No.	Item No.	PU (SPU)
2	741-322	160 (40)
3	741-323	140 (35)
4	741-324	100 (25)
5	741-325	80 (20)
6	741-326	80 (20)
7	741-327	60 (15)
8	741-328	60 (15)
9	741-329	60 (15)
10	741-330	40 (10)

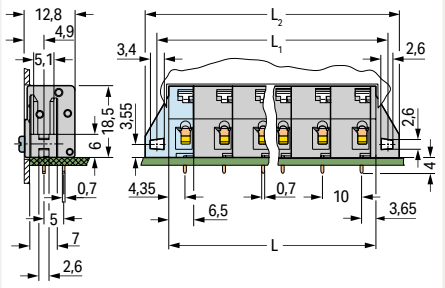


L = (pole no. – 1) x pin spacing + 6.5 mm + 1.5 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

Pin spacing: 10 mm (0.394 inch)



Pole No.	Item No.	PU (SPU)
2	741-522	160 (40)
3	741-523	120 (30)
4	741-524	80 (20)
5	741-525	80 (20)
6	741-526	60 (15)
7	741-527	60 (15)
8	741-528	40 (10)



L = (pole no. – 1) x pin spacing + 6.5 mm + 1.5 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

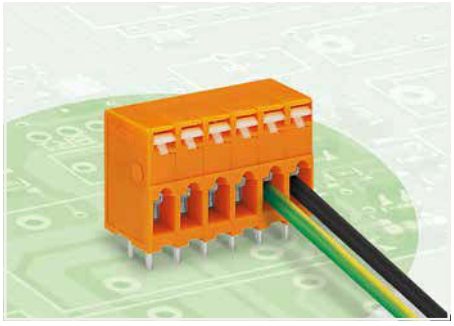
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Direct marking

Feedthrough PCB Terminal Block ▸ 741 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip ▸ Color: orange



- Feedthrough terminal blocks with push-button actuated CAGE CLAMP®
- Simple, push-button wiring
- Test slot integrated into upper-portion of conductor entry for test pins

Electrical Data									
Pin spacing	**5.08 mm (0.2 inch)**			**7.62 mm (0.3 inch)**			**10.16 mm (0.4 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	16 A	-	10 A	16 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	1.1 $^{(+0.1)}$ mm

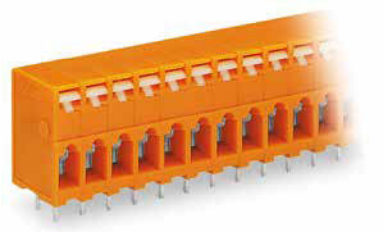
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

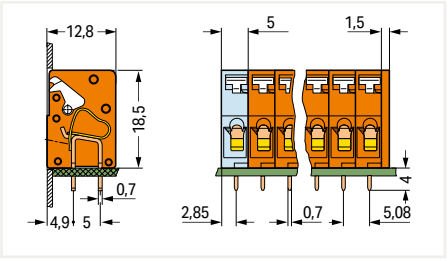
Feedthrough PCB Terminal Block ▸ 741 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ 2.5 mm² ▸ Terminal strip ▸ Color: orange

Pin spacing: 5.08 mm (0.2 inch)



Pole No.	Item No.	PU (SPU)
2	741-202	400 (100)
3	741-203	280 (70)
4	741-204	220 (55)
5	741-205	160 (40)
6	741-206	140 (35)
7	741-207	120 (30)
8	741-208	100 (25)
9	741-209	100 (25)
10	741-210	80 (20)
12	741-212	60 (15)
16	741-216	40 (10)

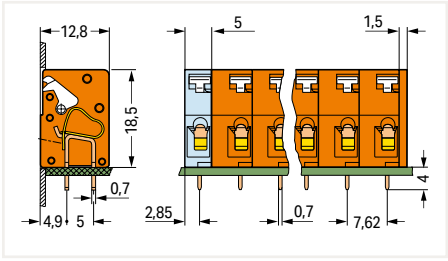


Total length = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

Pin spacing: 7.62 mm (0.3 inch)

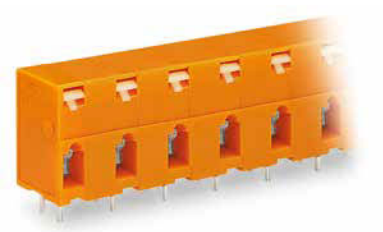


Pole No.	Item No.	PU (SPU)
2	741-402	320 (80)
3	741-403	220 (55)
4	741-404	160 (40)
5	741-405	120 (30)
6	741-406	100 (25)
7	741-407	80 (20)
8	741-408	80 (20)
9	741-409	60 (15)
10	741-410	60 (15)

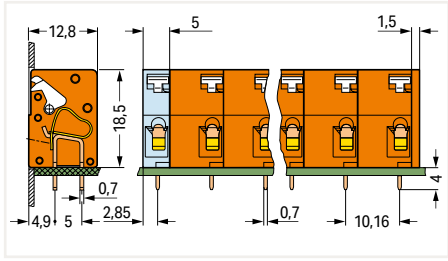


Total length = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

Pin spacing: 10.16 mm (0.4 inch)



Pole No.	Item No.	PU (SPU)
2	741-602	280 (70)
3	741-603	160 (40)
4	741-604	120 (30)
5	741-605	100 (25)
6	741-606	80 (20)
7	741-607	60 (15)
8	741-608	60 (15)



Total length = (pole no. – 1) x pin spacing + 5 mm + 1.5 mm

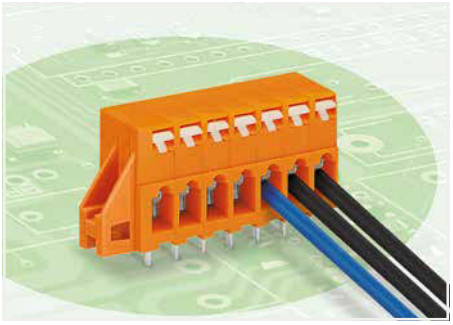
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Direct marking

Feedthrough PCB Terminal Block ▸ 741 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Terminal strip ▸ Color: orange



- Feedthrough terminal blocks with push-button actuated CAGE CLAMP®
- Simple, push-button wiring
- Test slot integrated into upper-portion of conductor entry for test pins

Electrical Data									
Pin spacing	**5.08 mm (0.2 inch)**			**7.62 mm (0.3 inch)**			**10.16 mm (0.4 inch)**		
Ratings per	IEC/EN 60664-1			IEC/EN 60664-1			IEC/EN 60664-1		
Overvoltage category	III	III	II	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2	3	2	2
Rated voltage	250 V	320 V	630 V	400 V	630 V	1000 V	630 V	1000 V	1000 V
Rated impulse voltage	4 kV	4 kV	4 kV	6 kV	6 kV	6 kV	8 kV	8 kV	8 kV
Rated current	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A	16 A
Approvals per	UL 1059			UL 1059			UL 1059		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	10 A	-	10 A	10 A	-	10 A	10 A	-	10 A
Approvals per	CSA			CSA			CSA		
Use Group	B	C	D	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V	300 V	-	300 V
Rated current	16 A	-	10 A	16 A	-	10 A	16 A	-	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 1.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter (tolerance)	$1.1^{(+0.1)}$ mm

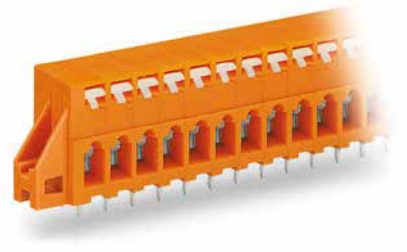
Environmental Requirements	
Limit temperature range	-60 … +105 °C

Ferrule	Page 847
Marking	Page 833
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

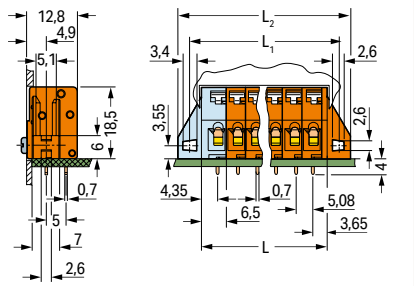
Feedthrough PCB Terminal Block ▸ 741 Series

CAGE CLAMP® ▸ Actuation type: Push-button ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Terminal strip ▸ Color: orange

Pin spacing: 5.08 mm (0.2 inch)

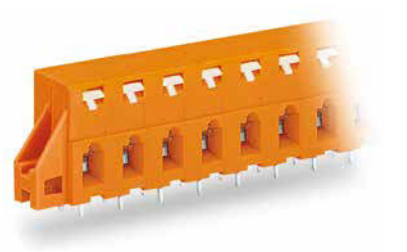


Pole No.	Item No.	PU (SPU)
2	741-232	180 (45)
3	741-233	160 (40)
4	741-234	120 (30)
5	741-235	120 (30)
6	741-236	100 (25)
7	741-237	80 (20)
8	741-238	80 (20)
9	741-239	80 (20)
10	741-240	60 (15)
12	741-242	60 (15)
16	741-246	40 (10)

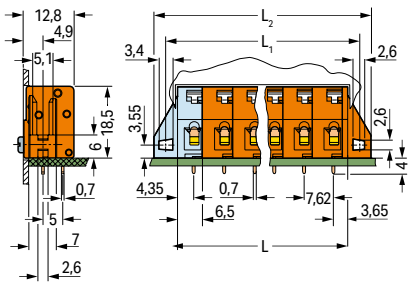


L = (pole no. – 1) x pin spacing + 6.5 mm + 1.5 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

Pin spacing: 7.62 mm (0.3 inch)



Pole No.	Item No.	PU (SPU)
2	741-422	160 (40)
3	741-423	140 (35)
4	741-424	100 (25)
5	741-425	80 (20)
6	741-426	80 (20)
7	741-427	60 (15)
8	741-428	60 (15)
9	741-429	40 (10)
10	741-430	40 (10)

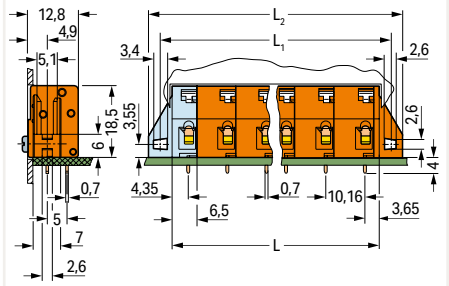


L = (pole no. – 1) x pin spacing + 6.5 mm + 1.5 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

Pin spacing: 10.16 mm (0.4 inch)



Pole No.	Item No.	PU (SPU)
2	741-622	160 (40)
3	741-623	120 (30)
4	741-624	80 (20)
5	741-625	80 (20)
6	741-626	60 (15)
7	741-627	40 (10)
8	741-628	40 (10)



L = (pole no. – 1) x pin spacing + 6.5 mm + 1.5 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Direct marking

Feedthrough PCB Terminal Block ▸ 231 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Terminal strip ▸ Color: gray



- Feedthrough PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- With flanges for PCB or front-panel mounting – either flush with enclosure or protruding

Electrical Data			
Pin spacing	**5 mm (0.197 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4.7 mm
Solder pin dimensions	0.8 x 1.3 mm
Drilled hole diameter (tolerance)	$1.8^{(+0.1)}$ mm

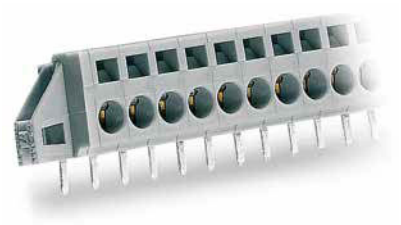
Environmental Requirements	
Limit temperature range	-60 … +105 °C

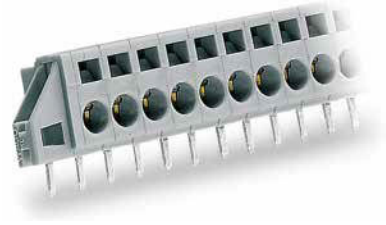
Ferrule	Page 847
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Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

Feedthrough PCB Terminal Block ▸ 231 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Terminal strip ▸ Color: gray

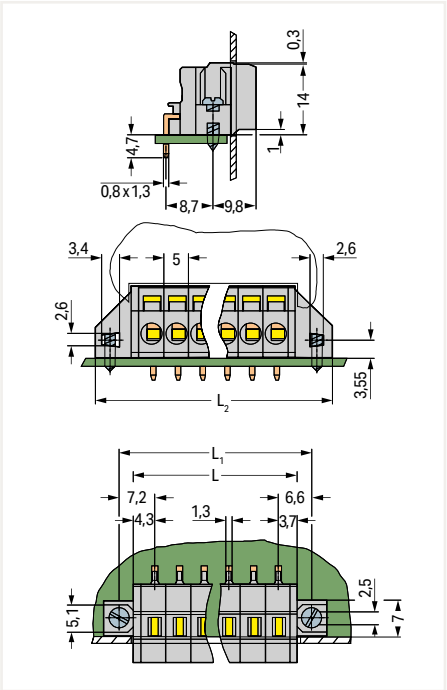
	Housing sheet thickness (max.): 1.5 mm



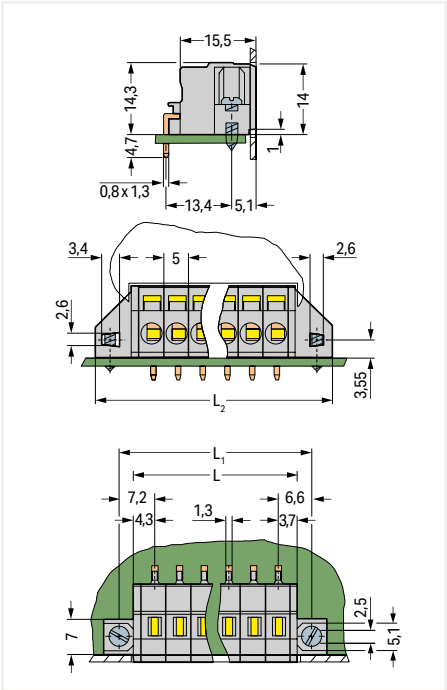


Pole No.	Item No.	PU
2	231-602/017-000	100
3	231-603/017-000	50
4	231-604/017-000	50
5	231-605/017-000	50
6	231-606/017-000	50
7	231-607/017-000	50
8	231-608/017-000	50
9	231-609/017-000	25
10	231-610/017-000	25
11	231-611/017-000	25
12	231-612/017-000	25

Pole No.	Item No.	PU
2	231-602/023-000	100
3	231-603/023-000	50
4	231-604/023-000	50
5	231-605/023-000	50
6	231-606/023-000	50
7	231-607/023-000	50
8	231-608/023-000	50
9	231-609/023-000	25
10	231-610/023-000	25
11	231-611/023-000	25
12	231-612/023-000	25



L = (pole no. x pin spacing) + 3 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm



L = (pole no. x pin spacing) + 3 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm
for mounting plate thickness up to 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

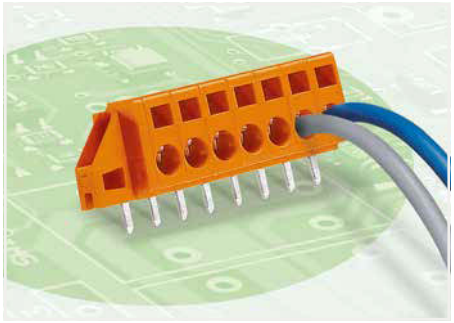
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Direct marking
- Versions without mounting flanges

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Feedthrough PCB Terminal Block ▸ 231 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Terminal strip ▸ Color: orange



- Feedthrough PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- With flanges for PCB or front-panel mounting – either flush with enclosure or protruding

Electrical Data			
Pin spacing	**5.08 mm (0.2 inch)**		
Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Rated voltage	320 V	320 V	630 V
Rated impulse voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A
Approvals per	UL 1059		
Use Group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A
Approvals per	CSA		
Use Group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Conductor entry angle to the PCB	0 °
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Mechanical Data	
Solder pin arrangement	Over the entire terminal strip, in line
Solder pin length	4.7 mm
Solder pin dimensions	0.8 x 1.3 mm
Drilled hole diameter (tolerance)	$1.8^{(+0.1)}$ mm

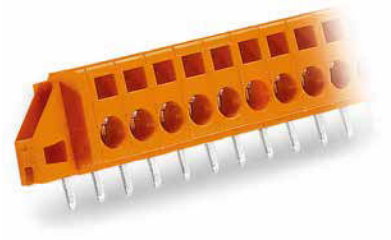
Environmental Requirements	
Limit temperature range	-60 … +105 °C

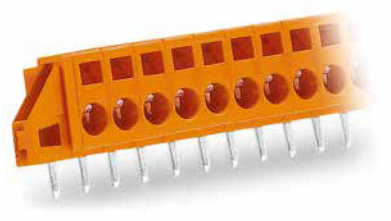
Ferrule	Page 847
Marking	Page 833
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Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

Feedthrough PCB Terminal Block ▸ 231 Series

CAGE CLAMP® ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Terminal strip ▸ Color: orange

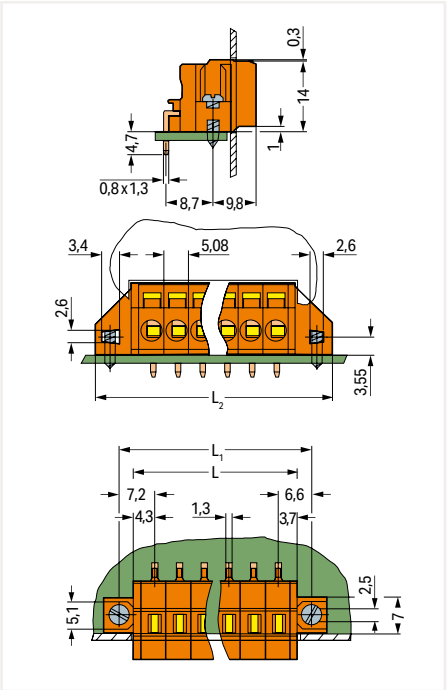
	Housing sheet thickness (max.): 1.5 mm



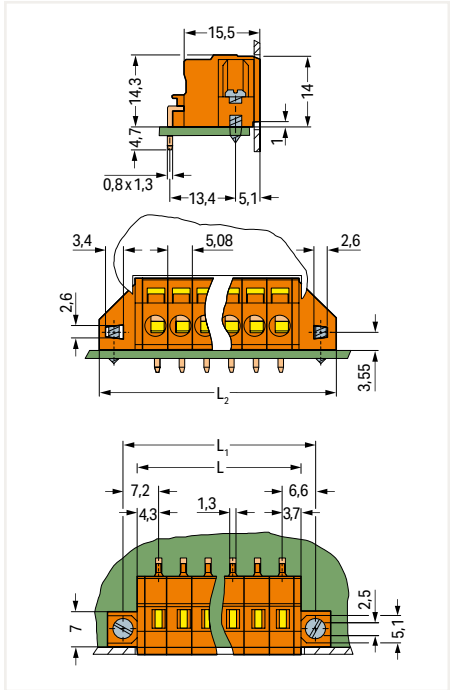


Pole No.	Item No.	PU
2	231-632/017-000	100
3	231-633/017-000	50
4	231-634/017-000	50
5	231-635/017-000	50
6	231-636/017-000	50
7	231-637/017-000	50
8	231-638/017-000	50
9	231-639/017-000	25
10	231-640/017-000	25
11	231-641/017-000	25
12	231-642/017-000	25

Pole No.	Item No.	PU
2	231-632/023-000	100
3	231-633/023-000	50
4	231-634/023-000	50
5	231-635/023-000	50
6	231-636/023-000	50
7	231-637/023-000	50
8	231-638/023-000	50
9	231-639/023-000	25
10	231-640/023-000	25
11	231-641/023-000	25
12	231-642/023-000	25



L = (pole no. x pin spacing) + 3 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm



L = (pole no. x pin spacing) + 3 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm
for mounting plate thickness up to 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Direct marking
- Versions without mounting flanges

1-Conductor Feedthrough Terminal Strip ▸ 731 Series

CAGE CLAMP® ▸ Wire-wrap pin ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Terminal strip ▸ Housing sheet thickness (max.): 1.5 mm ▸ Color: gray



- Feedthrough PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- With flanges for PCB or front-panel mounting – either flush with enclosure or protruding

Electrical Data				
Pin spacing	**5 mm (0.197 inch)**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	5 A	5 A	5 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	150 V	300 V	
Rated current	5 A	5 A	5 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	-	
Rated current	5 A	-	-	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Connection technology 2	Wire-wrap pin

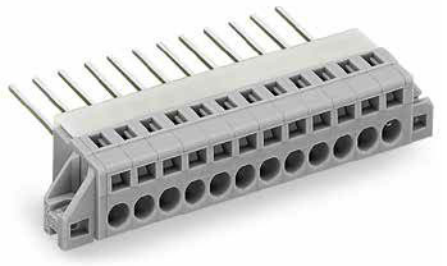
Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

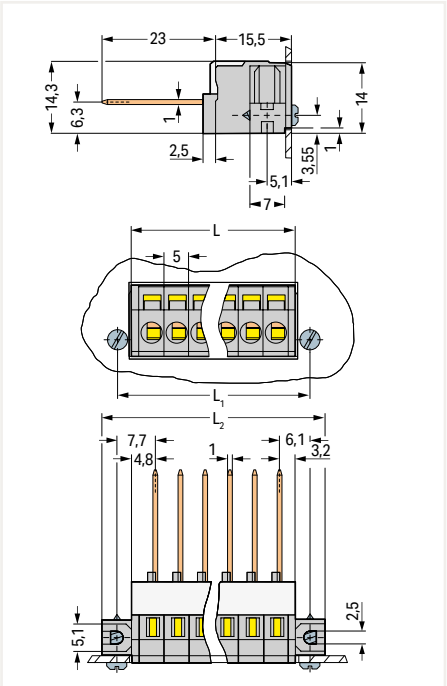
Ferrule	Page 847
Marking	Page 833
Mounting	Page 537, 837
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Feedthrough Terminal Strip ▸ 731 Series

CAGE CLAMP® ▸ Wire-wrap pin ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5 mm (0.197 inch) ▸ Terminal strip ▸ Housing sheet thickness (max.): 1.5 mm ▸ Color: gray



Pole No.	Item No.	PU
2	731-132	50
3	731-133	50
4	731-134	25
5	731-135	25
6	731-136/048-000	25
7	731-137/048-000	25
8	731-138/048-000	25
9	731-139/048-000	25
10	731-140/048-000	10
11	731-141/048-000	10
12	731-142/048-000	10



L = (pole no. x pin spacing) + 3 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm
for mounting plate thickness up to 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

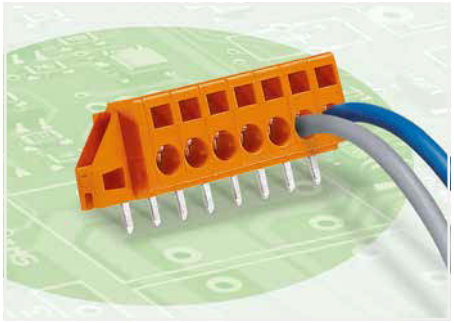
Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Direct marking
- Versions without mounting flanges

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1-Conductor Feedthrough Terminal Strip ▸ 731 Series

CAGE CLAMP® ▸ Wire-wrap pin ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Terminal strip ▸ Housing sheet thickness (max.): 1.5 mm ▸ Color: orange



- Feedthrough PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- With flanges for PCB or front-panel mounting – either flush with enclosure or protruding

Electrical Data				
Pin spacing	**5.08 mm (0.2 inch)**			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	320 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	5 A	5 A	5 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	150 V	300 V	
Rated current	5 A	5 A	5 A	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	300 V	-	-	
Rated current	5 A	-	-	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²
Connection technology 2	Wire-wrap pin

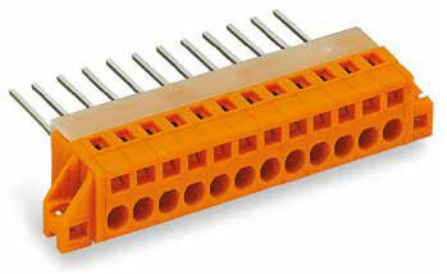
Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

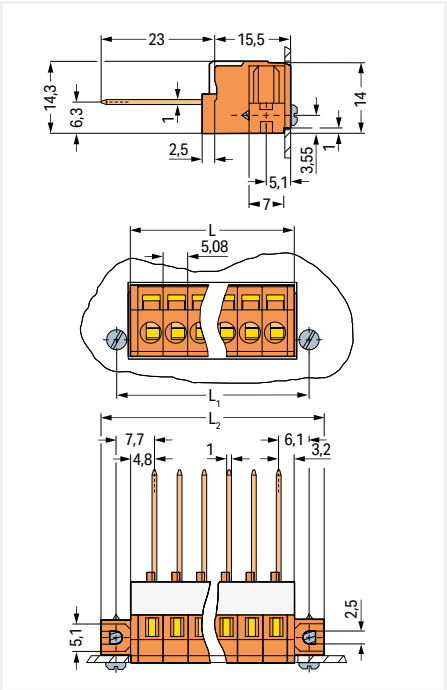
Ferrule	Page 847
Marking	Page 833
Mounting	Page 537, 837
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

1-Conductor Feedthrough Terminal Strip ▸ 731 Series

CAGE CLAMP® ▸ Wire-wrap pin ▸ Actuation type: Operating tool ▸ Mounting type: Mounting flange ▸ 2.5 mm² ▸ Pin spacing: 5.08 mm (0.2 inch) ▸ Terminal strip ▸ Housing sheet thickness (max.): 1.5 mm ▸ Color: orange



Pole No.	Item No.	PU
2	731-162	50
3	731-163	50
4	731-164	25
5	731-165	25
6	731-166/048-000	25
7	731-167/048-000	25
8	731-168/048-000	25
9	731-169/048-000	25
10	731-170/048-000	10
11	731-171/048-000	10
12	731-172/048-000	25

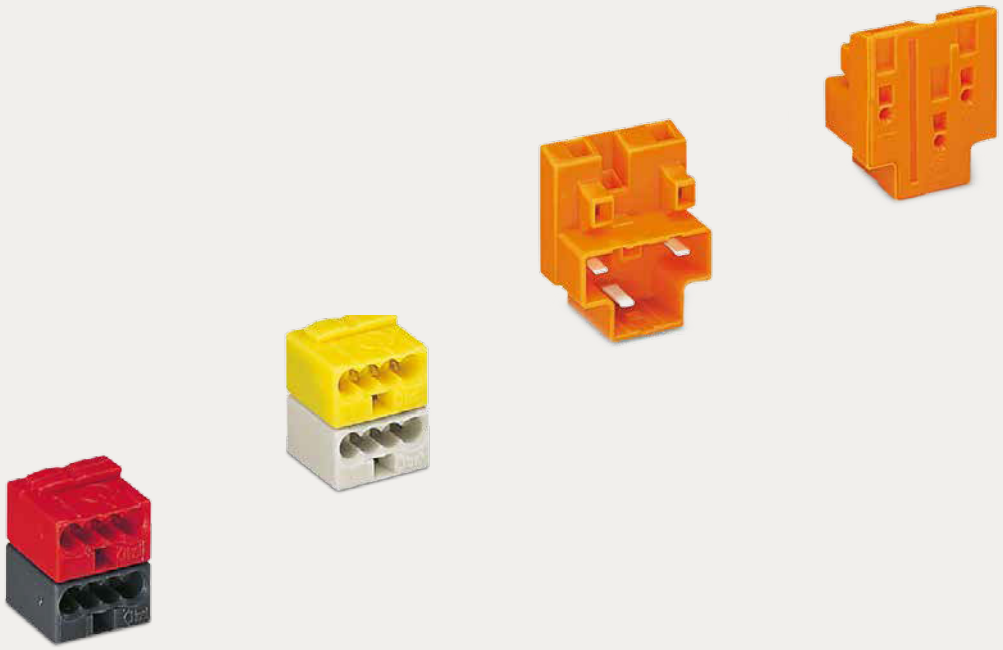


L = (pole no. x pin spacing) + 3 mm
L_1 = L + 5.8 mm
L_2 = L_1 + 6.4 mm
for mounting plate thickness up to 1.5 mm

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Other variants can be requested via the WAGO sales department or, if necessary, configured at https://configurator.wago.com/:

- Other pole numbers
- Other colors
- Direct marking
- Versions without mounting flanges



WAGO Specialty Connectors

WAGO Specialty Connectors



	Series	Page
Female Connector ▸ Pole No.: 3 ▸ IDC ▸ 0.75 … 1.5 mm² „f-st"	730	808
Male Connector ▸ Pole No.: 3 ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 0.08 … 2.5 mm² (18 … 16 AWG)		810
Female Connector ▸ Pole No.: 6 ▸ IDC ▸ 0.75 … 1.5 mm² „f-st"		812
Male Connector ▸ Pole No.: 6 ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 0.08 … 2.5 mm² (18 … 16 AWG)		814



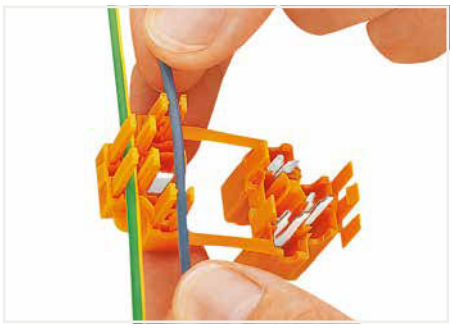
4-Conductor Modular PCB Connector ▸ for KNX/EIB Bus Coupler Units ▸ PUSH WIRE®	243	816



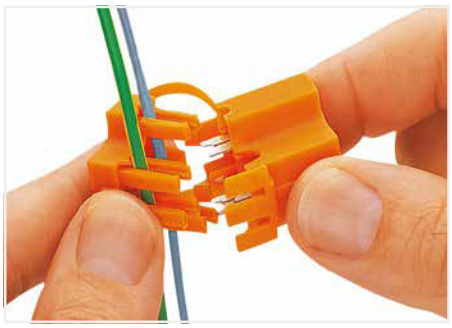
Accessories and Tools		829

13

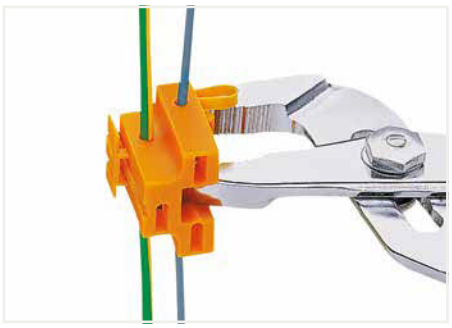
Wire-Tap Branch Connectors, 3-Pole
730 Series
Description and Installation



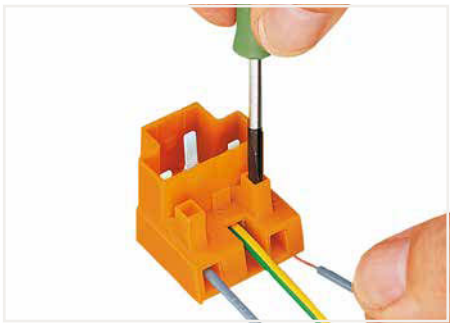
Press conductor into strain relief fingers.



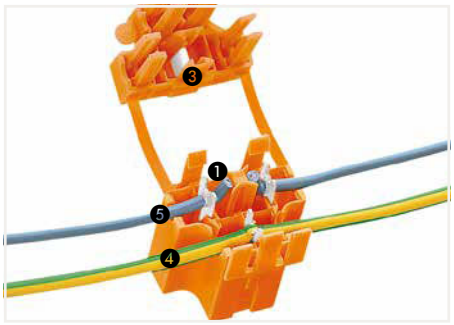
Place upper and lower part of the socket into pre-locking position.



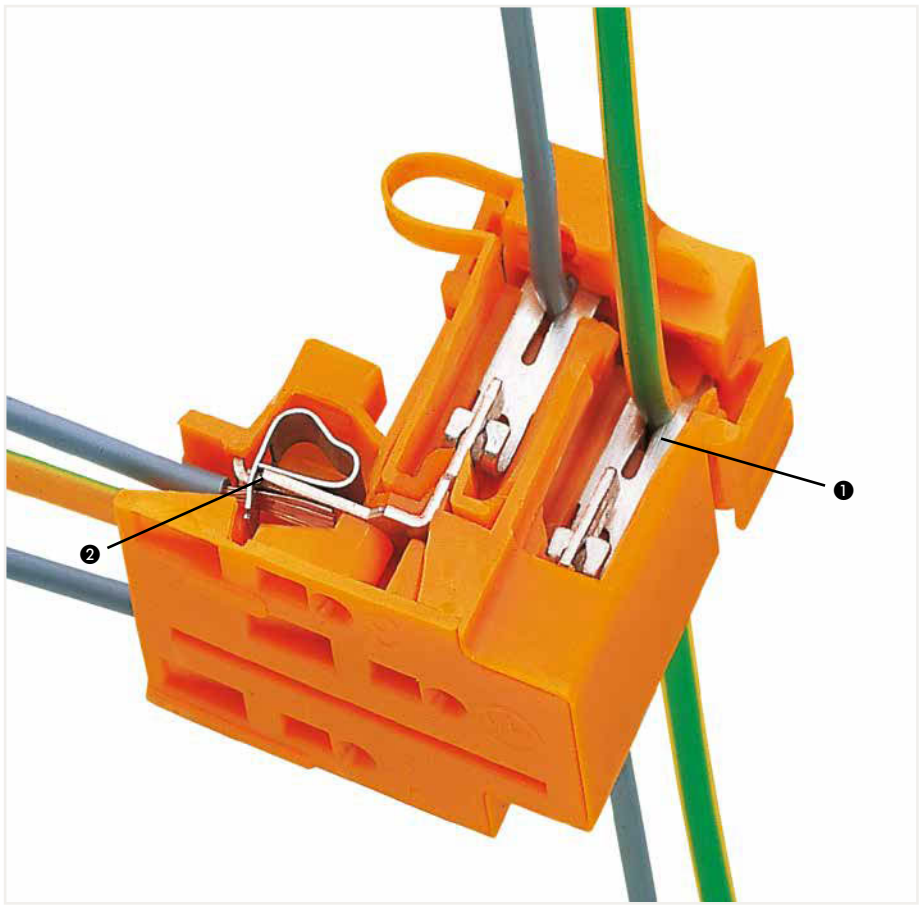
Press into final position using pliers.



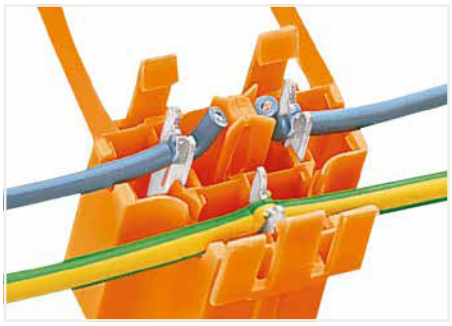
Insert conductors via screwdriver – 3-pole plug equipped with CAGE CLAMP®.



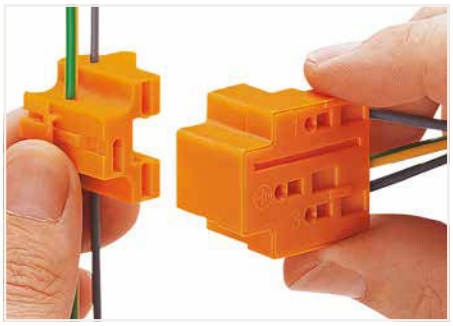
Three-pole socket includes:
1. IDC
2. CAGE CLAMP®
3. Isolation blade
4. IDC contacted ground conductor
5. Cut and IDC contacted "live" conductor contacted "live" conductor



730 Series, 3-pole



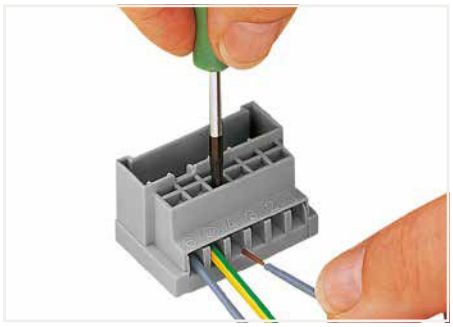
Snapping socket halves together will automatically cut and terminate a "live" conductor without stripping – enables switching applications (e.g., door switches).



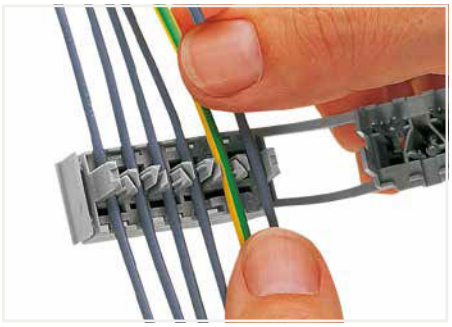
Insert plug into socket.

13

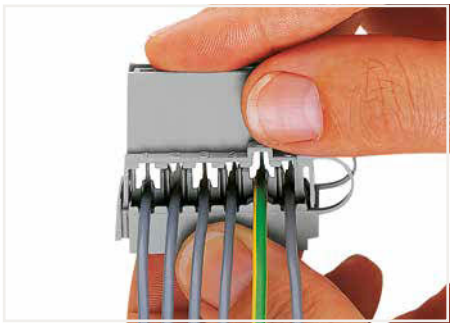
Wire-Tap Branch Connectors, 6-Pole
730 Series
Description and Installation



Insert conductors via screwdriver – 6-pole plug equipped with CAGE CLAMP®.



Press conductors into strain relief fingers.



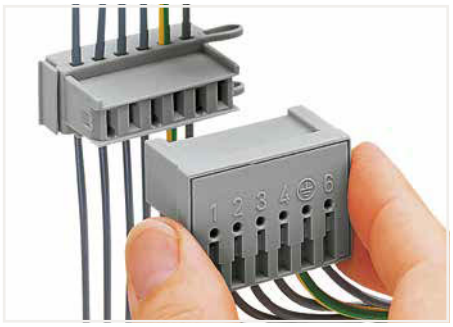
Place upper and lower part of the socket into pre-locking position.



730 Series



Press into final position using pliers.



Insert plug into socket.

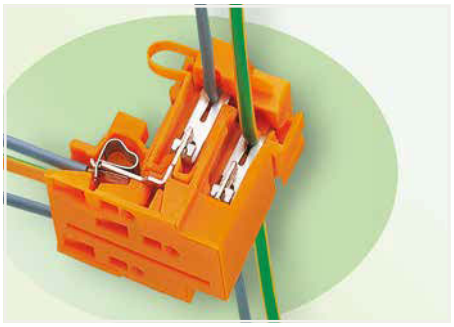


Marking via side marker carrier.



Testing via 2.3 mm Ø test plug.

Female Connector ▶ 730 Series
Pole No.: 3 ▶ IDC ▶ Color: orange



- Sockets with IDC connection for tapping individual conductors without stripping
- Three-pole sockets automatically cut “live” conductors (e.g., door switches in elevator shafts)
- Sockets available with additional fixing flanges

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	

Connection Data	
Connection technology	IDC
Fine-stranded conductor	0.75 … 1.5 mm² / 18 … 16 AWG

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Brass
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

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Testing and measuring Page 854
Tools Page 838
Additional information, see “Technical Section”
Approvals and corresponding ratings, visit www.wago.com

Female Connector ▸ 730 Series
Pole No.: 3 ▸ IDC ▸ Color: orange

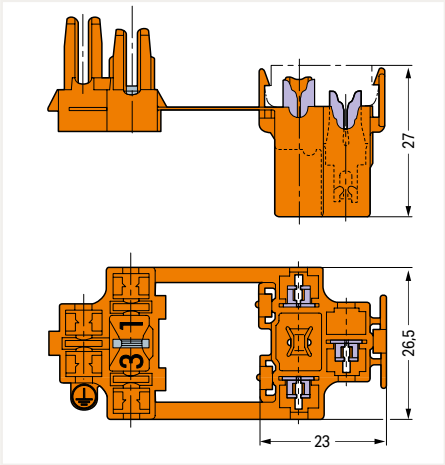
Mounting type: Mounting flange

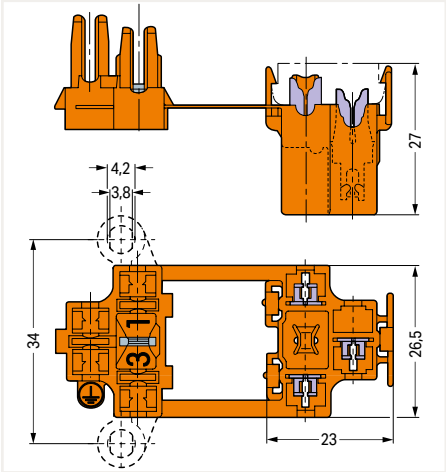




Color	Pole No.	Item No.	PU
orange	3	730-103	50

Color	Pole No.	Item No.	PU
orange	3	730-123	50

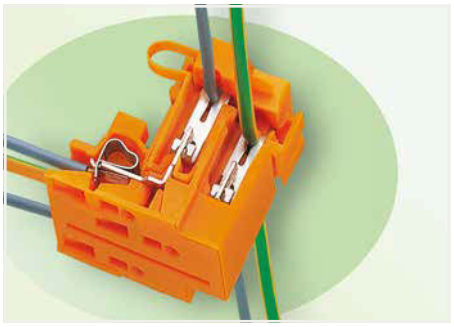




PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Male connector ▸ 730 Series

Pole No.: 3 ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: orange



- Plugs with CAGE CLAMP® for the universal connection of all conductor types

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

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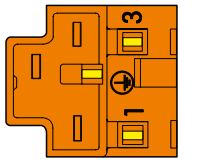
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Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

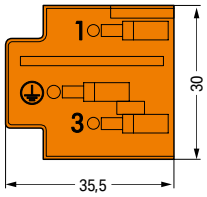
Male connector ▸ 730 Series

Pole No.: 3 ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: orange



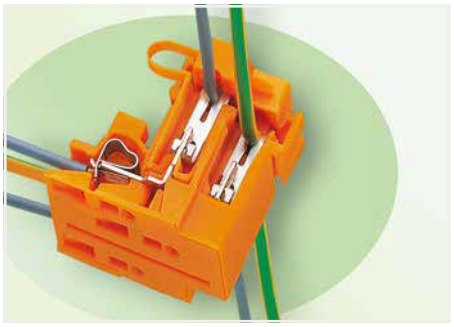
Color	Pole No.	Item No.	PU
orange	3	730-113	50





PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Female Connector ▶ 730 Series
Pole No.: 6 ▶ IDC ▶ Color: gray



- Sockets with IDC connection for tapping individual conductors without stripping
- Three-pole sockets automatically cut “live” conductors (e.g., door switches in elevator shafts)
- Sockets available with additional fixing flanges

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	

Connection Data	
Connection technology	IDC
Fine-stranded conductor	0.75 … 1.5 mm² / 18 … 16 AWG

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Brass
Contact plating	Tin-plated

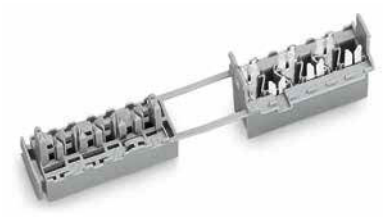
Environmental Requirements	
Limit temperature range	-60 … +85 °C

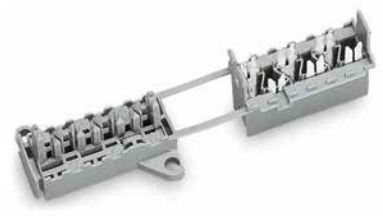
13

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Tools Page 838
Additional information, see “Technical Section”
Approvals and corresponding ratings, visit www.wago.com

Female Connector ▸ 730 Series
Pole No.: 6 ▸ IDC ▸ Color: gray

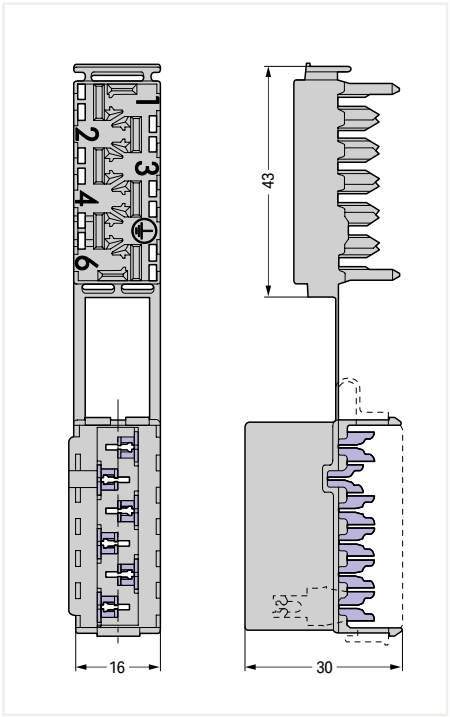
	Mounting type: Mounting flange

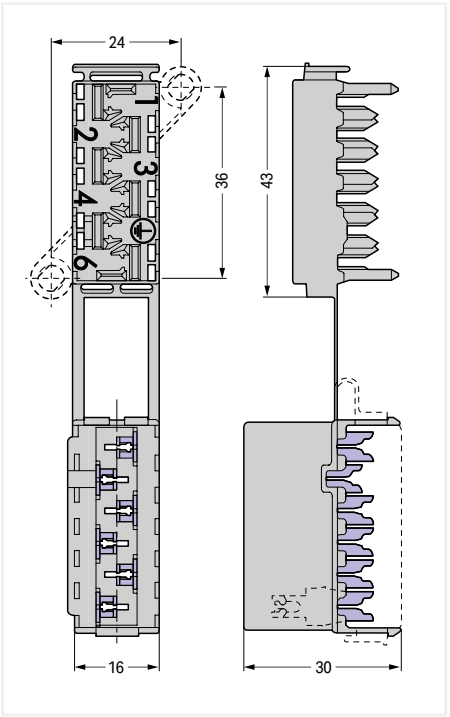




Color	Pole No.	Item No.	PU
gray	6	730-106	50

Color	Pole No.	Item No.	PU
gray	6	730-126	50

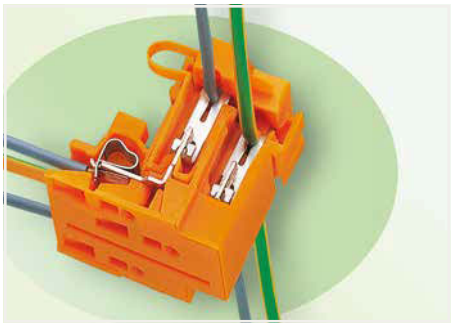




PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Male Connector ▶ 730 Series

Pole No.: 6 ▶ CAGE CLAMP® ▶ Actuation type: Operating tool ▶ 2.5 mm² ▶ Color: gray



- Plugs with CAGE CLAMP® for the universal connection of all conductor types

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	500 V	630 V	1000 V	
Rated impulse voltage	6 kV	6 kV	6 kV	
Rated current	10 A	10 A	10 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	
Approvals per	CSA			
Use Group	B	C	D	
Rated voltage	-	600 V	-	
Rated current	-	10 A	-	

Connection Data	
Connection technology	CAGE CLAMP®
Strip length	8 … 9 mm / 0.31 … 0.35 inch
Solid conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 28 … 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 … 2.5 mm²

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +85 °C

13

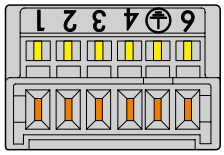
Testing and measuring	Page 854
Tools	Page 838
Additional information, see “Technical Section”	
Approvals and corresponding ratings, visit www.wago.com	

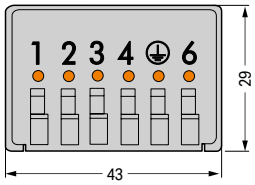
Male Connector ▸ 730 Series

Pole No.: 6 ▸ CAGE CLAMP® ▸ Actuation type: Operating tool ▸ 2.5 mm² ▸ Color: gray



Color	Pole No.	Item No.	PU
gray	6	730-116	50





PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

4-Conductor Modular PCB Connector ▸ 243 Series
for KNX/EIB Bus Coupler Units ▸ PUSH WIRE®



- Compact, 4-conductor KNX/EIB connectors with PUSH WIRE® connection
- Push-in termination of solid conductors
- Four-conductor entries allow devices to be replaced without disrupting the KNX/EIB bus connection

Electrical Data				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	100 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	6 A	6 A	6 A	

Connection Data	
Connection technology	PUSH WIRE®
Strip length	5 … 6 mm / 0.2 … 0.24 inch
Conductor diameter	0.6 … 0.8 mm
Conductor diameter information	When using different conductor diameters
Conductor diameter 2	1 mm / 18 AWG
Conductor diameter information 2	When using identical conductor diameters

Material Data	
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	Tin-plated

Environmental Requirements	
Limit temperature range	-60 … +105 °C

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Marking Page 833

Additional information, see “Technical Section”

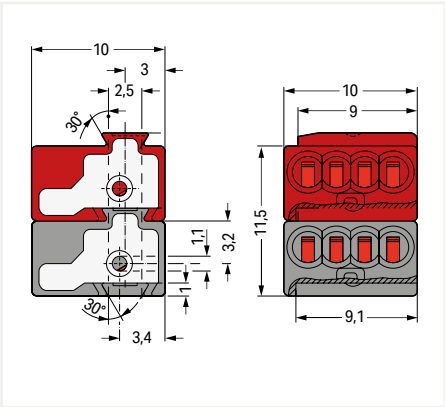
Approvals and corresponding ratings, visit www.wago.com

4-Conductor Modular PCB Connector ▶ 243 Series
for KNX/EIB Bus Coupler Units ▶ PUSH WIRE®





Color	Item No.	PU (SPU)
◯ light gray/yellow	243-212	500 (50)
◯ dark gray/red	243-211	500 (50)



The KNX bus system is the intelligent solution to simplify existing building installation control. Instead of many different conventional wiring styles, the KNX bus system offers a flexible general solution for every application in the field of switching, controlling, measuring, monitoring and signaling. The decentralized KNX system consists of active and intelligent modules. The system can be customized using the different KNX components. For example, pairs of sensors/actuators control: – lighting – window blinds – heating/ventilation – energy management systems – information display/transmission Command Data is transmitted via twisted-pair bus cable, which is connected to the sensors and actuators by WAGO PUSH WIRE® connectors. The sensors transmit the commands as „telegrams" to the actuators via the bus. Once the information is gathered, the commands are performed by the actuators. An address is assigned to each „telegram" so that only a defined transmitter is allowed to activate a specified receiver. The address assignment is done using a programming tool. The bus system is divided into „lines" (segments). The bus lines can be laid out either in a line, star or tree topology. WAGO's PUSH WIRE® connectors connect the different branches to one another in the junction boxes. New components can be easily added to the existing bus, permitting future expansion of the installation. When future reallocation of rooms, floors or buildings is required, the installation remains unchanged, so that only the sensors must be reassigned to the actuators.

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm



WAGO Empty Housings

WAGO Empty Housings



	Series	Page
Modular Empty Housings ▸ Housing Width: 12.5 mm and 22.5 mm ▸ for DIN-Rail	2857	820



Stripboards ▸ for Modular Empty Housings	2857	822



Mount PCB Carriers ▸ for DIN-Rail	288	824
Mounting Feet ▸ for DIN-Rail	209	826



Accessories and Tools		829

14

Modular Empty Housings ▶ for DIN-35 rail
2857 Series



- *picoMAX*® female connectors; with coding keys; 4-pole
- Pre-assembled unit
- Flexible conductor termination
- Customizable connection levels
- Various marking options available
- Sealable, transparent cover
- Commoning via 859-402 Jumpers

Electrical Data (*pico*MAX® 5.0 Female Connector)				
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Rated voltage	250 V	320 V	630 V	
Rated impulse voltage	4 kV	4 kV	4 kV	
Rated current	16 A	16 A	16 A	
Approvals per	UL 1059			
Use Group	B	C	D	
Rated voltage	300 V	-	300 V	
Rated current	15 A	-	10 A	

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Strip length	9 … 10 mm / 0.35 … 0.39 inch
Conductor entry direction to PCB	45 °
Solid conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor	0.2 … 2.5 mm² / 24 … 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.2 … 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.2 … 2.5 mm²

Material data (*pico*MAX® 5.0 Female Connector)	
Material group	I
Insulation material	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Limit temperature range	–60 … +100 °C
Contact material	Electrolytic copper (E_{CU})
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact plating	Tin-plated

Material Data (Empty Housing)	
Housing material	PC
Flammability class	V0
Ambient operating temperature	–40 … +70 °C
Storage temperature	–40 … +85 °C

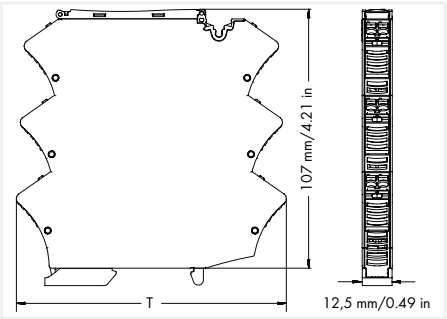
14

Additional information, see “Technical Section”

Approvals and corresponding ratings, visit www.wago.com

Modular Empty Housings ▶ for DIN-35 rail
2857 Series



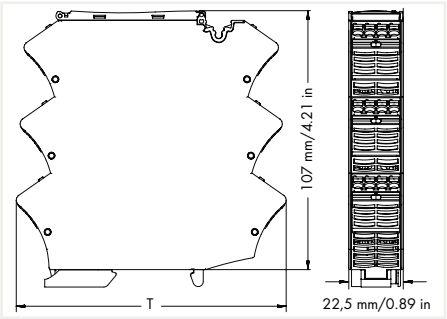


12.5 mm wide housing		
Description	Item No.	PU
2-2 connection levels; 2-2 jumper slots	**2857-101**	10
3-2 connection levels; 0-2 jumper slots	**2857-102**	10
3-3 connection levels; 0-0 jumper slots	**2857-103**	10

Technical Data: Empty Housing	
Dimensions (mm) W x H x D	12.5 x 107 x 108 (2857-101) 12.5 x 107 x 110 (2857-102) 12.5 x 107 x 112 (2857-103) Height from upper-edge of DIN-35 rail
Power loss	2 W

Accessories		
Description	Item No.	PU
Coding pin carrier	**2092-1610**	1
Jumpers	**859-402**	1





22.5 mm wide housing		
Description	Item No.	PU
2-2 connection levels; 2-2 jumper slots	**2857-121**	5
3-2 connection levels; 0-2 jumper slots	**2857-122**	5
3-3 connection levels; 0-0 jumper slots	**2857-123**	5
1-1 connection levels; 2-2 jumper slots	**2857-124**	5

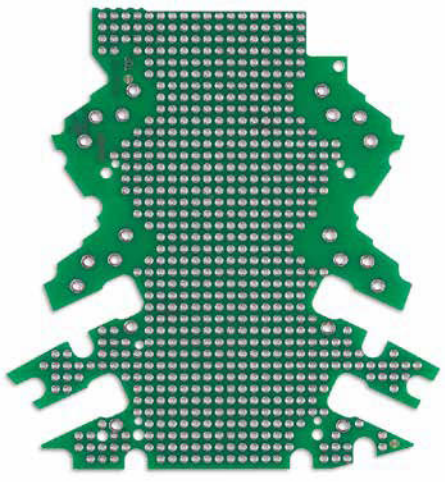
Technical Data: Empty Housing	
Dimensions (mm) W x H x D	22.5 x 107 x 108 (2857-121) 22.5 x 107 x 110 (2857-122) 22.5 x 107 x 112 (2857-123) 22.5 x 107 x 105 (2857-124) Height from upper-edge of DIN-35 rail
Power loss	3 W

Accessories		
Description	Item No.	PU
Coding pin carrier	**2092-1610**	1
Jumpers	**859-402**	1

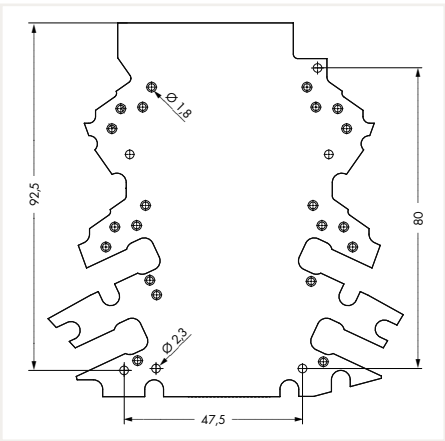
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Stripboards ▶ for Installation in Empty Housings ▶ for DIN-35 rail 2857 Series

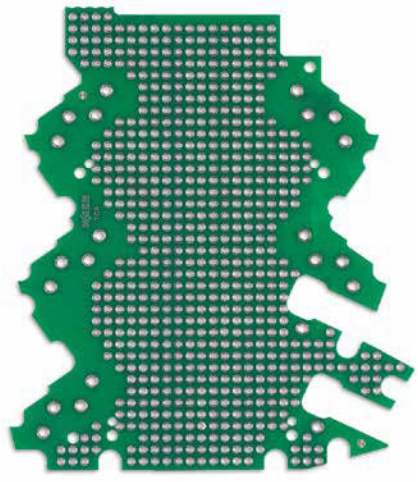
Connection levels: 2-2; Jumper slots: 2-2



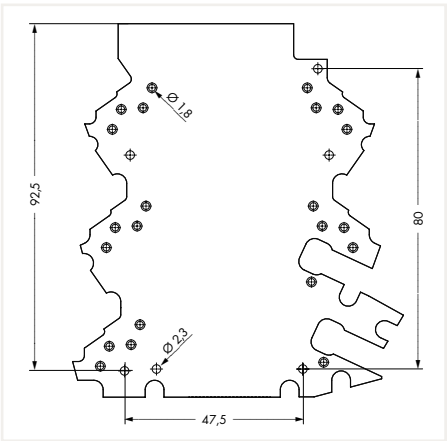
	Item No.	PU
	2857-191/3140-000	5



Connection levels: 3-2; Jumper slots: 0-2



	Item No.	PU
	2857-192/3140-000	5

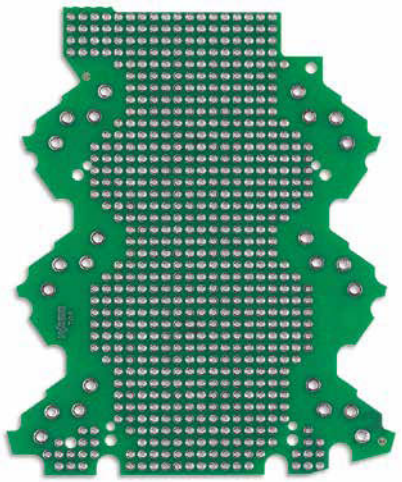


14

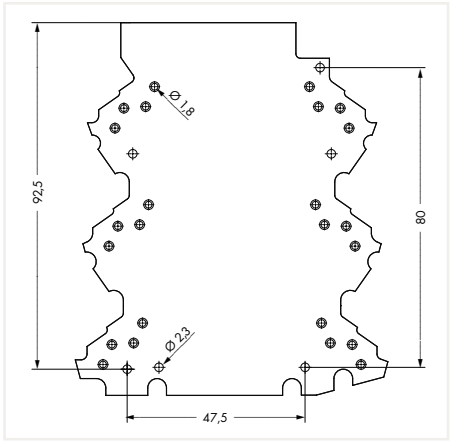
PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

Stripboards ▶ for Installation in Empty Housings ▶ for DIN-35 rail
2857 Series

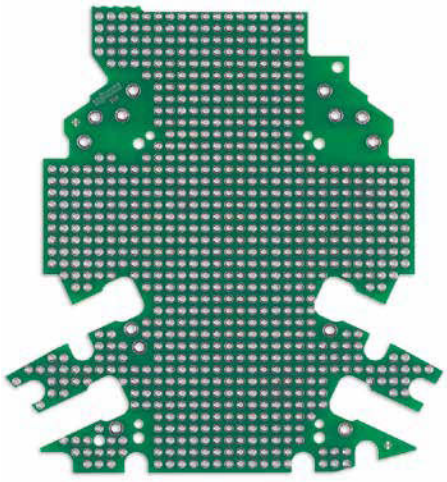
Connection levels: 3-3; Jumper slots: 0-0



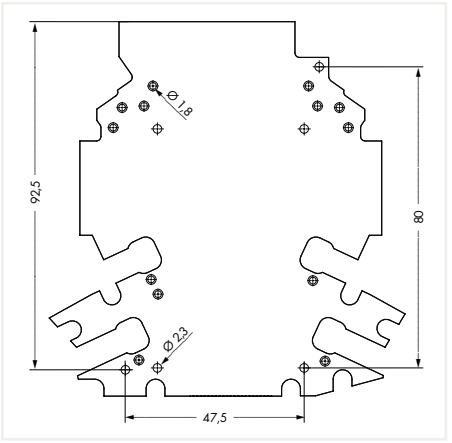
	Item No.	PU
	2857-193/3140-000	5



Connection levels: 1-1; Jumper slots: 2-2



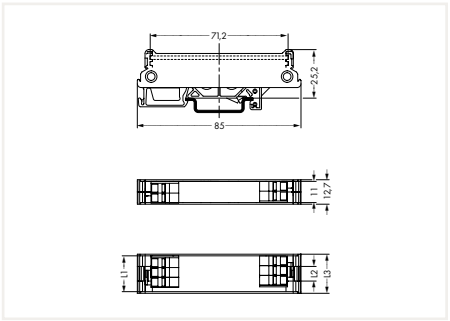
	Item No.	PU
	2857-194/3140-000	5

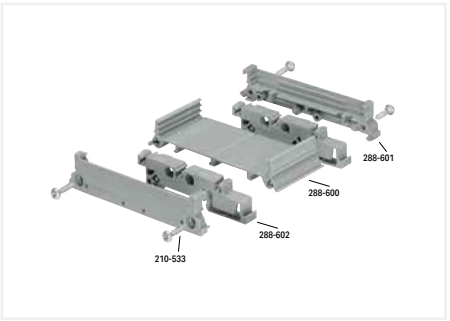


PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

DIN-Rail Mount PCB Carriers
288 Series







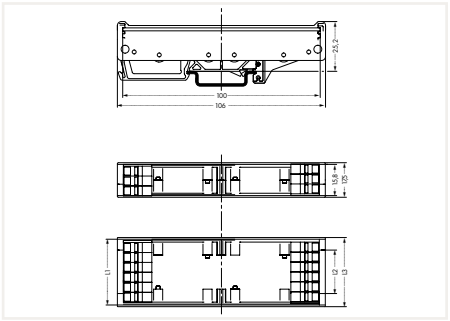
Mounting carrier (size 1)

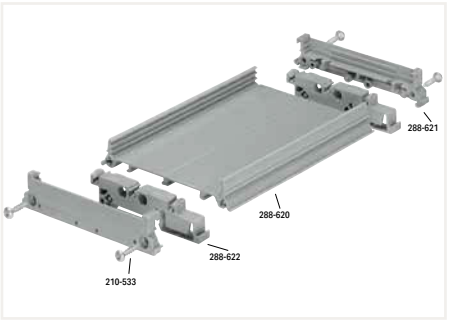
Length calculation for a complete mounting carrier:

PCB length: L1
Base length: L2 = L1 − 11 mm
Mounting carrier length: L3 = L1 + 2 mm
Lateral cover (size 1): 6.35 mm thick
Free space between base and PCB (when using upper PCB groove): 5 mm
PCB tolerances: 1.5 mm ± 0.2 mm (thickness), ± 0.2 mm (length/width); −0.1/+0.3 for milling contours

Mounting carrier; size 1		
Description	Item No.	PU
Lateral cover; size 1; small; 6.35 mm thick	288-601	1
Mounting foot for DIN-35 rail	288-602	1
Carrier base; size 1; 1 m long	288-600	1







Mounting carrier (size 2)

Length calculation for a complete mounting carrier:

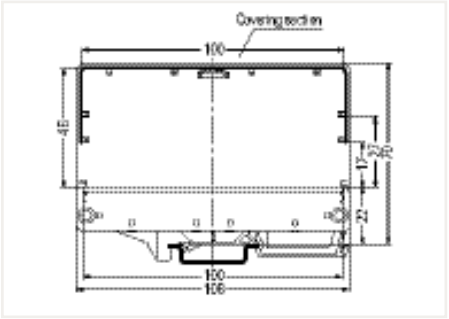
PCB length: L1
Base length: L2 = L1 − 15.8 mm
Mounting carrier length: L3 = L1 + 2 mm
Cover length: L4 = L1
Lateral cover (size 2): 8.75 mm thick
Free space between base and PCB (when using upper PCB groove): 5 mm
PCB tolerances: 1.5 mm ± 0.2 mm (thickness); ± 0.2 mm (length/width); −0.1/+0.3 for milling contours

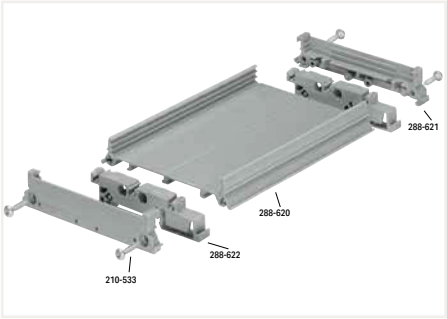
Mounting carrier; size 2		
Description	Item No.	PU
Lateral cover; size 2; small; 8.75 mm thick	288-621	1
Mounting foot for DIN-35 rail	288-622	1
Carrier base; size 2; 1 m long	288-620	1

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

DIN-Rail Mount PCB Carriers
288 Series







Mounting carrier (size 2)

Length calculation for a complete mounting carrier:

PCB length: L1
Base length: L2 = L1 − 15.8 mm
Mounting carrier length: L3 = L1 + 2 mm
Cover length: L4 = L1
Lateral cover (size 2): 8.75 mm thick
Free space between base and PCB (when using upper PCB groove): 5 mm
PCB tolerances: 1.5 mm ± 0.2 mm (thickness); ± 0.2 mm (length/width); −0.1/+0.3 for milling contours

Mounting carrier; size 2; with cover		
Description	Item No.	PU
Lateral cover; size 2; large; 8.75 mm thick	**288-626**	1
Cover; size 2; 1 m long	**288-627**	1

Accessories; for all products on this page

Marking strips



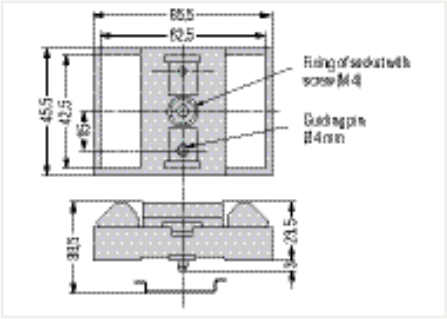
Description	Item No.	PU
Phillips screw 2.9 x 13*	**210-533**	25
Marking strip 7.5 x 0.5 mm; 1 m long; translucent	**709-196**	1

* Two pieces per lateral cover; for a module length of 35 mm or higher; lateral covers must be riveted for smaller modules. Rivet length depends on module length (rivets are not offered by WAGO).

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm

DIN-Rail-Mount PCB Carriers and Feet
Series 288





Mounting carrier			
Description		Item No.	PU
Mounting carrier	For screw mounting or DIN-rail mounting via universal snap-on type mounting feet (to be ordered separately)	**288-001**	1
Universal mounting foot	Snap-on type; for DIN-15, DIN-32 and DIN-35 rails	**288-002**	10
Mounting carrier for PCBs	Suitable for a "Eurocard" PCB (100 x 160 mm)	**288-003**	1

PU = Packaging Unit; SPU = Subpackaging Unit; Dimensions in mm



WAGO Accessories and WAGO Tools

WAGO Accessories and WAGO Tools



Marking Systems 830



DIN-Rails 836



Operating Tools 838



Cable Strippers 842



Stripping Tools 844



Crimping Tools for Ferrules 846



Ferrules 847



Cable Cutter 850



„Alu-Plus" Contact Paste 851



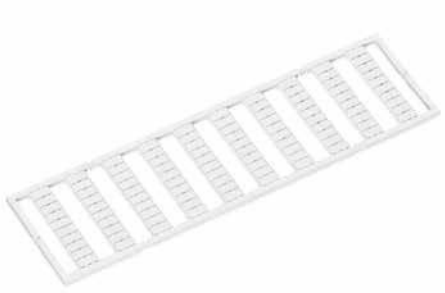
Test and Measurement Devices 852



Test Plugs 854

15

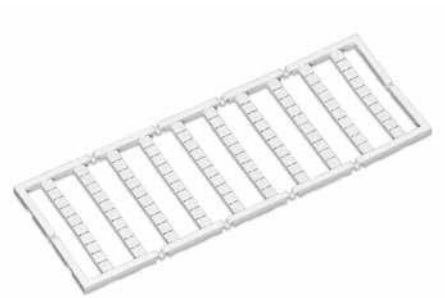
Marking System



WMB marker card; plain; 10 strips with 10 markers/card			
Color	5 mm Item No.	5 … 5.2 mm Item No.	Pack. Unit
white	793-501	793-5501	5
yellow	793-501/000-002	793-5501/000-002	5
red	793-501/000-005	793-5501/000-005	5
blue	793-501/000-006	793-5501/000-006	5
gray	793-501/000-007	793-5501/000-007	5
orange	793-501/000-012	793-5501/000-012	5
light green	793-501/000-017	793-5501/000-017	5
green	793-501/000-023	793-5501/000-023	5
violet	793-501/000-024	793-5501/000-024	5



WMB Inline; plain; 1,500 WMB markers (5 mm)/reel; stretchable 5 … 5.2 mm		
Color	3.5 mm Item No.	Pack. Unit
white	2009-115	1



Mini-WSB marker card; plain; 10 strips with 10 markers/card		
Color	3.5 mm Item No.	Pack. Unit
white	248-501	5
yellow	248-501/000-002	5
red	248-501/000-005	5
blue	248-501/000-006	5
gray	248-501/000-007	5
orange	248-501/000-012	5
light green	248-501/000-017	5
green	248-501/000-023	5
violet	248-501/000-024	5

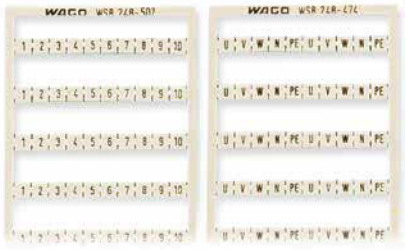


Mini-WSB Inline; plain; 1,700 markers (5 mm)/reel; stretchable 5 … 5.2 mm		
Color	3.5 mm Item No.	Pack. Unit
white	2009-145	1



Felt-tip pen; for permanent marking		
	Item No.	Pack. Unit
	210-110	1

Printed Marker Card

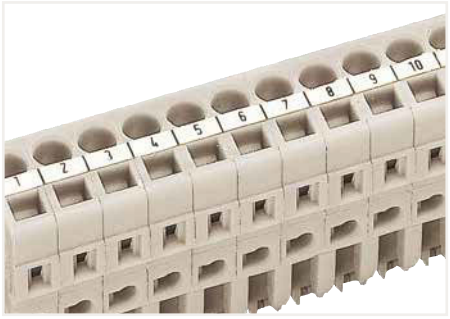


Mini-WSB marker card; e.g., for 745 and 831 Series; 10 strips with 10 markers per card; Horizontal marking; Consecutive numbers/letters per strip		
Marking per card	Item No.	Pack. Unit
1 … 10 (10x)	248-502	5 cards
11 … 20 (10x)	248-503	5 cards
21 … 30 (10x)	248-504	5 cards
31 … 40 (10x)	248-505	5 cards
41 … 50 (10x)	248-506	5 cards
51 … 60 (10x)	248-569	5 cards
61 … 70 (10x)	248-570	5 cards
71 … 80 (10x)	248-571	5 cards
81 … 90 (10x)	248-572	5 cards
91 … 100 (10x)	248-573	5 cards
1 … 50 (2x)	248-566	5 cards
51 … 100 (2x)	248-507	5 cards
101 … 150 (2x)	248-508	5 cards
151 … 200 (2x)	248-509	5 cards
201 … 300 (2x)	248-510	5 cards
301 … 400 (2x)	248-511	5 cards
401 … 500 (2x)	248-512	5 cards
501 … 600 (2x)	248-513	5 cards
601 … 700 (2x)	248-514	5 cards
701 … 800 (2x)	248-515	5 cards
801 … 900 (2x)	248-516	5 cards
901 … 1000 (2x)	248-517	5 cards
1 … 9, ; (10x)	248-565	5 cards
U, V, W, N, PE, U, V, W, N, PE; (10x)	248-474	5 cards
L1, L2, L3, N, PE, L1, L2, L3, N, PE; (10x)	248-472	5 cards

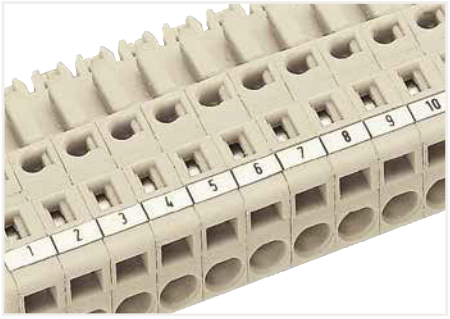


WMB marker card; e.g., for 745 Series (4 mm² / 10 mm pin spacing) and 831 Series; 10 strips with 10 markers per card; Horizontal marking; Consecutive numbers per strip		
Marking per card	Item No.	Pack. Unit
1 … 10 (10x)	793-502	5 cards
11 … 20 (10x)	793-503	5 cards
21 … 30 (10x)	793-504	5 cards
31 … 40 (10x)	793-505	5 cards
41 … 50 (10x)	793-506	5 cards
51 … 60 (10x)	793-569	5 cards
61 … 70 (10x)	793-570	5 cards
71 … 80 (10x)	793-571	5 cards
81 … 90 (10x)	793-572	5 cards
91 … 100 (10x)	793-573	5 cards
1 … 50 (2x)	793-566	5 cards
51 … 100 (2x)	793-507	5 cards
101 … 150 (2x)	793-508	5 cards
151 … 200 (2x)	793-509	5 cards
201 … 300 (2x)	793-510	5 cards
301 … 400 (2x)	793-511	5 cards
401 … 500 (2x)	793-512	5 cards
501 … 600 (2x)	793-513	5 cards
601 … 700 (2x)	793-514	5 cards
701 … 800 (2x)	793-515	5 cards
801 … 900 (2x)	793-516	5 cards
901 … 1000 (2x)	793-517	5 cards
1 … 9, ; (10x)	793-565	5 cards
L1, L2, L3, N, PE, L1, L2, L3, N, PE; (10x)	793-472	5 cards

Marking Card; Self-Adhesive Marking Strips



Marking *MCS* Connectors – parallel to conductor entry.



Marking *MCS* Connectors – perpendicular to conductor entry.



Marking PCB terminal blocks (256 Series).

Marking card for 2.5 mm pin spacing; for 218, 233, 234, 250 Series and *MCS* MICRO male and female connectors; Marking perpendicular to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (400 x)	2.3 mm	210-331/250-202	1 card/100 strips
17 … 32 (400 x)	2.3 mm	210-331/250-204	1 card/100 strips
33 … 48 (400 x)	2.3 mm	210-331/250-206	1 card/100 strips
1 … 48 (400 x)	2.3 mm	210-331/250-207	1 card/100 strips

Marking card for 2.54 mm pin spacing; for 218, 233, 234, 250 Series			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (400 x)	2.3 mm	210-331/254-202	1 card/100 strips
17 … 32 (400 x)	2.3 mm	210-331/254-204	1 card/100 strips
33 … 48 (400 x)	2.3 mm	210-331/254-206	1 card/100 strips
1 … 48 (100 x)	2.3 mm	210-331/254-207	1 card/100 strips

Marking card for 3.5 mm pin spacing; for 250, 252, 739, 805 Series and *MCS* MINI male and female connectors; Marking perpendicular to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (240 x)	3 mm	210-332/350-202	1 card/80 strips
17 … 32 (240 x)	3 mm	210-332/350-204	1 card/80 strips
33 … 48 (240 x)	3 mm	210-332/350-206	1 card/80 strips

Marking card for 3.81 mm pin spacing; for 235, 734, 735, 739 Series			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (160 x)	3 mm	210-332/381-202	1 card/80 strips
17 … 32 (160 x)	3 mm	210-332/381-204	1 card/80 strips
33 … 48 (160 x)	3 mm	210-332/381-206	1 card/80 strips
1 … 32 (80 x)	3 mm	210-332/381-205	1 card/80 strips

Marking card for 3.96 mm pin spacing; for 235 Series			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (160 x)	3 mm	210-332/396-202	1 card/80 strips
17 … 32 (160 x)	3 mm	210-332/396-204	1 card/80 strips
33 … 48 (160 x)	3 mm	210-332/396-206	1 card/80 strips
1 … 32 (80 x)	3 mm	210-332/396-205	1 card/80 strips

Marking card for 4 mm pin spacing; for 235 Series			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (160 x)	3 mm	210-332/400-202	1 card/80 strips
17 … 32 (160 x)	3 mm	210-332/400-204	1 card/80 strips
33 … 48 (160 x)	3 mm	210-332/400-206	1 card/80 strips
1 … 32 (80 x)	3 mm	210-332/400-205	1 card/80 strips

Marking Card; Self-Adhesive Marking Strips

Marking card for 5 mm pin spacing; for 235, 236, 250, 253, 254, 255, 256, 257, 736, 737, 738, 739, 740, 741, 745, 806, 816 Series and *MCS* MIDI male and female connectors; Marking perpendicular to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 16 (160 x)	3 mm	210-332/500-202	1 card/80 strips
17 ... 32 (160 x)	3 mm	210-332/500-204	1 card/80 strips
33 ... 48 (160 x)	3 mm	210-332/500-206	1 card/80 strips
1 ... 32 (80 x)	3 mm	210-332/500-205	1 card/80 strips

Marking card for 5 mm pin spacing; for 804 Series and *MCS* MIDI male and female connectors with CAGE CLAMP® connection; Marking parallel to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 12 (300 x)	2.3 mm	210-331/500-103	1 card/100 strips
13 ... 24 (300 x)	2.3 mm	210-331/500-104	1 card/100 strips

Marking card for 5.08 mm pin spacing; for 235, 236, 254, 255, 256, 257, 736, 737, 738, 739, 741 Series and *MCS* MIDI male and female connectors; Marking perpendicular to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 16 (160 x)	3 mm	210-332/508-202	1 card/80 strips
17 ... 32 (160 x)	3 mm	210-332/508-204	1 card/80 strips
33 ... 48 (160 x)	3 mm	210-332/508-206	1 card/80 strips
1 ... 32 (80 x)	3 mm	210-332/508-205	1 card/80 strips

Marking card for 5.08 mm pin spacing; for *MCS* MIDI male and female connectors with CAGE CLAMP® connection; Marking parallel to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 12 (200 x)	2.3 mm	210-331/508-103	1 card/100 strips
13 ... 24 (200 x)	2.3 mm	210-331/508-104	1 card/100 strips

Marking card for 5.75 mm pin spacing; for 243 Series			
Marking	Strip height	Item No.	Pack. Unit
1 ... 12 (160 x)	3 mm	210-332/575-103	1 card/80 strips

Marking card for 7 mm pin spacing; for 826 Series			
Marking	Strip height	Item No.	Pack. Unit
1 ... 12 (160 x)	3 mm	210-332/700-103	1 card/80 strips
12 ... 1 (160 x)	3 mm	210-332/700-102	1 card/80 strips

Marking card for 7.5 mm pin spacing; for 235, 236, 239, 250, 254, 255, 256, 257, 736, 737, 739, 741, 746, 745 Series and *MCS* MIDI male and female connectors; Marking perpendicular to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 20 (80 x)	3 mm	210-332/750-020	1 card/80 strips

Marking card for 7.5 mm pin spacing; for 804 Series and *MCS* MIDI male and female connectors with CAGE CLAMP® connection; Marking parallel to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 16 (100 x)	2.3 mm	210-331/750-202	1 card/100 strips

Marking card for 7.62 mm pin spacing; for 235, 236, 254, 255, 256, 257, 736, 737, 739, 741 Series and *MCS* MIDI male and female connectors; Marking perpendicular to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 20 (80 x)	3 mm	210-332/762-020	1 card/80 strips

Marking card for 7.62 mm pin spacing; for *MCS* MIDI male and female connectors with CAGE CLAMP® connection; Marking parallel to conductor entry			
Marking	Strip height	Item No.	Pack. Unit
1 ... 16 (100 x)	2.3 mm	210-331/762-202	1 card/100 strips

Marking Card; Self-Adhesive Marking Strips

Marking card for 7.62 mm pin spacing; for *MCS* MAXI male and female connectors			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (100 x)	5 mm	210-334/762-202	1 card/48 strips

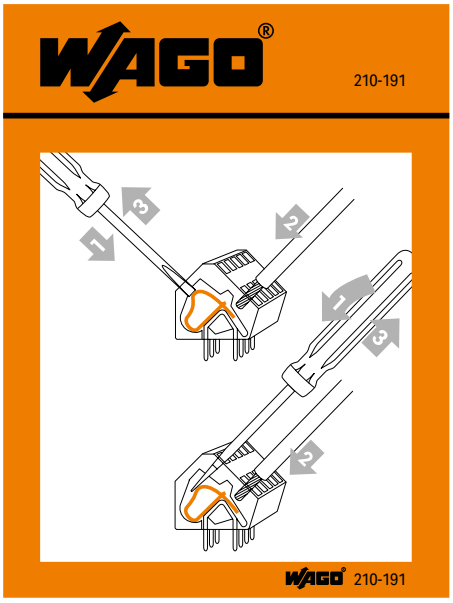
Marking card for 10 mm pin spacing; for 235, 236, 254, 255, 256, 257, 736, 737, 741, 745 Series			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (80 x)	3 mm	210-332/1000-202	1 card/80 strips
17 … 32 (80 x)	3 mm	210-332/1000-204	1 card/80 strips
33 … 48 (80 x)	3 mm	210-332/1000-206	1 card/80 strips

Marking card for 10.16 mm pin spacing; for 235, 236, 254, 255, 256, 257, 736, 737, 741 Series			
Marking	Strip height	Item No.	Pack. Unit
1 … 16 (80 x)	3 mm	210-332/1016-202	1 card/80 strips
17 … 32 (80 x)	3 mm	210-332/1016-204	1 card/80 strips
33 … 48 (80 x)	3 mm	210-332/1016-206	1 card/80 strips

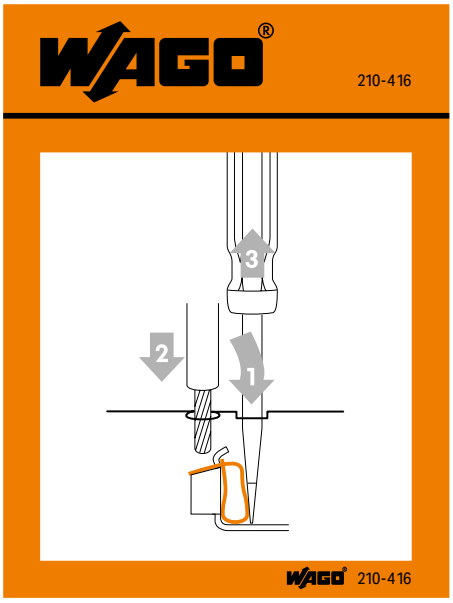
Marking card available for all pin spacings:			
Marking	Strip height	Item No.	Pack. Unit
plain*	2.3 mm	210-331	1 card/100 strips
plain*	3 mm	210-332	1 card/80 strips
plain*	5 mm	210-334	1 card/48 strips
Only separators printed	2.3 mm	210-331/xxxx-001	1 card/100 strips
Only separators printed	3 mm	210-332/xxxx-001	1 card/80 strips
Only separators printed	5 mm	210-334/xxxx-001	1 card/48 strips
Ordering example: 5.08 mm pin spacing; 3 mm strip height: 210-332/508-001		(xxxx = pin spacing)	

* Plain marker cards can be printed via WAGO Smart Script.
WAGO Smart Script is part of the WAGO ProServe® Software. You can download this free software at www.wago.com.

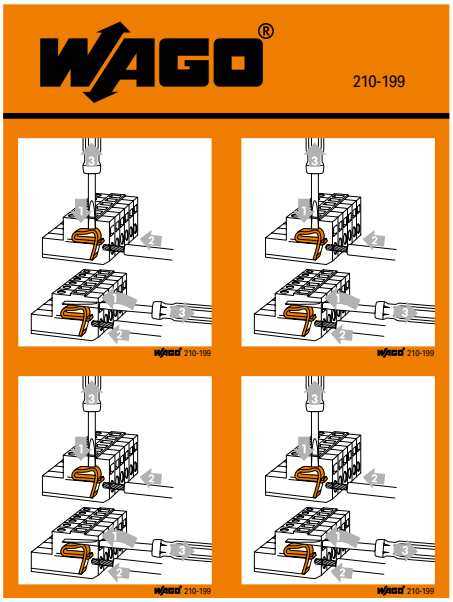
Sticker with Operating Instructions



Sticker with operating instructions; for PCB terminal blocks with CAGE CLAMP® connection; Size: (60 x 63) mm		
Series	Item No.	Pack. Unit
236	**210-191**	100
736, 737 and 738	**210-406**	100



Sticker with operating instructions; for CAGE CLAMP® connection; Size: (60 x 63) mm		
Series	Item No.	Pack. Unit
universal	**210-416**	100

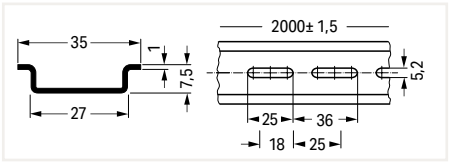


Sticker with operating instructions; for *MCS* Connectors with CAGE CLAMP® connection; Size: (30 x 30) mm x 4 mm		
Series	Item No.	Pack. Unit
universal	**210-199**	100
713	**210-493**	100

DIN-Rail



Dimensions in mm



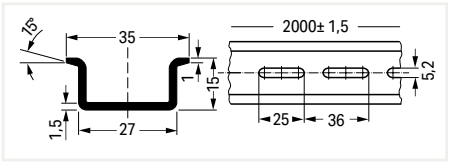
Steel DIN-rail; I_N 76 A (based on 1 m length); 35 x 7.5 mm; 1 mm thick; 2 m long; per EN 60715		
	Item No.	Pack. Unit
unslotted	**210-113**	10 (1)

Hole width: 25 mm; Hole spacing: 36 mm		
slotted	**210-112**	10 (1)

Hole width: 18 mm; Hole spacing: 25 mm		
slotted	**210-115**	1



Dimensions in mm



Steel DIN-rail; I_N 125 A (based on 1 m length); 35 x 15 mm; 1.5 mm thick; 2 m long; similar to EN 60715		
	Item No.	Pack. Unit
unslotted	**210-114**	10 (1)
slotted	**210-197**	10 (1)

For the entire range of WAGO DIN-rail types, refer to Full Line Catalog, Volume 1, Rail-Mount Terminal Block Systems, or visit www.wago.com.

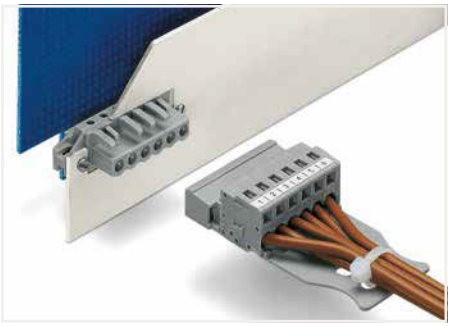
Screw



Self-tapping screw; for 1.8 mm Ø mounting hole		
Dimensions	Item No.	Pack. Unit
B 2.2 x 9.5 mm	**209-147**	200 (100)
B 2.2 x 13 mm	**231-194**	200 (100)



Screw with nut; e.g., for locking device or mounting flange		
Dimensions	Item No.	Pack. Unit
M 2 x 12 mm	**231-195**	200 (100)
M 2.5 x 10 mm	**231-295**	200 (100)



The innovative flange design provides standard panel mounting options or various through-panel mounting configurations. Depending on the type of application and flange, female headers can be used either for through-panel or flush mounted applications.



Locking devices enhance connection reliability between male headers with angled solder pins and the PCB. This substantially reduces mechanical stress on both solder pins and joints, particularly when dealing with small lengths and frequent mating cycles.

Operating Tool



Operating tool with a partially insulated shaft; Type 1; (2.5 x 0.4) mm blade

	Item No.	Pack. Unit
	210-719	50 (1)

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade

	210-720	50 (1)

Operating tool with a partially insulated shaft; type 3; (5.5 x 0.8) mm blade

	210-721	25 (1)

	210-722	1



Set of operating tools with a partially insulated shaft; Type 1; (2.5 x 0.4) mm blade; Type 2; (3.5 x 0.5) mm blade; Type 3; (5.5 x 0.8) mm blade

	Item No.	Pack. Unit
	210-722	1



Operating tool with a partially insulated shaft; Type 1; (2.5 x 0.4) mm blade; short

	Item No.	Pack. Unit
	210-647	50 (1)

Operating tool with a partially insulated shaft; (2.5 x 0.4) mm blade; short; angled

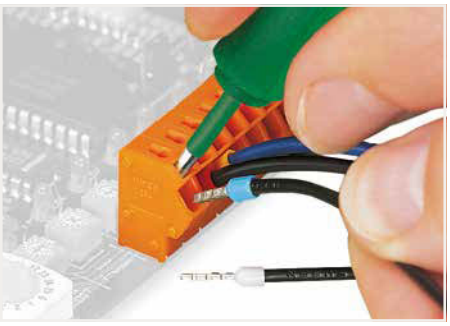
	210-648	50 (1)

Operating tool with a partially insulated shaft; (3.5 x 0.5) mm blade; short

	210-657	50 (1)

Operating tool with a partially insulated shaft; (3.5 x 0.5) mm blade; short; angled

	210-658	50 (1)



Thanks to their blade dimensions, the offered operating tools are ideal for operating both PCB terminal blocks and *MCS* Connectors.



Set of operating tools in a box (210-722)



The offered operating tools with blade dimensions per DIN 5264 are ideal for operating PCB terminal blocks.

Operating Tool



Operating tool; for 233 and 733 Series		
	Item No.	Pack. Unit
metal; partially insulated; green	**233-335**	50 (1)
insulated; natural	**233-332**	500 (50)
insulated; yellow	**233-331**	500 (25)



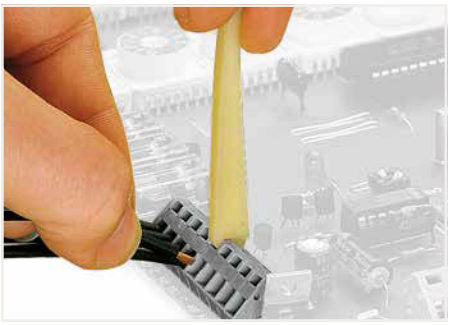
Operating tool; for 236 Series		
	Item No.	Pack. Unit
insulated	**236-332**	400 (50)
metal	**236-335**	500 (1)



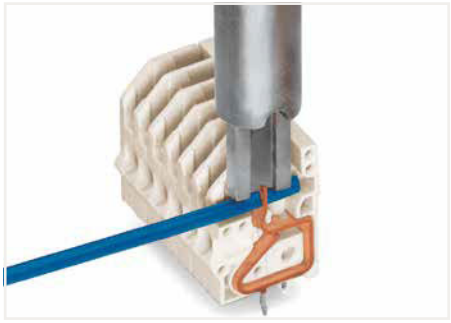
Connection tool; for IDC termination; for 251 Series		
	Item No.	Pack. Unit
	206-831	25 (1)



Compared to standard screwdrivers, these operating tools are far more convenient for wiring PCB terminal strips at factory.



Inserting a conductor via operating tool.



Operating Tool; Disconnection Tool



Disconnection tool; with two replacement blades in the handle; removes conductors from 251 Series PUSH WIRE® Connectors; "mini" version

	Item No.	Pack. Unit
	206-830	1



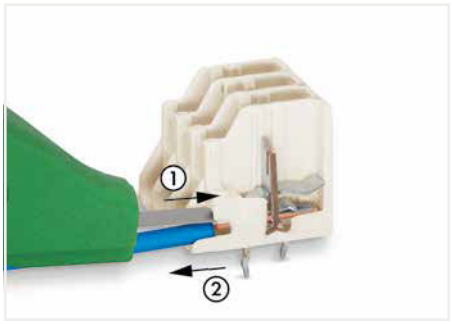
Disconnection tool; for 744 Series

	Item No.	Pack. Unit
	206-841	1



Operating tool, for male and female connectors equipped with CAGE CLAMP® connection, 5/5.08 mm and 7.5/7.62 mm pin spacings

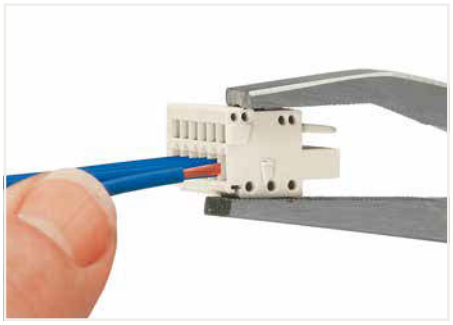
Color	Item No.	Pack. Unit
yellow	210-251	20
red	210-250	20



Disconnection tool includes two replacement blades in the handle.



When operating the handles beyond the locked position, the ratchet allows the tool to open and be removed from the terminal block.
The operating pliers are placed into the upper operating slot of the rail-mount terminal block and the clamp is hooked into the lateral operating slot. The contact is fully opened by pressing the handles together until they engage. This will allow both hands to be used for wiring the terminal blocks.





Disconnection tool includes two replacement blades in the handle.

Cable Knife





Never use this tool on or near live electrical circuits!



Cable knife; for Ø 8 … 28 mm / 0.31 … 1.10 inch; with a unique, changeable cable bracket system; including cable bracket

	Item No.	Pack. Unit
	206-1403	1

Cable knife set; for Ø 4 … 70 mm / 0.16 … 2.75 inch; including all cable brackets in a Sortimo® Box

	Item No.	Pack. Unit
	206-1400	1

Accessories; item-specific

Cable bracket; for Ø 4 … 16 mm / 0.16 … 0.63 inch

206-1411 1

Cable bracket; for Ø 8 … 28 mm / 0.31 … 1.10 inch

206-1412 1

Cable bracket; for Ø 27 … 35 mm / 1.06 … 1.38 inch

206-1413 1

Cable bracket; for Ø 35 … 50 mm / 1.38 … 1.97 inch

206-1414 1

Cable bracket; for Ø 50 … 70 mm / 1.97 … 2.75 inch

206-1415 1

Accessories

Spare inside blade

206-1418 1

Spare hook blade

206-1419 1

15

Cable Stripper



In-socket cable stripper; for Ø 8 … 13 mm / 5/16 … 1/2 inch

Item No.	Pack. Unit
206-1441	1



Product features:

- Extra long design and improved force transmission simplifies stripping in deep device connection sockets
- Special four-blade design for an even more precise round cut
- No cutting depth adjustment required
- TiN-coated blades, TÜV/GS tested
- Ø 8 … 13 mm / 5/16 … 1/2 inch
- Strips all standard round cables, including NYM 3 x 1.5 mm² … 5 x 2.5 mm²



Universal cable stripper; for Ø 8 … 13 mm / 5/16 … 1/2 inch

Item No.	Pack. Unit
206-1442	1



Product features:

- Secure grip achieved with soft padding for non-slip grips
- Technically improved functionality
- New locking mechanism prevents the unwanted opening of the tool
- Absolutely straightforward, quick and easy longitudinal cuts – with innovative internal cable duct
- Redesigned blade layout and intake to stop cable waste from jamming the tool
- Durable and ergonomically designed pocket clip
- Ø 8 … 13 mm / 5/16 … 1/2 inch









Data cable stripper; for Ø 4.5 … 10 mm / 3/16 … 3/8 inch

Item No.	Pack. Unit
206-1451	1



Product features:

- Strip outer insulation and foil sheathing with one tool
- Ideal for stripping PVC-insulated data cables with thin insulation (e.g., Cat 5, Cat 6, Cat 7, twisted-pair cables)
- TiN-coated blades
- Ø 4.5 … 10 mm / 3/16 … 3/8 inch



Cable Stripper



Never use this tool on or near live electrical circuits!

The stripping pliers for sensor cables have a blade geometry specially designed for sensor cables with a smaller cross section and a working range from Ø 3.2 mm (for stranded cables and round cables with Ø 3.2 mm … 4.4 mm / 0.13 … 0.17 inch).

The stripping pliers for control cables are designed for stronger cables from Ø 4.4 mm (for stranded cables and round cables with Ø 4.4 mm … 7 mm / 0.17 … 0.27 inch).

These stripping pliers quickly and safely strip cables for connecting, e.g., sensor/actuator distribution boxes, bus couplers and pluggable connectors.

Suitable for:

- Halogen-free PUR sensor/actuator cables
- Highly flexible TPE-U cables
- Control cables
- PUR cables
- PUR/PVC cables
- PVC cables
- Multi-core cables
- Shielded and unshielded cables

Stripping pliers; for sensor cables		
	Item No.	Pack. Unit
	206-1481	1

Accessories; item-specific		
Replacement blade set; for Ø 3.2 … 4.4 mm / 0.13 … 0.17 inch		
	206-1491	1

Stripping pliers; for control cables		
	Item No.	Pack. Unit
	206-1482	1

Accessories; item-specific		
Replacement blade set; for Ø 4.4 … 7 mm / 0.17 … 0.27 inch		
	206-1492	1



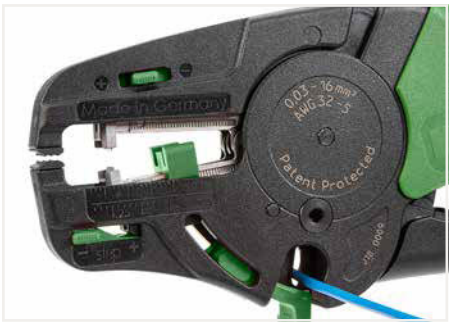


Wire Stripper



Wire stripper “Quickstrip Vario”; 0.03 … 16 mm² / 34 … 6 AWG		
	Item No.	Pack. Unit
	206-1125	1

Accessories		
Blade set; Standard; 0.03 … 16 mm² / 34 … 6 AWG		
	206-1126	1
Blade set; V-blade; 0.14 … 4 mm² / 24 … 12 AWG		
	206-1127	1
Blade set; Oval blade; 10 … 16 mm² / 8 … 6 AWG		
	206-1128	1
Spare stripping stop		
	206-1129	1
Spare cut protector		
	206-1131	1
Spare clamping jaws		
	206-1132	1



Cutting a conductor.



Partially stripping a conductor.

Wire Stripper:

- Automatically adjust to conductor size
- Stripping blades cause no damage to conductor strands
- Gripping pressure of jaws adjusts automatically to conductor insulation diameter
- Clamping jaws and stripping blades automatically open once the stripping process is completed – no splaying of the conductor strands
- Exact strip length may be set by sliding black setting stop
- Stripping blades can be replaced
- Self-sharpening, fully protected cutter (replaceable)
- Entire body made of glass-fiber-reinforced polyamide
- Cutting capacity of the wire cutter of fine-stranded conductors up to 16 mm² (6 AWG)

Crimping Tool



Crimping Tool "Variocrimp 4"; for insulated and uninsulated ferrules; Crimping range: 0.25 … 4 mm² (24 … 12 AWG)		
	Item No.	Pack. Unit
	206-1204	1

Spring clamp; large		
	206-1205	1

Spring clamp; small		
	206-1206	1

PUR spring set		
	206-1207	1



Crimping Tool "Variocrimp 16"; for insulated and uninsulated ferrules; Crimping range: 6 mm² (10 AWG), 10 mm² (8 AWG) and 16 mm² (6 AWG)		
	Item No.	Pack. Unit
	206-1216	1

Spring clamp; small		
	206-1206	1



Insert the ferruled conductor into the crimping station.



Squeeze handles until ratchet mechanism is released.

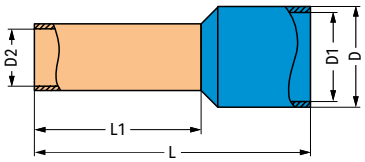


Only for "Variocrimp 16":
Adjust conductor cross section with crimping tool in open position.

15

Insulated and Uninsulated Ferrules

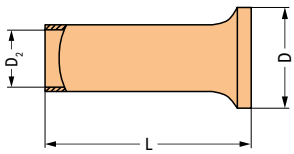




Ferrule; insulated; electro-tin-plated; electrolytic copper; gastight crimped; per DIN 46288 (Part 4/09.09)

Conductor Cross Section	Color	Strip Length	L	L 1	D	D 1	D 2	Item No.	Pack. Unit
0.25 mm² / 24 AWG	yellow	7 mm / 0.28 inch	10	6	2;3	1;8	0;5	216-321	1000
0.25 mm² / 24 AWG	yellow	9 mm / 0.35 inch	12	8	2;3	1;8	0;5	216-301	1000
0.34 mm² / 22 AWG	green	7 mm / 0.28 inch	10	6	2;5	2	0;5	216-322	1000
0.34 mm² / 22 AWG	green	9 mm / 0.35 inch	12	8	2;5	2	0;5	216-302	1000
0.5 mm² / 20 AWG	white	7 mm / 0.28 inch	12	6	3;1	2;6	1	216-221	1000
0.5 mm² / 20 AWG	white	9 mm / 0.35 inch	14	8	3;1	2;6	1	216-201	1000
0.75 mm² / 18 AWG	gray	8 mm / 0.31 inch	12	6	3;3	2;8	1;2	216-222	1000
0.75 mm² / 18 AWG	gray	10 mm / 0.39 inch	14	8	3;3	2;8	1;2	216-202	1000
1 mm² / 18 AWG	red	8 mm / 0.31 inch	12	6	3;5	3	1;4	216-223	1000
1 mm² / 18 AWG	red	10 mm / 0.39 inch	14	8	3;5	3	1;4	216-203	1000
1.5 mm² / 16 AWG	black	8 mm / 0.31 inch	12	6	4	3;5	1;7	216-224	1000
1.5 mm² / 16 AWG	black	10 mm / 0.39 inch	14	8	4	3;5	1;7	216-204	1000
2.08 mm² / 14 AWG	yellow	10 mm / 0.39 inch	15	8	4;8	4;2	2;05	216-205	1000
2.5 mm² / 14 AWG	blue	10 mm / 0.39 inch	15	8	4;7	4;2	2;2	216-206	1000
4 mm² / 12 AWG	gray	12 mm / 0.47 inch	18	10	5;4	4;8	2;8	216-207	500
6 mm² / 10 AWG	yellow	14 mm / 0.55 inch	20	12	6;9	6;3	3;5	216-208	100
10 mm² / 8 AWG	red	16 mm / 0.63 inch	22	12	8;4	7;6	4;6	216-209	100
16 mm² / 6 AWG	blue	23 mm / 0.91 inch	28	18	9;6	8;8	5;8	216-210	100





Ferrule; uninsulated; electro-tin-plated; electrolytic copper; gastight crimped; per DIN 46288 (Part 4/09.09)

Conductor Cross Section	Strip Length	L	D	D 2	Item No.	Pack. Unit
0.25 mm² / 24 AWG	5 mm / 0.2 inch	5	1;7	0;75	216-151	1000
0.25 mm² / 24 AWG	7 mm / 0.28 inch	7	1;7	0;75	216-131	1000
0.34 mm² / 22 AWG	5 mm / 0.2 inch	5	1;8	0;85	216-152	1000
0.34 mm² / 22 AWG	7 mm / 0.28 inch	7	1;8	0;85	216-132	1000
0.5 mm² / 20 AWG	6 mm / 0.24 inch	6	2;1	1	216-121	1000
0.5 mm² / 20 AWG	8 mm / 0.31 inch	8	2;1	1	216-101	1000
0.75 mm² / 18 AWG	6 mm / 0.24 inch	6	2;3	1;2	216-122	1000
0.75 mm² / 18 AWG	8 mm / 0.31 inch	8	2;3	1;2	216-102	1000
1 mm² / 18 AWG	6 mm / 0.24 inch	6	2;5	1;4	216-123	1000
1 mm² / 18 AWG	8 mm / 0.31 inch	8	2;5	1;4	216-103	1000
1.5 mm² / 16 AWG	6 mm / 0.24 inch	6	2;8	1;7	216-124	1000
1.5 mm² / 16 AWG	8 mm / 0.31 inch	8	2;8	1;7	216-104	1000
2.5 mm² / 14 AWG	10 mm / 0.39 inch	10	3;4	2;2	216-106	1000
4 mm² / 12 AWG	10 mm / 0.39 inch	10	4	2;8	216-107	1000
6 mm² / 10 AWG	12 mm / 0.47 inch	12	4;7	3;5	216-108	250
10 mm² / 8 AWG	12 mm / 0.47 inch	12	5;8	4;5	216-109	250
16 mm² / 6 AWG	15 mm / 0.59 inch	15	7;5	5;8	216-110	250

Crimping Tool



Crimping Tool 25; for insulated and uninsulated ferrules; crimping range: 10 mm² (8 AWG), 16 mm² (6 AWG) and 25 mm² (4 AWG)

	Item No.	Pack. Unit
	206-1225	1



Crimping Tool 50; for insulated and uninsulated ferrules; crimping range: 35 mm² (2 AWG) and 50 mm² (1/0 AWG)

	Item No.	Pack. Unit
	206-1250	1

Application notes:

- Improved crimping for higher conductor retention
- Crimping can be performed from either side (for left- or right-handed users).
- Built-in ratchet mechanism ensures gas-tight crimp connection.
- Crimping tools open automatically after crimping operation is complete.
- Ergonomically designed handles.



Insert the ferruled conductor into the crimping station.



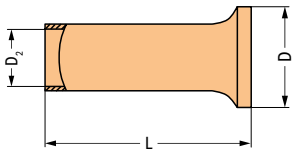
Squeeze handles until ratchet mechanism is released.

What is a "gas-tight" connection?

In a gas-tight connection, the conductor and the ferrule are compressed, eliminating all spaces. Under normal atmospheric conditions, neither a liquid nor gaseous medium can penetrate the crimped connection.
Oxidation between crimped single conductors is prevented, virtually eliminating the possibility of any increase in the crimped connection's resistance. In some exceptional cases, minute, isolated spaces may be present. However, these instances can be considered as closed off due to the twisted conductor.
Inadequate crimping can allow the conductor to be pulled out of the connection. Hollow spaces also remain, permitting oxidation formation and leading to an increase in contact resistance.
Elevated resistance is detrimental for both signal transmission (signal flow is damped) and power transmission, resulting in power loss and contact heating (risk of fire).
Crimping tools with built-in ratchets are recommended (e.g., WAGO Crimping Tools). These tools open automatically after the crimping operation is complete. Space-saving crimping from all four sides is ideal for spring clamp termination.
Ferruled conductor cross sections specified for WAGO products are based on this crimping method.

Uninsulated Ferrule





Ferrule; uninsulated; electro-tin-plated; electrolytic copper; gastight crimped; per DIN 46288 (Part 4/09.09)

Conductor Cross Section	Strip Length	L	D	D 2	Item No.	Pack. Unit
25 mm² / 4 AWG	25 mm / 0.98 inch	25	9;5	7;3	**216-413**	50
35 mm² / 2 AWG	25 mm / 0.98 inch	25	11	8;3	**216-414**	50
35 mm² / 2 AWG	30 mm / 1.18 inch	30	11	8;3	**216-424**	50
50 mm² / 1 AWG	30 mm / 1.18 inch	30	13	10;3	**216-425**	50
50 mm² / 1 AWG	35 mm / 1.38 inch	35	13	10;3	**216-435**	50

Cable Cutter



Cable cutter; for copper and aluminum cables up to 35 mm² (2 AWG)		
	Item No.	Pack. Unit
	206-118	1



Cutting a cable.

“Alu-Plus” Contact Paste
Terminating Aluminum Conductors



Syringe; contains 20 ml “Alu-Plus” Contact Paste		
	Item No.	Pack. Unit
	249-130	20 (5)

Terminating Aluminum Conductors
WAGO spring clamp terminal blocks are suitable for solid aluminum conductors ❶ up to 4 mm²/12 AWG if WAGO “Alu-Plus” Contact Paste is used for termination.

Advantages of the “Alu-Plus” Contact Paste:
- Automatically destroys the oxide film during clamping.
- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).
- Provides long-term protection against corrosion.

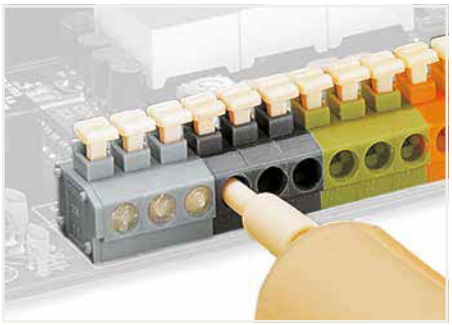
Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, **aluminum conductors must first be cleaned with a blade** and then immediately be inserted into the clamping units filled with “Alu-Plus” Contact Paste.

It is also possible to apply WAGO “Alu-Plus” **additionally** on the whole surface of the aluminum conductor before termination.

Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors:

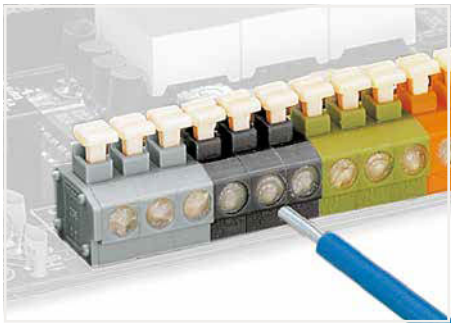
2.5 mm² (14 AWG) = 16 A
4 mm² (12 AWG) = 22 A

WAGO “Alu-Plus” in the syringe offers a higher degree of reliability and cleanliness when terminating solid aluminum conductors.
Filling is, for example, quickly performed on WAGO PCB Terminal Trips:



WAGO Lighting Connectors
Push nozzle of the “Alu-Plus” syringe first into the circular entry and then into the square conductor entry hole of the WAGO Lighting Connector.

❶ Aluminum conductors per IEC 61545 standard, Class B, “Alloy 1370” with 90 … 180 N/mm² tensile strength and 1 … 4 % elongation
Standard values: 90 … 180 MPa tensile strength, 1 … 4 % elongation (per EN 615.4.1)



Press plunger down **until the “Alu-Plus” has filled both entry holes.**

Note: Not suitable for higher temperature applications!

Test and Measurement Devices
206 Series



Multi-Tester; digital multimeter with non-contact voltage tester		
	Item No.	Pack. Unit
	206-810	1



Clamp-Multi-Tester		
	Item No.	Pack. Unit
	206-816	1



Testboy; with integrated flashlight, non-contact voltage tester		
	Item No.	Pack. Unit
	206-804	1



Multi-Tester features:

- Contact-less voltage test AC >100 V (optical and acoustical)
- Resistance measurement up to 20 MΩ
- Acoustical continuity test
- Diode test
- Data hold function
- Auto power-off function
- LED torch lamp function
- CAT IV 600 V
- TÜV/GS tested and approved
- IEC/EN 61010-1 (DIN VDE 0411)



Voltage testing in control cabinet
Clamp-Multi-Tester features:

- DC and AC current up to 600 A
- True RMS and min./max. value measurement
- DC and AC voltage up to 600 V
- Manual or automatic measurement range selection
- Resistance up to 60 MΩ
- Capacitance measurement, acoustical continuity test
- Diode test, data hold function
- Large LCD with backlight
- LED measuring point lighting
- CAT III 600 V overvoltage protection
- IEC/EN 61010-1 (DIN VDE 0411)
- Includes batteries, measurement leads and carrying bag



Current measurement in a control cabinet



A device that will reliably detect AC voltage in cables, sockets, fuses, switches, outlets and other installations. Testboy can detect the following:

- Live conductors
- Cable breaks
- Blown fuses (in cartridges or holders)
- Defective switches
- Defective lamps in strings of lights

Test and Measurement Devices
206 Series



Profi-LCD+; 2-pole voltage tester with LCD display; removable 4 mm Ø test probes

	Item No.	Pack. Unit
	206-707	1



Additional Profi-LCD+ features:
- Automatic measurement range selection
- Single-pole phase testing AC >100 V
- Two-pole sequence testing (R and L)
- Continuity testing
- RDC/RCD testing (30 mA) via buttons
- One-hand operation for SCHUKO® and CEE sockets
- LED torch lamp function
- Automatic backlight
- Auto power-off function
- CAT IV 1000 V
- TÜV/GS tested and approved
- IEC/EN 61243-3 (DIN VDE 0682-401)





Profi-LED+; 2-pole voltage tester with LED display; removable 4 mm Ø test probes

	Item No.	Pack. Unit
	206-706	1



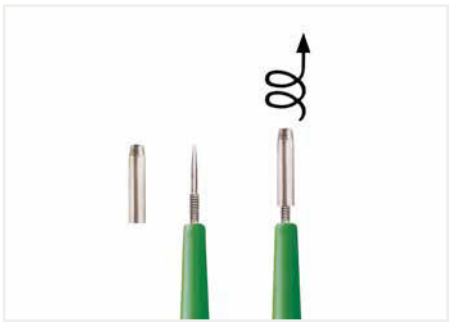
Additional Profi-LED+ features:
- Automatic measurement range selection
- Single-pole phase testing AC >100 V
- Two-pole sequence testing (R and L)
- Continuity testing
- RDC/RCD testing (30 mA) via buttons
- One-hand operation for SCHUKO® and CEE sockets
- LED torch lamp function
- CAT IV 1000 V
- TÜV/GS tested and approved
- IEC/EN 61243-3 (DIN VDE 0682-401)





Spare test probes; 4 mm Ø (2 pieces)

	Item No.	Pack. Unit
	206-808	25



Profi-LED+:
- Improved socket contact via 4 mm Ø test probes
- Removable test probes for small test ports (suitable for all WAGO Terminal Blocks)

Test Plug and Test Pin



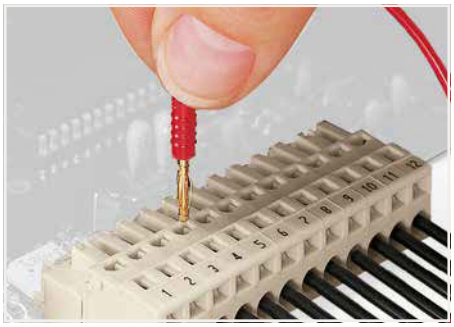
Test plug; with 500 mm cable; 2 mm Ø; max. 42 V		
Color	Item No.	Pack. Unit
red	210-136	50



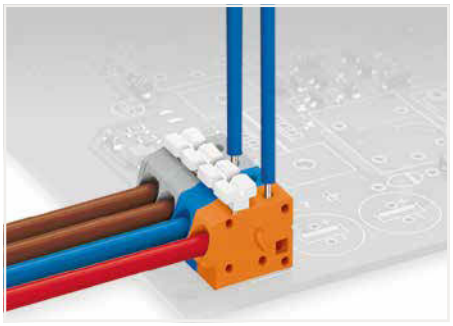
Test plug; with 500 mm cable; 2.3 mm Ø; max. 42 V		
Color	Item No.	Pack. Unit
yellow	210-137	50



Test pin; with solder connection for test cable; 1 mm Ø		
	Item No.	Pack. Unit
	735-500	1



Testing via 2 mm Ø test plug.

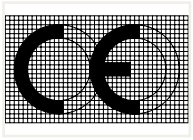


Testing via a 1 mm Ø test pin – touch contact.



Technical Section

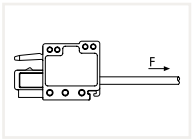
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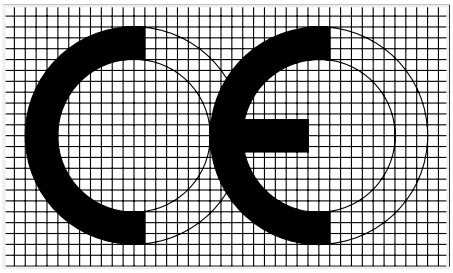
Accredited Test Laboratory	903
Electrical Engineering Laboratory	902
Product Safety for Our Customers	



WAGO Seminars	904
Learn Today – Benefit Tomorrow	
Benefit from First-Hand Knowledge and Expertise – Training Straight from the Source!	

CE Marking and EC Directives

CE Conformity Marking
The CE conformity marking consists of the characters "CE" with the following script:



Communauté Européenne
(European Community)

WAGO Kontakttechnik GmbH & Co. KG products are developed, tested and marked in accordance with legally valid international standards and laws.

The CE mark is applied to products intended for the European domestic market; with it, manufacturers declare that the marked electrical equipment conforms with the applicable requirements set out in the Community harmonization legislation (EU Directives), which allows such equipment to carry this mark.

The original intention of this mark was to support the authorities in the EU member states in their market supervision, with the mark acting as a symbol of free movement of products within the EU. According to EC Directive 765/2008, a product can only be given the CE mark if the product requirements are defined in at least one appropriate EU directive. Examples of such directives are the Low Voltage Directive, the EMC Directive, the ATEX Directive, the Building Products Directive and the Machinery Directive. If more than one directive applies to a product, the product must comply with **all applicable directives**.

Only the basic requirements for achieving the defined aim of the directive are laid out in each respective directive. The individual technical details are specified according to the New Approach using lists with cross references to applicable standards (so-called harmonized standards).

1. Low Voltage Directive (LVD)

The safety of electrical equipment is guaranteed by the Low Voltage Directive (LVD). The LVD covers all electrical equipment operating with a voltage between 50 VAC and 1000 VAC and between 75 VDC and 1500 VDC.

Products falling within the scope of the Low Voltage Directive that are designed in such a way that they can be used in other electrical devices, and whose safety, for the most part, is dependant on how these components were built into the end product and what features the end product has, are defined as basic components in accordance with the Low Voltage Directive.

The LVD doesn't apply to basic components.

The RoHS Directive also applies to electrical equipment covered by the Low Voltage Directive. This directive regulates the use of hazardous substances in electrical devices and components, with the aim of reducing the quantity of problematic components in electrical waste. Details about the materials used by WAGO are available in our catalogs, on our product packaging and on our Web page.

2. EMC Directive

The EMC Directive stipulates that a product must meet the limits on radiated electromagnetic disturbance and also requires that a product must be immune to electromagnetic interference.

Electromagnetic passive components or components with no direct function, such as terminal blocks, resistors, diodes, capacitors, switching relays or cables (in the form of passive printed circuit boards) are not considered as apparatus within the meaning of the EMC Directive.

3. ATEX Directive on Explosion Protection

The ATEX Directive defines the rules for products (devices and protective systems) intended for use in hazardous locations. A number of products from WAGO are designed for use in hazardous areas.

Based on potential hazards, the ATEX Directive makes a distinction between three different equipment groups, of which Group II and III are subdivided into further zones. Suitability of WAGO products for the different groups and zones is outlined in the specific product documents (catalogs, Internet site, data sheets and product inserts).

These may be either devices that can be used as equipment in these types of areas, or components that are required for safe operation, but which do not fulfill a dedicated function. Such components include rail-mount terminal blocks for use in hazardous areas.

Products in both groups must comply with the ATEX Directive.

4. Radio Communications Directive

The Radio Communications Directive applies to all devices that properly transmit or receive radio waves for wireless communications and/or radio orientation. The basic safety requirements apply to the protection of health for humans and animals and to electrical safety in line with the Low Voltage Directive, but without the application of the voltage limit. In addition, the EMC protection goals of the EMC Directive must also be fulfilled and efficient use of radio frequencies ensured. WAGO products covered by the Radio Communications Directive indicate, in compliance with applicable laws, only the Radio Communication Directive in their EU Declaration of Conformity, as fulfillment of the Low Voltage Directive and of the EMC Directive is implicit in this declaration.

5. Construction Products Regulation

The Construction Products Regulation demands that structures be designed and constructed such that the safety of humans, property and animals is not endangered and that all applicable environmental protection requirements be considered. Here, building products are defined as products or construction sets which are produced to be built permanently into structures and which make a significant contribution to fulfilling the basic requirements for the structure.

In the unanimous opinion expressed by the German electrical industry, including WAGO Kontakttechnik GmbH & Co. KG, products used in general installation technology are not included among these types of building products and are therefore not covered by this directive.

6. Machinery Directive

The Machinery Directive applies to machines (complete or incomplete) which perform their functions by means other than direct human or animal work, or safety components for these types of machines.

Therefore, this directive usually does not apply to WAGO products.

The manufacturers of machines or systems are required by this directive to use safe products and components in their machines and systems. Directive-compliant production and safe operation is facilitated by the use of WAGO products, with their standard-compliant, up-to-date design.

Significance of CE Mark for WAGO Products

One, several or none of the EU Directives may apply to the various WAGO products. If none of the directives apply, the CE marking will not be affixed to the product, in line with applicable laws. Furthermore, a declaration of conformity must not be issued. All other products are provided with the CE mark – either directly on the product, on its packaging or in the documents included with the product – and a declaration of conformity is issued, or made accessible to the customer.

The data sheets of the technically sound products that, according to the regulations, are not CE marked will refer to the standards used in the development and type and manufacturing testing wherever possible.

IEC/EN Specifications

The following standards apply to the design and application of the terminal blocks and connectors contained in this catalog:

IEC 60364-1
HD 60364-1
VDE 0100-100
/ Erection of power installations with nominal voltages up to 1000 V
– Part 1: Fundamental principles, assessment of general characteristics, definitions

IEC 61140
EN 61140
VDE 0140-1
/ Protection against electric shock
– Common aspects for installation and equipment

IEC 60364-7-710
HD 60364-7-710
VDE 0100-710
– Part 7-710: Requirements for special installations or locations
– Medically used areas

IEC 60364-7-718
HD 60364-7-718
VDE 0100-718
– Part 7-718: Requirements for special installations or locations
– Communal facilities and workplaces

EN 50110-1
VDE 0105-1
/ Operation of electrical installations
– Part 1: General requirements

IEC 60664-1
EN 60664-1
VDE 0110-1
/ Insulation coordination for equipment within low-voltage systems
– Part 1: Principles, requirements and tests

IEC 60204-1
EN 60204-1
VDE 0113-1
/ Safety of machinery – Electrical equipment of machines
– Part 1: General requirements

IEC 60079-0
EN 60079-0
VDE 0170-1
/ Harzardous areas
Part 0: Equipment
– General requirements

IEC 60079-7
EN 60079-7
VDE 0170-6
/ Explosive atmospheres
– Part 7: Equipment protection by increased safety “e”

IEC 60079-11
EN 60079-11
VDE 0170-7
/ Harzardous areas
– Part 11: Equipment protection by intrinsic safety “i”

IEC 60079-14
EN 60079-14
VDE 0165-1
/ Harzardous areas
– Part 14: Electrical installations design, selection and erection

IEC 60079-15
EN 60079-15
VDE 0170-16
/ Explosive atmospheres
– Part 15: Equipment protection by type of protection “n”

IEC 60038
EN 60038
VDE 0175-1
/ IEC CENELEC standard voltages

VDE 0298-4
/ Use of cables and insulated conductors in power installations
– Part 4: Recommended values for current carrying capacities of cables for fixed installation and for flexible cables

IEC 60112
EN 60112
VDE 0303-11
/ Method for determining the comparative and the proof tracking indices of solid insulation materials

IEC 60529
EN 60529
VDE 0470-1
/ Degrees of protection provided by enclosures (IP Code)
– Testing equipment and testing method

IEC 61439-1
EN 61439-1
VDE 0660-600-1
/ Low-voltage switchgear and control-gear assemblies
– Part 1: General rules

IEC 61439-3
EN 61439-3
VDE 0660-600-3
/– Low-voltage switchgear assemblies
– Part 3: Distribution boards intended to be operated by ordinary persons (DBO)

IEC 61643-11
EN 61643-11
VDE 0675-6-11
/ Low-voltage surge protective devices
– Part 11: Surge protective devices connected to low-voltage power systems
– Requirements and test methods

IEC 60335-1
EN 60335-1
VDE 0700-1
/ Safety of household and similar electrical appliances
– Part 1: General requirements

IEC 60598-1
EN 60598-1
VDE 0711-1
/ Lighting fixtures
– Part 1: General requirements and tests

IEC 60715
EN 60715
/– Standardized mounting on rails for mechanical support of electrical devices in switchgear and control-gear installations

IEC 60999-1
EN 60999-1
VDE 0609-1
/ Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units
– Part 1: General requirements and particular requirements for clamping units for conductors from 0.2 mm² up to 35 mm²

IEC 60999-2
EN 60999-2
VDE 0609-101
– Part 2: General requirements and particular requirements for clamping units for conductors from 35 mm² up to 300 mm²

IEC 60998-1
EN 60998-1
VDE 0613-1
/ Connecting devices for low-voltage circuits for household and similar purposes
– Part 1: General requirements

IEC 60998-2-1
EN 60998-2-1
VDE 0613-2-1
– Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units

IEC 60998-2-2
EN 60998-2-2
VDE 0613-2-2
– Part 2-2: Particular requirements for connecting devices as separate entities with screwless-type clamping units

IEC 60998-2-3
EN 60998-2-3
VDE 0613-2-3
– Part 2-3: Particular requirements for connecting devices as separate entities with insulation-piercing clamping units

IEC 60947-1
EN 60947-1
VDE 0660-100
/ Low-voltage switchgear and controlgear
– Part 1: General rules

IEC 60947-7-1
EN 60947-7-1
VDE 0611-1
– Part 7-1: Ancillary equipment
Terminal blocks for copper conductors

IEC 60947-7-2
EN 60947-7-2
VDE 0611-3
– Part 7-2: Ancillary equipment
Ground conductor terminal blocks for copper conductors

IEC 60947-7-3
EN 60947-7-3
VDE 0611-6
– Part 7-3: Ancillary equipment
Safety requirements for fuse terminal blocks

IEC 60947-7-4
EN 60947-7-4
VDE 0611-4
– Part 7-4: Ancillary equipment –
PCB terminal blocks for copper conductors

IEC 61984
EN 61984
VDE 0627
/ Connectors
– Safety requirements and tests

IEC 60512-1
EN 60512-1
/ Connectors for electronic equipment
Equipment
– Measurement and test procedures
– Part 1: General

IEC 60320-1
EN 60320-1
VDE 0625-1
/ Appliance couplers for household and similar general purposes
– Part 1: General requirements

IEC 60352-1
EN 60352-1
/ Solderless connections;
– Part 1: Wrapped connections
– General requirements
Test methods and practical guidance

IEC 60352-2
EN 60352-2
/ Solderless connections;
– Part 2: Crimped connections
– General requirements
Test methods and practical guidance

IEC 60352-3
EN 60352-3
– Part 3: Solderless accessible insulation displacement connections
– General requirements
Test methods and practical guidance

IEC 60352-4
EN 60352-4
– Part 4: Solderless non-accessible insulation displacement connections
– General requirements
Test methods and practical guidance

IEC 60352-5
EN 60352-5
– Part 5: Press-in connections
– General requirements
Test methods and practical guidance

IEC 60352-6
EN 60352-6
– Part 6: Insulation piercing connections
– General requirements
Test methods and practical guidance

IEC 60352-7
EN 60352-7
– Part 7: Spring clamp connections
– General requirements
Test methods and practical guidance

Tests and Testing Procedures per IEC/EN Standards

Products such as connecting devices, rail-mount terminal blocks and connectors, etc., have their own product-specific test specifications. The following sections describe the most important tests and are limited to a description of the test procedures and an explanation of the test purpose. The data shown (e.g., voltages, temperatures, forces) only serve as illustration and may differ depending on the test.

Mechanical Tests

All WAGO products meet requirements for the following mechanical tests:

- Termination Requirements

Conductor Termination
Two WAGO connection systems are proven in the field of Spring Pressure Connection Technology:
The **PUSH WIRE® connection** for applications requiring solid conductors (e.g., for lighting and building wiring, telecommunications, house communication or alarm systems).
Conductor range:
0.2 … 4 mm² / 24 … 12 AWG
The **universal CAGE CLAMP® spring pressure connection system** for solid, stranded and fine-stranded conductors, designed for a variety of industrial, electrical and electronic applications (e.g., fine-stranded conductors in the elevator industry, in power stations, in the chemical and automotive industry, and aboard ships).
Conductor range:
0.08 … 35 mm² (28 … 2 AWG)

The **Push-in CAGE CLAMP® connection** takes universal CAGE CLAMP® connections further by allowing the termination of 0.2 … 16 mm² (24 … 6 AWG) solid, stranded and fine-stranded conductors (25 mm²/4 AWG only "f-st") and offering all the benefits and safety of the original CAGE CLAMP®. Furthermore, the Push-in CAGE CLAMP® connection technology allows solid, stranded and fine-stranded conductors with ferrules from 0.5 to 16 mm² (20 … 6 AWG) to be terminated by simply pushing them in.

The conductor entry hole is perfectly suited for the insulation diameter of the rated conductor cross section, thus providing good conductor guidance.

This is particularly important for vibration-prone applications.
Fine-stranded conductors of small or very small size are highly flexible, and deform when pushed against the conductor stop in terminal blocks. As a result, the conductor insulation – not the copper conductor – may be clamped, causing intermittent contact or no contact at all.
In order to prevent conductor insulation from being inserted into the clamp, insulation stops are available for WAGO rail-mount terminal blocks up to 4 mm² (12 AWG), even providing protection for 0.08 mm² (28 AWG) conductors (see Section 5).

Rated Cross Sections and Connectable Conductors
I. Per IEC 60999-1 / EN 60999-1 / VDE 0609-1, Table 1:

Rated Cross Section	Theoretical Largest Conductor Diameter							Connectable Conductor	
	Metric			AWG					
	Rigid		Flexible	Rigid			Flexible	Rigid	Flexible
	Solid	Stranded			[b] Solid	[b] Class B Stranded	[c] Class I, K, M Stranded	To be defined in the corresponding product standard	
mm²	mm	mm	mm	Conductor Size	mm	mm	mm		
0.2	0.51	0.53	0.61	24	0.54	0.61	0.64		
0.34	0.63	0.66	0.8	22	0.68	0.71	0.8		
0.5	0.9	1.1	1.1	20	0.85	0.97	1.02		
0.75	1	1.2	1.3	18	1.07	1.23	1.28		
1	1.2	1.4	1.5	–	–	–	–		
1.5	1.5	1.7	1.8	16	1.35	1.55	1.6		
2.5	1.9	2.2	2.3[a]	14	1.71	1.95	2.08		
4	2.4	2.7	2.9[a]	12	2.15	2.45	2.7		
6	2.9	3.3	3.9[a]	10	2.72	3.09	3.36		
10	3.7	4.2	5.1	8	3.34	3.89	4.32		
16	4.6	5.3	6.3	6	4.32	4.91	5.73		
25	–	6.6	7.8	4	5.45	6.18	7.26		
35	–	7.9	9.2	2	6.87	7.78	9.02		

NOTE: The diameters of the largest rigid and flexible conductors are based on Table 1 of IEC 60228 A/IEC 60344 and on ASTM B172-71 [4], IECA Publication S-19-81 [5], IECA Publication S-66-524 [6], as well as IECA Publication S-66-516 [7] for AWG conductors.
[a] Dimensions for Class 5 flexible conductors only (IEC 60228 A)
[b] Nominal diameter +5%
[c] Largest diameter for conductors of classes I, K, M + 5%
In practical use, the conductor cross sections are approximately 5% below the values stated in the table!

The IEC 60999-1/EN 60999-1/VDE 0609-1 Specification (Section 7.1) requires that:

Clamping units must be able to connect unprepared conductors.

Under normal operating conditions, direct clamping (i.e., directly connecting a conductor to the terminal block's current bar) provides optimal contact quality, because all risk factors arising from anti-splaying methods are prevented.

Occasionally, conductor anti-splaying protection may be required, including various methods (see illustrations below).

Special requirements apply only in special application areas exposed to extremely corrosive atmospheres.

In this case, we recommend using either solid copper conductors or fine-stranded copper conductors with properly crimped, tin-coated copper ferrules or copper pin terminals.

II. Per IEC 60999-2, Table 1:

Rated Cross-Section	Theoretical Largest Conductor Diameter					Connectable Conductor	
	Metric		AWG/kcmil				
	Rigid Stranded	Fine-Stranded [a)]	Gauge	Rigid Stranded	Fine-Stranded		
mm²	mm	mm		mm	mm	Rigid	Flexible
50	9.1	11	1/0	9.64	12.08	To be defined in the corresponding product standard	
70	11	13.1	2/0	11.17	13.54		
95	12.9	15.1	3/0	12.54	15.33		
–	–	–	4/0	14.08	17.22		
120	14.5	17	250	15.34	19.01		
150	16.2	19	300	16.8	20.48		
185	18	21	350	18.16	22.05		
–	–	–	400	19.42	24.05		
240	20.6	24	500	21.68	26.57		
300	23.1	27	600	23.82	30.03		
Dimensions for Class 5 flexible conductors only (IEC 60228 A)							
NOTE: The diameters of the largest rigid and flexible conductors are based on Table 1 and Table 3 of IEC 3 A/IEC 60228 and on ASTM B172-71 [1], IECA Publication S-19-81 [2], IECA Publication S-66-524 [3], as well as IECA Publication S-66-516 [7] for AWG conductors.							



Tip-bonded conductor



Tin-plated copper ferrule (gas-tight crimped)



Ultrasonically bonded conductor



Crimped pin terminal (gas-tight), preferably made of copper with a tin-plated surface

Anti-splaying methods require a terminal block one size larger than the nominal cross section of the conductor to be terminated. Ferruled conductor cross sections specified for individual products are based on WAGO's Variocrimp square crimping technology. Gas-tight, crimped twin ferrules may be used, provided the ferrule is inserted all the way into the clamping unit and that there is a sufficient clearance and creepage distance between adjacent potentials.

As with solid copper conductors, the fine strands are crimped to a dense inner core. This prevents ingress of aggressive atmospheres (depending on the ppm concentration), which can diffuse into the conductor bundle along the individual strands and deposit between individual strands and the clamping point.

One Conductor per Clamping Unit

A number of DIN VDE, EN, IEC directives mandate or recommend that only one conductor must be connected per clamping unit.

In accordance with DIN VDE 0611, Part 4, 02.91, Section 3.1.9, multi-level distribution rail-mount terminal blocks must be dimensioned so that a single (solid, stranded or fine-stranded) conductor of the nominal cross section can be connected at each terminal point.

Other VDE, EN and IEC specifications also recommend the connection of only one conductor per clamping unit, unless the clamping unit is specifically tested and approved for the connection of several conductors, for example:
VDE 0609, Part 1, 12.00 / EN 60999-1:2000/ IEC 60999-1:1999, Section 7.1
VDE 0660, Part 600, 06.12 / EN 61439-1:2011 / IEC 61439-1, Section 8.6.3
VDE 0113, Part 1, 06.07 / EN 60204-1:2006 / IEC 60204-1:2016, Section 13.1.1.
One conductor per clamping unit is therefore recommended to meet the safety requirements of these relevant specifications. This WAGO principle is the basis for a number of other technical and economic advantages:

- Each conductor may be terminated or removed without affecting previously connected conductors.
- Where re-wiring is required, only the conductor to be changed is removed from the clamping point, all other conductors remain safely clamped.
- Each conductor is clamped independently.
- Any conductor size combination can be connected.

WAGO provides 2-conductor terminal blocks and connectors to increase the number of clamping units.

Tests and Testing Procedures per IEC/EN Standards (continued)
Mechanical Tests (continued)

- Pull-Out Test per IEC/EN 60947-7-1, IEC/EN 60998-2-2, IEC/EN 60999-1

The pull-out test simulates the mechanical stress on the clamping unit when, for example, the installer pushes the conductor aside to better access/operate the adjacent clamping unit, or verifies if the conductor is connected properly by briefly pulling on it.
During the test, a pulling force is applied without jerking, for one minute, to the connected conductor. The pulling force is selected according to the cross-sectional area. The larger the cross section of the conductor, the higher the pull-out force that is selected. For example, the pulling force is 40 N for a conductor having a cross section of 1.5 mm² (16 AWG) and 100 N for a conductor with a cross section of 16 mm² (6 AWG). The values specified by these standards are the same for both screw clamp and spring clamp terminal blocks. During the test, the conductor must neither slip out of the clamping unit, nor break near the clamping unit.

Conductor Pull-Out Forces
The clamping units of screwless terminal blocks must withstand the pull-out forces as follows:
IEC 60947-1/EN 60947-1/VDE 0660-100, Table 5:
Low-voltage switchgear and controlgear, general rules

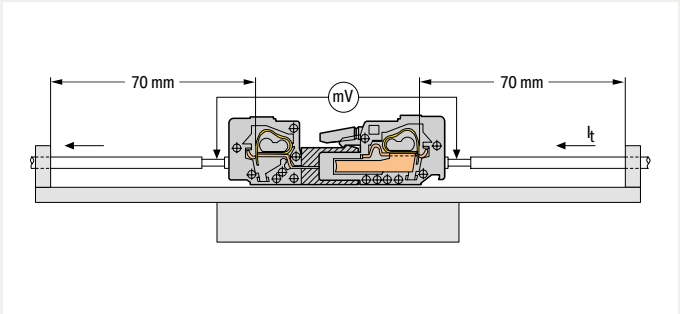
IEC 60947-7-1/EN 60947-7-1/
VDE 0611-1, rail-mount terminal blocks for copper conductors

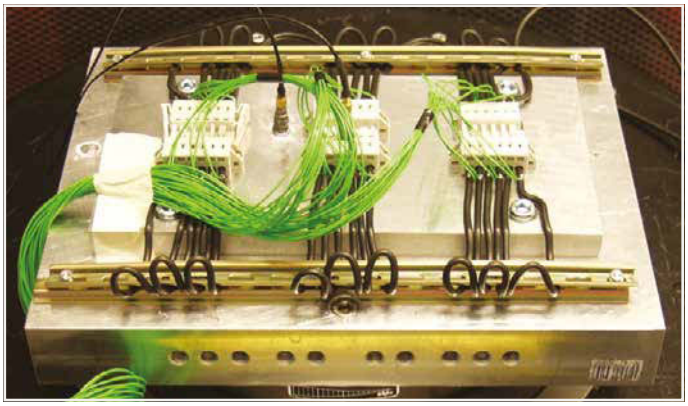
IEC 60998-2-1/EN 60998-2-1/
VDE 0613-2-1, Table 104:
IEC 60998-2-2/ EN 60998-2-2
VDE 0613-2-2, Table 103:
Connecting devices for low-voltage circuits for household and similar purposes
Particular requirements for connecting devices as separate entities with screw-clamp or screwless terminal blocks.
IEC 60999-1/EN 60999-1/VDE 0609-1, Table 3:
IEC 60999-2/EN 60999-2/VDE 0609-101, Table 2:
Safety requirements for screw-clamp and screwless clamping units for electrical copper conductors

Rated Cross-Section		Pull-Out Forces per IEC/EN		
		60947-7-1	60998-2-2	60999-1/-2
mm²	AWG/kcmil	N	N	N
0.2 0.34	24 22	10 15	10 15	10 15
0.5 0.75	20 18	20 30	20 30	20 30
1 1.5	– 16	35 40	35 40	35 40
2.5 4	14 12	50 60	50 60	50 60
6 10	10 8	80 90	80 90	80 90
16 25	6 4	100 135	100 135	100 135
– 35	3 2	156 190	190	190
– 50	1 1/0	236 236		236
70 95	2/0 3/0	285 351		285 351
– 120	4/0 250	427 427		427 427
150 185	300 350	427 503		427 503
– 240	400 500	503 578		503 578
300	600	578		578

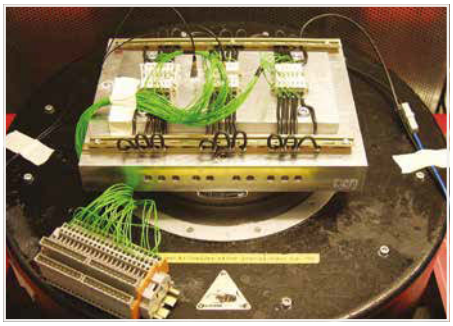
- Shock/Vibration Test per IEC/EN 60068-2-6; DNV GL, LR (Marine Applications); IEC/EN 61373 (Railway Applications)

The vibration test determines whether vibrations, such as those produced in the vicinity of machines or in vehicles, will permanently affect the electrical connection, or if contact breaks will occur during vibrations. Using a vibration table, the test specimen is subjected to vibration in each of the X, Y and Z axes (see pictures). The amplitude, acceleration and in particular the frequency of the vibration must vary during the test.
The “open length” of the conductor up to the point where the conductor is attached in the application must be kept as short as possible (length = 70 mm in this example).

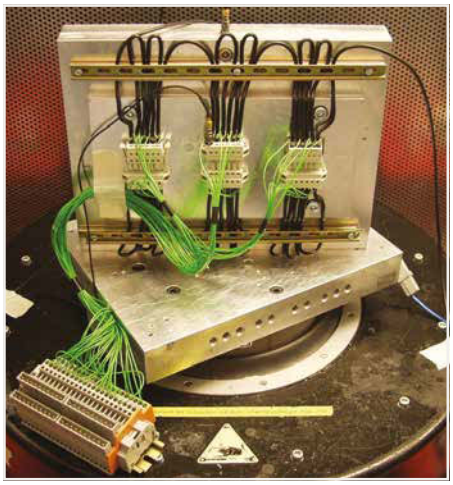




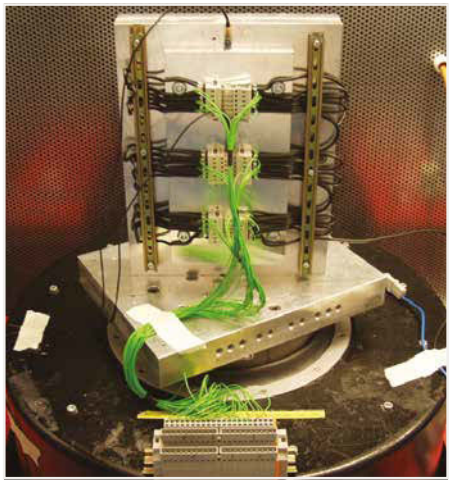
1st Axis



2nd Axis



3rd Axis



The exact test procedure may vary considerably, depending on how the product will be used.

Application Examples per IEC/EN 60068-2-6	Associated Test Levels	
Devices attached to heavy, rotating machines	1 … 35 Hz,	50 m/s² (5 g) or 100 m/s² (10 g)
Devices designed for use in large-scale power plants and general industrial applications	10 … 55 Hz,	20 m/s² (2 g) 50 m/s² (5 g)
Devices designed for use in large-scale power plants and general industrial applications if it has been determined that detectable vibration components greater than 55 Hz exist	10 … 150 Hz,	20 m/s² (2 g) 50 m/s² (5 g)

Tests and Testing Procedures per IEC/EN Standards (continued)
Mechanical Tests (continued)

Beyond these standard procedures, each market segment performs additional testing. Examples include railway authorities testing rolling electrical equipment, or the testing performed multiple marine agencies (e.g., DNV GL Group, Lloyd's Register of Shipping). Though the requirements of such testing procedures are particularly demanding, test arrangements are identical for all of them. During vibrations, possible contact breaks are monitored on an oscilloscope. Voltage drop is measured before and after the test to detect permanent failures, i.e., checking if electrical resistance at the clamping unit has not increased beyond the permissible limit. The smaller this value is, the smaller the contact resistance of the clamping unit.

The test is passed if:
- the conductor has neither slipped out of the terminal block nor been damaged,
- the maximum permissible voltage drop has not been exceeded
- and neither contact breaks have occurred nor a defined break time has been exceeded.

The test specimen must not be damaged in any way that might affect future use.

Since their inception, both CAGE CLAMP® and Push-in CAGE CLAMP® connections have been routinely tested for their resistance to shock/vibration in connection with approval tests.

Notes:

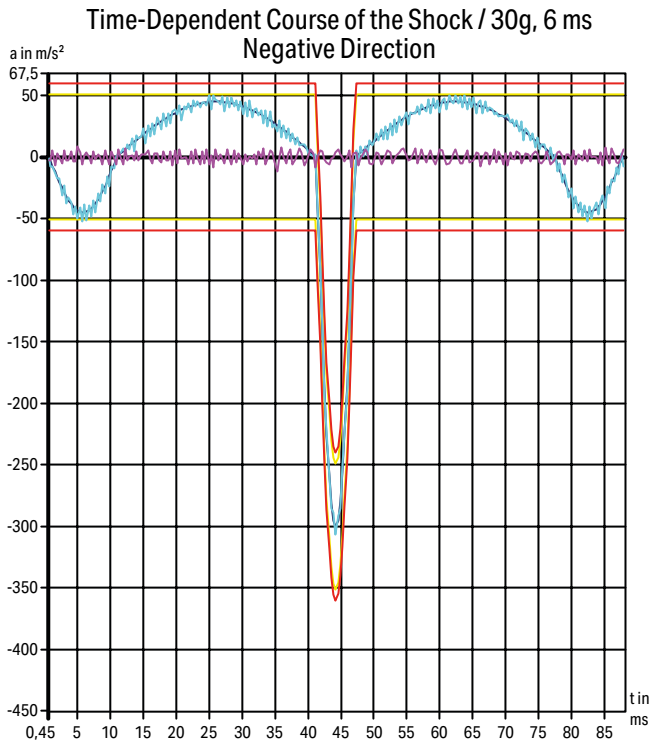
These test results are based solely on tests conducted under "laboratory conditions." Connector usage in actual applications must be evaluated by the user.

- Shock Test per IEC/EN 60068-2-27; IEC/EN 61373 (Railway Applications)

The shock test is similar to the vibration test except that, instead of continuous vibrations, single shocks are applied to the specimen. Shock tests are usually performed with an acceleration of 20g, for example, over a period of 11 ms. Tests for special requirements often call for much higher values.
Like the vibration tests, shock tests are primarily used to test the voltage drop variation or contact breaks, etc.

Example: Shock requirement

per IEC/EN 60068-2-27 (half-sine shock)
30g acceleration, 6 ms duration
Shock direction: 3 axes (3 shocks each in positive and negative direction)



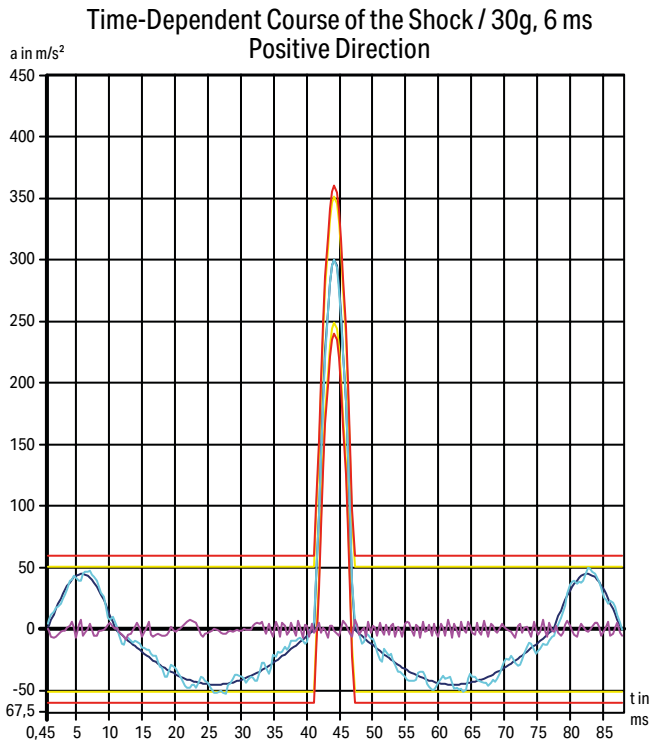
Status: Stop
Cause: Number of shocks ready!

Date: 30.04.2009 Control: active
Time: 07:27:59 Total number of shocks: 3
Modulation: 42 % Shocks processed: 3
Warning limits: inactive Top acceleration: 306.71 m/s²
Turn-off limits: inactive Speed: 1.13 m/s

Legend:

Upper warning limits | Lower warning limits | Upper turn-off limits | Lower turn-off limits
Set acceleration curve | Actual acceleration curve | Measured acceleration curve

RMS - SWR 900 - Testmanager Test file: 68-2-27.SHO (Shock)



Status: Stop
Cause: Number of shocks ready!

Date: 30.04.2009 Control: active
Time: 07:26:38 Total number of shocks: 3
Modulation: 43.1 % Shocks processed: 3
Warning limits: inactive Top acceleration: 305.74 m/s²
Turn-off limits: inactive Speed: 1.13 m/s

Legend:

Upper warning limits | Lower warning limits | Upper turn-off limits | Lower turn-off limits
Set acceleration curve | Actual acceleration curve | Measured acceleration curve

RMS - SWR 900 - Testmanager Test file: 68-2-27.SHO (Shock)

Tests and Testing Procedures per IEC/EN Standards (continued)

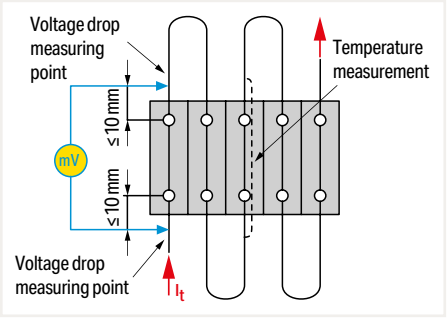
Electrical Tests

All WAGO products meet requirements for the following electrical tests:

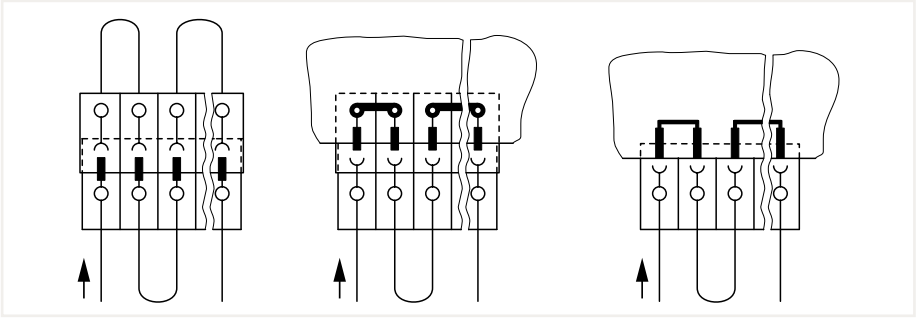
- Temperature-Rise Test per IEC/EN 61984, IEC/EN 60947-7-4, IEC/EN 60947-7-1, IEC/EN 60998-1

The temperature-rise test examines the clamping unit – including the surrounding insulation – at rated current, over-current and short-circuit current levels.
Unless otherwise specified in the related equipment specification, e.g., by specifying the nominal currents of the equipment, terminal blocks and connectors are tested with current loads as specified in the respective construction specification.
For rail-mount terminal blocks complying with IEC 60947-7-1/EN 60947-7-1/VDE 0611-1, or terminal blocks complying with IEC 60998-1/EN 60998-1/ VDE 0613-1, the temperature rise must not exceed 45 Kelvin.

Connectors and PCB terminal blocks must withstand the upper and lower values of the temperature range as specified in the detail or manufacturer's specification.
The sum of the surrounding air temperature and the temperature rise of a connector or PCB terminal strip must not exceed the upper temperature limit.



Test arrangement: "Temperature-Rise Test"


Test arrangement: "Temperature-Rise Test" per IEC/EN 61984

Rated Cross-Section	Test Current per IEC/EN	
	60947-7-1 Table 4	60998-1 Table 2
mm²	A	A
0.2 0.34	4 5	4 5
0.5 0.75	6 9	6 9
1 1.5	13.5 17.5	13.5 17.5
2.5 4	24 32	24 32
6 10	41 57	41 57
16 25	76 101	76 101
35 –	125	125
50 70	150 192	
95 –	232	
120 150	269 309	
185 240	353 415	
300	520	

Conductor Size	Test Current per IEC/EN
	60947-7-1 Table 5
AWG/kcmil	A
24 22	4 6
20 18	8 10
– 16	 16
14 12	22 29
10 8	38 50
6 4	67 90
2 1	121 139
1/0 2/0	162 185
3/0 4/0	217 242
250 kcmil 300 kcmil	271 309
350 kcmil 500 kcmil	353 415
600 kcmil	520

• Current-Carrying Capacity Curve (Derating Curve) per EN 60512-5-2

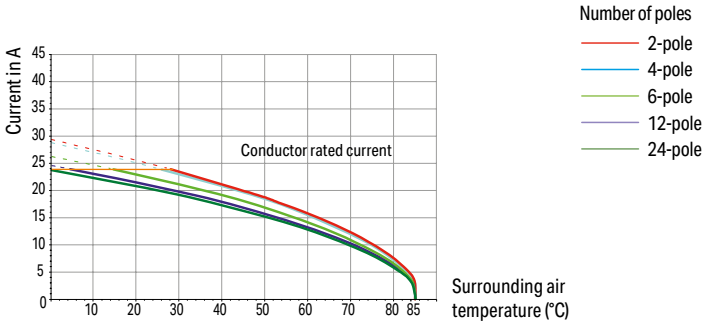
Both the design requirements (e.g., dimensions) and the current-carrying capacity of a connector must be checked by the user when selecting connectors.
This information depends on the following factors: conductor size, surrounding air temperature, number of simultaneously loaded poles, internal resistance of the connector, PCB layout, width and thickness of the printed circuits and connector materials.

A current-carrying capacity curve (basic curve) is determined based on the EN 60512-5-2 standard, accounting for the upper temperature limit.
The relationship between current, surrounding air temperature and temperature rise up to the connector's upper temperature limit is illustrated via current-carrying capacity curve (derating curve, reduction factor: 0.8).
The connector must only be operated up to this temperature limit (sum of the self-generated heat and the surrounding air temperature) without being damaged or destroyed during operation.

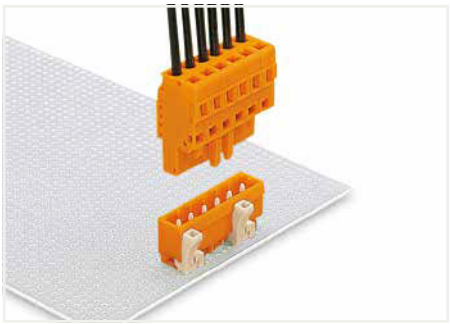
The nominal current figures given for the WAGO PCB Connectors are based on the maximum number of poles, the maximum conductor cross section and a maximum temperature rise of 45 K.

Note: Current-carrying capacity curves merely document the self-generated heat of the connectors and terminal blocks under defined test conditions (conductor length, commoning of solder pins).
Usability of the components in actual applications must be investigated by the user.

Functioning of a current-carrying capacity curve (derating curve) per EN 60512-5-2 is shown by an application using a derating curve for the ***MULTI CONNECTION SYSTEM***:
This application requires each pole of a 4-pole connector be subjected to a load of 20 A. Based on the derating curve determined for this pole number with a conductor cross section of 2.5 mm², it has been determined the maximum surrounding air temperature is 39°C (102.2°F). The current must be reduced at higher surrounding air temperatures, e.g., to 11 A at an surrounding air temperature of 70°C (158°F).



Derating curve derived from the current carrying capacity curve (reduction factor: 0.8)



Male header with straight solder pins
Female connector with CAGE CLAMP®

The non-reduced current-carrying capacity curves (basic curves, reduction factor: 1) can be used when selecting WAGO's PCB terminal blocks!
The nominal current values given are based on a 4-pole PCB terminal strip with a temperature rise of 45 K.

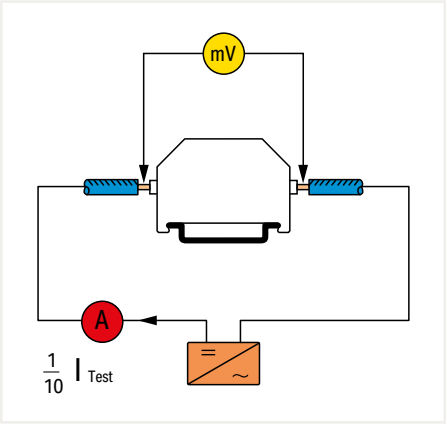


Example: 4-pole PCB terminal strip (2706 Series)

Tests and Testing Procedures per IEC/EN Standards (continued)
Electrical Tests (continued)

- Voltage Drop Test per IEC/EN 60947-7-1, IEC/EN 60999-1

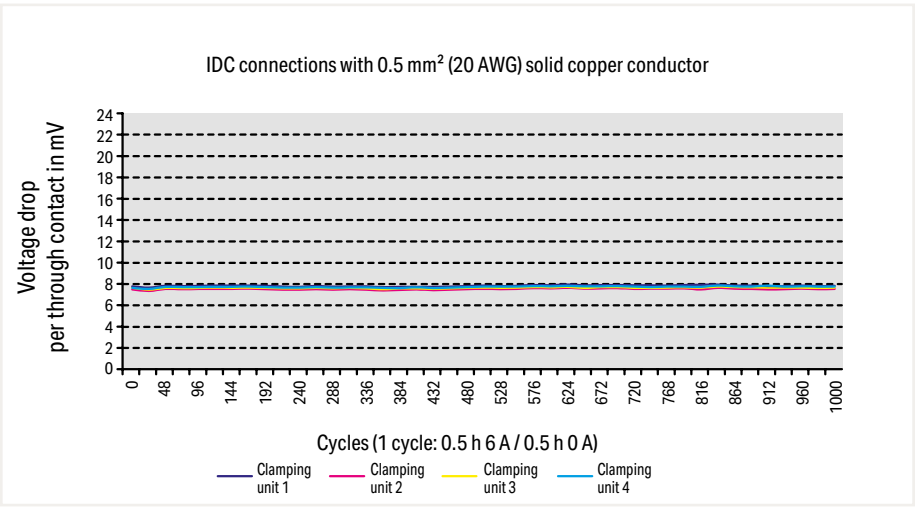
The voltage drop test evaluates clamping point quality under stress such as vibration, temperature change, industrial climate and salt spray, in order to verify that the contact point is gas-tight.

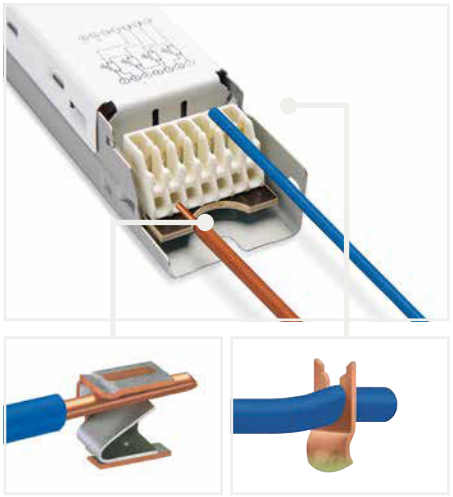


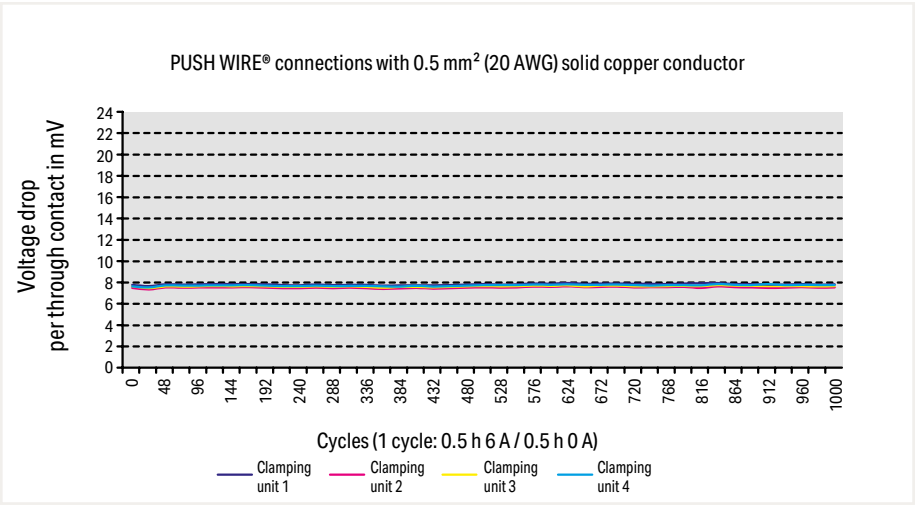
Test arrangement: "Voltage Drop Test"

Example: Current load cycling test result for Combi PCB terminal blocks with IDC and PUSH WIRE® connections

Voltage drop variation over longer periods under current load cycling conditions is shown for 251-3xx Combi PCB Terminal Blocks using solid copper conductors. The diagram shows that the voltage drop is constant, far beyond the 192 cycles required in IEC/EN 60998-2-2.







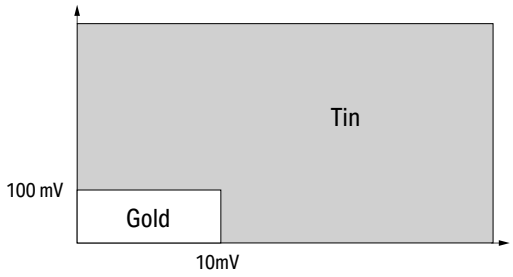
The voltage drop was determined at the rated current.

• Minimum Current / Specialty Connector Applications

The contact surfaces of WAGO's connectors are tin-plated. This surface exhibits excellent conductivity, along with outstanding protection against corrosion. Pollution layer deposits may penetrate this pure tin coating when the contacts are connected, lowering contact resistance.

The following information regarding proper selection of suitable WAGO components should be considered for applications in which connectors are used with minimal current and voltage levels and under harsh conditions, involving, for example, temperature, aggressive gases, vibration and shock.
Signal corruption may occur in applications with minimal current and voltage levels under the special conditions cited above. In such cases, we recommend using gold-plated contacts. Here, the user must always examine the suitability of the connectors for the application at hand.

The diagram below is based on practical experience.



WAGO also offers connectors with gold-plated contacts upon request.

Tests and Testing Procedures per IEC/EN Standards (continued)
Electrical Tests (continued)

• Insulation Parameters per IEC/EN 60664-1

Clearances and Creepage Distances
The following generally applies:
The equipment specification contains data for the measurement of clearances and creepage distances, or refers to the data contained in the new revised edition of the basic standard DIN EN 60664-1/VDE 0110-1. This standard contains new clearances and creepage distances in compliance with insulation coordination requirements. That is, the insulation parameters of equipment are assigned to:
- the anticipated surge voltages
- the parameters of the protection device against impulse voltage
- the anticipated environmental conditions and the protection measures against pollution.

This standard is based on IEC 60604-1.

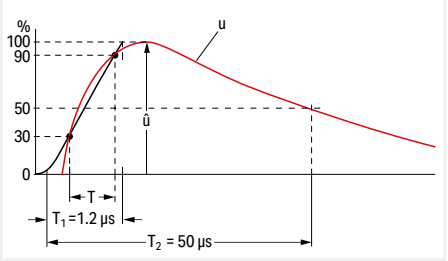
Overvoltage Categories for Electrical Equipment:
A specific overvoltage category must be defined on the basis of the following, general description:
- Equipment in **overvoltage category I** is intended to be connected to the fixed electrical installations of buildings. Protective means are taken outside the equipment – either in the fixed installation or between the fixed installation and the equipment – to limit transient overvoltages to the specific level.
- Equipment in **overvoltage category II** is to be connected to the fixed electrical installations of buildings.
  Note: Examples of such equipment are household appliances, portable tools and similar loads.
- Equipment in **overvoltage category III** is part of the fixed electrical installations and other equipment where a higher degree of availability is expected.
  Note: Examples of such equipment are distribution boards, circuit breakers, wiring systems (IEV 826-16-08, including cables, bus bars, junction boxes, switches, socket outlets) in the fixed installation and equipment for industrial use and other equipment, e.g., stationary motors with permanent connection to the fixed installation.
- Equipment in **overvoltage category IV** is for use in or near the feed-in of electrical building installations upstream of the main distribution board in the direction of the network.
  Note: Examples include electricity meters, primary overcurrent protection devices and ripple control units.

Clearances, Rated Surge Voltages, Overvoltage Categories, Pollution Degrees

Surge voltages (Table 1) are a decisive factor in determining clearances.

The basis forms the **overvoltage category**, i.e., the allocation of the equipment to the expected overvoltage, and the **conductor-ground voltage** derived from the nominal mains voltage in installations with a grounded Y (star) point.

In ungrounded installations, or installations where the conductor is not grounded, the voltage between conductors is applicable in the same way as conductor voltage to ground.



Voltage pulse: 1.2/50 µs per EN 60060-1/VDE 0432-1

The rated surge voltage must be selected from Table F.1 corresponding to the overvoltage category specified and to the rated voltage of the equipment.
Table F.1 – Rated Surge Voltage for Equipment Energized Directly from the Low-Voltage Mains (DIN EN 60664-1/VDE 0110-1)
Voltage Curve: 1.2/50 µs per IEC 60060-1/VDE 0432-1

Nominal voltage of the power supply system[1] (mains) per IEC 60038[3]		Conductor-to-neutral voltage, derived from the nominal AC or DC voltage up to and including:	Rated surge voltage[2] Overvoltage category[4]			
Three-phase V	Single-phase V	V	I V	II V	III V	IV V
		50	330	500	800	1500
		100	500	800	1500	2500
	120 … 240	150[5]	800	1500	2500	4000
230 / 400 277 / 480		300	1500	2500	4000	6000
400 690		600	2500	4000	6000	8000
1000		1000	4000	6000	8000	12000

[1] See Annex B for application to existing different low-voltage mains and their nominal voltages.
[2] Equipment with these rated impulse voltage levels can be used in installations complying with IEC 60364-4-443.
[3] The / mark indicates a 3-phase, 4-conductor system. The lower value is the conductor-to-neutral voltage, while the higher value is the conductor-to-conductor voltage. Where only one value is indicated, it refers to 3-phase, 3-conductor systems and specifies the conductor-to-conductor voltage.
[4] See 4.3.3.2.2 for an explanation of the overvoltage categories.
[5] The nominal voltages for single-phase systems in Japan are 100 V or 100 … 200 V. The value for the rated impulse voltage is, however, derived from the voltage gaps conductor-to-neutral for a voltage level of 150 V (see Annex B).

The nominal supply voltage and the corresponding rated impulse voltage values apply for grounded and ungrounded circuits.

Pollution Degrees

Pollution factors are all solid, liquid or gaseous foreign matter which may reduce the dielectric strength or the specific surface resistance. Factors are divided into four classes based on expected environmental conditions:

		Examples of pollution degrees for assigned areas:
Pollution degree 1:	No pollution, or only dry, non-conductive pollution occurs. Pollution has no influence.	Open, unprotected insulated equipment in air-conditioned or clean, dry rooms
Pollution degree 2:	Only non-conductive pollution occurs. Occasional, temporary conductivity caused by condensation can also be expected.	Open, unprotected insulated equipment in occupied areas, shops, laboratories, mechanical workshops and medical rooms.
Pollution degree 3:	Conductive pollution occurs, or dry, non-conductive pollution occurs which will become conductive due to condensation.	Open, unprotected insulated equipment in industrial, business and farming areas (e.g., unheated rooms, workshops and boiler rooms)
Pollution degree 4:	The pollution generates persistent conductivity caused by conductive dust, rain or wet conditions.	Open, unprotected insulated equipment for outdoor use

Dimensioning Clearances

(DIN EN 60664-1/VDE 0110-1, Table F.2)
Select the minimum clearances in accordance with the rated surge voltages and pollution degrees. To maximize the operating life of the equipment, do not go below these minimum clearances.
Table F.2 contains a list of information for Case A, the inhomogeneous field and for Case B, the homogeneous field.
This involves an electric field with essentially constant (Case B) or non-constant (Case A) voltage gradients between the electrodes.
Equipment with a clearance that is dimensioned per Case A, in other words rated for the most unfavorable case, requires no verification by the impulse voltage test.
Equipment with a clearance that is dimensioned per Case B, or between A and B, requires verification by the impulse voltage test.

The clearances shown in Table F.2 are applicable for an installation height of up to 2000 m above sea level.

Values for clearances above 2000 m must be multiplied by a high correction factor in accordance with Table A.2.

Table F.2 – Clearances to Withstand Transient Overvoltages

DIN EN 60664-1/VDE 0110-1

Required Impulse Withstand Voltage[1)5)]	Minimum Clearances in Air up to 2000 m Above Sea Level					
	Case A Inhomogeneous Field (see 3.15)			Case B Homogeneous Field (see 3.14)		
	Pollution Degree[6]			Pollution Degree[6]		
	1	2	3	1	2	3
kV	mm	mm	mm	mm	mm	mm
0.33[2)]	0.01	0.2[3)4)]	0.8[4)]	0.01	0.2[3)4)]	0.8[4)]
0.4	0.02			0.02		
0.5[2)]	0.04			0.04		
0.6	0.06			0.06		
0.8[2)]	0.10			0.10		
1	0.15			0.15		
1.2	0.25	0.25		0.2		
1.5[2)]	0.5	0.5		0.3	0.3	
2	1	1	1	0.45	0.45	
2.5[2)]	1.5	1.5	1.5	0.6	0.6	
3	2	2	2	0.8	0.8	
4[2)]	3	3	3	1.2	1.2	1.2
5	4	4	4	1.5	1.5	1.5
6[2)]	5.5	5.5	5.5	2	2	2
8[2)]	8	8	8	3	3	3
10	11	11	11	3.5	3.5	3.5
12[2)]	14	14	14	4.5	4.5	4.5
15	18	18	18	5.5	5.5	5.5
20	25	25	25	8	8	8
25	33	33	33	10	10	10
30	40	40	40	12.5	12.5	12.5
40	60	60	60	17	17	17
50	75	75	75	22	22	22
60	90	90	90	27	27	27
80	130	130	130	35	35	35
100	170	170	170	45	45	45

[1)] This voltage is for:
- Functional insulation: the maximum impulse voltage expected to occur across the clearance (see 5.1.5)
- Basic insulation directly exposed to or significantly influenced by transient overvoltages from the low-voltage mains (see 4.3.3.3, 4.3.3.4.1 and 5.1.6): the rated impulse voltage for the equipment;
- Other basic insulation (see 4.3.3.4.2): the highest impulse voltage that can occur in the circuit
  For reinforced insulation, see 5.1.6.

[2)] Preferred values specified in 4.2.3

[3)] For printed wiring material, the values for pollution degree 1 apply, except that the value must not be less than 0.04 mm, as specified in Table F.4.

[4)] The minimum clearances given for pollution degree 2 and 3 are based on the reduced withstand characteristics of the associated creepage distance under humidity conditions (see IEC 60664-5).

[5)] For parts or circuit within equipment subject to surge voltages based on 4.3.3.4.2, interpolation of values is allowed. However, standardization is achieved by using the preferred series of impulse voltage values based on 4.2.3.

[6)] The dimensions for pollution degree 4 are as specified for pollution degree 3, except that the minimum clearance is 1.6 mm.

Tests and Testing Procedures per IEC/EN Standards (continued)
Electrical Tests (continued)

• Insulation Parameters per IEC/EN 60664-1 (continued)

Creepage Distances, Rated Voltages, Material Groups

Criteria for dimensioning creepage distances are the rated voltages, pollution degrees and material groups.
The pollution degrees specified for the clearances, and its quoted allocation to locations, is also applicable for creepage distances.
Tables F.3 a and F.3 b of DIN EN 60664-1/ VDE 0110-1 contain the rated voltages that have to be considered for dimensioning the minimum creepage distances.

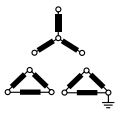
Altitude m	Standard Air Pressure (in kPa)	Multiplier for Clearances
2000	80	1
3000	70	1.14
4000	62	1.29
5000	54	1.48
6000	47	1.7
7000	41	1.95
8000	35.5	2.25
9000	30.5	2.62
10000	26.5	3.02
15000	12	6.67
20000	5.5	14.5

Table F.3a – Single-Phase, 3- or 2-Conductor, AC or DC Systems

Nominal Voltage of the Power Supply System (Mains)* V	Voltages for Table F.4 For insulation conductor-to-conductor[1)] All systems V	 For insulation conductor-to-ground[1)] Three-conductor systems, center-point grounded V
12.5	12.5	
24 25	25	
30	32	
42 48 50**	50	
60	63	
30 to 60	63	32
100**	100	
110 120	125	
150**	160	
200	200	
110 to 200	200	100
220	250	
110 to 220 120 to 240	250	
300**	320	
220 to 440	500	250
600**	630	
480 to 960	1000	500
1000**	1000	

[1)] Conductor-to-ground insulation level for non-grounded or impedance-grounded systems equals that for conductor-to-conductor, as the operating voltage to ground of any conductor can, in practice, approach full conductor-to-conductor voltage. This is because the actual voltage to ground is determined by the insulation resistance and capacitive reactance of each conductor to ground; thus, low (but acceptable) insulation resistance of one conductor can in effect ground it and raise the other two to full conductor-to-conductor voltage to ground.
*For the relationship to rated voltage, see 4.3.2.
**These values correspond to the values given in Table F.1.

Table F.3b – Single-Phase, 4- or 3-Conductor AC Systems

Nominal Voltage of the Power Supply System (Mains)*	Voltages for Table F.4		
	For insulation conductor-to-conductor[1]	For insulation conductor-to-ground[1]	
	All systems	Three-phase, 4-conductor systems with grounded neutral conductor[2] 	Three-phase, 3-conductor systems, non-grounded[1] or grounded conductor 
V	V	V	V
60	63	32	63
110 120 127	125	80	125
150**	160		160
200	200		200
208	200	125	200
220 230 240	250	160	250
300**	320		320
380 400 415	400	250	400
440	500	250	500
480 500	500	320	500
575	630	400	630
600**	630		630
660 690	630	400	630
720 830	800	500	800
960	1000	630	1000
1000**	1000		1000

[1] Conductor-to-ground insulation level for non-grounded or impedance-grounded systems equals that for conductor-to-conductor, as the operating voltage to ground of any conductor can, in practice, approach full conductor-to-conductor voltage. This is because the actual voltage to ground is determined by the insulation resistance and capacitive reactance of each conductor to ground; thus, low (but acceptable) insulation resistance of one conductor can in effect ground it and raise the other two to full conductor-to-conductor voltage to ground.
[2] For equipment used on both three-phase, 4-conductor and three-phase, 3-conductor systems, grounded and non-grounded, use only the values for 3-conductor systems.
*For the relationship to rated voltage, see 4.3.2.
**These values correspond to the values given in Table F.1.

Material Groups

Insulation materials are classified into four groups according to their Comparative Tracking Index (CTI) as follows:

Material Group I: 600 ≤ CTI
Material Group II: 400 ≤ CTI < 600
Material Group IIIa: 175 ≤ CTI < 400
Material Group IIIb: 100 ≤ CTI < 175

The CTI values above refer to values obtained in accordance with DIN EN 60664-1/ VDE 0110-1 on samples specially made for this purpose and tested with Solution A.

Tests and Testing Procedures per IEC/EN Standards (continued)
Electrical Tests (continued)

- Insulation Parameters per IEC/EN 60664-1 (continued)

Table F.4 – Creepage Distances to Avoid Failure due to Tracking
DIN EN 60664-1/VDE 0110-1

Voltage[1] (RMS)	Minimum Creepage Distances								
	Printed Circuits		Pollution Degree						
	Pollution Degree								
	1 All Material Groups	2 All Material Groups except IIIb	1 All Material Groups	2 Material Group I	2 Material Group II	2 Material Group III	3 Material Group I	3 Material Group II	3 Material Group III[2]
V	mm	mm	mm	mm	mm	mm	mm	mm	mm
10	0.025	0.04	0.08	0.4	0.4	0.4	1	1	1
12.5	0.025	0.04	0.09	0.42	0.42	0.42	1.05	1.05	1.05
16	0.025	0.04	0.1	0.45	0.45	0.45	1.1	1.1	1.1
20	0.025	0.04	0.11	0.48	0.48	0.48	1.2	1.2	1.2
25	0.025	0.04	0.125	0.50	0.5	0.5	1.25	1.25	1.25
32	0.025	0.04	0.14	0.53	0.53	0.53	1.3	1.3	1.3
40	0.025	0.04	0.16	0.56	0.8	1.1	1.4	1.6	1.8
50	0.025	0.04	0.18	0.6	0.85	1.2	1.5	1.7	1.9
63	0.04	0.063	0.2	0.63	0.9	1.25	1.6	1.8	2
80	0.063	0.1	0.22	0.67	0.95	1.3	1.7	1.9	2.1
100	0.1	0.16	0.25	0.71	1	1.4	1.8	2	2.2
125	0.16	0.25	0.28	0.75	1.05	1.5	1.9	2.1	2.4
160	0.25	0.4	0.32	0.8	1.1	1.6	2	2.2	2.5
200	0.4	0.63	0.42	1	1.4	2	2.5	2.8	3.2
250	0.56	1	0.56	1.25	1.8	2.5	3.2	3.6	4
320	0.75	1.6	0.75	1.6	2.2	3.2	4	4.5	5
400	1	2	1	2	2.8	4	5	5.6	6.3
500	1.3	2.5	1.3	2.5	3.6	5	6.3	7.1	8 (7.9)[4]
630	1.8	3.2	1.8	3.2	4.5	6.3	8 (7.9)[4]	9 (8.4)[4]	10 (9)[4]
800	2.4	4	2.4	4	5.6	8	10 (9)[4]	11 (9.6)[4]	12.5 (10.2)[4]
1000	3.2	5	3.2	5	7.1	10	12.5 (10.2)[4]	14 (11.2)[4]	16 (12.8)[4]
1250			4.2	6.3	9.	12.5	16 (12.8)[4]	18 (14.4)[4]	20 (16)[4]
1600			5.6	8	11	16	20 (16)[4]	22 (17.6)[4]	25 (20)[4]
2000			7.5	10	14	20	25 (20)[4]	28 (22.4)[4]	32 (25.6)[4]
2500			10	12.5	18	25	32 (25.6)[4]	36 (28.8)[4]	40 (32)[4]
3200			12.5	16	22	32	40 (32)[4]	45 (36)[4]	50 (40)[4]
4000			16	20.	28	40	50 (40)[4]	56 (44.8)[4]	63 (50.4)[4]
5000			20	25	36	50	63 (50.4)[4]	71 (56.8)[4]	80 (64)[4]
6300			25	32	45	63	80 (64)[4]	90 (72)[4]	100 (80)[4]
8000			32	40	56	80	100 (80)[4]	110 (88)[4]	125 (100)[4]
10000			40	50	71	100	125 (100)[4]	140 (112)[4]	160 (128)[4]
12500			50[3]	63[3]	90[3]	125[3]			
16000			63[3]	80[3]	110[3]	160[3]			
20000			80[3]	100[3]	140[3]	200[3]			
25000			100[3]	125[3]	180[3]	250[3]			
32000			125[3]	160[3]	220[3]	320[3]			
40000			160[3]	200[3]	280[3]	400[3]			
50000			200[3]	250[3]	360[3]	500[3]			
63000			250[3]	320[3]	450[3]	600[3]			

[1] This voltage is for:
- Functional insulation; the working voltage
- Basic and supplementary insulation of the circuit energized directly from the mains (see 4.3.2.2.1): for the voltage rationalized through Table F.3a or F.3b, based on the rated voltage of the equipment, or the rated insulation voltage
- Basic and supplementary insulation of systems, equipment and internal circuits not energized directly from the mains (see 4.3.2.2.2.): the highest rms voltage which can occur in the system, equipment or internal circuit when supplied at rated voltage and under the most taxing combination of operation conditions within equipment rating

[2] Material group IIIb is not recommended for applications in pollution degree 3 above 630 V.
[3] Provisional data based on extrapolation. Technical committees who have other information based on experience may use their dimensions.
[4] The values in brackets must only be applied for reducing creepage distances if a rib is used (see 5.2.5).

The high degree of accuracy of the creepage distances given in the table does not imply that the measuring accuracy must be of the same quality.

Depending on the intended use, WAGO's terminal blocks, splicing and pluggable connectors are suitable for pollution degrees 2 or 3 and for overvoltage categories II or III.
The rated voltages of WAGO's PCB terminal blocks and connectors are based on pollution degree 2 and overvoltage category III in per IEC/EN 60664-1 (insulation parameters).

Example:

WAGO 236 Series PCB Terminal Strips
(5/5.08 mm pin spacing)
320 V/4kV/2

Rated voltage	320 VDC
Rated surge voltage	4 kV
Pollution degree	2
Overvoltage category	III

The specific values for pollution degree 3 and overvoltage category II are also given in the technical data.

The clearances and creepage distances required for defined voltage values in Table 3 of IEC/EN 60998-1 deviate somewhat from the requirements specified in the insulation parameters.

Table 3 – Clearances and Creepage Distances
(IEC/EN 60998-1)

Rated Insulation Voltage V	Clearances/Creepage Distances mm
≤ 130	1.5
> 130 and ≤ 250	3
> 250 and ≤ 450	4
> 450 and ≤ 750	6
> 750	8

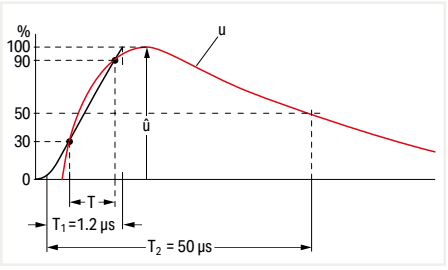
Tests and Testing Procedures per IEC/EN Standards (continued)
Electrical Tests (continued)

• Power-Frequency Withstand Voltage Test per IEC/EN 60947-7-4, IEC/EN 60998-1

This testing procedure verifies creepage distances. Creepage distances, i.e., the distances of creeping currents, are caused by conductive impurities on the surface of the insulation housing. Apart from the amount of impurities to which a terminal block is subjected, for example, the plastic material and housing design are also involved in generating creeping currents. The insulation material of the housing may be carbonized by a creeping current, which further increases conductivity.
The specimen is tested using a power-frequency withstand voltage for a short time. For example, a PCB terminal block designed to operate at 320 V nominal voltage is usually tested using 2200 V alternating voltage for one minute. The test is passed if no flashovers or breakdowns have occurred.

• Rated Impulse Withstand Voltage Test per IEC/EN 60947-7-4, IEC/EN 60664-1

This test verifies the clearances of a product. In simplified terms, clearance is the distance between two poles of a terminal block. If this distance is too small, voltage peaks may cause flashovers or breakdowns. The arrangement of the rated impulse withstand voltage test is identical to that of the power frequency withstand voltage test; the test voltages, however, are comparatively higher and the testing times shorter, e.g., 4.8 kV over 50 µs (see figure).



Voltage pulse: 1.2/50 µs per EN 60060-1/VDE 0432-1

Voltage pulse: measurement curve (red) and auxiliary curve (black) for calculating the rate of rise of the pulse and the resulting (virtual) peak of the curve.

T: Time interval for calculating the rate of rise
T1: Front time (duration between start of impulse and reaching the peak)
T2: Total pulse duration

The test values are the values at sea level as specified in the relevant test specification.
The values indicated in the catalog correspond to an altitude of 2000 m.
The test is passed if no flashovers or breakdowns have occurred.

• IP Ratings for Electrical Equipment per IEC/EN 60529

Alphanumeric Nomenclature for Type of Protection			
Code letters IP	Protection against accidental contact and against the penetration of foreign objects or water	IP (Ingress Protection) = International degree of protection	
First code number 0 to 6	Indicates the degree of protection against accidental contact and the penetration of foreign objects.	If indicating the degree of protection requires only one digit, the other (second) digit must be substituted for with an X.	
Second code number 0 to 8	Indicates the degree of protection against water penetration.		
First code number:		Second code number:	
IP0X	No protection against accidental contact or the penetration of foreign objects	IPX0	No protection against water
IP1X	Protection against foreign objects > 50 mm	IPX1	Protection against vertically falling water
IP2X	Protection against foreign objects > 12 mm (e.g., finger)	IPX2	Protection against diagonally dripping water (15° angle)
IP3X	Protection against foreign objects > 2.5 mm	IPX3	Protection against water spray
IP4X	Protection against foreign objects > 1 mm	IPX4	Protection against water spray
IP5X	Protection against damaging dust deposits	IPX5	Protection against water jet, e.g., from a nozzle
IP6X	Protection against dust penetration	IPX6	Protection against flooding
		IPX7	Protection against temporary immersion
		IPX8	Protection against continuous immersion
		IPX9	Protection against high-pressure and high-temperature water jets

IP vs. NEMA	
IP Code	NEMA
10	1
11	2
54	3
14	3R
54	3S
55	4&4X
52	5
67	6&6P
52	12&12K
54	13

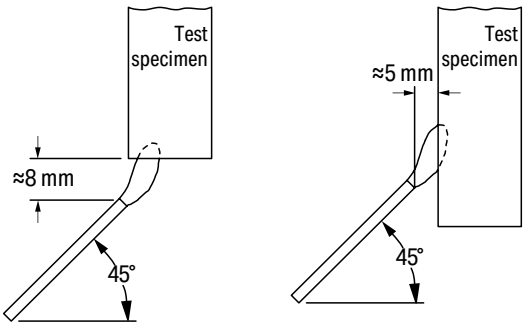
Tests and Testing Procedures per IEC/EN Standards (continued)

Material Tests

All WAGO products meet requirements for the following material tests:

- Needle Flame Test per IEC/EN 60947-7-1, IEC/EN 60695-11-5

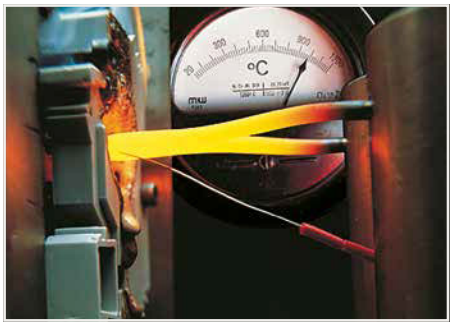
This test simulates flames that may arise under certain conditions (e.g, fault current over a creepage distance, overloading of parts or components). Nearby parts can also be affected by such flames.
Not only the ignition of the test specimen resulting from an intrinsic defect is tested, but also its behavior when other parts ignite.



Flames must not be fuelled by the insulation materials used, thus creating a larger fire. The test specimen is exposed to a standard gas flame during a defined time period (e.g., ten seconds).
After the test flame has been removed, the specimen must self-extinguish within 30 seconds. Furthermore, a layer of tissue paper located beneath the specimen must not be ignited by glowing particles falling from the specimen.

- Glow-Wire Test per IEC/EN 60947-7-4, IEC/EN 60998-1, IEC/EN 60695-2-11

In the event of failure, a high current may cause a conductor to glow.



However, the glowing conductor shall not cause ignition of the product involved (e.g., a rail-mount terminal block). For the glow-wire test, the tip of the glow-wire is pressed against a surface of the test specimen (see picture).
The position of the test specimen, surface to be tested, test duration and glow-wire temperature (e.g., 960°C/1760°F over 30 seconds, or 850°C/1562°F over 5 seconds) are specified in the standards.
The specimen must be positioned such that the tip of the glow-wire acts on the surface section of the specimen (vertical surface of the specimen) that is most likely to be exposed to thermal loading during normal use.

As the highest temperature in the event of a fault is anticipated at the contact insert/wire connection, the tip of the glow-wire must act upon the section of the insulation housing that is the closest to this contact point.
The test is passed if there are no visible flames or permanent glowing, or if flames or glowing extinguish within 30 seconds after removal of the glow-wire. Furthermore, a layer of tissue paper located beneath the specimen must not be ignited by glowing particles falling from the specimen.

Tests and Testing Procedures per IEC/EN Standards (continued)

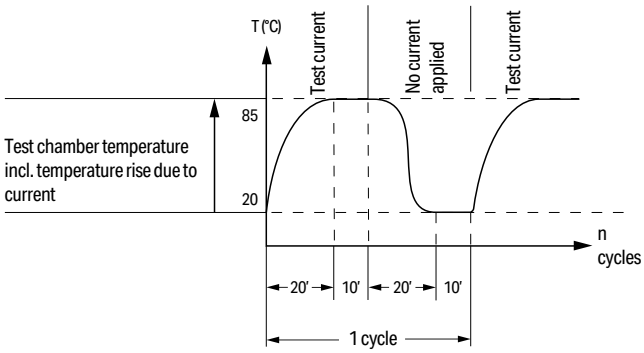
Environmental Tests

The following tests show how a product reacts when exposed to an aggressive environment. Climatic chambers simulate standard atmospheres that could impact the long-term consistency of clamping units.

All WAGO products meet the requirements of the following environmental tests:

- Temperature Cycling Test per IEC/EN 60947-7-1, IEC/EN 60998-2-2

This test shows the change of voltage drop over longer periods under temperature cycling conditions. The test procedure usually consists of 192 temperature cycles, for example, each cycle having a duration of 60 minutes (see diagram).



The rated current is applied to the test specimen during temperature rise and when the temperature has reached its maximum value; during the second half of the cycle, the current is zero. Voltage drop is measured every 24 cycles and must not exceed a maximum value or vary greatly. The voltage drop measured at the end of the 192nd cycle must not exceed 1.5 times the value measured after the 24th cycle. After the test, an inspection must show no changes that would impair further use of the product.

- Industrial Atmospheres per EN ISO 6988, IEC/EN 60068-2-42, IEC/EN 60068-2-60

Sulphur and its combustion products are particularly aggressive pollutants commonly found in industrial environments. A test procedure simulating such corrosive conditions consists of exposing a test specimen to water condensation in variable atmospheres containing sulphur dioxide.



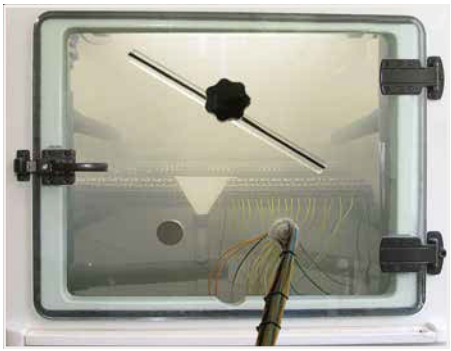
A saturated atmosphere is first created in a climatic chamber by heating an aqueous sulphur dioxide solution. After less than half an hour, the test specimen is fully saturated by the condensing vapors and exposed to this atmosphere for eight hours.

After exposure to a humid atmosphere, the test specimen is subjected to dry and cooler conditions at room temperature for 16 hours. Depending on the test severity, the specimen is exposed to both these conditions several times. The gas-tightness of the clamping unit is verified by a voltage drop test.

In other test procedures, products are exposed to a dry corrosive gas atmosphere containing sulfide, nitrogen and sulfur oxides or chloride gas. These tests can be performed over a period of four to 21 days.

• Salt Spray Test per IEC/EN 60068-2-11; DNV GL, LR (Marine Applications)

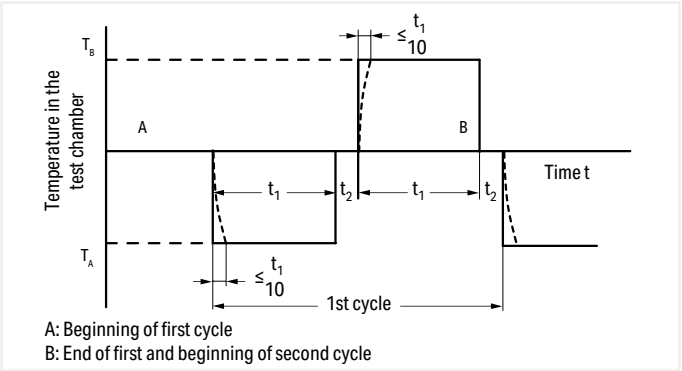
This test is similar to the test performed in water condensation alternating atmospheres, except that instead of industrial atmospheres, salt mist conditions will be simulated in a heated test chamber (see picture).



Depending on the test procedure being used, the test specimen is sprayed with salt mist for 16 hours up to 672 hours (4 weeks).
Salt spray tests are widely used, especially for marine approvals.
However, this test is performed differently than the test procedures described previously for general applications:
During a typical test, the test specimen is sprayed with a salt solution for two hours and is then stored for seven days in an atmosphere with a relative humidity between 90 and 95%.
This procedure is repeated four times.
Voltage drop measurements are used as an evaluation criterion.

• Quick Change of Temperature per IEC/EN 60068-2-14

Without air-conditioning, distribution panels and terminal boxes are exposed to seasonal (and ever-changing) temperature extremes – especially on the open field side.
In process technology, for example, a terminal block is exposed to even quicker changes in temperature.

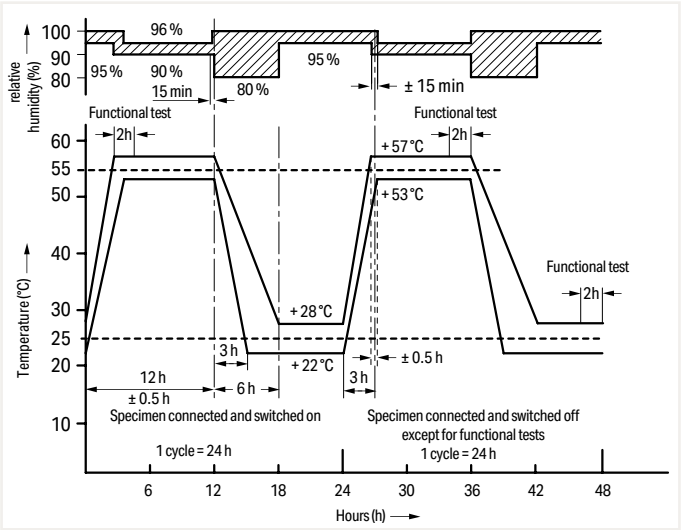


A: Beginning of first cycle
B: End of first and beginning of second cycle

To simulate such conditions, the test specimen is exposed to repeated temperature changes, for example, between TA −40°C (−104°F) and TB +70°C (+158°F).
The dwell time t1 depends on the thermal capacity of the test specimen and should be between maximum of 3 h and minimum of 10 min and the transition time t2 2 … 3 min, 20 … 30 s or less than 10 s.
The mechanical and electrical properties of the product are checked at the end of the test.

• Damp Heat, Cyclic (12 + 12 Hour Cycle) per IEC/EN 60068-2-30, DNV GL, LR (Marine Applications)

This test determines the suitability of electrical equipment for use and storage under conditions of high relative humidity when combined with cyclic temperature changes and, in general, producing condensation on the surface of the specimen.



In addition to the salt spray tests, the damp heat test is also used for marine approvals.
For this test, the specimens are subjected to temperatures varying cyclically between +25°C (+77°F) and +55°C (+131°F) with a relative humidity of 95% (for tolerances see figure).
Functional tests are performed at defined times during the storage period.
The mechanical and electrical properties of the product are checked at the end of the test.

UL Specifications – Underwriters Laboratories, USA

WAGO's terminal blocks and connectors are tested by Underwriters Laboratories Inc. according to one or more of the relevant following UL standards:

• PCB terminal strips (e.g., 236, 745 Series) are approved as non-stand-alone components per UL 1059 in connection with UL 486E.	UL 1059	Standard for terminal blocks
• The *MULTI CONNECTION SYSTEM* "*MCS*-MIDI" is approved as terminal blocks per UL 1059 standard in connection with UL 486 E. It is therefore defined for field and factory wiring with at 300 V.	UL 486 E	Equipment wiring terminals for use with aluminum and/or copper conductors
• It is also approved as connectors for use in data, signal, control and power applications per UL 1977 for factory wiring at 600 V (i.e., the clamping unit must be wired under controlled manufacturing conditions).	UL 1977	Component connectors for use in data, signal, control and power applications
• Ex e II terminal blocks are approved to UL 60079-7.	UL 60079-7	Electrical apparatus for explosive gas atmospheres – Part 7: Increased safety
• Insulation materials are tested for flammability and performance per UL 94.	UL 94	Tests for flammability of plastic materials for parts in devices and appliances

Tests and Testing Procedures per UL Standards

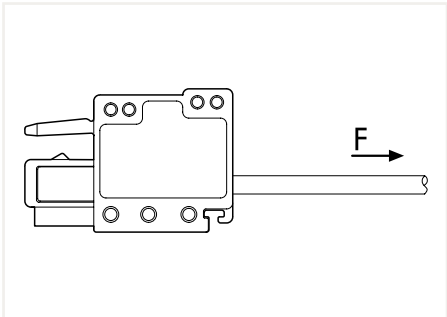
All WAGO products meet requirements for the following tests:

- Pull-Out Test per UL 1059, UL 486 E

In this test, the connected conductors are subjected to the appropriate pull-out forces specified in the following table without jerking for a period of one minute.

Conductor Size		Pull-Out Force, Pounds (N)			
		UL 486 E, Table 22			
AWG or kcmil	(mm²)	Copper		Aluminum	
30	(0.05)	0.5	(2.2)	-	-
28	(0.08)	1	(4.5)	-	-
26	(0.13)	2	(8.9)	-	-
24	(0.2)	3	(13.4)	-	-
22	(0.32)	4.5	(20)	-	-
20	(0.52)	6.75	(30)	-	-
18	(0.82)	6.75	(30)	-	-
16	(1.3)	9	(40)	-	-
14	(2.1)	11.5	(50)	-	-
12	(3.3)	13.5	(60)	10	(44)
10	(5.3)	18	(80)	10	(44)
8	(8.4)	20.5	(90)	10	(44)
6	(13.3)	21	(94)	28	(124)
4	(21.2)	30	(133)	36	(160)
3	(26.7)	35	(156)	42	(187)
2	(33.6)	42	(186)	50	(222)
1	(42.4)	53	(236)	61	(271)
1/0	(53.5)	64	(285)	72	(320)
2/0	(67.4)	64	(285)	78	(347)
3/0	(85.0)	79	(351)	97	(432)
4/0	(107)	96	(427)	116	(516)
250	(127)	96	(427)	116	(516)
300	(156)	99	(441)	116	(516)

Test Arrangement per
UL 1059, UL 486 E:



UL Specifications – Underwriters Laboratories, USA (continued)
Tests and Testing Procedures per UL Standards (continued)

- Heat Cycling Test per UL 1059, UL 486 E

Test performed per:

UL 1059

Test performed with maximum rated cross section

Test current: 150% of maximum rated current

84 cycles of: 3 1/2 h ON / 1/2 h OFF

The temperature rise is measured after the first and the 84th cycle.

The temperature rise must not exceed 5°C (41°F) after the 84th cycle, compared to the temperature measured after the first cycle.

per UL 486 E (Equipment wiring terminals)

Test performed with maximum rated cross section

Test current: Increased test current per UL 486 E, Table 4

500 cycles of: 1 h ON / 1 h OFF
1 1/2 h ON / 1 1/2 h OFF
(from 4/0 AWG up to 400 kcmil per UL 486 E)

The temperature rises at the terminal blocks and control conductors are measured and recorded after: 1, 25, 50, 75, 100, 125, 175, 225, 275, 350, 425 and 500 cycles.

The temperature rise must not exceed 125°C (257°F) and the stability factor "S" must not exceed ±10.

Conductor Size		Test Current for Copper Conductors in A						
		UL 486 E, Table 4						
AWG or kcmil	(mm²)	Assigned Maximum Ampere Rating[b]	Static Heating[a,c,g]		Heat Cycling Temperature Rating[a]			
					75°C (167°F)[d,g]		90°C (194°F)[e,g]	
30	(0.05)	-		3		3.5		4
28	(0.08)	-		3.5		4		5
26	(0.13)	-		5.5		6		8
24	(0.2)	-		7		8		10
22	(0.32)	-		9		12		13
20	(0.52)	-		12		16		17
18	(0.82)	-		17		19		24
16	(1.3)	-		18		20		31
14	(2.1)	15	[20]	30	[22]	33	[27]	40
12	(3.3)	20	[25]	35	[28]	39	[40]	54
10	(5.3)	30	[40]	50	[45]	56	[60]	75
8	(8.4)	50		70		80		100
6	(13.3)	65		95		105		131
4	(21.2)	85		125		140		175
3	(26.7)	100		145		165		205
2	(33.6)	115		170		190		240
1	(42.4)	130		195		220		275
1/0	(53.5)	150		230		255		320
2/0	(67.4)	175		265		300		370
3/0	(85.0)	200		310		345		435
4/0	(107)	230		360		405		505
250	(127)	255		405		445		565
300	(152)	285		445		500		625

[a] See Section 7.2, 8.2 and 9.2 (UL 486 E)
[b] Values are for 75°C (167°F), not more than three conductors in raceway or cable ampacities, National Electric Code, ANSI/NFPA 70.
[c] Values are for 75°C (167°F) single conductors in free air ampacities, National Electric Code, ANSI/NFPA 70.
[d] Values are approximately 112% of the static heating test currents.
[e] Values for 8 AWG and larger conductors are approximately 140% of the static heating test currents.
[f] See Section 9.2.4
[g] Values in parentheses apply to connectors with assigned ampere ratings.

- Conditioning – Temperature-Rise Rest per UL 1059

Test performed per:

per UL 1059 (terminal blocks)

Conditioning:

The clamping units are **pre-wired/pre-inserted nine times** using a conductor with maximum rated cross section. At the 10th time, a new conductor is connected.
After this, a static heating test is performed.

Static Heating Test:

Test current:	Terminal block rated current
Test duration:	30 days
Max. permissible temperature rise:	30°C (86°F)

UL Specifications – Underwriters Laboratories, USA (continued)
Tests and Testing Procedures per UL Standards (continued)

• Insulation Parameters per UL 1059

The table below shows the potential involved and the corresponding clearances and creepage distances required in different applications.

Table 8.1 – Minimum Acceptable Spacing for Terminal Blocks per UL 1059 Standard

		Spacing in inches (mm) between uninsulated live parts of opposite polarity, uninsulated live parts and uninsulated grounded parts other than the enclosure			
Application:	Potential Involved in Volts	Through Air		Over Surfaces	
A. Dead-front switchboards, panelboards, service equipment and similar applications	51 … 150 151 … 300 301 … 600	1/2 3/4 1	(12.7) (19.1) (25.4)	3/4 1-1/4 2	(19.1) (31.8) (50.8)
B. Commercial appliances, including business equipment, electronic data processing equipment and similar applications	51 … 150 151 … 300 301 … 600	1/16[a] 3/32[a] 3/8	(1.6)[a] (2.4)[a] (9.5)	1/16[a] 3/32[a] 1/2	(1.6)[a] (2.4)[a] (12.7)
C. Industrial, general	51 … 150 151 … 300 301 … 600	1/8[a] 1/4 3/8	(3.2)[a] (6.4) (9.5)	1/4 3/8 1/2	(6.4) (9.5) (12.7)
D. Industrial, devices having limited ratings[b]	51 … 300 301 … 600	1/16[a] 3/16[a]	(1.6)[a] (4.8)[a]	1/8[a] 3/8	(3.2)[a] (9.5)
E. Terminal blocks rated 601 … 1500 V[c]	601 … 1000 1001 … 1500	0.55 0.70	(14.0) (17.8)	0.85 1.20	(21.6) (30.5)

Notes:

1 A slot, groove, or similar, 0.013 inch (0.33 mm) wide or less in the contour of the insulating material is to be disregarded.
2 Air space of 0.33 mm or less between a live part and an insulating surface is to be disregarded for the purpose of measuring over surface spacing.
[a] The spacing between terminal blocks of opposite polarity and the spacing between a terminal block and a grounded dead metal part shall not be less than 1/4 inch (6.4 mm) if short-circuiting or grounding of such terminal blocks may result from protruding wire strands.
[b] See Section 8.5 (UL 1059)
The spacing values indicated in sub-paragraph D in Table 8.1 are applicable to a terminal block for use only in or with industrial control equipment where the load on any single circuit of the terminal block does not exceed 15 A at 51 … 150 V, 10 A at 151 … 300 V, 5 A at 301 … 600 V or the maximum ampere rating, whichever is less.
[c] Applies only to terminal blocks investigated to Part II of this standard. See Section 22.1 (UL 1059).

• Flammability Test per UL 94

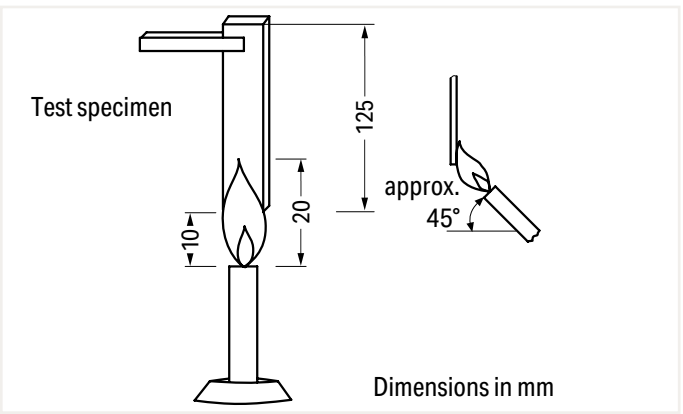
This test provides an indication of the material's ability to extinguish a flame, once ignited.
Several ratings can be applied, based on the rated of burning, time to extinguish, ability to resist dripping, and after-glow extinguishing time.
Each material tested may receive several ratings, depending on the wall thickness.

UL 94 Rating Categories:

V2
- Specimen mounted vertically
- Burning stops within 30 seconds after the flame is removed
- Flaming drips allowed
- After-glow extinguishes within 60 seconds max.

V1
- Specimen mounted vertically
- Burning stops within 30 seconds after the flame is removed
- No flaming drips allowed
- After-glow extinguishes within 60 seconds max.

V0
- Specimen mounted vertically
- Burning stops within 10 seconds after the flame is removed
- No flaming drips allowed
- After-glow extinguishes within 30 seconds max.



During the test, a 3/4 inch (20 ±1 mm) flame is applied for two 10-second intervals to the specified bar specimen held vertically.

“Alu-Plus” Contact Paste
Terminating Aluminum Conductors

Terminating Aluminum Conductors
WAGO spring clamp terminal blocks are suitable for solid aluminum conductors ❶ up to 4 mm²/12 AWG if WAGO “Alu-Plus” Contact Paste is used for termination.

Advantages of the “Alu-Plus” Contact Paste:
- Automatically destroys the oxide film during clamping.
- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).
- Provides long-term protection against corrosion.

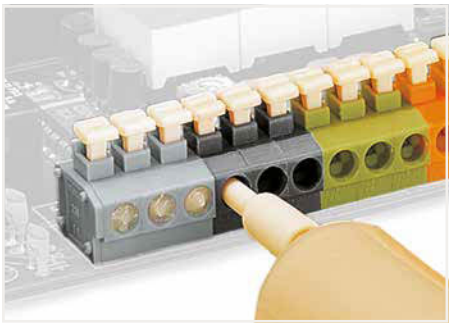
Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, **aluminum conductors must first be cleaned with a blade** and then immediately be inserted into the clamping units filled with “Alu-Plus” Contact Paste.

It is also possible to apply WAGO “Alu-Plus” **additionally** on the whole surface of the aluminum conductor before termination.

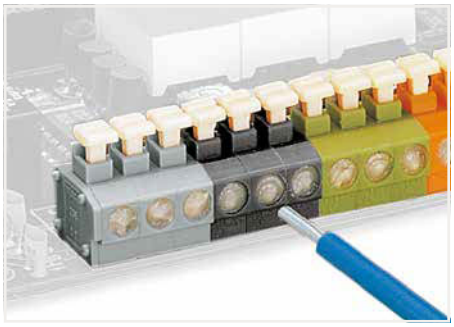
Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors:

2.5 mm² (14 AWG) = 16 A
4 mm² (12 AWG) = 22 A

WAGO “Alu-Plus” in the syringe offers a higher degree of reliability and cleanness when terminating solid aluminum conductors.
Filling is, for example, quickly performed on WAGO PCB Terminal Trips:



WAGO Lighting Connectors
Push nozzle of the “Alu-Plus” syringe first into the circular entry and then into the square conductor entry hole of the WAGO Lighting Connector.



Press plunger down until the “Alu-Plus” has filled both entry holes.

Note: Not suitable for higher temperature applications!

❶ Aluminum conductors per IEC 61545 standard, Class B, “Alloy 1370” with 90 … 180 N/mm² tensile strength and 1 … 4% elongation
Standard values: 90 … 180 MPa tensile strength, 1 … 4% elongation (per EN 615.4.1)

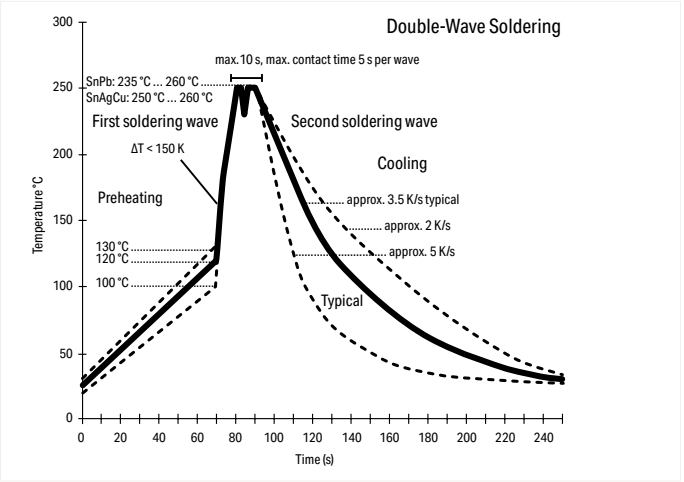
Material Specifications

Soldering Information

Wave Soldering

WAGO's PCB terminal blocks and connectors comply with the 2011/65/EU Directive of June 8, 2011 and display the "RoHS compliant" logo on their packaging.

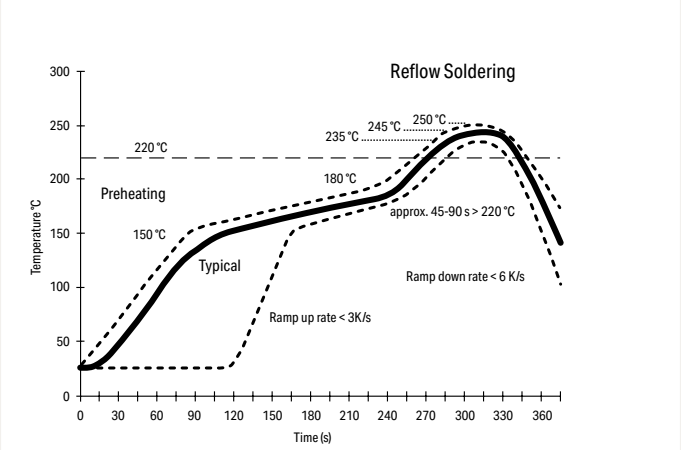
In accordance with IEC 61760-1, the maximum double-wave soldering temperature is 260°C (500°F) for a maximum 10 seconds or 5 seconds per wave.



Reflow Soldering

WAGO's THR and SMD PCB terminal blocks and connectors have high-temperature-resistant insulated housings and reflow solder contacts.

In accordance with IEC 61760-1 or IEC 60068-2-58, the maximum soldering temperature is 260°C/500°F (peak temperature). Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.



Insulation Materials

WAGO primarily uses polyamide (PA 66 and PA 46) for housing current-conducting parts, as well as polyphthalamide (PPA) and polycarbonate (PC) for insulation material (see table). For more than 50 years, these materials have proven themselves in WAGO products and all are approved by certified, third-party agencies. All listed halogen-free and flame-retardant polymer materials do not contain any heavy metals, silicone, asbestos, or formaldehyde as formulation components.

Table: Standard Insulation Materials

Material	PA 66	PA 66 GF	PPA GF	PA 46	PC	PC
Flammability UL 94 flammability test ratings	V0	V0	V0	V2	V2	V0
Oxygen Index (OI) per EN ISO 4589-2	> 32 %	> 33 %	> 37 %	> 27 %	> 26 %	> 35 %
Glow-wire test per IEC 60695-2-12 GWFI* IEC 60695-2-13 GWIT*	 850 °C 775 °C	 850 °C 775 °C	 850 °C 775 °C	 750 °C 725 °C	 800 °C 850 °C	 960 °C 850 °C
Comparative Tracking Index (CTI) per IEC 60112	600 V	600 V	600 V	375 V	225 V	225 V
Temperature of the ball indentation hardness test per IEC 60695-10-2	≥ 125 °C	≥ 175 °C	≥ 225 °C	n.s.**	≥ 125 °C	≥ 125 °C
RTI impact per UL 746B	105 °C	100 °C	115 °C	115 °C	125 °C	120 °C
Heat deflection temperature (HDT/B) per ISO 75 (bending stress A*: 1.8 MPa; B: 0.45 MPa)	215 °C	235 °C	285 °C	280 °C	130 °C (1.8 MPa)	130 °C (1.8 MPa)
Surface resistivity per IEC 60093	10^{12} Ω	10^{12} Ω	10^{15} Ω	10^{13} Ω	10^{15} Ω	10^{15} Ω
Specific contact resistance per IEC 60093	10^{15} Ω/cm	10^{15} Ω/cm	10^{13} Ω/cm	10^{13} Ω/cm	10^{11} Ω/cm	10^{13} Ω/cm
Dielectric strength per IEC 60243-1	30 kV/mm	40 kV/mm	25 kV/mm	25 kV/mm	25 kV/mm	29 kV/mm

*Value depends on wall thickness, EN 60335 compliance upon request; **n. s. = not specified

Polyamide (PA 66)
WAGO uses modified, halogen-free, flame-retardant polyamides.

These materials do not corrode, are difficult to ignite and feature self-extinguishing properties (V0 rating per UL 94).

Adhering to UL 746C, the polyamides used at WAGO have a continuous operating temperature of 105°C (221°F) based on the relative temperature index with impact load (RTIimp). This ensures that the necessary electrical and mechanical insulating properties are maintained at a sufficiently guaranteed level over a long period of time.

The short-term upper temperature limit is 200°C (392°F).

In lower temperature ranges, it has been determined that no damage to the insulation material occurs during usage down to −35°C (−31°F). After installation and wiring, WAGO products can even be used at temperatures down to −60°C (−76°F).

Environmental humidity (up to 2.5% in a standard atmosphere) is absorbed, providing the polyamides with optimum elasticity, strength and durability.

In practical use, basic stabilization of WAGO's polyamides has been proven over many years to be sufficient to prevent damage caused by ozone or UV radiation exposure in intended applications.

Polyamides have excellent resilience against the most demanding climates and have proven themselves in tropical applications worldwide. Insulation parts made of polyamide are resistant to insects. The material does not provide oxygen or other biogenic elements to microorganisms.

The presence of anaerobic earth bacteria, mold, fungus and enzymes does not degrade the material.

Polyamides are resistant to most fuels, greases, and oils, as well as the most commonly used cleaners, such as alcohol, Freon, Frigen, and carbon tetrachloride. Acid resistance depends on the acid type and concentration, as well as the exposure time.

The use of insulation materials during in-house production at WAGO only occurs after acceptance of factory test certificates and specified material tests.

Glass Fiber-Reinforced Polyamide (PA 66 GF)
WAGO uses glass-fiber-reinforced polyamides for components with increased mechanical demands, such as levers, push-buttons or housings exposed to high stress, because they have significantly better mechanical characteristic properties than non-reinforced polyamides.

In general, materials are used that have excellent tracking resistance, flammability ratings and high temperature resistance.

More data can be found in the table.

Polyphthalamide (PPA GF)
Glass-fiber-reinforced, high-performance polyamides are ideal for high-temperature applications, due to the material's high level of thermal dimensional stability, its low dependence on ambient conditions and its excellent strength properties. The material's outstanding tracking resistance permits short creepage distances to be incorporated into miniature components. Fire protection equipment enables classification in flammability class V0 per UL 94 – even for extremely thin walls. PPA GF absorbs minute amounts of moisture from the atmosphere making it ideal for reflow soldering applications and for thin-walled, dimensionally stable components.

More data can be found in the table.

Polyamide (PA 46)
In comparison with PA 66, PA 46 has substantially higher dimensional stability under heat. The relative temperature index with impact load (RTIimp) is 115°C (239°F) for PA 4.6. The permissible short-term temperature for the type used by WAGO is 280°C (536°F).

More data can be found in the table.

Polycarbonate (PC)
Polycarbonate has excellent dimensional stability under heat. The electrical and mechanical properties remain intact at extremely high temperatures up to approximately 120°C (248°F) per UL Yellow Card. Its excellent electrical insulating properties and dimensional stability are virtually independent of environmental conditions, such as humidity and temperature. Highly precise components can be created due to the low shrinkage of the material during injection molding. Polycarbonate has excellent weather resistance and is also highly resistant to high energy radiation.
If the PC is not colored, then the components are glass-clear.
Thanks to its desirable properties (e.g., dimensional stability, heat resistance, non-flammability, durability and transparency), PC is a proven and widely used material in the electrical industry.

Depending on the demands placed on the finished product, WAGO uses polycarbonates that carry flammability classifications V2 and V0 per UL 94.

Medium-viscosity PC is used that features excellent chemical resistance.

Material Specifications

Contact Materials

Hard and extra-hard electrolytic copper (ECu), as well as extra-hard copper alloys are the standard materials used for the current-carrying parts of all WAGO products.

These materials combine excellent conductivity and good chemical resistance without the risk of stress-induced cracking.

Contact Materials

The special tin layer, which is the standard layer for all current-carrying parts in WAGO products, ensures perfect long-term protection against corrosive substances. Furthermore, these layers provide a gas-tight contact that ensures a durable transition resistance.

At the clamping unit, the conductor is embedded into the soft tin layer via high contact pressure. This protects the contact area against corrosion.

The thick tin layer also ensures good solderability of both PCB terminal block and connector solder pins.

Clamping Spring Material

Every WAGO clamping spring is made of high-quality, accurately tested austenitic chrome nickel steel (CrNi) with high tensile strength, which boasts proven corrosion resistance through long-term usage.

It is resistant to sea spray, city pollutants and industrial emissions (e.g., sulfur dioxide, hydrogen sulfide).

At room temperatures of approximately 20°C (68°F), the material is resistant to salt solutions up to 30% and dilute phosphoric acids up to 30%.

Even after decades of use, no galvanic corrosion between the chrome nickel spring steel (in connection with the contact materials used by WAGO) and the connected copper conductors has been detected.

The relaxation of the material as a function of time and surrounding temperatures up to 105°C (221°F) can be ignored. Samples loaded with 500 N/mm² at a temperature of 250°C (482°F) showed a relaxation of only 1.5%.

In certain product lines, the clamping springs are thermally treated at temperatures between 350°C (662°F) and 420°C (788°F) after production.

This treatment reduces internal stress due to the material's mechanical deformation, which may result in a slight brown discoloration of the spring surface.

WAGO only accepts deliveries of chrome nickel spring steel against certificates of conformity and after select material tests have been performed.

General Technical Information on Electrical Equipment Used in Hazardous Areas

The formation of an explosive atmosphere is required for the existence of a potentially explosive hazard. Such an atmosphere can be produced at any location where flammable gases or liquids are manufactured, processed, transported and/or stored.
Such hazardous areas can be found in a wide range of industries, including chemical plants, refineries, power plants, paint production facilities, painting shops, filling stations, vehicles, sewage treatment plants, airports, grain mills or harbor facilities.

THE FOLLOWING APPLIES AS A GUIDELINE FOR THE UNDERLYING PRINCIPLE FOR EXPLOSION PROTECTION:

General Requirements
The European EN 60079-0 Standard – VDE 0170-1 Classification – contains general requirements for the design and testing of electrical equipment to be used in hazardous areas.
This ensures this equipment does not cause an explosion in the surrounding atmosphere. EN 60079-0 is supplemented or revised by the European standards indicated on the right which refer to the specifically standardized types of protection.

Electrical Equipment
Electrical equipment includes all items used in whole or in part with electricity. This includes items for generation, transport, distribution, storage, measurement, control, conversion and consumption of electrical power, as well as telecommunications.

Ex Components
Ex components are elements of electrical equipment for hazardous areas that are marked with the "U" letter. These components must not be used on their own in such areas and require an additional certificate when used in such areas when installed in the electrical equipment.

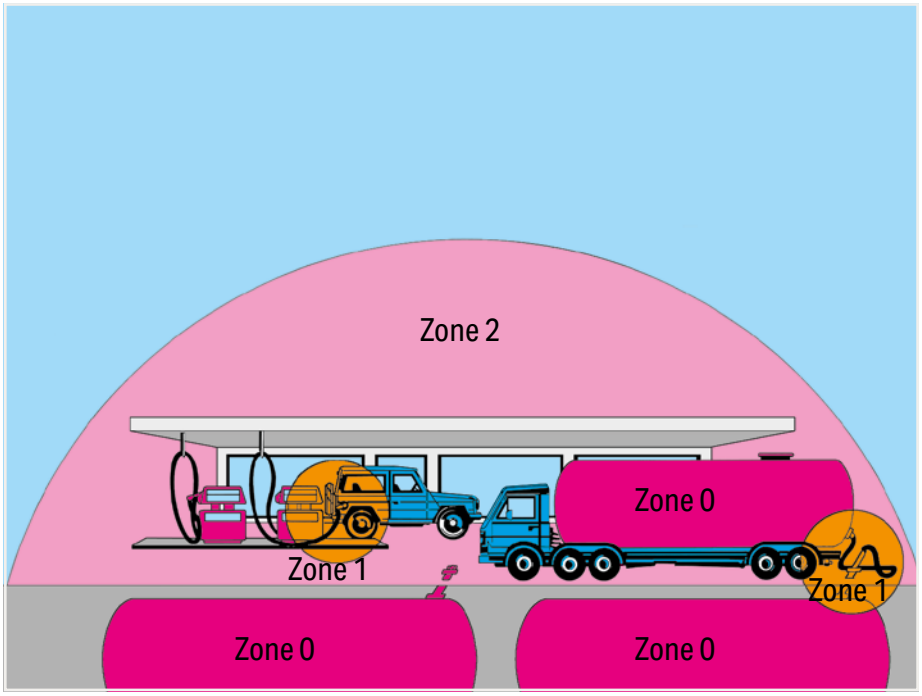
Ignition Protection Categories
Only explosion-proof (protected) equipment must be used in areas in which an explosive atmosphere may still be expected despite the implementation of prevention measures. Explosion-protected electrical equipment can have various types of protection in accordance with the EN 60079 standard requirements.
Protection used by the manufacturer essentially depends on the type and function of the apparatus. From a safety point of view, all standardized types of protection should be viewed as equal.
The ignition protection category "n" exclusively describes the use of explosion-protected electrical components in Zone 2. This zone includes areas in which hazardous, potentially explosive atmospheres are likely to occur rarely or short-term. This represents a transition between Zone 1, in which explosion protection is required, and the safe area in which, for example, welding may be performed at any time.
Regulations covering these electrical components are being prepared worldwide. Organizations such as KEMA in the Netherlands, or PTB in Germany certify that the devices meet the requirements of the EN 60079-15 standard.
Ignition protection category "n" also requires that electrical equipment be provided with additional ID markings as follows:
- nA – non-sparking
- nC – enclosed-break, hermetically sealed, non-incendive, sealed
- nR – restricted-breathing

The table on the opposite page shows an overview of the standardized ignition protection categories and describes their basic principle, as well as typical applications.

General Technical Information on Electrical Equipment Used in Hazardous Areas
Continued

Harzardous Areas
Hazardous areas are zones in which the atmosphere may become explosive. An explosive atmosphere is a mixture of flammable substances in the form of gases, vapors or mixtures with air under atmospheric conditions in critically mixed ratios such that excessive high temperature, arcs or sparks may cause an explosion.

EN 60079-10-1/EN 60079-10-2 and all other well-known standards rank hazardous areas according to the likelihood of the occurrence of an explosive atmosphere into the following zones:



Hazardous areas due to explosive gases, vapors and mists:

Zone 0

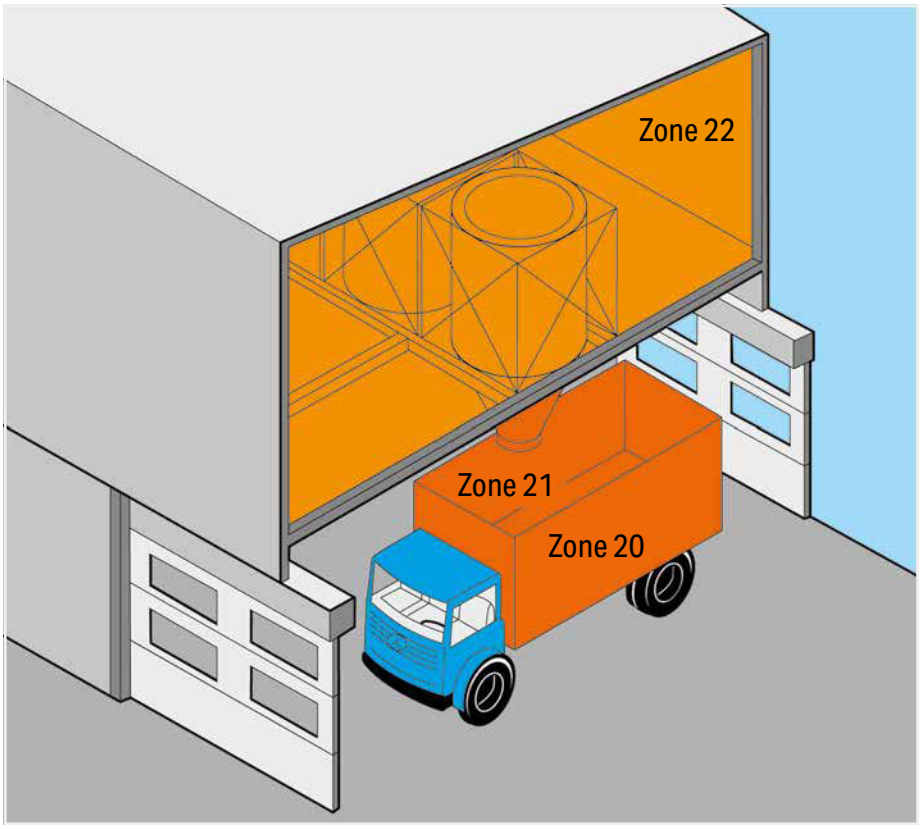
Area in which an explosive gas atmosphere is present continuously, for long periods or frequently.

Zone 1

Area in which an explosive gas atmosphere is likely to occur periodically or occasionally during normal operation.

Zone 2

Area in which an explosive gas atmosphere is unlikely to occur during normal operation; if it does occur, then it is temporarily.



Hazardous areas due to explosive dust/air mixtures:

Zone 20

Area in which an explosive dust atmosphere due to dust/air mixtures is present continuously, for long periods or frequently.

Zone 21

Area in which an explosive dust atmosphere due to dust/air mixtures is likely to occur occasionally during normal operation.

Zone 22

Area in which an explosive dust atmosphere due to flammable dust/air mixtures is unlikely to occur during normal operation; but if it occurs, then only for a short period of time.

EN 60079-0 also classifies electrical equipment for use in hazardous areas into two groups:

Group I:
Electrical equipment for mines susceptible to firedamp

Group II:
Electrical equipment for hazardous areas, except for mines susceptible to firedamp.

As this broad application range encompasses a large number of potentially flammable gases, Group II is broken down into subgroups IIA, IIB and IIC.
This breakdown is based on different gases/materials exhibiting differing ignition power levels as parameters. Therefore, representative gases have been allocated to these three sub-groups:
- IIA – Propane
- IIB – Ethylene
- IIC – Hydrogen

WAGO's terminal blocks can be used both in Group I and Group II.

This information is given under Item 12 in the EU Prototype Test Certificates, based on which the terminal blocks have been approved for Group I and Group II.

Temperature Class	Maximum Surface Temperature (°C)
T1	450
T2	300
T3	200
T4	135
T5	100
T6	85

Depending on the maximum surface temperature, electrical equipment in Group II are classified in temperature categories T1 to T6 for all protection types. The surrounding air temperature, which must be accounted for in dimensioning, is defined as 40°C/104°F (deviations are acceptable under some conditions).
Terminal blocks for "eb" (increased safety) protection type are generally assigned to temperature category T 6. When rail-mount terminal blocks are used in equipment of temperature categories T1 to T5, ensure that the highest temperature on the insulating parts does not exceed 85°C (185°F).
The highest measured surface temperature rise must not exceed 40 K.

Thermal resistance of the insulation material must be at least 20°C (68°F) greater than the highest operating temperature. Low temperature stability is considered to be sufficient when the insulation material can withstand 24-hour storage at a temperature of −60°C (−76°F) without nullifying the type of protection.

Special Requirements "Increased Safety Ex e"
The European EN 60079-7 Standard – VDE 0170-6 Classification – contains special requirements for the design and testing of electrical equipment with "eb" (increased safety) protection type for use in hazardous areas.
This standard is a supplement to EN 60079-0 and applies to equipment or parts thereof that neither generate sparks or arcing under normal operating conditions, nor exhibit hazardous temperatures.
This standard describes special measures, which have to be observed to obtain a safety degree according to the "eb" (increased safety) protection type.
Ex components such as rail-mount terminal blocks are covered by Section 4.2 "Terminal Blocks for External Conductors":
- The terminal blocks must be installed in an enclosure meeting the requirements of a recognized protection type per EN 60079-0, Section 1 or EN 60079-31.
- When installing the terminal blocks in an enclosure of protection type "eb" (increased safety) per EN 60079-7, the clearances and creepage distances of Table 2 must be observed. When using accessories, the installation instructions of the manufacturer must be observed.
- The terminal blocks can be used both in Group II and Group I, as the standard requirements are identical in this case.
- The use of this component requires a new assessment by a notified certification agency.

Minimum Ignition Power of Typical Gases:

Explosion Group	I	IIA	IIB	IIC
Gas	Methane	Propane	Ethylene	Hydrogen
Ignition Power	280	250	82	16

The following are the most important design requirements for terminal blocks for external supply conductors to electrical equipment:
These must:
- be sufficiently large to permit reliable connection of external supply conductors with cross section of at least the size required by the nominal current of the equipment
- be protected against self-loosening and designed such that the supply conductors cannot slip out of their clamping units
- be designed such that adequate contact pressure is ensured without damaging the conductors
- be designed such that their contact pressure does not change with temperature cycling
- be equipped with a spring connecting link for the connection of stranded conductors
- be designed so as to allow secure connection of smaller conductors for terminal blocks up to 4 mm² (12 AWG).

General Technical Information on Electrical Equipment Used in Hazardous Areas
Continued

Classification of insulation materials according to their tracking resistance is based on their Comparative Tracking Index (CTI) and is defined in Table 1 as follows:
This classification applies to insulating parts without ribs or grooves.
If the insulating parts have ribs or grooves sufficiently large to be considered, the minimum creepage distances must be set according to values for the insulation materials in the next-higher level (e.g., Group I, instead of Group II).
Accounting for the surrounding air temperature of 40°C (104°F) specified for electrical equipment, the current-carrying capacity of rubber-insulated conductors is reduced to 82%, based on DIN VDE 0298-4:2013-06, Table 12 and to 87% for PVC-insulated conductors for the current-carrying capacity defined for 30°C (86°F) in accordance with DIN VDE 0298-4:2013-06, Item 4.3.3.

It is expressly prohibited to use insulating parts for transferring contact forces. Terminal blocks with sharp edges which could damage supply lines and those types that can be rotated, turned or permanently deformed when fixed in place are not permitted for use. Terminal blocks for internal connections in electrical equipment must not be subjected to excessive mechanical stress. These items must fulfill the requirements for terminal blocks used for external supply conductors.
Clearances between conductive parts having different potentials must be at least 3 mm for external connections, as specified in Table 2. The value of the creepage distances depends on the working voltage, surface geometry of the insulating parts and tracking resistance of the insulation material.
Grooves on the surface may only be considered if they are at least 2.5 mm deep and wide; ribs on the surface only if their height is at least 2.5 mm and their width corresponds to the mechanical strength of the material, however not smaller than 1 mm.

Conductor Types and Conductor Preparation

In accordance with EN 60079-14/DIN VDE 0165-1, the ends of stranded and fine-stranded conductors must be protected against splaying (e.g., via cable lugs or ferrules) or by the type of terminal blocks used. Soldering alone is not sufficient.
According to EN 60069-7/DIN VDE 0170-6, connecting electrical equipment to terminal blocks having an “eb” (increased safety) protection type must not lead to a reduction of the clearances and creepage distances.
Based on experience through the application of terminal blocks in aggressive atmospheres in the chemical industry, WAGO recommends gas-tight tinned copper ferrules or tinned copper pin terminals when connecting fine-stranded conductors to terminal blocks in corrosive atmospheres.

Table 1– Tracking Resistance for Insulation Materials

Material Group	Comparative Tracking Index
I	600 ≤ CTI
II	400 ≤ CTI < 600
III a	175 ≤ CTI < 400
III b	100 ≤ CTI < 175

Table 2– Minimum Creepage Distances/Clearances and Isolations

Voltage (see [a] and [b]) RMS Value for AC or DC Voltage V	Minimum Creepage Distance mm								Minimum Clearance and Isolations mm		
	Material Group								Clearance mm		Distance under Coating[d]
	I		II		III a		III b				
	“eb”	“ec”	“eb”	“ec”	“eb”	“ec”	“eb”	“ec”	“eb”	“ec”	“ec”
≤ 10 (see [c])	1.6	1	1.6	1	1.6	1	–	1	1.6	0.4	0.3
≤ 12.5	1.6	1.05	1.6	1.05	1.6	1.05	–	1.05	1.6	0.4	0.3
≤ 16	1.6	1.1	1.6	1.1	1.6	1.1	–	1.1	1.6	0.8	0.3
≤ 20	1.6	1.2	1.6	1.2	1.6	1.2	–	1.2	1.6	0.8	0.3
≤ 25	1.7	1.25	1.7	1.25	1.7	1.25	–	1.25	1.7	0.8	0.3
≤ 32	1.8	1.3	1.8	1.3	1.8	1.3	–	1.3	1.8	0.8	0.3
≤ 40	1.9	1.4	2.4	1.6	3	1.8	–	1.8	1.9	0.8	0.6
≤ 50	2.1	1.5	2.6	1.7	3.4	1.9	–	1.9	2.1	0.8	0.6
≤ 63	2.1	1.6	2.6	1.8	3.4	2	–	2	2.1	0.8	0.6
≤ 80	2.2	1.7	2.8	1.9	3.6	2.1	–	2.1	2.2	0.8	0.8
≤ 100	2.4	1.8	3	2	3.8	2.2	–	2.2	2.4	0.8	0.8
≤ 125	2.5	1.9	3.2	2.1	4	2.4	–	2.4	2.5	1	0.8
≤ 160	3.2	2	4	2.2	5	2.5	–	2.5	3.2	1.5	1.1
≤ 200	4	2.5	5	2.8	6.3	3.2	–	3.2	4	2	1.7
≤ 250	5	3.2	6.3	3.6	8	4	–	4	5	2.5	1.7
≤ 320	6.3	4	8	4.5	10	5	–	5	6	3	2.4
≤ 400	8	5	10	5.6	12.5	6.3	–	6.3	6	4	2.4
≤ 500	10	6.3	12.5	7.1	16	8	–	8	8	5	2.4
≤ 630	12	8	16	9	20	10	–	10	10	5.5	2.9
≤ 800	16	10	20	11	25	12.5	–	–	12	7	4
≤ 1000	20	11	25	11	32	13	–	–	14	8	5.8
≤ 1250	22	12	26	12	32	15	–	–	18	10	–
≤ 1600	23	13	27	13	32	17	–	–	20	12	–
≤ 2000	25	14	28	14	32	20	–	–	23	14	–
≤ 2500	32	18	36	18	40	25	–	–	29	18	–
≤ 3200	40	22	45	22	50	32	–	–	36	22	–
≤ 4000	50	28	56	28	63	40	–	–	44	28	–
≤ 5000	63	36	71	36	80	50	–	–	50	36	–
≤ 6300	80	45	90	45	100	63	–	–	60	45	–
≤ 8000	100	56	110	56	125	80	–	–	80	56	–
≤ 10000	125	71	140	71	160	100	–	–	100	70	–
≤ 12500	–	90	–	90	–	125	–	–	–	89	–
≤ 13640	–	98	–	98	–	138	–	–	–	97	–

[a] When determining the required values for creepage distances and clearances, the working voltage may be 1.1 times higher than the value in the table.
NOTE: The factor of 1.1 takes into account that in many places in a circuit the working voltage is equal to the rated voltage and that a number of rated voltages are used, which are covered by a factor of 1.1.
[b] The specified values for creepage distances and clearances already take into account a 10% tolerance for the highest supply voltage. Therefore, further considerations on the voltage fluctuations are unnecessary for determining which voltage value from the table should be used.
[c] CTI values are not applicable for voltages of 10 V or less. Materials that do not meet the requirements of material group III a can be used.
[d] The specified distances under consideration apply to printed circuit boards in protection level “ec” after 4.5.

Approvals

Terminal blocks may be used in Zones 1 and 2, provided that the terminal blocks are accommodated in an enclosure that has a minimum IP54 protection and an Ex e certification.
Terminal blocks are considered to be Ex components because they are a part of the equipment. Part certificates provided by Ex Certification Agencies serve as a basis for issuing the complete conformity declaration for the unit.
An EC-type examination certificate is issued in accordance with the 2014/34/EU ATEX Directive.
In addition, an IEXEx Certificate may also be obtained from an appropriate, recognized certification agency in accordance with the IECEx Certification Agreement that is accepted throughout Europe and also in countries such as Canada, China and Australia.
These certificates can also be viewed at: www.iecex.com.

EC-type examination certificates have been granted to all WAGO terminal blocks listed in this catalog.
WAGO terminal blocks approved for use in Ex e II areas are manufactured of flame-resistant, self-extinguishing Polyamide 66. The same applies to the terminal blocks used in non-hazardous areas. Tracking resistance with a CTI value of 600 as per IEC 60112 and a constant operating temperature of 105°C (22°F) in accordance with IEC 60216-1 and -2 are provided.
Factory part quality tests are performed on all PCB terminal blocks with Ex e II approval to monitor and ensure the quality features described above.

Terminal block marking per 2014/34/EU ATEX Directive:

⟨Ex⟩	II	2	G	Ex eb IIC	Gb

Explosion prevention marking

Group II (for equipment used in areas in which an explosive atmosphere might occur)

Category 2 (high safety, equipment used in areas [zones] in which a potentially explosive atmosphere occurs only occasionally. Explosion protection must continue to be provided even in the event of frequent device faults.)

Gases

Explosion protection in Europe, "increased safety" protection type, Group II

Level of equipment protection (Device with "high" protection level for use in areas where there is a potential risk of explosion where there is no risk of ignition resulting from predictable or faults/malfunctions.)

or

⟨Ex⟩	I	M 2	Ex eb I	Mb

Explosion prevention marking

Group I (for equipment used in underground applications)

Mining applications

Explosion protection in Europe, "increased safety" protection type, Group I

Level of equipment protection (Device with "high" protection level for installing in mines that are susceptible to firedamp, that guarantee the required measure of safety, where there is no risk of ignition resulting from predictable faults/malfunctions during normal operation in the time between the gas escaping and switching off the device.)



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com
Ex COMPONENT CERTIFICATE

Certificate No.: IECEx PTB 18.0012U
Issue No: 0
Certificate history: Issue No. 0 (2018-08-30)
Status: Current
Page 1 of 3
Date of Issue: 2018-08-30
Applicant: WAGO Kontakttechnik GmbH & Co. KG
Hansastraße 27
32423 Minden
Germany
Ex Component: WAGO type PE & Through terminal blocks type TOPJOB S 2202-**** and TOPJOB S 2202-***7

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: Increased Safety "eb"
Marking: Ex eb IIC Gb and Ex eb I Mb

Approved for issue on behalf of the IECEx Certification Body: Dipl.-Phys. U. Völkel
Position: Department "Explosion Protection in Energy Technology"
Signature: (for printed version)
Date: 31.8.18

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38116 Braunschweig
Germany



PTB Physikalisch-Technische Bundesanstalt Braunschweig und Berlin
Nationales Metrologieinstitut

EU-Baumusterprüfbescheinigung

(1)
(2) Komponente zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen
Richtlinie 2014/34/EU
(3) EU-Baumusterprüfbescheinigungsnummer
PTB 18 ATEX 1005 U Ausgabe: 0
(4) Produkt: Durchgangsreihenklemmen Typ TOPJOB S 2202-****
Schutzleiterreihenklemmen Typ TOPJOB S 2202-***7
(5) Hersteller: WAGO Kontakttechnik GmbH & Co. KG
(6) Anschrift: Hansastraße 27, 32423 Minden, Deutschland
(7) Die Bauart dieses Produkts sowie die verschiedenen zulässigen Ausführungen sind in der Anlage und den darin aufgeführten Unterlagen zu dieser Baumusterprüfbescheinigung festgelegt.
(8) Die Physikalisch-Technische Bundesanstalt, notifizierte Stelle Nr. 0102 gemäß Artikel 17 der Richtlinie 2014/34/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014, bescheinigt, dass dieses Produkt die grundlegenden Sicherheits- und Gesundheitsanforderungen für die Konzeption und den Bau von Produkten zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie erfüllt.
Die Ergebnisse der Prüfung sind in dem vertraulichen Prüfbericht PTB Ex 18-17171 festgehalten.
(9) Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit
IEC 60079-0:2017, EN 60079-7:2015
(10) Das Zeichen "U" hinter der Zertifikatsnummer gibt an, dass dieses Zertifikat nicht mit einem für ein Gerät oder Schutzsystem vorgesehenen Zertifikat verwechselt werden darf. Diese Komponenten-Bescheinigung darf als Basis für die Bescheinigung eines Gerätes oder Schutzsystems verwendet werden.
(11) Diese EU-Baumusterprüfbescheinigung bezieht sich nur auf Konzeption und Prüfung des festgelegten Produkts gemäß Richtlinie 2014/34/EU. Weitere Anforderungen dieser Richtlinie gelten für die Herstellung und das Bereitstellen auf dem Markt. Diese Anforderungen werden nicht durch diese Bescheinigung abgedeckt.
(12) Die Kennzeichnung des Produkts muss die folgenden Angaben enthalten:
⟨Ex⟩ II 2 G Ex eb IIC Gb bzw. I M 2 Ex eb I Mb

Konformitätsbewertungsstelle, Sektor Explosionsschutz Braunschweig, 30. August 2018
Im Auftrag
Dipl.-Phys. U. Völkel

ZSEx101104 c

Seite 1/3

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General Technical Information on Electrical Equipment Used in Hazardous Areas
Continued

Special Requirements
Equipment Protection by Intrinsic Safety "i"
The European EN 60079-11 Standard – Classification VDE 0170-7 – contains special requirements for the design and testing of electrical equipment with "i" (intrinsic safety) protection type for use in hazardous areas.

A circuit is "intrinsically safe" when, under normal operating conditions and in the event of specific fault conditions, no sparks or thermal effects can occur and cause the ignition of a certain explosive atmosphere.

A distinction is made here between:
- intrinsically safe electrical equipment when all circuits are intrinsically safe
- associated electrical equipment including both intrinsically and non-intrinsically safe circuits, and being designed such that the non-intrinsically safe circuits cannot affect the intrinsically safe ones.

Intrinsically safe electrical equipment and intrinsically safe parts of associated electrical equipment are classified at "ia", "ib" or "ic" protection level.
Electrical equipment classified Ex "ia" must not ignite when current is applied in the following cases:
a) During fault-free operation, with those non-discreet faults present that result in the most adverse condition
b) During fault-free operation and with a discreet fault, plus those non-discreet faults that result in unfavorable conditions
c) During fault-free operation with two discreet faults, plus those non-discreet faults that result in the most adverse conditions.

Electrical equipment classified Ex "ib" must not ignite when current is applied in the following cases:
a) During fault-free operation, with those non-discreet faults present that result in the most adverse condition;
b) During fault-free operation and with a discreet fault, plus those non-discreet faults that result in unfavorable conditions.
At applied voltages, the intrinsically safe circuits in electrical equipment of protection level "ic" shall not be capable of causing ignition during undisturbed operation and under the conditions specified in this standard.
No special approval is required for terminal blocks used as simple electrical equipment for "Ex i" protection type, as they do not contain a voltage source and precise information is available concerning electrical data and temperature rise performance.
The terminal blocks must be identifiable, for example by their type designation, and the following design requirements must also be upheld:
Clearances and creepage distances between bare conductive parts of terminal blocks of separate intrinsically safe circuits and grounded or floating conductive parts shall be equal to or greater than the values given in Table 5 (see 654). If separate intrinsically safe circuits are to be considered, the air gap between bare conductive parts of the outer connection parts must meet the following requirements:
– at least 6 mm between the separate intrinsically safe circuits
– at least 3 mm from grounded parts, if a possible connection to ground has not been considered in the safety analysis. Each possible motion of metallic parts that are not rigidly secured must be considered.
Terminal block marking must be unique and clearly visible. If a color is used for this, the color must be light blue (similar to RAL 5015).
Note also when using terminal blocks:
Terminal blocks used for intrinsically safe circuits must be isolated from those used in non-intrinsically safe circuits. This is accomplished by several accepted methods. First, intrinsically safe circuits are separated by at least 50 mm of air space from non-intrinsically safe circuits.

Second, intrinsically safe circuits are housed in a separate enclosure. Third, intrinsically safe terminal blocks are separated from non-intrinsically safe terminal blocks by either an insulated partition or grounded metal partition. The partition size must allow for either 1.5 mm or less distance from the sides of the housing or provide at least 50 mm of creepage distance between the intrinsically and non-intrinsically safe circuits in all directions.
The insulation between an intrinsically safe and a non-intrinsically safe circuit has to withstand an effective AC voltage of 2 x nominal value (U) 1000 V or a minimum of 1500 kV, whereby U represents the total of the effective voltages of the intrinsically safe and the non-intrinsically safe circuit.
Short circuit between different intrinsically safe circuits could cause dangerous conditions. The insulation between these circuits should withstand an effective voltage of at least 500 VAC or 2 UAC where U is the total of the effective voltages of the related circuits.
In accordance with EN 60079-14/ DIN VDE 0165-1, in intrinsically safe circuits, the ends of stranded and fine-stranded conductors must be protected against splaying (e.g., via cable lugs or ferrules) or by the type of terminal blocks used. Soldering alone is not sufficient.
WAGO recommends gas-tight tinned copper ferrules or tinned copper pin terminals when connecting fine-stranded conductors to terminal blocks in corrosive atmospheres.

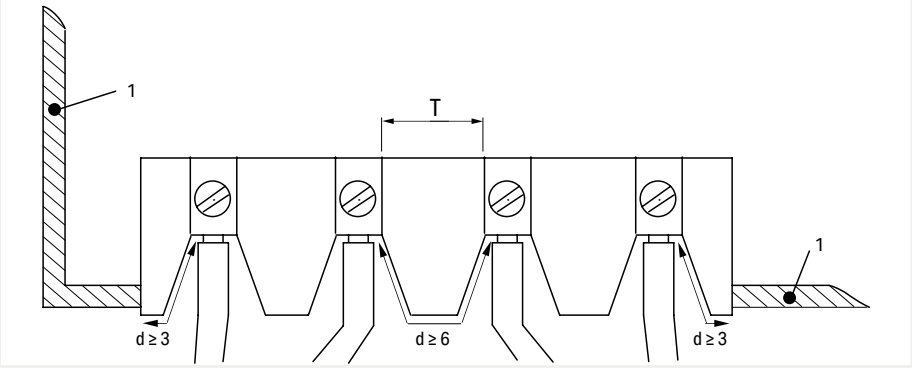
Requirements pertaining to the necessary distances as appropriate for use of the terminal blocks in the area DIN EN 60079-11 (VDE 0170-7) "Explosive atmosphere – Part 11: Device protection by intrinsically safe features "i" (IEC 60079-11)" are defined under Section 6.2 "Connecting point for external circuits," Section 6.2.1 "Terminal blocks." In general, the following can be stated for terminal blocks based on figure 1: "Example of isolated intrinsically safe terminal blocks with partition" in conjunction with figure 2: "Example of isolation of conductive parts," considering Table 5 – "Clearances, Creepage and Isolation Distances."

Outside:
a) Isolated intrinsically safe circuits: at least 6 mm
All PCB terminal blocks listed on the ordering pages as suitable for Ex "i" applications fulfill these requirements.
b) Intrinsically safe circuits and normal circuits (non-intrinsically safe): ≥ 50 mm

Inside:
a) Ex "i" to Ex "i"
b) Ex "i" to normal circuits
c) Ex "i" to ground
Based on Figure 2 and Table 5 (see next page) in accordance with the selected protection level and the special requirements for isolation distances as described in Sections 6.3.1 to 6.3.13, or in accordance with the alternative procedure for dimensioning of isolation distances given in Annex F.

Terminal blocks with smaller pin spacing may also be used for internal connections, provided they meet the requirements laid out in Table 5 (see below).

The exact clearances and creepage distances as well as separation distances based on Table 5 must be derived from the application items cited above.



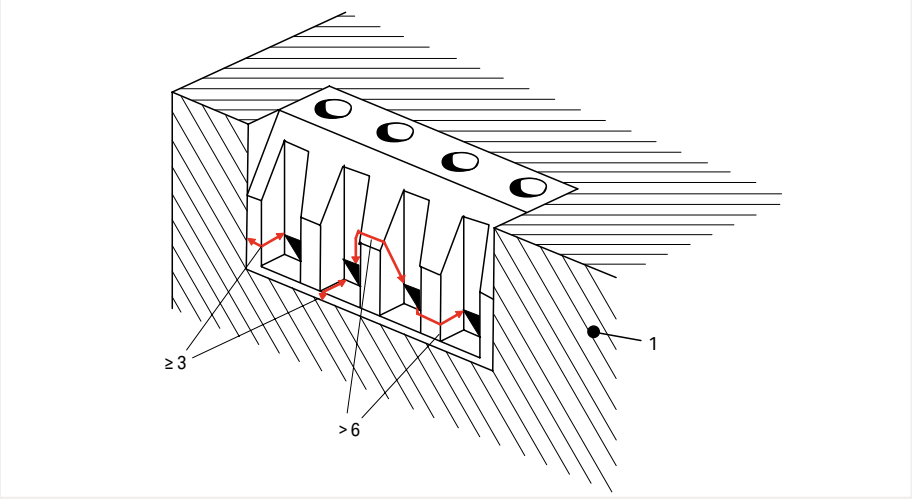


Figure 1a: Requirements for clearances and creepage distances for terminal blocks with isolated, intrinsically safe circuits

Legend:

1	Conductive cover
T	Distances based on Table 5
d	Distance at outer connecting parts of the terminal blocks according to 6.2.1

Note:
The dimensions indicated here represent the clearances and creepage distances around the insulation and not the thickness of the insulation.

Dimensions in mm

General Technical Information on Electrical Equipment Used in Hazardous Areas
Continued

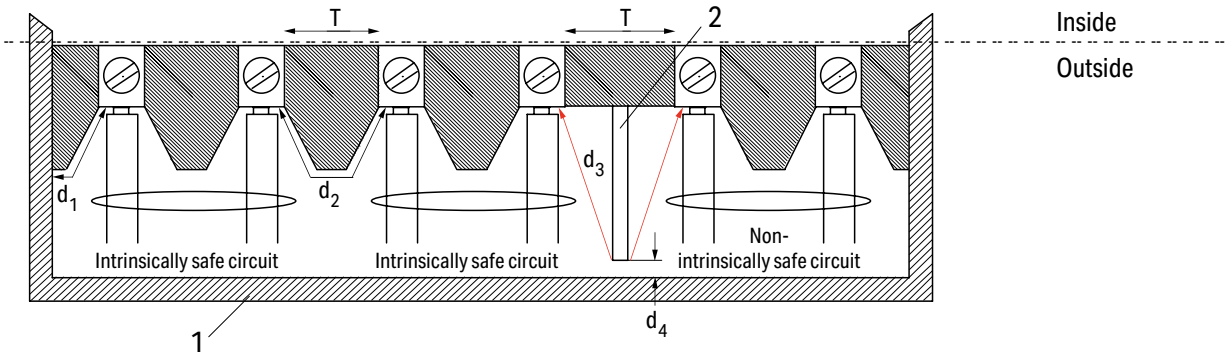


Figure 1b: Example of isolated intrinsically safe and non-intrinsically safe terminal blocks by a partition

Legend:

1 Cover: non-conductive or conductive and grounded

2 Partition based on 6.2.1 b); in this example, the partition must end at the base

T Distances based on Table 5

d1 ≥ 3 mm, when the cover is conductive and grounded

d2 ≥ 6 mm

d3 ≥ 50 mm or d4 ≤ 1.5 mm

Note:
The dimensions indicated here represent the clearances around the insulation and not the thickness of the insulation.

Table 5 – Clearances, Creepage and Isolation Distances

1	2		3		4		5		6		7	
Voltage (Peak) (V)	Clearance (in mm)		Separation by Encapsulation (in mm)		Separation by Fixed Insulation (in mm)		Creepage Distance through Air (in mm)		Creepage Distance beneath Protective Layer (in mm)		Comparative Tracking Index (CTI)	
Protection Level	ia, ib	ic	ia, ib	ic	ia, ib	ic	ia, ib	ic	ia, ib	ic	ia	ib, ic
10	1.5	0.4	0.5	0.2	0.5	0.2	1.5	1.0	0.5	0.3	--	
30	2.0	0.8	0.7	0.2	0.5	0.2	2.0	1.3	0.7	0.3	100	100
60	3.0	0.8	1.0	0.3	0.5	0.3	3.0	1.9	1.0	0.6	100	100
90	4.0	0.8	1.3	0.3	0.7	0.3	4.0	2.1	1.3	0.6	100	100
190	5.0	1.5	1.7	0.6	0.8	0.6	8.0	2.5	2.6	1.1	175	175
375	6.0	2.5	2.0	0.6	1.0	0.6	10.0	4.0	3.3	1.7	175	175
550	7.0	4.0	2.4	0.8	1.2	0.8	15.0	6.3	5.0	2.4	275	175
750	8.0	5.0	2.7	0.9	1.4	0.9	18.0	10.0	6.0	2.9	275	175
1000	10.0	7.0	3.3	1.1	1.7	1.1	25.0	12.5	8.3	4.0	275	175
1300	14.0	8.0	4.6	1.7	2.3	1.7	36.0	13.0	12.0	5.8	275	175
1575	16.0	10.0	5.3	*	2.7	*	49.0	15.0	16.3	*	275	175
3.3k	*	18.0	9.0	*	4.5	*	*	32.0	*	*	*	*
4.7k	*	22.0	12.0	*	6.0	*	*	50.0	*	*	*	*
9.5k	*	45.0	20.0	*	10.0	*	*	100.0	*	*	*	*
15.6k	*	70.0	33.0	*	16.5	*	*	150.0	*	*	*	*

Note 1: *At present, no values have been recommended for these voltages.

Note 2: Proof of fulfillment of the CTI requirements for the insulating materials must be provided by the manufacturer.
Defining a CTI is not required for insulation materials for voltage levels up to 10 V.

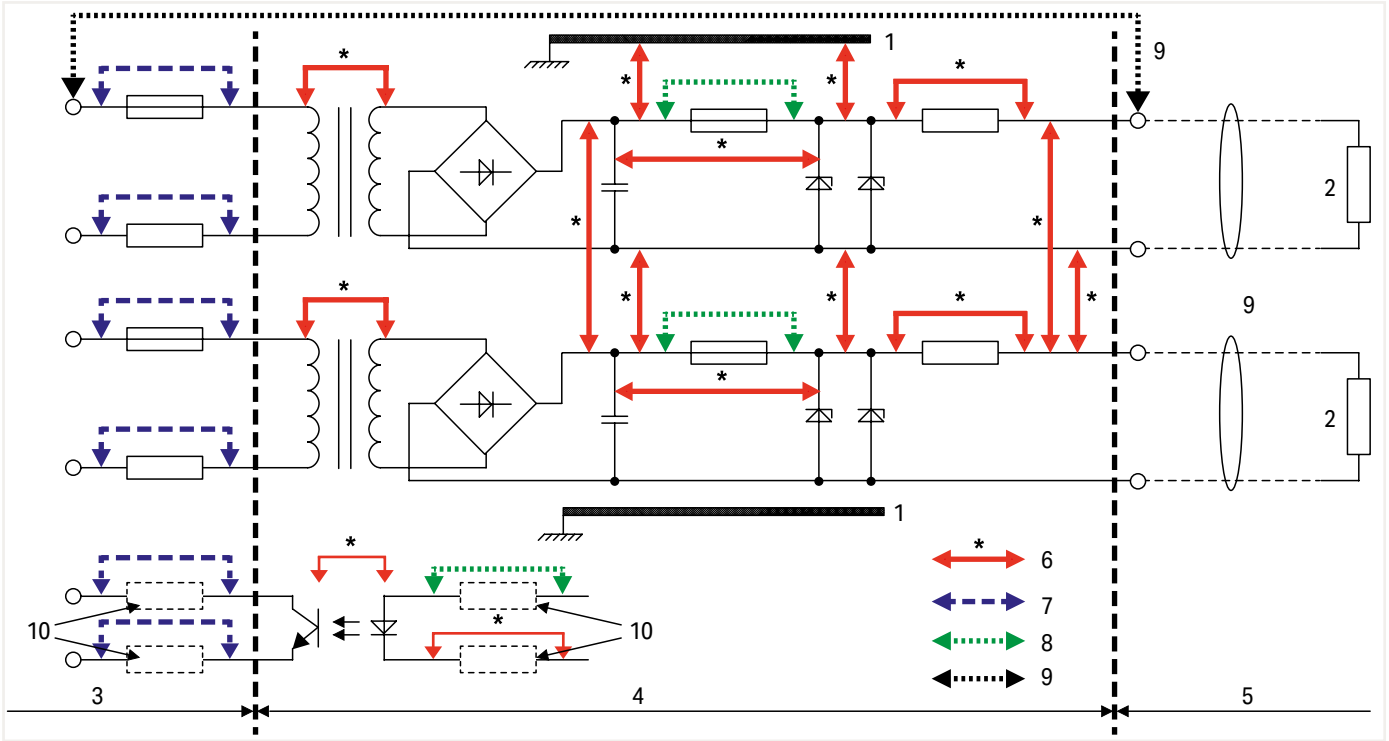


Figure 2: Isolation examples for conductive parts

Legend:

1	Chassis
2	Load
3	Non-intrinsically safe circuit defined by Um
4	Portion of intrinsically safe circuit, item is not intrinsically safe
5	Intrinsically safe circuit
6	Dimensions for which Table 5 applies
7	Dimensions for which general industrial standards apply
8	Dimensions per 7.3
9	Dimensions based on 6.2.1 for output terminal blocks between isolated intrinsically safe circuits (d2 ≥ 6 mm) and between intrinsically safe circuits and non-intrinsically safe circuits (d3 ≥ 50 mm)
10	Where required

In accordance with DIN EN 60079-14 (VDE 0165-1), in intrinsically safe circuits, the ends of stranded and fine-stranded conductors must be protected against splaying (e.g., via cable lugs or ferrules) or by the type of terminal blocks used. Soldering alone is not sufficient.
The conductor entry funnels of WAGO PCB terminal blocks fulfill this requirement.
WAGO recommends gas-tight tinned copper ferrules or tinned copper pin terminals when connecting fine-stranded conductors to terminal blocks in corrosive atmospheres.

International Certification Organizations – Overview

		Abbreviation
	Underwriters Laboratories USA http://www.ul.com	UL
	Underwriters Laboratories USA http://www.ul.com	UL
	Underwriters Laboratories USA http://www.ul.com	cURus
	Underwriters Laboratories USA http://www.ul.com	cULus
	Canadian Standards Association Canada http://www.csa.ca	CSA
VDE REG XXXX	VDE-Gutachten mit Fertigungsüberwachung Germany http://www.vde.de/vde/html/e/home.htm	VDE
	VDE – Deutscher Verband für Elektrotechnik Germany http://www.vde.de	
VDE	VDE – Prüfbericht Germany	
	Österreichischer Verband für Elektrotechnik Austria http://www.ove.at	ÖVE
	Schweizerischer Elektrotechnischer Verein Switzerland http://www.sev.ch/	SEV
KEMA KEUR	N.V. tot Keuring van Elektrotechnische Materialien Netherlands http://www.kema.nl	KEMA
CCA	CENELEC CERTIFICATION AGREEMENT N.V. tot Keuring van Elektrotechnische Materialien Netherlands http://www.cenelec.org	CCA Zul.-Nr. mit NL
	Norges Elektriske Materialkontroll Norway http://express.nemko.com	NEMKO
	Svenska Elektriska Materielkontrollanstalten AB Sweden http://www.semko.com	SEMKO

		Abbreviation
	Danmarks Elektriske Materielkontrol Denmark http://www.demko.dk	DEMKO
CCA	CENELEC CERTIFICATION AGREEMENT Danmarks Elektriske Materielkontrol Denmark http://www.cenelec.org	CCA Zul.-Nr. mit NL
	SETI – FEMKO Sähkötarkastuskeskus Elinspektionscentralen Finland http://www.seti.fi	
	Sähkötarkastuskeskus Elinspektionscentralen Finland http://www.fimko.com	FIMKO
SABS	South African Bureau of Standards South Africa http://www.sabs.co.za	SABS
	RosTesT Russia http://www.rostest.ru	ROTEST
	Departamentul Moldovastandard Moldova http://www.moldova.md/ro/government/oll/D_STAND/en/strcent2.htm	CSM
	Certificate of Registration Great Britain http://www.astacertification.com	ASTA
	Rheinisch-Westfälischer Technischer Überwachungsverein e.V. Germany http://www.rwtuv.de	RWTÜV
	Elektrotechnick´y v´yskumn´y a projektov´y ústav Czech Republic http://www.ezu.cz	EZU
	Stowarzyszenie Elektrykow Polskich Poland http://www.sep.com.pl	BBJ
	Stowarzyszenie Elektrykow Polskich Poland http://www.bbj.pl	SEP

		Abbreviation
CNET	**Centre National d'Etudes des Télécommunications** **France** http://www.lannion.cnet.fr	**CNET**
LCIE	**Laboratoire Central des Industries Electriques** **France** http://www.lcie.fr	**LCIE**
	Fyzikálne Technick´yZkusební Ústav, Ostrava-Radvanice **Czech Republic** http://www.ftzu.cz	**FTZU**
Marine Approvals		
BV	**Bureau Veritas** **France** http://www.bureauveritas.fr	**BV**
	Lloyd's Register of Shipping **Great Britain** http://www.lloydsregister.com	**LR**
DNV · GL	**NV – Det Norske Veritas** **Norway** http://www.dnvgl.com	**DNV-GL**
	Russian Maritime Register of Shipping **GUS** http://www.rs-head.spb.ru	**RMR**
	Polski Rejestr Statków **Poland** http://www.prs.pl	**PRS**
	Korean Register of Shipping **Korea** http://www.krs.co.kr	**KR**
ABS	**American Bureau of Shipping** **USA** http://www.eagle.org	**ABS**

		Abbreviation
	Robbanásbiztos Villamos Berendezések **Hungary** http://www.bki.hu	**BKI**
CB	**CB – TEST CERTIFICATE** **India** http://www.ul-europe.com	**CB**
CB	**CB – TEST CERTIFICATE** **China** http://www.ul-europe.com	**CB**
	http://www.enec.com	**ENEC**
EX Approvals		
PTB	**Physikalisch Technische Bundesanstalt** **Germany** http://www.ptb.de	**PTB**
c UL us	**Underwriters Laboratories** **USA** http://www.ul.com	**AEx**

Electrical Engineering Laboratory
Product Safety for Our Customers

To use terminal blocks globally, they must satisfy certain standards and obtain test certificates. These requirements apply to every manufacturer. WAGO also conducts its own tests to increase standards and offer greater reliability with its products. Products undergo a full range of mechanical, electrical and climatic testing, and we'll share a few of those processes with you.

WAGO Test Lab

This means that WAGO's products can be used safely and reliably both in Europe and anywhere globally for a wide variety of applications. We heavily emphasize the importance of global acceptance during development. As a result, we can present documentation that verifies our high levels of product safety and reliability while ensuring the fulfillment and accuracy of technical data, which are the highest priorities for our customers and users worldwide.
On December 22, 2009, our test lab was accredited by the German Accreditation Association (Deutsche Gesellschaft für Akkreditierung GmbH) in accordance with DIN EN ISO/IEC 17025.

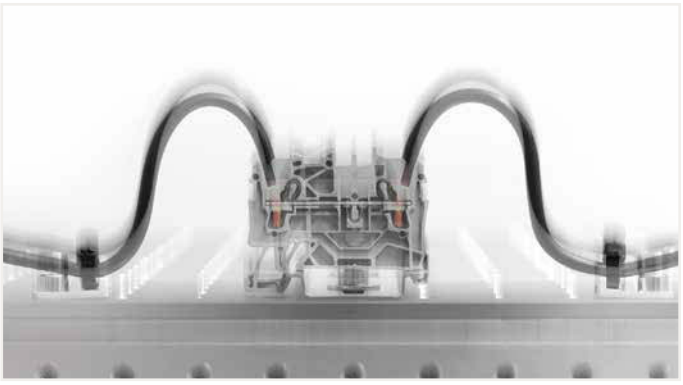
Pull-Out Test (per EN 60947-7-1, EN 60998-2-2)

During the pull-out force test, a conductor is pulled on until it is removed from the clamping unit. The design of the terminals means that extraction only occurs after the standard pull-out force has been exceeded many times over.



Vibration Test (per IEC/EN 60068-2-6)

Depending on the application, such as railway (per EN 61373) or marine (per GL, LR, DNV), there are various testing requirements to determine if the long-term effects of vibrations degrade electrical connections. The test specimen is subjected to different loads on three axes in an electrodynamic vibration system. The amplitude, the acceleration, and particularly the frequency of the vibration vary during the test. The test values are increased many times over the standard values to meet special customer requirements.



Shock Test (per IEC/EN 60068-2-27)

The shock test is very similar to the vibration test except that, instead of continuous vibrations, single shocks are applied to the test specimen. Shock tests are usually performed, for example, at an acceleration of 20g over a period of 11 ms. Tests for special requirements often call for much higher values and are also conducted in our laboratory. Single-deck TOPJOB® S Rail-Mount Terminal Blocks, for example, pass shock tests up to 500g.



Voltage Drop Test under Bending Stress (per EN 60947-7-1, EN 60999-1)

The voltage drop test under bending stress simulates mechanical stress on the clamping unit. In everyday use, this stress can occur during installation, for example, when an electrician shoves connected conductors to the side in order to access a specific component. The quality of the clamping unit when moving a connected conductor can be validated by the constantly stable measured value of the voltage drop.



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Beliehene gemäß § 8 Absatz 1 AkkStelleG i.V.m. § 1 Absatz 1 AkkStelleGBV
Unterzeichnerin der Multilateralen Abkommen
von EA, ILAC und IAF zur gegenseitigen Anerkennung

Akkreditierung

Die Deutsche Akkreditierungsstelle GmbH bestätigt hiermit, dass das Prüflaboratorium

WAGO Kontakttechnik GmbH & Co. KG
Hansastraße 27, 32423 Minden

die Kompetenz nach DIN EN ISO/IEC 17025:2005 besitzt, Prüfungen in folgenden Bereichen durchzuführen:

Elektrische und mechanische Prüfungen an Klemmen und Steckverbinder sowie Umweltsimulation

Die Akkreditierungsurkunde gilt nur in Verbindung mit dem Bescheid vom 18.12.2014 mit der Akkreditierungsnummer D-PL-19704-01 und ist gültig bis 17.12.2019. Sie besteht aus diesem Deckblatt, der Rückseite des Deckblatts und der folgenden Anlage mit insgesamt 5 Seiten.

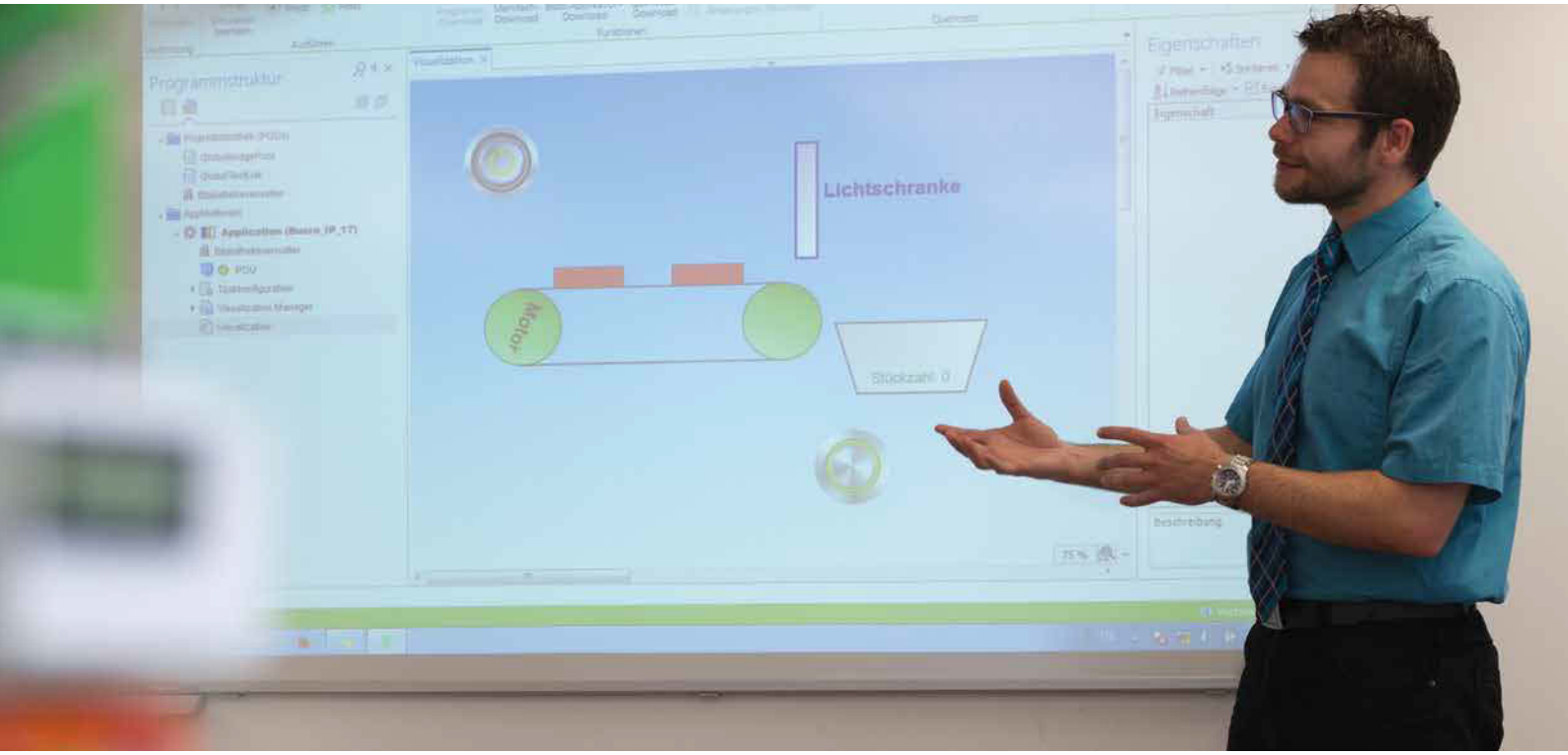
Registrierungsnummer der Urkunde: **D-PL-19704-01-00**

Frankfurt am Main, 18.12.2014

Im Auftrag Dipl.-Ing. (FH) Ralf Egner
Abteilungsleiter

Siehe Hinweise auf der Rückseite

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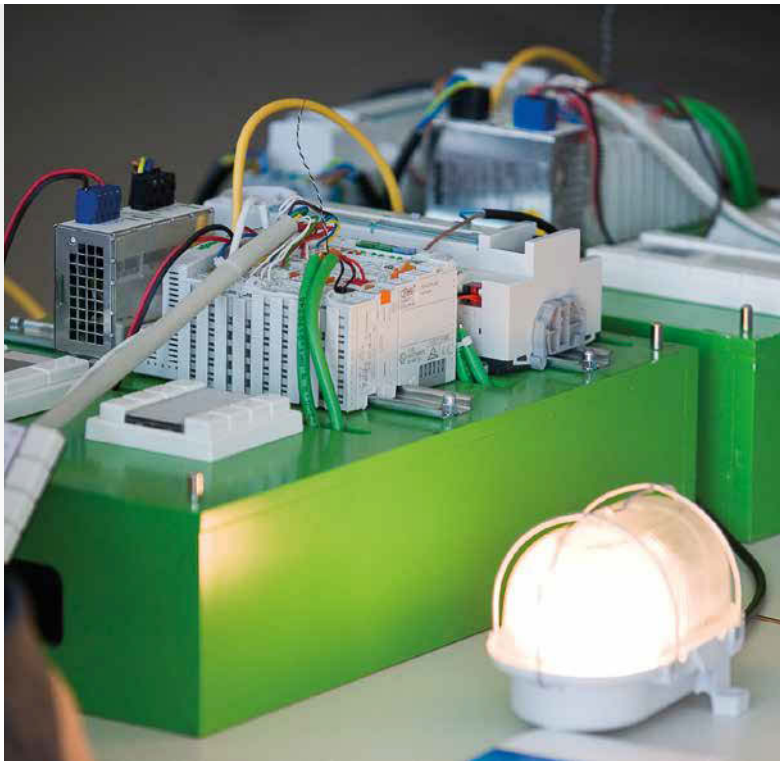
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