

Short catalogue

Chiara wiring accessories series

2CSC600119B0201



ABB

Chiara



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Chiara

The new wiring accessories series by ABB:
a simple and safe choice

Chiara has arrived!
Two years after the introduction in the range of Élos Soft and Élos Smart and a few months after the introduction of Élos Soft glass, ABB presents its new wiring accessories series. Chiara, as its name expresses, is light and harmony.

The elegant white push buttons and devices are immersed in the evocative colors of the plates: white, sand, stone, volcano and the pastel shades of yellow, orange, green and blue.





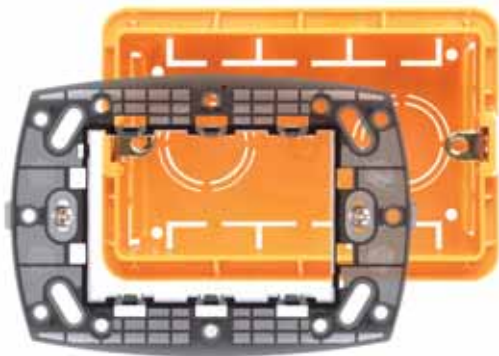
Chiara

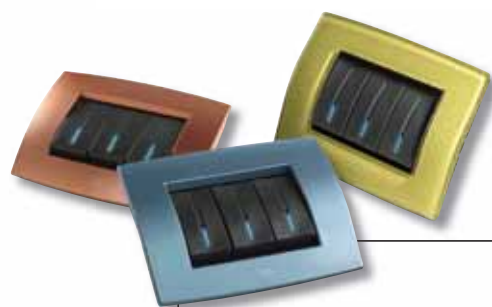
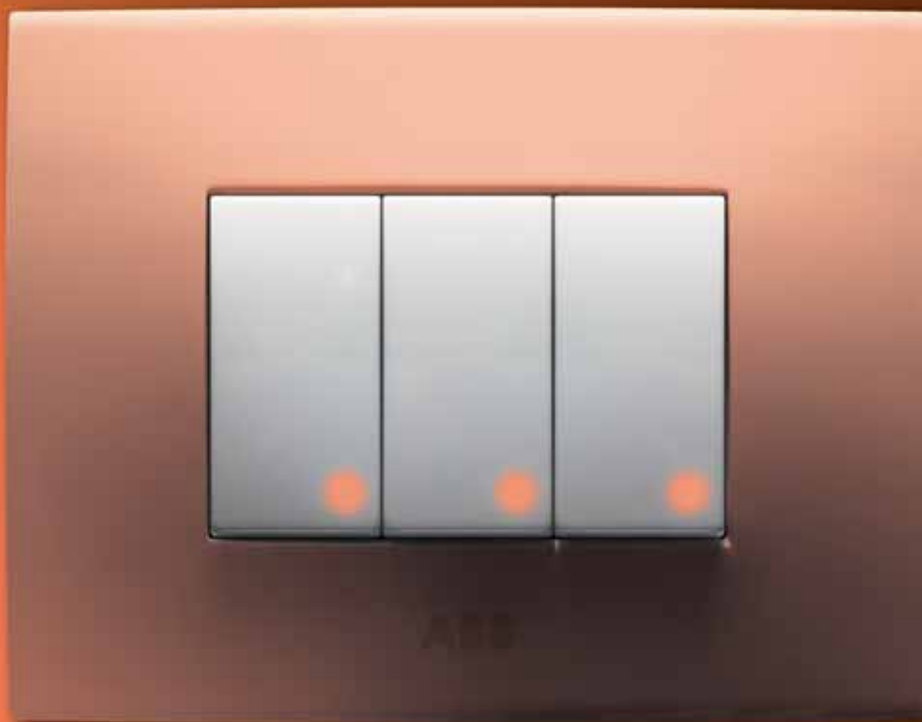
The new wiring accessories series by ABB:
a simple and safe choice

The design of Chiara is the expression of the best Italian creativity combined with the excellence of the ABB technological and production processes. Chiara has a very broad appeal and enhances any environment, from the most sophisticated to the most essential one, with a range of components that allow you to design the main application solutions in

residential and tertiary environments. Flexibility is one of Chiara's characteristics, also in terms of installation. The 22 mm wide devices can be fitted into all round 60 mm diameter and rectangular flush-mounting boxes on the market; the supports and plates are available in two, three, four and seven-module versions that can be

fitted respectively into standard rectangular two, three, four and six-module boxes. The light spot assembly is particularly simple: the frame is made of a semi-transparent material in order to facilitate fitting to the flush-mounting boxes; furthermore, the devices are assembled from the front.





The range of the ABB wiring accessories series also includes Élos Soft and Élos Smart, with glass, metal and technopolymer plates in more than twenty colors; the anthracite grey push buttons feature a vertical line which is familiar to touch and a warning light. The devices in the range also include accessories for security burglar alarm systems, and speaker and access control systems. For more information, please consult the catalogue "Élos wiring accessories series", cod. 2CSC60004B0201.

Chiara

Components and functions



The Chiara wiring accessories series include a wide range of articles: devices, plates and accessories; all the eligible products in the range have obtained the IMQ certification as required to comply with current reference standards.

Control devices

One-way switches, push buttons, two-way switches, reversing switches, relays and change-over switches in different versions to configure utility functions and control points in the most flexible and suitable way for each residential and working context. All the control devices, except for relays and change-over switches, have a warning light. The bulb fitted to them must be ordered separately, the codes are listed amongst the accessories.

Page 8

Sockets

2P + E 10-16A socket outlets for 250V lines are available in Italian and German standards, with safety shutters and side/central earth.

Various types of connectors for telephone and data transmission applications are available complying with the most frequently used and advanced international wiring standards.

Page 10

Protections devices

These come into action in the event of overloads, short circuits and other phenomena that are hazardous for the users and prevent the connected devices from functioning correctly. They provide protection directly downstream without interfering with the power supply to other points on the electrical plant.

Page 12

Warning devices

Warning lights to indicate the functioning status of connected devices, bells and buzzers. The bulb fitted to the warning lights must be ordered separately; the codes are listed amongst the accessories.

Page 12

Comfort devices

To optimize the functioning of the electrical devices and increase the comfort of environments, the range includes devices for programming, adjustment and timing, such as thermostats, electronic programmable thermostats and dimmers. The anti black-out lamp switches on in case of interruption in the power supply with an autonomy of up to 4.5 hours; by removing it from the socket it can be used as a torch.

Page 13

Installation components

Blank covers for unused modules and 2, 3, 4 and 7-module supports for installing devices and components in round and rectangular flush-mounting boxes.

Page 14

IP40 and IP55 boxes and devices

The Chiara field of application is increased to include environments that require IP40 or IP55 protection degree, according to the CEI 64-8 standard.

The IP55 versions allow Chiara to be used in particularly demanding environments with the presence of dust or flammable liquids.

Page 14

IP55 flush-mounting covers

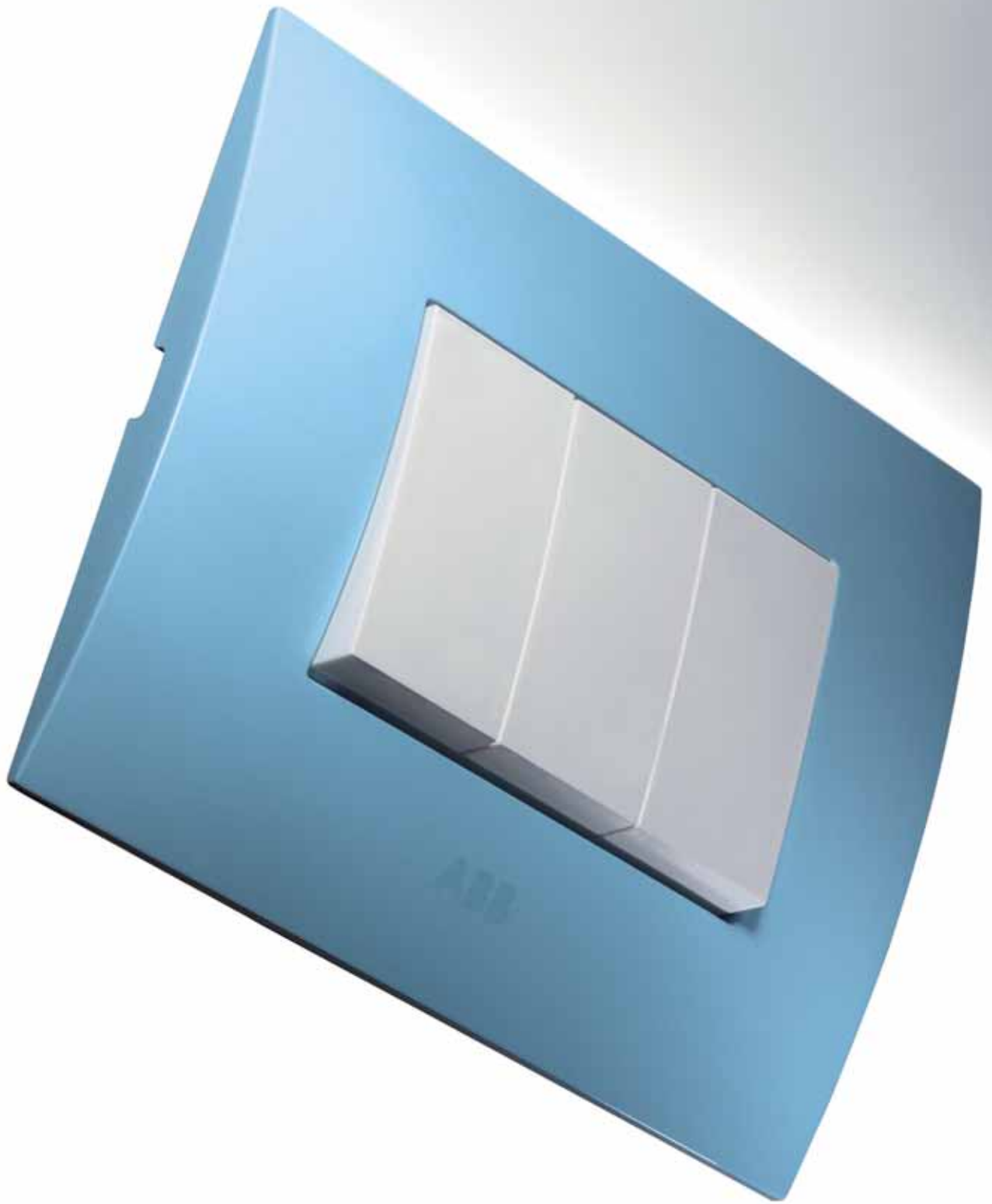
They comply with the CEI 23-48 standard, with protection degree guaranteed and defined by the CEI 70-1 standard; they snap on directly to the devices.

Page 14

Plates

Chiara plates are available in technopolymer with glossy finish with eight color versions. A 3-module plate measures 119.3 x 92 x 10.9 mm.

Page 15



Reference standards

Control devices

One-way and two-way switches, reversing switches, change-over switches: CEI 23-9 (EN 60669-1)

Latching relays:

CEI 23-9/CEI 23-62 (EN 60669-1/EN 60669-2-2)

CONTROL DEVICES

Switches, 250V~ ⁽¹⁾



2CSK1001CH
One-pole one-way switch,
16AX - 250V~



2CSK1002CH
Two-pole one-way switch,
16AX - 250V~



2CSK1004CH
One-pole one-way switch,
16AX - 250V~,
2 modules



2CSK1003CH
One-pole two-way switch, 16AX
- 250V~



2CSK1007CH
One-pole two-way switch, 16AX
- 250V~,
2 modules

Reversing switches, 250V~ ⁽¹⁾



2CSK1010CH
Reversing switch,
16AX - 250V~



2CSK1008CH
Reversing switch,
16AX - 250V~,
2 modules

Change-over switches, 250V~



2CSK1011CH
Change-over switch,
10AX with
3 positions and
central OFF

Latching relays, 230V~



2CSK1012CH
One-pole relay
with coil
230V~, output
contact 10A



2CSK1014CH
4-sequence
switching relay with
coil 230V~,
2 output contacts
10A

⁽¹⁾ Devices with warning light are supplied without bulbs, to order the correct version consult page 14 and the selection table at page 16.



Push buttons, 250V~



2CSK1005CH ⁽¹⁾
Single-pole push button NO, 16A



2CSK1016CH ⁽¹⁾
Single-pole push button NC, 16A



2CSK1017CH
Double single-pole push button NO+NO, 16A



2CSK1018CH
Double single-pole push button NO+NO, 16A, with interlock



2CSK1022CH ⁽¹⁾
Single-pole control push button, 1 NO and 1 NC, 16A, with ON symbol



2CSK1023CH ⁽¹⁾
Single-pole control push button, 1 NO and 1 NC, 16A, with OFF symbol



2CSK1020CH ⁽¹⁾
Single-pole push button NO, 16A, pull, with 2.25 m long cord



2CSK1021CH ⁽¹⁾
Single-pole push button NC, 16A, pull, with 2.25 m long cord

Reference standards

Control devices

Push buttons:
CEI 23-9 (EN 60669-1)

Special push buttons, 250V~ ⁽¹⁾



2CSK1028CH
Single-pole push button NO, 16A, with BELL symbol



2CSK1029CH
Single-pole push button NO, 16A, with KEY symbol



2CSK1030CH
Single-pole push button NO, 16A, with STAIRCASE LIGHT symbol



2CSK1024CH
Single-pole push button NO, 16A, with red diffuser



2CSK1025CH
Single-pole push button NO, 16A, with green diffuser



2CSK1026CH
Single-pole push button NO, 16A, with orange diffuser



2CSK1027CH
Single-pole push button NO, 16A, with white diffuser



2CSK1031CH
Single-pole push button NO, 16A, with backlit label plate



2CSK1032CH
Single-pole push button NO, 16A, with backlit label plate, 3 modules

⁽¹⁾ Devices with warning light are supplied without bulbs, to order the correct version consult page 14 and the selection table at page 16.

SOCKETS

Italian standard socket outlets with safety shutters, 250V~

Reference standards

Sockets

Socket outlets:

CEI 23-5/CEI 23-50/

CEI 23-16 (IEC 60884-1)



2CSK1101C
2P+E, 10A, socket,
P11 type



2CSK1102CH
2P+E, 16A, socket,
P17 type



2CSK1103CH
2P+E, 10/16A,
dual amp socket,
P17/P11 type



2CSK1104CH
2P+E, 10/16A, dual
amp socket, P17/
P11 type, red



2CSK1105CH
2P+E, 10/16A, dual
amp socket, P17/
P11 type, green



2CSK1106CH
2P+E, 10/16A, dual
amp socket, P17/
P11 type, orange

Italian/German standard socket outlets with safety shutters, 250V~



2CSK1108CH
2P+E, 16A, socket,
P30 type



2CSK1114CH
2P+E, 16A, socket,
P30 type, red



2CSK1115CH
2P+E, 16A, socket,
P30 type, green



2CSK1116CH
2P+E, 16A, socket,
P30 type, orange



2CSK1109CH
2P+E, 16A, dual
amp socket, P30/
P17 type



2CSK1110CH
2P+E, 16A, dual
amp socket, P30/
P17 type, red



2CSK1111CH
2P+E, 16A, dual
amp socket, P30/
P17 type, green



2CSK1112CH
2P+E, 16A, dual
amp socket, P30/
P17 type, orange



TV/SAT sockets



2CSK1117CH
TV/SAT coaxial socket, direct, male \varnothing 9.5mm IEC connector, isolated type



2CSK1118CH
TV/SAT coaxial socket, direct, male \varnothing 9.5mm IEC connector, with passage of direct current



2CSK1132CH
TV/SAT coaxial socket, feedthrough, male \varnothing 9.5mm IEC connector, 7dB attenuation



2CSK1136CH
TV/SAT coaxial socket, feedthrough, male \varnothing 9.5mm IEC connector, 10dB attenuation



2CSK1137CH
TV/SAT coaxial socket, feedthrough, male \varnothing 9.5mm IEC connector, 14dB attenuation



2CSK1138CH
TV/SAT coaxial socket, feedthrough, male \varnothing 9.5mm IEC connector, 18dB attenuation

Reference standards

Sockets

TV/SAT sockets:
EN 50083-1/EN 50083-2/
EN 50083-4

Telephone sockets:
ISO 11801

Data connectors:
EN 50173, ISO 11801,
EIA/TIA 568A



2CSK1119CH
TV/SAT coaxial socket, direct, female F connector, with passage of direct current



2CSK1133CH
Double demix TV/SAT coaxial socket, direct, male \varnothing 9.5mm IEC connector and female F connector



2CSK1120CH
Double demix TV/SAT coaxial socket, feedthrough, male \varnothing 9.5mm IEC connector and female F connector, 7 dB attenuation



2CSK1130CH
Double demix TV/SAT coaxial socket, feedthrough, male \varnothing 9.5mm IEC connector and female F connector, 10 dB attenuation



2CSK1131CH
Double demix TV/SAT coaxial socket, feedthrough, male \varnothing 9.5mm IEC connector and female F connector, 14 dB attenuation



2CSK1139CH
Double demix TV/SAT coaxial socket, feedthrough, male \varnothing 9.5mm IEC connector and female F connector, 18 dB attenuation

Telephone sockets, international standard



2CSK1121CH
RJ11 telephone connector



2CSK1122CH
RJ12 telephone connector

EDP sockets



2CSK1124CH
RJ45, Cat. 5e, UTP connector (unshielded)



2CSK1125CH
RJ45, Cat. 5e, FTP connector (shielded)



2CSK1127CH
RJ45, Cat. 6, UTP connector (unshielded)



2CSK1128CH
RJ45, Cat. 6, FTP connector (shielded)



2CSK1135CH
Adaptor for RJ45 connector, Keystone type

PROTECTION DEVICES

Reference standards

Protection devices

MCBs:

CEI 23-3 (EN 60898)

RCBOs:

CEI 23-44 (EN 61009-1)/

EN 61543



2CSK1301CH

Fuse holder,
for 5 x 10 mm
fuses, 16A



2CSK1302CH

Fuse holder,
for 5 x 20 mm
fuses, max. 16A



2CSK1304CH

MCB, 1P+N, C6,
1.5kA breaking
capacity



2CSK1305CH

MCB, 1P+N, C10,
3kA breaking
capacity



2CSK1306CH

MCB, 1P+N, C16,
3kA breaking
capacity



2CSK1307CH

RCBO, 1P+N, C6 – 10mA,
1.5kA breaking capacity



2CSK1308CH

RCBO, 1P+N, C10 – 10mA,
3kA breaking capacity



2CSK1309CH

RCBO, 1P+N, C16 – 10mA,
3kA breaking capacity

WARNING DEVICES

Warning lights

Reference standards

Warning devices

Acoustic warning devices:

EN 60065/EN 50081-1/

EN 50082-1



2CSK1310CH ⁽¹⁾

Orange warning
light



2CSK1311CH ⁽¹⁾

White warning light



2CSK1312CH ⁽¹⁾

Red warning light



2CSK1313CH ⁽¹⁾

Green warning light

Acoustic warnings



2CSK1317CH

Electromechanical
bell, 12V, 5VA
power, acoustic
intensity: 80dB



2CSK1318CH

Electromechanical
bell, 230V, 8VA
power, acoustic
intensity: 80dB



2CSK1321CH

Electromechanical
buzzer, 12V, 5VA
power, acoustic
intensity: 70dB



2CSK1322CH

Electromechanical
buzzer, 230V, 8VA
power, acoustic
intensity: 70dB

(1) Devices with warning light are supplied without bulbs, to order the correct version consult page 14 and the selection table at page 16.



COMFORT DEVICES

Thermostats



2CSK1201CH

Summer/winter electronic programmable thermostat, with daily and weekly programming

2CSK1202CH

Summer/winter electronic thermostat with LCD display

Comfort devices

Electronic programmable thermostat:
EN 60730-1/EN 60730-2-7/
EN 60730-2-9/
EN 61000-3-2/EN 61000-3-3/
EN 55014/EN 55104

Electronic thermostat:
EN 60730-1/EN 60730-2-9/
EN 61000-3-2/
EN 61000-3-3/
EN 55014/EN 55104

Dimmer:
EN 60669-1/EN 60669-2-1/
EN 50081-1/EN 55104

Dimmers



2CSK1205CH

Electronic dimmer with rotary control for resistive loads, 100-500W, 230V~ - 50/60Hz



2CSK1204CH

Electronic dimmer with rotary control and with two-way switch for resistive loads, 100-500W, 230V~ - 50/60Hz



2CSK1207CH

Electronic dimmer with push button control for resistive and inductive loads, 60-500W (60-500VA), 230V~ - 50/60Hz

Other devices



2CSK1214CH

Extractable anti black-out lamp, 230V~. Charge reserve equal to 4.5 hours and recharge time equal to 10-20 hours. To be combined with 230V~ socket outlets; especially suitable for codes 2CSK1108CH and 2CSK1109CH.

INSTALLATION COMPONENTS, ACCESSORIES, BOXES AND COVERS

Hole covers

Reference standards

Installation components
Supports for rectangular
flush-mounting boxes:
CEI 23-9 (EN 60669-1)



2CSK1601CH
Blank cover
1 module



2CSK1606CH
Blank cover
1 module, with
outlet for cable
ø 12.5 mm



2CSK1612CH
2-module support with claw clutches for
round box



2CSK1602CH
2-module support with screws for
rectangular box



2CSK1603CH
3-module support



2CSK1604CH
4-module support



2CSK1607CH
7-module support

Accessories

Reference standards

Wall boxes
IP40 wall boxes, IP55
wall boxes and flush-mounting
covers: CEI 23-48



2CSK1613CH
Incandescent bulb, 230V, 100 mm long
cable. To be used combined with control
devices with warning light.



2CSK2140CH
1-module box,
IP40, 2 modules



2CSK2240CH
2-module box,
IP40, 2 modules



2CSK2340CH
3-module box,
IP40, 3 modules



2CSK2440CH
4-module box,
IP40, 4 modules

IP55 wall boxes



2CSK2155CH
1-module box,
IP55, 2 modules



2CSK2255CH
2-module box,
IP55, 2 modules



2CSK2355CH
3-module box,
IP55, 3 modules



2CSK2455CH
4-module box,
IP55, 4 modules



2CSK3255CH
White plate, IP55,
2 modules



2CSK3355CH
White plate, IP55,
3 modules

IP55 flush-mounting covers



TECHNOPOLYMER PLATES

With glossy finish



white

2 modules	2CSK0201CH
3 modules	2CSK0301CH
4 modules	2CSK0401CH
7 modules	2CSK0701CH



sand

2 modules	2CSK0202CH
3 modules	2CSK0302CH
4 modules	2CSK0402CH
7 modules	2CSK0702CH



stone

2 modules	2CSK0203CH
3 modules	2CSK0303CH
4 modules	2CSK0403CH
7 modules	2CSK0703CH



volcano

2 modules	2CSK0204CH
3 modules	2CSK0304CH
4 modules	2CSK0404CH
7 modules	2CSK0704CH



pastel yellow

2 modules	2CSK0211CH
3 modules	2CSK0311CH
4 modules	2CSK0411CH
7 modules	2CSK0711CH



pastel orange

2 modules	2CSK0212CH
3 modules	2CSK0312CH
4 modules	2CSK0412CH
7 modules	2CSK0712CH



pastel green

2 modules	2CSK0213CH
3 modules	2CSK0313CH
4 modules	2CSK0413CH
7 modules	2CSK0713CH



pastel blue

2 modules	2CSK0214CH
3 modules	2CSK0314CH
4 modules	2CSK0414CH
7 modules	2CSK0714CH

Order information

Devices coding criteria

2	C	S	K	1			C	H
FIXED PART OF THE CODE				PRODUCT FAMILY	PROGRESSIVE PRODUCT NUMBER	FIXED PART OF THE CODE		

Example

One-pole one-way switch

2	C	S	K	1	0	0	1	C	H
---	---	---	---	---	---	---	---	---	---

PRODUCT FAMILIES

- 0 = Control devices
- 1 = Sockets
- 2 = Comfort devices
- 3 = Protection devices and warning devices
- 6 = Installation components, accessories and spare parts

Plates coding criteria

2	C	S	K	0			C	H
FIXED PART OF THE CODE				NUMBER OF MODULES	COLOR CODE	FIXED PART OF THE CODE		

Example

Plate in technopolymer, 3-modules, sand color

2	C	S	K	0	3	0	2	C	H
---	---	---	---	---	---	---	---	---	---

NUMBER OF MODULES

- 2 = 2-modules plate
- 3 = 3-modules plate
- 4 = 4-modules plate
- 7 = 7-modules plate

COLOR

- 01 = white
- 03 = stone
- 11 = pastel yellow
- 13 = pastel green
- 02 = sand
- 04 = volcano
- 12 = pastel orange
- 14 = pastel blue

Bulbs for devices with warning lights

Control devices

2CSK1001CH	Switch 1P, 16AX – 250V~
2CSK1002CH	Switch 2P, 16AX – 250V~
2SSK1004CH	Switch 1P, 16AX – 250V~, 2 modules
2CSK1003CH	Two-way switch 1P, 16AX – 250V~
2CSK1007CH	Two-way switch 1P, 16AX – 250V~, 2 modules
2CSK1010CH	Reversing switch , 16AX – 250V~
2CSK1008CH	Reversing switch , 16AX – 250V~, 2 modules
2CSK1005CH	Push button 1P, NO, 16A
2CSK1016CH	Push button 1P, NC, 16A
2CSK1020CH	Push button 1P NO, pull, 16A with 2.25 m cord
2CSK1021CH	Push button 1P NC, pull, 16A with 2.25 m cord
2CSK1022CH	Control push button 1P 1NO and 1NC, 16A with ON symbol
2CSK1023CH	Control push button 1P 1NO and 1NC, 16A with OFF symbol
2CSK1024CH	Push button 1P NO, 16A, with red diffuser
2CSK1025CH	Push button 1P NO, 16A, with green diffuser
2CSK1026CH	Push button 1P NO, 16A, with orange diffuser
2CSK1027CH	Push button 1P NO, 16A, with white diffuser
2CSK1028CH	Push button 1P NO, 16A, with BELL symbol
2CSK1029CH	Push button 1P NO, 16A, with KEY symbol
2CSK1030CH	Push button 1P NO, 16A, with STAIRCASE LIGHT symbol
2CSK1031CH	Push button 1P NO, 16A, with backlit label plate
2CSK1032CH	Push button 1P NO, 16A, with backlit label plate, 3 modules

Ampoule-shaped bulbs

Incandescence

2CSK1613CH
White
230V
0.4W

Warning lights

2CSK1310CH	ORANGE warning light
2CSK1311CH	WHITE warning light
2CSK1312CH	RED warning light
2CSK1313CH	GREEN warning light

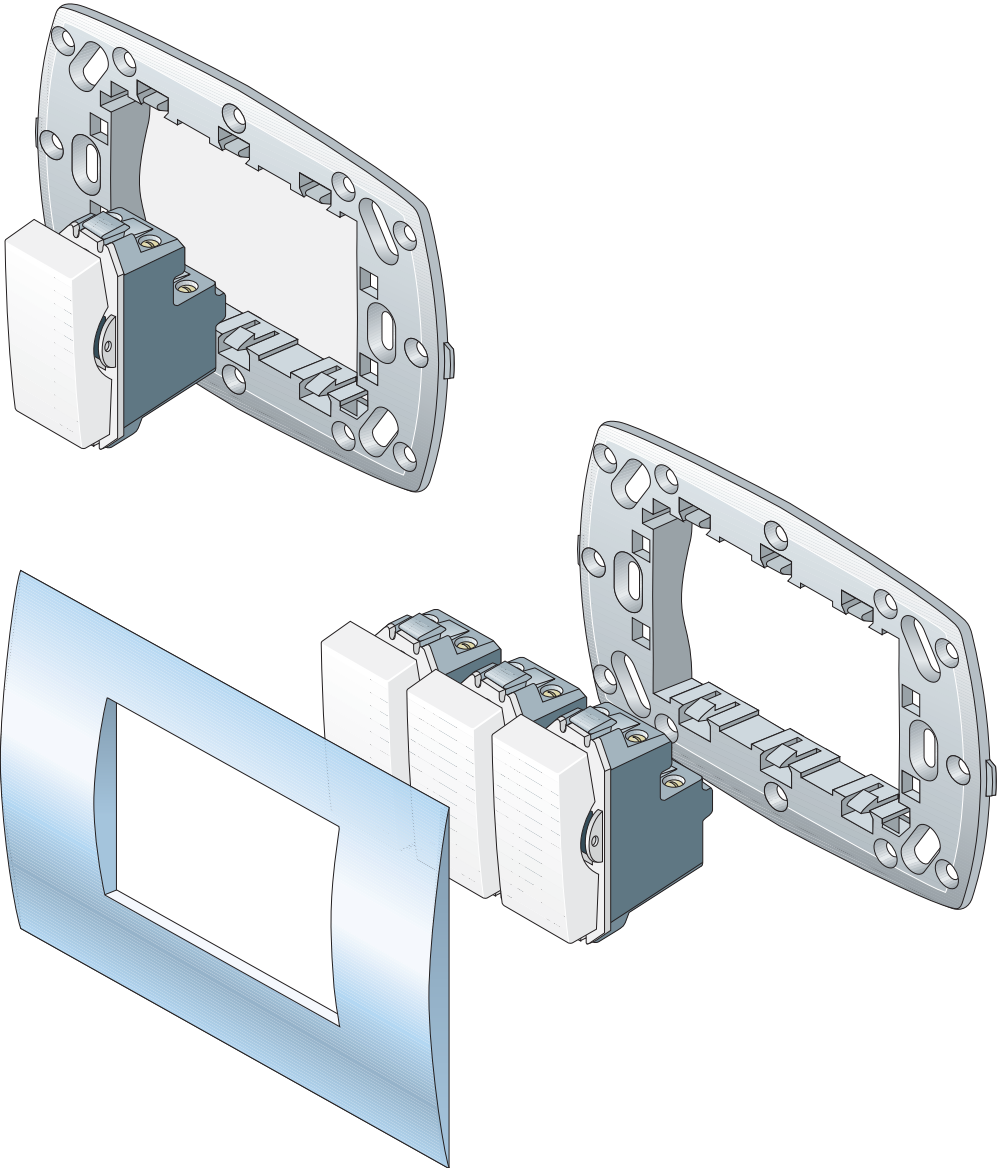
Ampoule-shaped bulbs

Incandescence

2CSK1613CH
White
230V
0.4W

Construction specifications

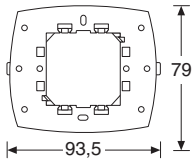
Devices and plates composition



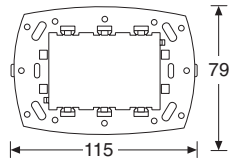
Overall dimensions

Supports

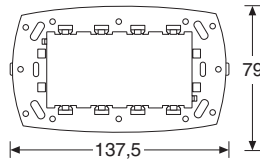
2 modules



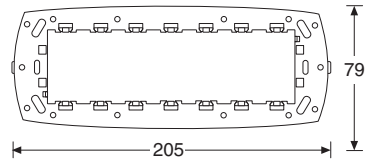
3 modules



4 modules

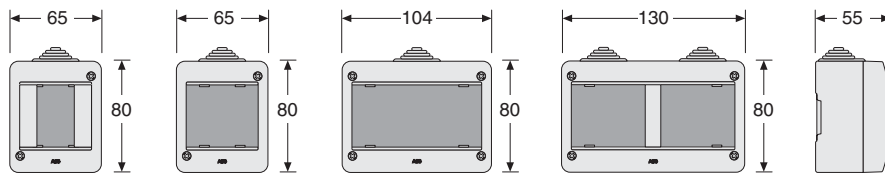


7 modules

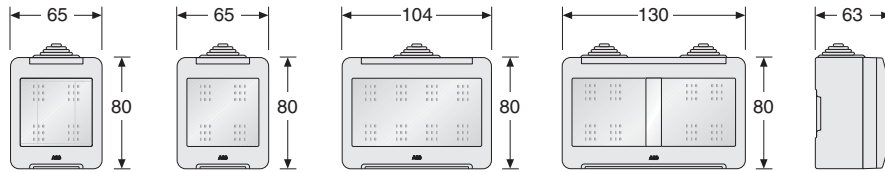


Boxes

IP40 wall boxes

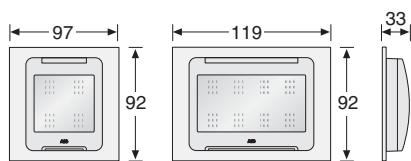


IP55 wall boxes



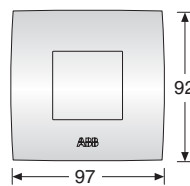
Covers

IP55 flush-mounting covers

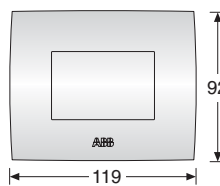


Plates

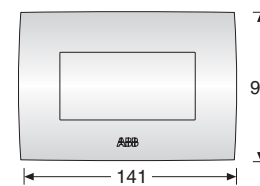
2 modules



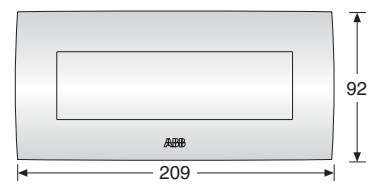
3 modules



4 modules



7 modules



Dimensions mm





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<http://www.abb.com>

In consideration of modifications to Standards and materials,
the characteristics and overall dimensions indicated in this
catalogue may be considered binding only following confirmation
by ABB SACE

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Chiara - Technical details

General information

Main technical data and reference standards for the devices in the range

Component	Reference standards	Basic electrical data*			Prolonged operation No. changes of position	Resistance to abnormal heat and fire	
		Test voltage withstand (V)	Insulation resistance (MW)	Breaking capacity or utilization category		Termopressione con biglia (°C)	Glow wire tests (°C)
Operating mechanisms	CEI 23-9 (EN 60669-1)	2000 at 50Hz for 1 minute	> 5	1.25 In (200 changes of position)	40000 at In 250V~ cosφ = 0,6)	125	850
Socket outlets	CEI 23-5/CEI 23-50/CEI 23-16 (EN 60884-1)	2000 at 50Hz for 1 minute	> 5	1.25 In (100 changes of position)	10000 at In 250V~ cosφ = 0,8)	125	850
Latching relay	CEI 23-9/CEI 23-62 (EN 60669-1/EN 60669-2-2)	2000 at 50Hz for 1 minute	> 5	-	50000 a In 250V~ cosφ = 0,6)	125	850
Monostable relays	CEI 94-4/CEI-EN 61810-1 (EN 60669-1/EN 60669-2-2)	2000 at 50Hz for 1 minute	> 5	1.25 In (200 changes of position)	50000 at In 250V~ cosφ = 0,6)	125	850
Automatic MCBs	CEI 23-3 (EN 60898)	2000 at 50Hz for 1 minute	-	1.5...3kA	8000	125	850
Automatic RCDs	CEI 23-95	2000 at 50Hz for 1 minute	-	1.5...3kA	4000	125	850
Supports and frames	CEI 23-9 (EN 60669-1)	-	-	-	-	75	650

*For the rated voltages and currents see the specifications for the individual part codes.

Clamping capacity of the terminals

Flexible wires		Rigid wires	
Min. 0.75 mm ²	Max. 2x4 mm ²	Min. 0.5 mm ²	Max. 2x2.5 mm ²

Cable traction resistance of terminals: > 50N

Adhesion of switches and device to the support: > 0.6J

Chiara - Technical details

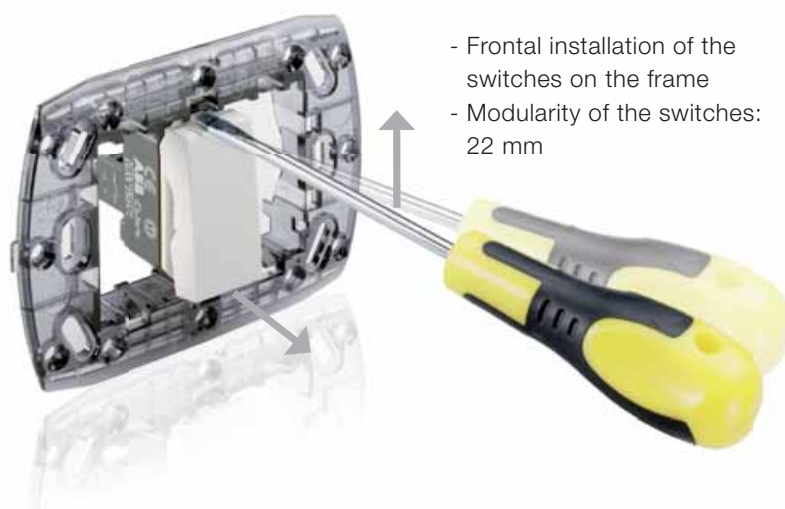
Installation solutions

Composition method for devices and supports



5

Installing and removing switches from the support



- Frontal installation of the switches on the frame
- Modularity of the switches: 22 mm

Specifications of screws and terminals

- Captive screws with open position captive screws with cross and slot head and clamping plate.
- Double input protected terminals for one or two conductors (rigid or flexible).

Chiara - Technical details

Installation solutions

Installation on concrete walls

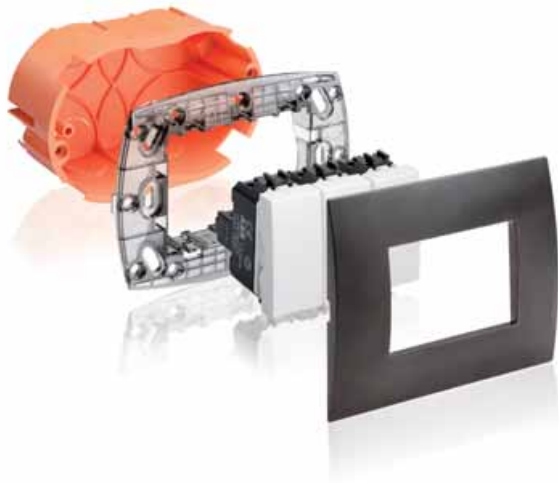


No. Modules	Screw distance	Recommended box
2 (with claws)	-	00 050
2 (with screws)	60 mm	00 050
3	83.5 mm	1SL006A00
4	108 mm	00 053
7	100 mm	1SL0064A00

Note: For further information on ABB boxes for concrete walls please refer to the catalog 1SLC001001D0905 - Insulating Enclosures and Installation Materials (see page 5/66)

5

Installation of plasterboard walls



No. Modules	Screw distance	Recommended box
2 (with screws)	-	10801/10802/10807
2 (with claws)	60 mm	10801/10802/10807
3	83.5 mm	10804
4	108 mm	Ave 254CG, BTicino PS564N, Gewiss GW24245 Vimar V71604
7	100 mm	Bticino PS567N Gewiss 24246 Vimar V71606

Note: For further information on ABB boxes for plasterboard walls please refer to the catalog 1SLC001001D0905 - Insulating Enclosures and Installation Materials (see page 5/66).

Protected installation with IP40/55 wall-mounted enclosures



IP40 wall-mounted enclosure

IP55 wall-mounted enclosure

No. Modules	IP40 enclosure	IP55 enclosure
1 (on 2-module enclosure)	2CSK2140CH	2CSK2155CH
2	2CSK2240CH	2CSK2255CH
3	2CSK2340CH	2CSK2355CH
4	2CSK2440CH	2CSK2455CH

The watertight enclosures allow the direct assembly of devices without the aid of supports. The devices are inserted from the rear. See technical details on page 5/57. For further information on IP40/IP55 wall-mounted enclosures, please refer to the catalog 1SLC001001D0905 - Insulating Enclosures and Installation Materials (see page 5/66).

Protected installation with watertight escutcheon plate



IP55 wall-mounted escutcheon plate

No. Modules	IP55 escutcheon plate
2 (on a square or round box with screws, center distance 60mm)	2CSK3255CH
3	2CSK3355CH

Note: The watertight escutcheon plates provide a self-supporting solution that allows direct assembly of devices without the aid of supports. The devices are inserted from the rear.

Chiara - Technical details

Installation solutions

Installation on raised floors with Undernet under-floor turrets



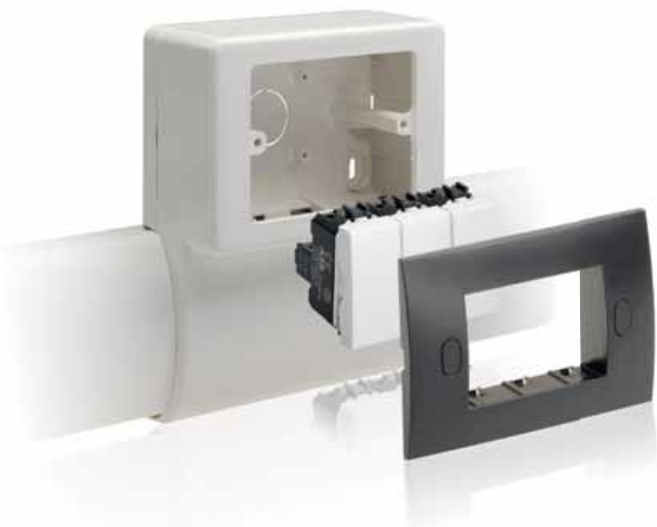
No. Modules	Dedicated adapter	Undernet tower
5 (max 20 contact blocks)	2CSK1625CH	10900 e 10901
6 (max 12 contact blocks)	2CSK1626CH	10902 e 10903

Note: The dedicated adapter provides a self-supporting solution that allows direct assembly of devices without the aid of supports. The devices are inserted from the rear. The use of finishing plates is not required.

For further information on Undernet under-floor turrets, please refer to the catalog 1SLC006001D0903 - Under-floor Distribution Systems (see page 5/66).

5

Installation on surface mounted boxes



No. Modules	Wall box	Frame
2	42 096	Use a 2M self-supporting frame
3	41 823	Use a 3M self-supporting frame
3	41 822	Use a 3M self-supporting frame
4	41 830	Use a 4M self-supporting frame

Note: The self-supporting frames allow the direct assembly of devices without the aid of supports. The devices are inserted from the rear.

For further information on the wall boxes and duct systems, please refer to the catalog 1SLC800001D0905 - Plastic and Metal Duct Systems (see page 5/66).

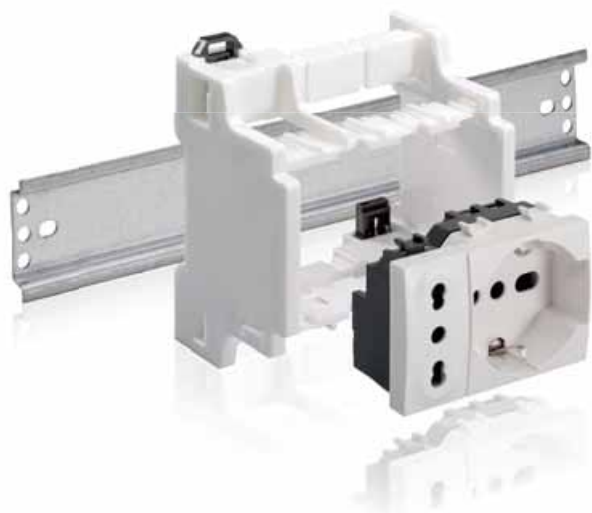
Installation on Lusy table towers



No. Modules	Lusy tower	Frame
4	10 507	Use a 4M self-supporting frame

Note: The self-supporting frames allow the direct assembly of devices without the aid of supports. The devices are inserted from the rear.
For further information on the Lusy table towers, please refer to the catalog 1SLC006001D0903 - Under-floor Distribution Systems (see page 5/66).

Installation on DIN rail adapter



No. Modules	Dedicated adapter
1	2CSK1608CH
2	2CSK1608CH
3	2CSK1608CH

Note: The DIN rail adapter allows devices to be assembled without the aid of supports. The devices are inserted from the front. See technical details on page 5/59.

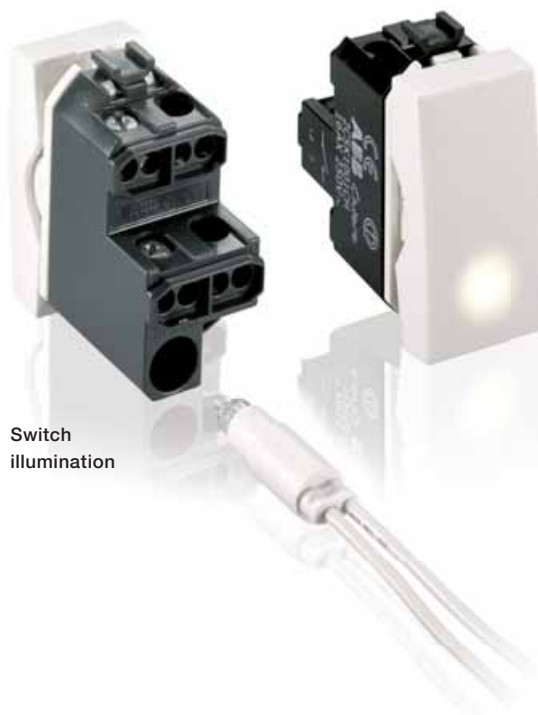
Chiara - Technical details

Selection of lights

5

Control devices		Lamps
2CSK1001CH	Single-pole switch, 16A - 250V~	Filament 2CSK1613CH White 230V 0.4W
2CSK1002CH	Double-pole switch, 16A - 250V~	
2CSK1004CH	Single-pole switch, 16A - 250V~, 2 modules	
2CSK1003CH	Single-pole two-way switch, 16A - 250V~	
2CSK1007CH	Single-pole two-way switch, 16A - 250V~, 2 modules	
2CSK1010CH	Intermediate switch, 16A - 250V~	
2CSK1008CH	Intermediate switch, 16A - 250V~, 2 modules	
2CSK1005CH	Single-pole push switch NO, 16A	
2CSK1016CH	Single-pole push switch NC, 16A	
2CSK1020CH	Single-pole push switch NO with cord pull, 16A with 2.25 m cord	
2CSK1021CH	Single-pole push switch NC with cord pull, 16A with 2.25 m cord	
2CSK1022CH	Single-pole push switch 1 NO and 1 NC, 16A, with ON	
2CSK1023CH	Single-pole push switch 1 NO and 1 NC, 16A, with OFF symbol	
2CSK1024CH	Single-pole push switch NO, 16A, with red diffuser	
2CSK1025CH	Single-pole push switch NO, 16A, with green diffuser	
2CSK1026CH	Single-pole push switch NO, 16A, with orange diffuser	
2CSK1027CH	Single-pole push switch NO, 16A, with white diffuser	
2CSK1028CH	Single-pole push switch NO, 16A, with BELL	
2CSK1029CH	Single-pole push switch NO, 16A, with KEY	
2CSK1030CH	Single-pole push switch NO, 16A, with STAIR LIGHT	
2CSK1031CH	Single-pole push switch NO, 16A, with backlit label holder plate	
2CSK1032CH	Single-pole push switch NO, 16A, with backlit label holder plate, 3 modules	

Signalling devices		Lamps
2CSK1310CH	Warning light, ORANGE colour	Filament
2CSK1311CH	Warning light, WHITE colour	2CSK1613CH White
2CSK1312CH	Warning light, RED colour	230V
2CSK1313CH	Warning light, GREEN colour	0.4W



Switch illumination

Chiara - Technical details

Control devices

Switches, two-way switches, intermediate switches and pushbuttons

Area of application

Control (on and off) of ohmic-inductive loads:

- with filament and fluorescent lamps (corrected and uncorrected);
- dedicated circuits for powered equipment (aspirators, range hoods, shutters, blinds, fans, etc..) and controllable outlets.

To eliminate architectural barriers in creating installations, we recommend the use of luminous controls (Article 4 of Italian Ministerial Decree no. 236 del 14.06.1989).

Technical specifications

Rated voltage	250V~
Rated current	10A (16A for pushbuttons)
Opening distance of the contacts	> 3 mm
Dielectric strength	> 2000V~

Reference standards

LV Directive EN 60669-1.

Customization of the control device keys

The illuminable keys of the Chiara wiring accessories' range are supplied with all most widely used functional symbols.

Wiring diagrams

The diagrams provided below are the most widely applied installation solutions in creating lighting points.

Backlighting of the control devices

Night-time location



Characteristics

- It allows the command key to be identified in the dark.
- We recommend the use of white, blue, green or red Chiara lamps.

Applications

- Bedrooms
- Corridors

Functional signalling



Characteristics

- This allows the command key to be identified and the ON/OFF status of a circuit to be signalled in the dark.

Applications

- General services of a building complex (entrance halls, stair lights, landings etc.)
- Public environments (cinemas, theatres etc.)

Signalling with symbols



Characteristics

- This allows the command key and its specific function to be identified in the dark.

Applications

- Warehouses, shops, offices
- Hotels
- Nursing homes, hospitals

With warning light



Characteristics

- Allows the ON/OFF status of an appliance or a lighting circuit, even at a distance.
- Visible from both a front and side position.

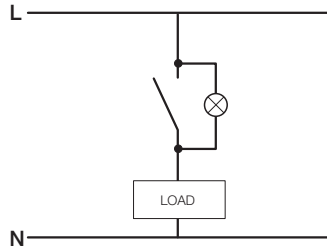
Applications

- Signalling the switching on of lighting points outside the environment in which the control device is installed

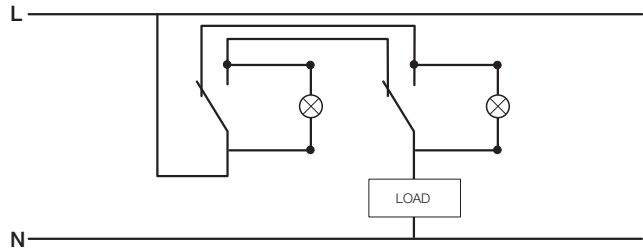
Chiara - Technical details

Control devices

Example of functional signalling



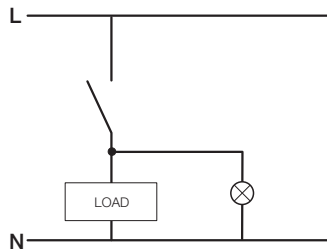
Warning light on when the switch is OFF (if the switch is in the ON state, the warning light is off while the load is ON).



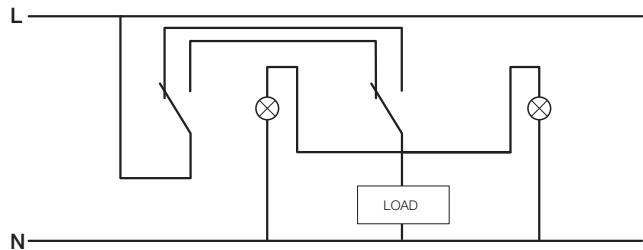
The two warning lights switch on and off respectively when the load is in the OFF and ON state.

5

Example of remote signalling



Warning light placed in parallel to the load, of which indicates the ON/OFF state (it is on when the switch is ON).



Two warning lights placed in parallel with the load (they switch on and off with it).

Instructions for installation in systems with relays and illuminable push switches

The lamps must be connected in parallel.

Using single-pole latching relays 2CSK1012CH, it is possible to connect up to four fluorescent lamps: by adding a $0.94\mu\text{F}$ capacitor to the heads of the relay, up to twelve fluorescent lamps can be connected.

Using double-pole latching relays 2CSK1014CH, it is possible to connect two fluorescent lamps: by adding a $1.41\mu\text{F}$ capacitor to the heads of the relay, up to twelve fluorescent lamps can be connected.

Relays

Relay with latching operation for control and adjustment from multiple lamp points by means of single-pole push switches with NO (normally open) contact.

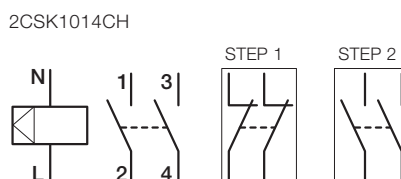
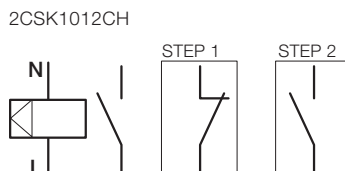
Technical specifications

Power supply voltage (coil)	230V - 50/60Hz
Output contact	2CSK1012CH 1NO / 2CSK1014CH 2NO; 10A (AC1) / 7A (AC15) - 250V~

Reference standards

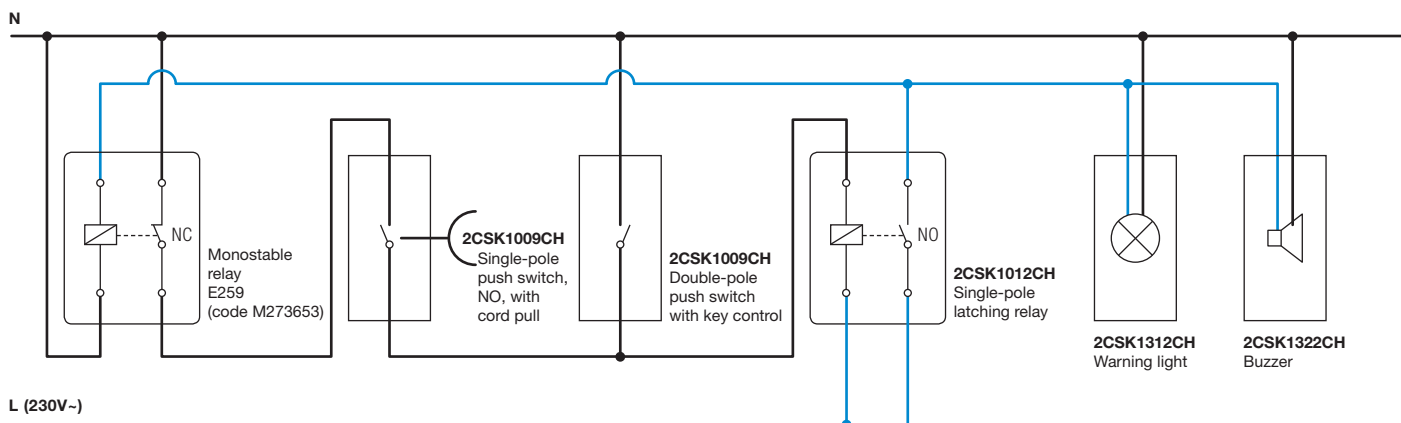
EN 60669-1, EN 60669-2-2.

Wiring diagrams



Examples of application

The flush-mounted relays of the Chiara wiring accessories' range can be used to implement numerous functions. The example illustrates a disabled bathroom calling system with cancellation via a key operated push switch:



Chiara - Technical details

Socket outlets

Plug sockets

Area of application

Powering of household appliances, lighting equipment etc.

Main features Italian and German standard sockets.

The cells of the sockets are segregated and protected when the plug is disconnected: the live parts are accessible only with the corresponding plug fully inserted.

Technical specifications

Rated voltage	250V~
Rated current	10A o 16A
Shuttered and elastic live cells	

Possibility of coupling Chiara sockets with the various types of plugs on the market

	2P, 10A	2P, 2,5A	2P+T, 10A	2P, 16A	2P+T, 16A	Schuko 2P+T, 16A	American 2P, 15A

Plug sockets, 250V~, Italian standard with safety shutters

	P 11 2CSK1101CH	■	■	■			
	P 17 2CSK1102CH				■	■	
	P 17/11 2CSK1103CH	■	■	■	■	■	

Plug sockets, 250V~, Italian/German standard with safety shutters and side/central earth

	P 30 2CSK1108CH	■	■	■			■
	P 30/17 2CSK1109CH	■	■	■	■	■	■

Interlocked socket outlets with automatic MCB

	P 17/11 2CSK1324CH	■	■	■	■	■	
	P 30 2CSK1325CH	■	■	■			■

Special sockets

	Shaver socket ⁽¹⁾ 2CSK1113CH	■	■				■
--	---	---	---	--	--	--	---

⁽¹⁾ Shaver socket, European/American standard with insulating transformer 230V~ - 50/60 Hz

Reference standards

CEI 23-5, CEI 23-50, CEI 23-16 (IEC 60884-1).

Note: In general terms, no plug sockets of any standard for domestic use fall under the European low voltage directive, because there is no harmonized European standard for these types of sockets: in fact, each country has its own standard and therefore a single standard is impossible. For this reason the plug sockets do not bear the CE mark. All the sockets of the Chiara wiring accessories' range conforming to CEI 23-50 are however certified by IMQ as a further guarantee of their quality and compliance with standards.

Plug sockets for dedicated lines

Plug sockets for dedicated lines allow outlet points to be differentiated according to their particular application, avoiding incorrect connection of unsupported appliances. Different coloured enclosures (red, orange, green) distinguish them from common power sockets.

There are as yet no standard regulations on the correspondence between the colour of the socket and the type of power supply. In order to distinguish the area of application, the following usage customs are adopted.

Red: continuous power supply with UPS (uninterruptible power supply) through an insulating transformer.

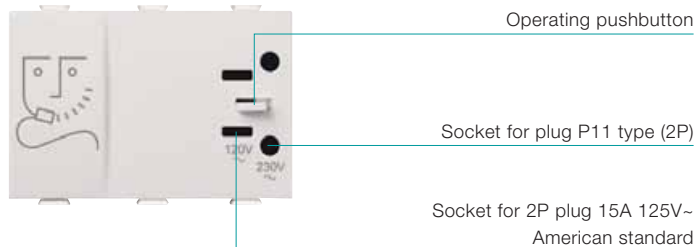
Orange: power supply protected by network-generator unit through an insulating transformer.

Green: safety power supply with network/generator unit.

Special sockets

Description	Code
2P shaver socket with insulating transformer. Power supply 230V~ - 50/60Hz. Output voltage 125V~ (American standard 2P socket) or 230V~ (2P socket P11 type)	2CSK1113CH

Components



The shaver socket incorporates an insulating transformer with a power rating of 20 VA, protected against overload and resistant to short-circuits.

Power supply is guaranteed by a pushbutton that is operated automatically whenever the plug is inserted in the socket. The secondary circuit, to which the cells of the socket are connected, is isolated from the primary power supply circuit by double insulation:

additional protections (shutter devices) on the cells of the socket are therefore superfluous.

The socket is suitable for the insertion Italian standard plugs of the P11 type (2P) and American standard plugs (2P). The shaver socket is protected against overload with a thermal interruption device without auto-reclosing. After the protection is tripped, the cells of the socket are not energized. To reclose the circuit, the plug of the device that caused the overload must be disconnected, waiting a few minutes in order to allow the transformer to cool down.

Technical specifications	
Power supply	230 V~ 50-60 Hz
Output voltage	230 V~ for plugs P11(2P) 2,5 A 120 V~ for plugs 2P 15 A 125 V~ American standard with non-polarized flat pins
Available power	20VA
Operation with auto-protected	temperature

Reference standards

EN 61558-2-5, EN 61000-3-2, EN 55014-1, EN 55014-2.

Chiara - Technical details

Socket outlets

Description	Code
Flush-mounted USB charger 500-650mA, with male type A connector, power supply 230~ 50/60Hz, output voltage 5V DC	2CSK1160CH

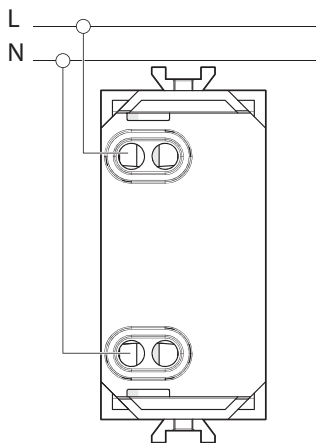
Components



5

The flush-mounted USB charger allows you supply and recharge the most common portable electronic devices. Using only a USB cable with Type A male connector it is possible to power mobile phones, smartphones, tablets and cameras that support standard USB power supply (up to 650mA), independently of the manufacturer.

Wiring diagrams



Caution!
The device absorbs up to 60mW in the absence of connected electronic devices. To exclude this absorption, it is recommended to use a double-pole switch.

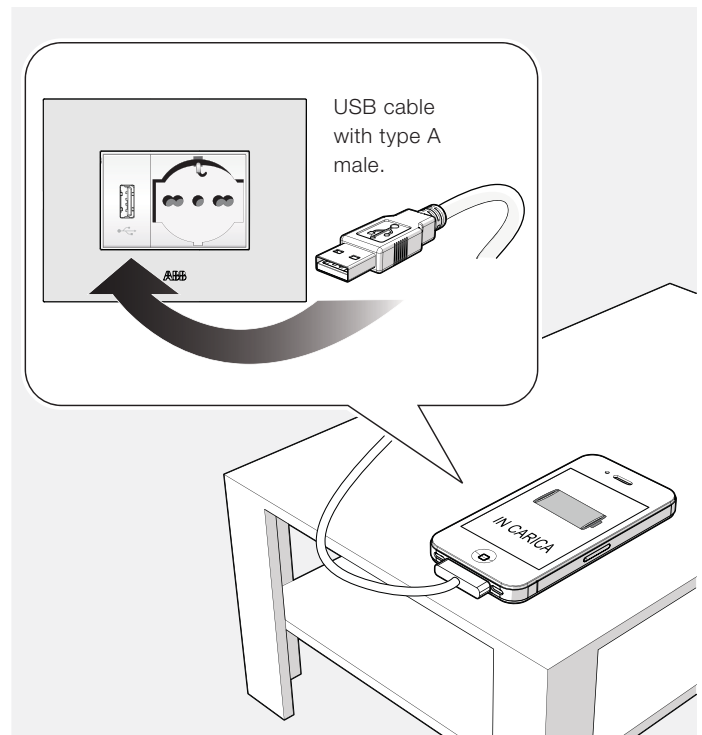
Operating method

Connect the USB cable with the type A male connector to the charger and the opposite end to the device to be powered. Type A, B, miniUSB and microUSB USB connectors can be used indifferently. The device is now being charged.

Caution: the device supplies power according to the USB data transmission protocol, with a maximum current of 650mA at 5V $\overline{\text{---}}$. Some devices may require a higher power supply current. Look up the manual of the connected device to check its absorption specifications.

The charging time depends on the connected device and may vary compared with the original charger.

Examples of application



Technical specifications

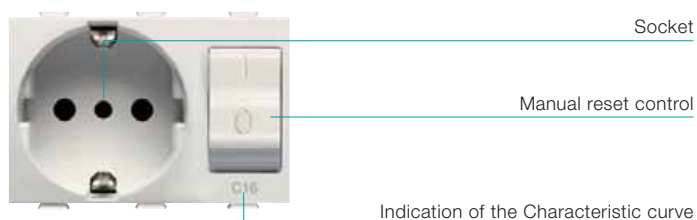
Power supply	125-250V - 50/60 Hz
Input current	5A 230V
Output current	500-650mA at 5V DC
Max absorption in standby	60mW
Operating temperature	-20 +50°C
Storage temperature	-20 +80°C
Protection class	IP20
Place of use	indoors, dry
The device is protected against short-circuits by an internal fuse (not replaceable).	

Interlocked socket outlets

Description	Code
2P+E socket outlet, 16A - 250V~, interlocked with MCB, P17/11	2CSK1324CH
2P+E socket outlet, 16A - 250V~, interlocked with MCB, P30	2CSK1325CH
2P+E socket outlet, 16A - 250V~, with RCD 10mA, P17/11	2CSK1326CH

Components

Interlocked socket outlets with automatic MCB (PIA)




Interlocked socket outlets with automatic MCD (PID)



Interlocked socket outlets with automatic MCB (PIA)

These sockets are suitable for installation in the system terminations for protection of the load supplied from the outlet against dangers of short circuits and overloads..

Interlocked socket outlets with automatic RCD (PID).

These sockets are suitable for installation in the system terminations for protection of the load supplied from the outlet against dangers of short circuits and overloads, as well as protection of the user against contact voltages. 

The residual current function with sensitivity of 10 mA also acts in the presence of non-sinusoidal fault currents (alternating currents mixed with unidirectional pulsating currents).

In compliance with installation standards, they are particularly suitable for the protection of:

- terminal user devices in rooms where there is a greater risk of electrocution (bathrooms, showers, etc.)
- sockets that power class 1 users with electronic circuits
- sockets for portable user devices in domestic or similar environments (irons, drills, etc.).

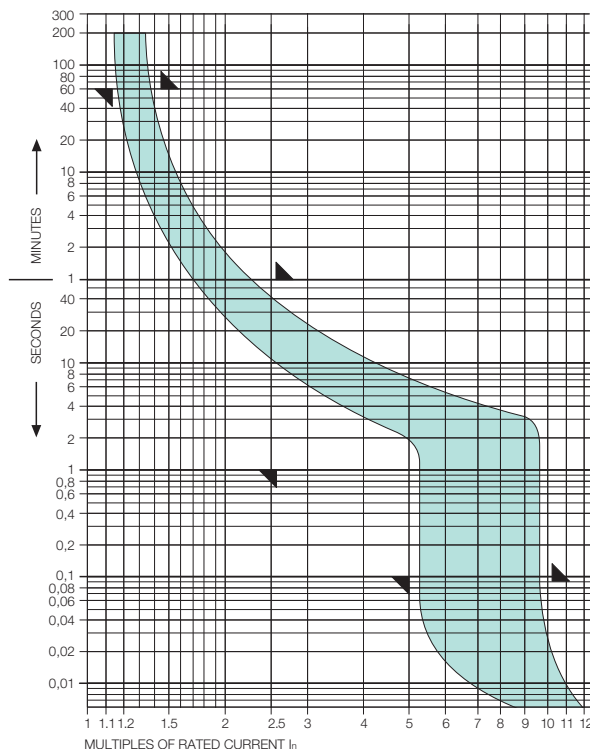
Operation

The MCB or RCD interlocked with the socket energises the cells of the socket only after the plug has been inserted and automatically cuts off voltage to the socket before the plug is fully extracted.

Therefore the plug is always inserted and extracted without an electrical arc.

The lever of the circuit-breaker can be closed only after the plug is inserted; without the plug, the lever operates without effect and does not close the switch.

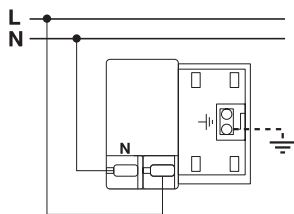
Current-time tripping diagrams for circuit-breakers of the Chiara range



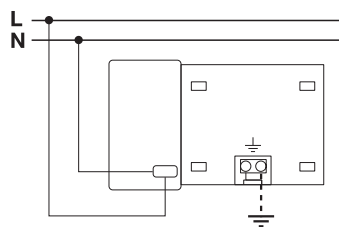
Chiara - Technical details

Socket outlets

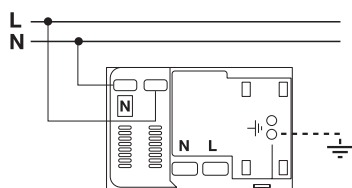
Wiring diagrams



2CSK1324CH



2CSK1325CH



2CSK1326CH

5

Technical specifications

Power supply voltage	230 V~ - 50 Hz
Residual current (sensitivity)	Δn 10 mA
Operation dependent on the line voltage	they must be installed downstream of a general residual current circuit-breaker
Thermomagnetic tripping	with characteristic C
Double-pole isolation	with 1 protected pole
Breaking capacity	3000 A
Rated current corresponding to the standard of the socket	
Type A RCBO for alternating and unidirectional pulsating currents	
Front LED with green light indicates normal operation with the presence of network power supply and contact closed	

Reference standards:

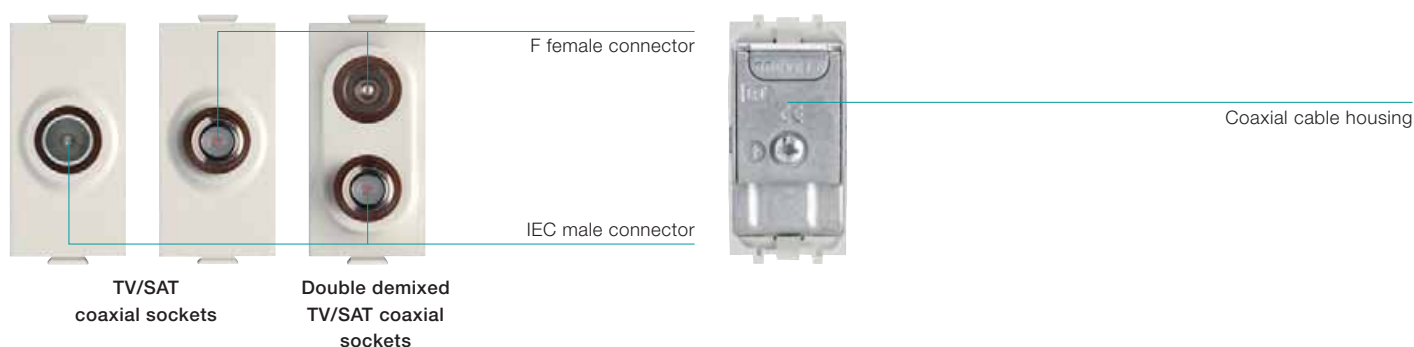
Interlocked socket outlets with MCB:
 LV Directive, Standard CEI 23-97.
 Interlocked socket outlets with RCD:
 LV Directive, Standard CEI 23-96.

TV/SAT sockets

The TV/SAT coaxial sockets for the Chiara series offer a complete range of products for implementing the terminal part of modern antenna systems. Manufactured fully from die cast Zama, they include a pressure terminal with safety screw in order to guarantee proper grip of the cable. Individual sockets

are available with male IEC or female F bushing, and double demixed sockets with both connection possibilities. Various levels of attenuation are available, ensuring that solutions are available for every type of installation.

Components



5

Attenuation values of the TV/SAT coaxial sockets

Code	Bushing	Passing attenuation [dB]			Bridging attenuation [dB]			Inverse attenuation [dB]	Direct current transit
		5÷40 MHz	47÷862 MHz	950÷2402 MHz	5÷40 MHz	47÷862 MHz	950÷2400 MHz		
2CSK1117CH	Male IEC Terr.	-	-	-	0,5	0,5	0,5	-	NO
2CSK1118CH	Male IEC Terr.	-	-	-	0,5	0,5	0,5	-	YES
2CSK1132CH	Male IEC Terr.	≤2	≤2	≤3	≤7	≤7	≤8	≥35	NO
2CSK1136CH	Male IEC Terr.	≤2	≤2	≤2,5	≤10,5	≤10	≤11	≥35	NO
2CSK1137CH	Male IEC Terr.	≤1,5	≤1,5	≤2,5	≤14,5	≤14	≤14,5	≥35	NO
2CSK1138CH	Male IEC Terr.	≤1,5	≤1,5	≤2,5	≤18,5	≤18	≤18,5	≥35	NO
2CSK1119CH	Female SAT	-	-	-	≤0,5	≤0,5	0,5	-	YES

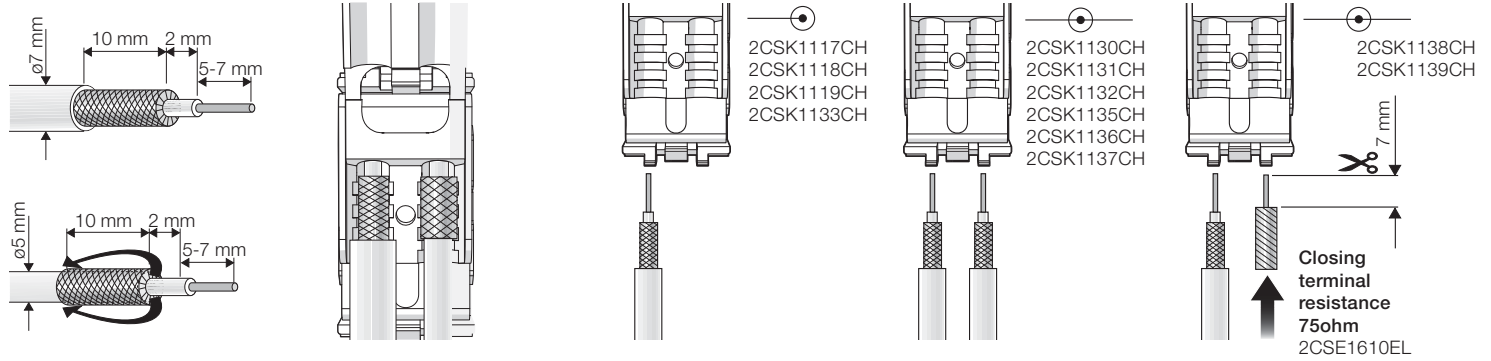
Attenuation values of double demixed TV/SAT coaxial sockets

Code	Bushing	Passing attenuation [dB]		Bridging attenuation [dB]		Inverse attenuation [dB]	Direct current transit
		TV	SAT	TV	SAT		
2CSK1133CH	Male IEC Terr. Female SAT	-	-	≤2	≤2	-	YES
2CSK1120CH	Male IEC Terr. Female SAT	≤4	≤5	≤6,5	≤7	≥35	YES
2CSK1132CH	Male IEC Terr. Female SAT	≤3	≤4,5	≤10	≤11	≥35	YES
2CSK1131CH	Male IEC Terr. Female SAT	≤2	≤3	≤14	≤15	≥35	YES
2CSK1139CH	Male IEC Terr. Female SAT	≤1	≤2	≤18	≤19	≥35	YES

Chiara - Technical details

Socket outlets

Instructions for installation



Technical specifications

Manufactured from die cast Zama.
 Pressure terminal.
 Available with bushing of type: male CEI, female F.

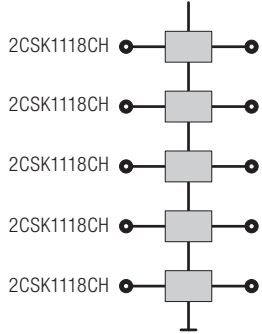
Reference standards

EN 50083-1, EN 50083-2, EN 50083-4

Wiring diagrams

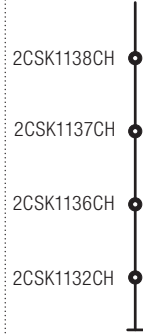
TV

TV system with branched sockets from the central unit



Closing resistance 75ohm

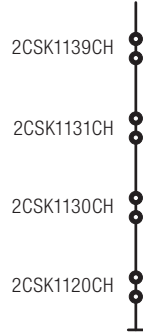
TV system with feedthrough sockets from the central unit



Closing resistance 75ohm

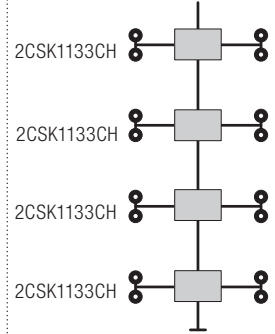
TV/SAT

TV/SAT system with feedthrough demixed sockets from the central unit



Closing resistance 75ohm

TV/SAT system with branched demixed sockets from the central unit

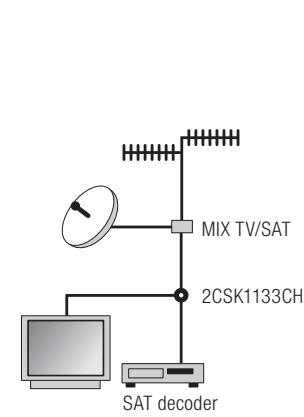


Closing resistance 75ohm

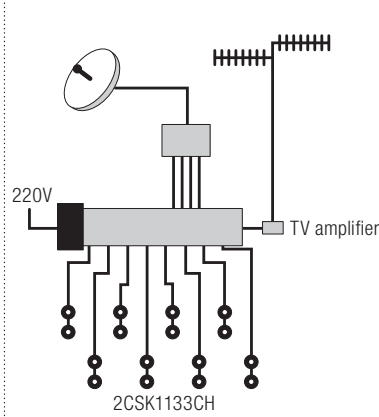
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TV/SAT

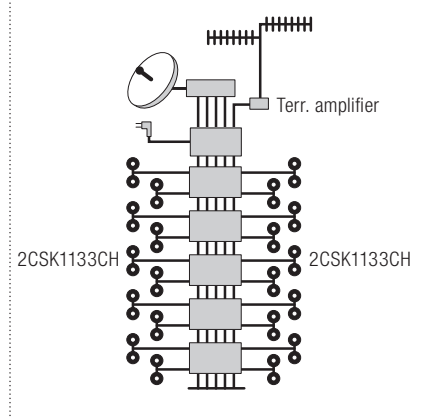
Mixed TV/SAT system, single consumer



Multiswitch radial TV/SAT system

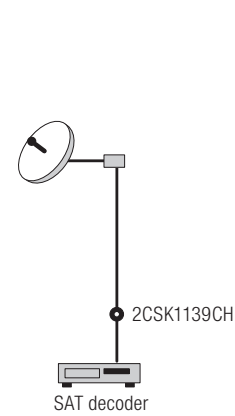


SAT system, single consumer

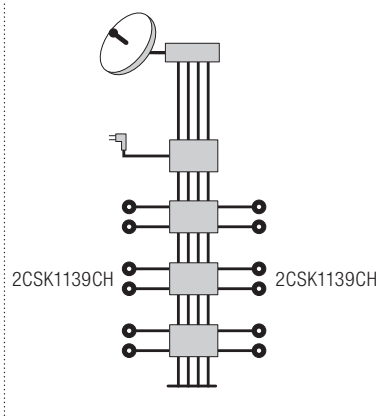


SAT

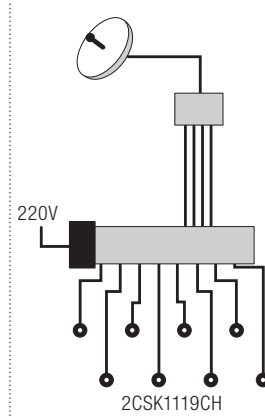
SAT system, single consumer



SAT and feedthrough Multiswitch system



SAT and radial Multiswitch system



Chiara - Technical details

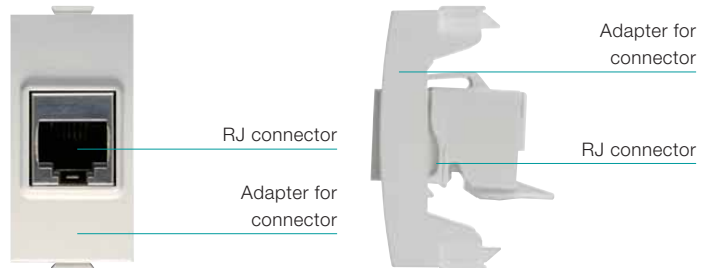
Socket outlets

Network and telephone sockets

The range includes devices for the implementation of telephone and computer networks, RJ11 4-contact telephone connectors for telephones, telefax, modems and RJ12 6-contact telephone connectors for intercommunicating telephone installations.

RJ45 category 5e and 6 connectors are also available. These devices allow computer equipment (computers, modems, printers, etc) to be connected in a network and connection of multimedia devices.

Components



5

Code	Connector type	No. contacts	Cable type	Shielded	Category	Speed
2CSK1121CH	RJ11	4	twin core	NO	3	up to 16 Mb/s
2CSK1122CH	RJ12	6	twin core	NO	3	up to 16 Mb/s
2CSK1124CH	RJ45	8	UTP	NO	5e	up to 100 Mb/s
2CSK1125CH	RJ45	8	FTP	YES	5e	up to 100 Mb/s
2CSK1127CH	RJ45	8	UTP	NO	6	up to 10 Mb/s
2CSK1128CH	RJ45	8	FTP	YES	6	up to 10 Mb/s

FTP = cable shielded with aluminium tape
UTP = unshielded cable

Instructions for installation

Unshielded connectors:

1. wire the connector making sure that the connection terminals match;
2. operate the lever wiring device on the connector;
3. latch the connector on the adapter and proceed with the installation on the frame.

Shielded connectors:

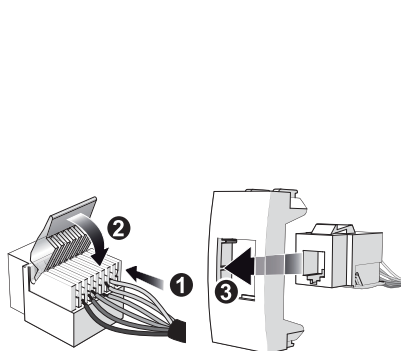
1. wire the connector making sure that the connection terminals match;
2. position the cover of the connector and squeeze with pliers to make sure the contacts are tight;
3. apply the shielding, ensuring insulation of the connector;
4. latch the connector on the adapter and proceed with the installation on the support.

Keystone adapter 2CSK1135CH:

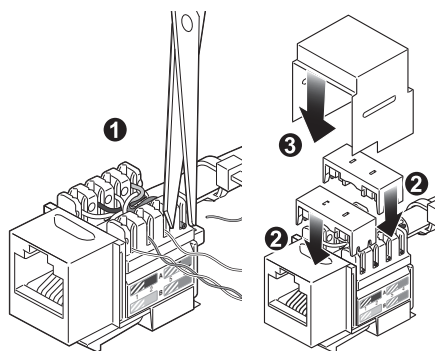
the structured wiring systems for data transmission are distinguished by their flexibility of use, installation independent of location and the use of the terminal outputs. The suppliers of components for wiring, when dealing with installations of a certain complexity and size, must be in able to show certification of conformity of the installation, directly or through accredited installations.

ABB meets this requirement with the adapter of the Chiara wiring accessories' range, which is compatible with various Keystone coupling connectors available on the market and enables integration between the Chiara wiring accessories' range and data transmission components of systems with structured wiring.

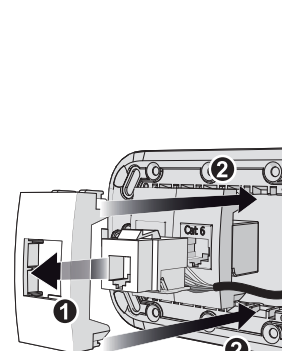
1. latch the connector on the adapter and proceed with the installation on the frame.



Unshielded connectors

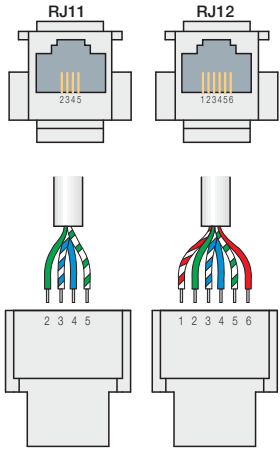


Shielded connectors



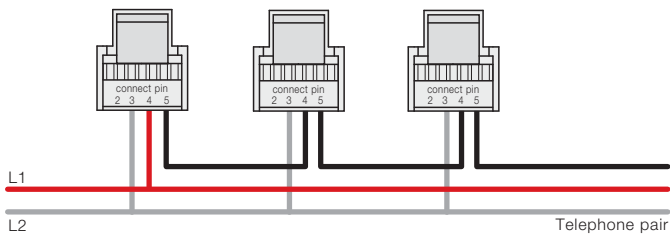
Keystone adapter 2CSK1135CH

Wiring diagrams for RJ11 and RJ12 telephone connectors



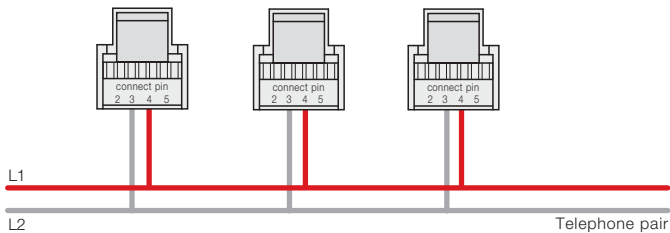
For telephone use, 2 wires of the telephone connectors, use the central contacts 3-4

Connection in series

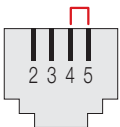


Terminals 3 and 4 are connected via the internal contact to the telephone (closed with the receiver hung up). Lifting the receiver causes interruption of the downstream line (L1), guaranteeing secrecy of the conversation.

Connection in parallel



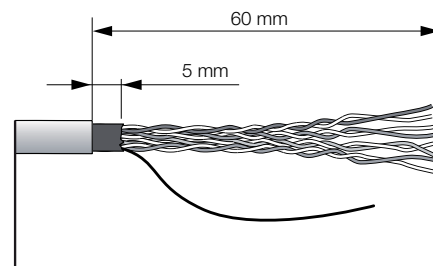
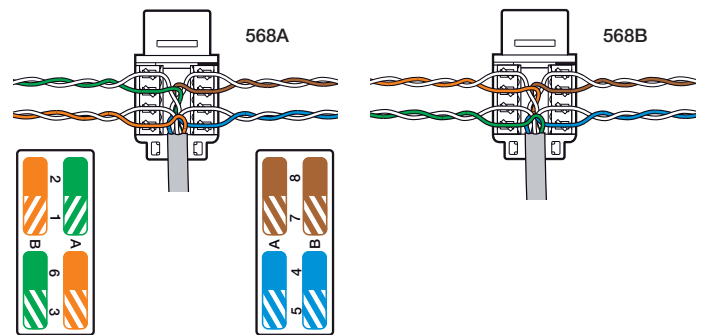
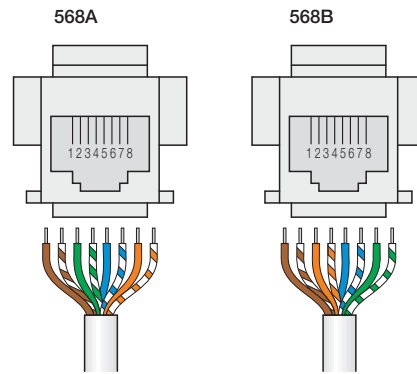
Each socket captures the line signal (there is no secrecy of conversation).



Note: extracting one of the plugs causes disconnection of sockets located downstream. In order to prevent this, you just need to insert a plug in the socket from which the telephone device was removed with a jumper between terminal 3 and 4.

Wiring diagrams for RJ45 data connectors

To obtain the EIA/TIA 568A or 568B configuration included below, follow the colour code shown on the terminal box.



Technical specifications

Connections	With perforated insulation
Conductors	non-buttet, inserted in the appropriate blade slots

Reference standards

EN 50083-1, EN 50083-2, EN 50083-4, ISO 11801.

Chiara - Technical details

Protection devices

Fuse holders and overvoltage limiters

Description	Code
Fuse holder, for fuses Ø5x20 / Ø6.3x32 mm, max. 16A	2CSK1301CH

Components



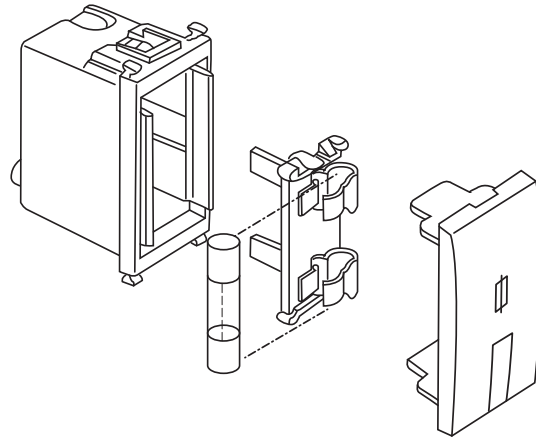
Replacement fuses

Fuses with dimension Ø5x20mm or Ø6.3x32 mm can be installed.

The use of the fuses on page 4/23 is recommended.

Replacement of the fuse

After removing the removable cover with a screwdriver, proceed with replacement as in the drawing:



Description	Code
Overvoltage limiter, 75J, 230V~	2CSK1315CH

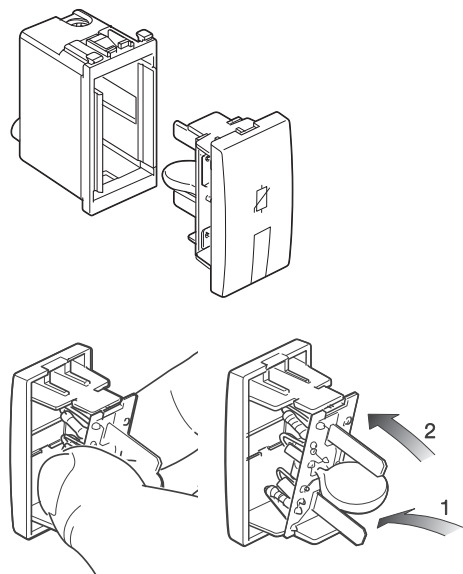
Components



This device provides protection for power supply sockets for all types of household appliances and in particular for those containing electronic components (Hi-Fi, TV, computers, video recorders, programming mechanisms, cash registers etc.) from damage caused by over-voltages present in power supply networks.

Instructions for installation and operation

The protection device is housed in the removable front cover. To replace it, after disconnecting the voltage from the installation, extract the cover from the limiter and separate the SPD block from the plastic cover, levering it with a screwdriver. Replace it with spare part 2CSY1302MY.

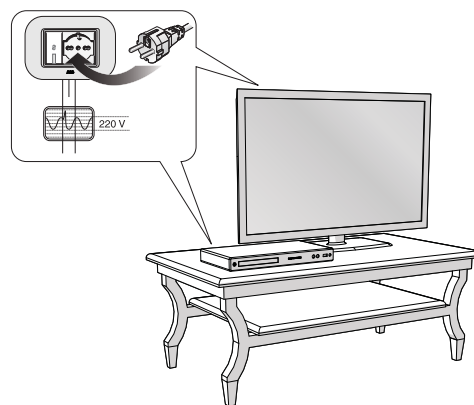


Functions

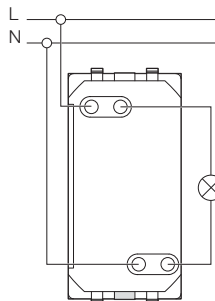
When the red warning light is on, it indicates that the protection has tripped and needs to be replaced (the load remains energised but it is not protected).

Examples of application

Over-voltages in domestic networks can be caused both by atmospheric interference and by control, operation or programming of connected inductive loads (air conditioners, burner motors, water pumps, reactors of fluorescent or discharge lamps, washing machines, etc.).



Wiring diagram



Technical specifications

Residual current limiting	protection (line-to-neutral)
Rated voltage (Un)	120-230 V~ 50/60 Hz
Number of ports	1
Rated load current IL	16 A
Tensione max continuativa (Uc)	250 V~
Test class	III
Protection level (Up)	< 1,2 kV
Test voltage of combined wave generator Uoc	2,5 kV
Rated flashover current (In)	1 kA (8/20 ns) 20 times
Max flashover current (Imax)	2 kA (8/20 ns) once
Temperature range	-5 °C - +40 °C
Internal integrated protection	fuse

Reference standards

LV Directive, Standard EN 61643-11

Chiara - Technical details

Protection devices

Miniature circuit-breakers and Residual current circuit-breakers

Description	Code
Automatic MCB, 1P+N, C6, breaking capacity 1.5kA	2CSK1304CH
Automatic MCB, 1P+N, C10, breaking capacity 3kA	2CSK1305CH
Automatic MCB, 1P+N, C16, breaking capacity 3kA	2CSK1306CH
Automatic RCD, 1P+N, C6 - 10 mA, breaking capacity 1.5kA	2CSK1307CH
Automatic RCD, 1P+N, C10 - 10 mA, breaking capacity 3kA	2CSK1308CH
Automatic RCD, 1P+N, C16 - 10 mA, breaking capacity 3kA	2CSK1309CH
Automatic RCD, 1P+N, C6 - 30 mA, breaking capacity 1.5kA	2CSK1328CH
Automatic RCD, 1P+N, C10 - 30 mA, breaking capacity 3kA	2CSK1329CH
Automatic RCD, 1P+N, C16 - 30 mA, breaking capacity 3kA	2CSK1330CH

5

Components

Automatic RCD



Automatic MCB



Automatic MCBs and automatic RCDs provide protection against over-currents and earth fault currents of terminal circuits. Protection class with the device embedded in smooth vertical walls with the associated support, frame and blank covers, if required: IP41.

Instructions for installation and operation

Use in dry and dust-free locations.

- Temperature between -5 °C and +40 °C..
- Suitability for installation on the supply side of a socket or device for the protection against overloads and short circuits of the equipment and, at the same time, for protection of the users against contact voltages.
- The sensitivity (operating residual current) of 10mA and

the suitability for operation also in the presence of non-sinusoidal fault currents (alternating currents mixed with unidirectional pulsating currents) allow the protection devices of the Chiara range to be classified as “type A RCBOs” (identified by the symbol), particularly suitable for the protection of:

- terminal uses in rooms where there is a greater risk of electrocution (bathrooms, showers, kitchens etc.), as prescribed by the CEI standards;
- class I consumer power sockets with electronic circuits (computers and accessories, electronic scales, electronic typewriters, cash registers etc.). In domestic and service industry networks non-sinusoidal fault currents are often present because of the use of electronic boards in domestic appliances.

- The electromagnetic part of the circuit breakers guarantees protection against overloads and short circuits; the residual current part of the devices, for current values of 10mA, guarantees protection of persons against the contact voltages.
- Closing the circuit: manually press the lever of the circuit breaker at the “I” symbol.
- Opening the circuit:
 - manually, by pressing the lever of the circuit breaker at the “O” symbol or the yellow test button (test);
 - automatically, due to thermal (overload), magnetic (short-circuit) or residual current (earth fault current) tripping.
- The device must not be used as a control breaker.
- To check that the circuit breaker is installed and behaving correctly, the yellow test button (test) must be pressed every month. If the device is correctly installed and powered, the circuit breaker trips; if it does not, you must immediately inform the installation technician because safety will be compromised. After the test, you need to press the main key near the “I” symbol in order to reset the circuit breaker.
- Thermomagnetic tripping with characteristic “C” (see the current-time tripping diagram provided below).
- Double-pole operation with one protected pole + N, type A for alternated fault currents and unidirectional pushbuttons.
- Operating residual current (sensitivity) Δn 10mA; the circuit breaker must be connected according to the electrical diagram provided below.

Functions

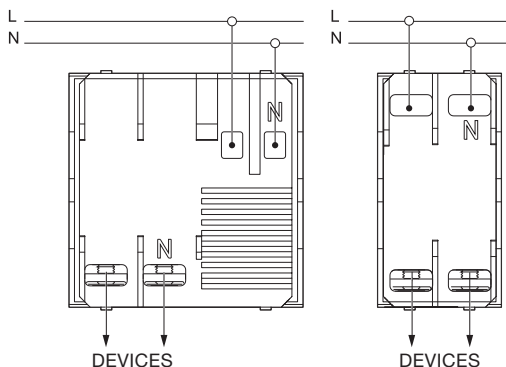
- Green front LED for signalling normal operation: presence of line voltage and closed circuit.
- Internal temperature checking: the circuit breaker automatically operates the opening of the circuit as soon as the safety threshold is exceeded.
- Self-test function to check the electrical continuity of the internal residual current circuit (in the absence of continuity, the circuit breaker will open).
- Opening the circuit if voltages occur higher than the predefined threshold at the circuit breaker input (for example, in 380V~ three-phase systems the circuit breaker prevents an erroneous "line-to line" connections, instead of "line-to-neutral").

Characteristics

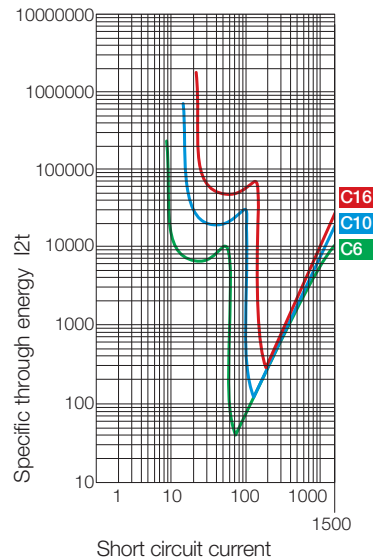
- Main lever operated control part: "I" symbol (closed circuit); "O" symbol (open circuit).
- Front LED for signalling the presence of line voltage and closed circuit.
- Yellow test button (test) for checking that the device is functioning properly.
- Terminals protected with captive screws for clamping two conductors up to 4 mm² each
- Construction of the thermo magnetic part as prescribed by Standards EN 60898 and IEC 60898.
- Construction of the residual current part according to Standards EN 61009 and IEC 61009.
- Power supply voltage: 120-230V~ ±10% 50-60Hz.

The supply line can be connected to either the upper or the lower terminals of the circuit breaker, which must be installed downstream of a general residual current circuit breaker (Standard CEI 64-8/5, paragraph 532.2.2.2). The line voltage determines operation (Standard IEC 1009-1, paragraph 4.1.2).

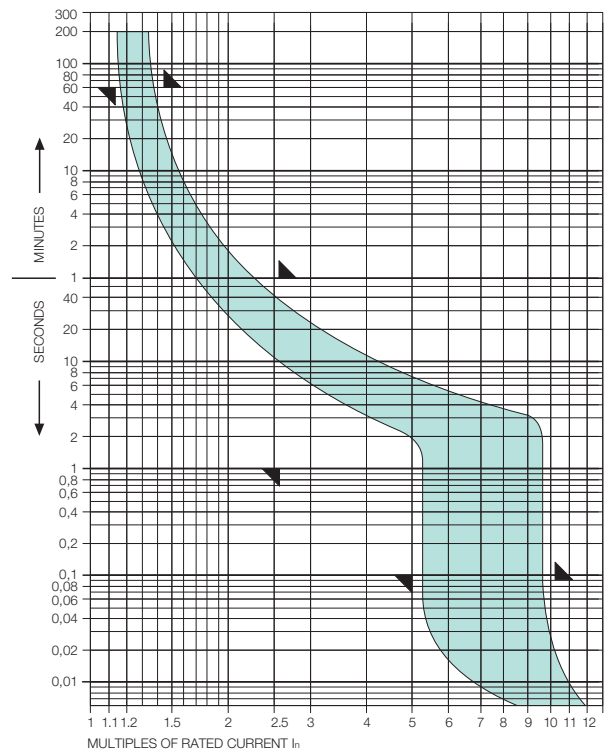
Wiring diagram



Characteristic curves



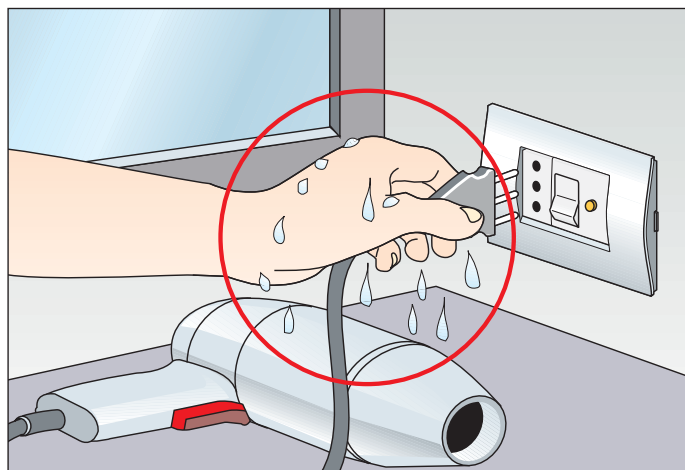
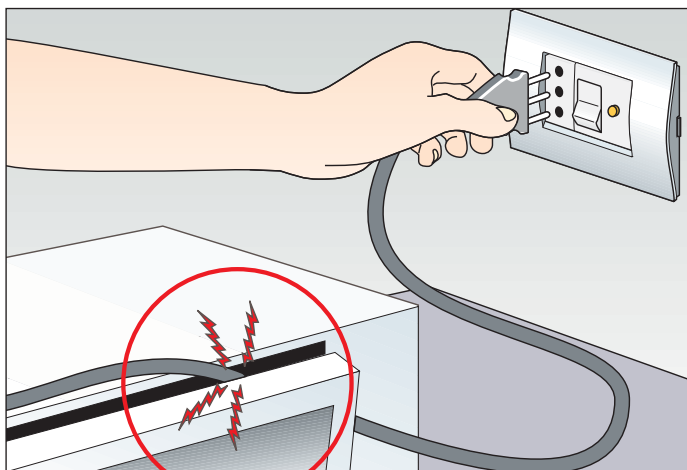
Current-time tripping diagrams for circuit-breakers of the Chiara range



Chiara - Technical details

Protection devices

Examples of application



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Technical specifications

Type of circuit breaker	MCB	RCD
Rated voltage	230V	230V
Rated frequency	50 ÷ 60Hz	50 ÷ 60Hz
Rated residual current	-	10mA or 30mA
Short-circuit breaking capacity	6A 1500A	6A 1500A
	10A 3000A	10A 3000A
	16A 3000A	16A 3000A
Correnti nominali	6 -10 -16A	6 -10 -16A
Number of poles	1P + N	1P + N
Tripping characteristic		
- Overcurrent protection	Type C	Type C
- Limitation class	3	3
- Residual current protection	-	Class A

Reference standards

Thermomagnetic: EN 60898-1 - Differential: IEC 61009-1

Chiara - Technical details

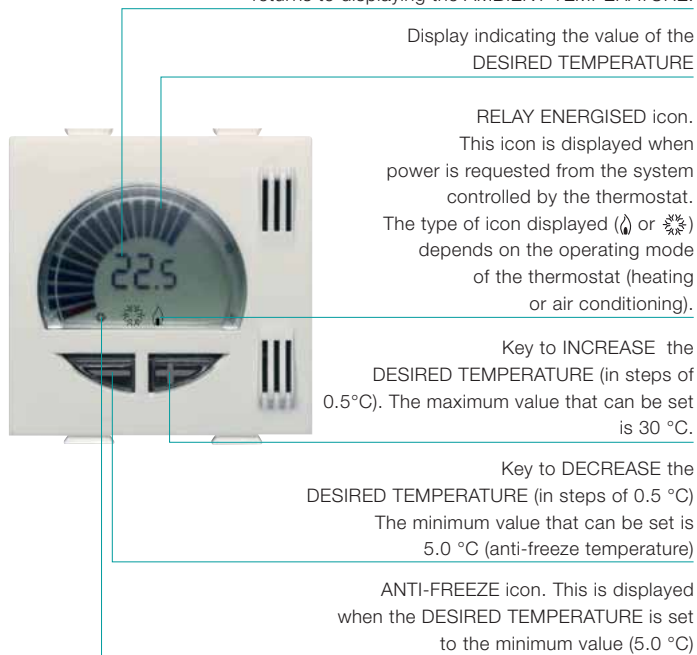
Safety and comfort devices

Thermostats and time-programmed thermostats

Description	Code
Summer/winter electronic thermostat, relay output, 1 contact NO 8A (AC1)/2A (AC15) - Power supply 230V~ 50/60Hz	2CSK1202CH

Components

Current value of the AMBIENT TEMPERATURE in °C.
While adjusting the value of the DESIRED TEMPERATURE, it value is displayed (flashing).
About 5 seconds after the last time the keys were pressed, it returns to displaying the AMBIENT TEMPERATURE.



The electronic thermostats of the Chiara series are equipped with a summer/winter switch for heating and air conditioning systems.

Characteristics

- Display of the current ambient temperature
- Display of the comfort temperature
- Display of the night-time temperature set
- Possibility to increase or decrease of temperature in steps of 0.5°C
- Minimum configurable value that can be set 5°C (anti-freeze temperature) and maximum configurable value 30°C
- Display of the operating status of the thermostat by means of symbols
- Anti-freeze function set to 5°C

Instructions for installation and operation

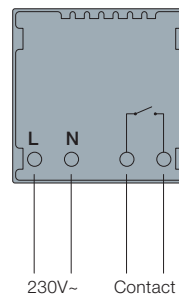
For correct operation, the thermostat must be installed at a height of approximately 1.5 metres from the floor, on internal walls, protected from direct sunlight and from any thermal interference such as heaters, lamps, televisions or any object that generates heat.

This device for controlling heating or air conditioning systems, uses a special technique that allows greater stability of the ambient temperature to be achieved while guaranteeing better comfort.

Areas of application

The environmental thermostats can be used for both heating and conditioning systems to control burners, pumps, valves, and refrigeration compressors.

Wiring diagrams



Technical specifications

Power supply	230V~ ±15% - 50Hz
Consumption	< 0.5 W
Output	Clean contact of 8A resistive relay
Operating temperature	from 0°C to +50°C
Adjustment range	from +5°C to +30°C
Precision	±1°C
Area of use	heating and air conditioning
Type of adjustment	PI
Proportional band	2.5°C

Reference standards

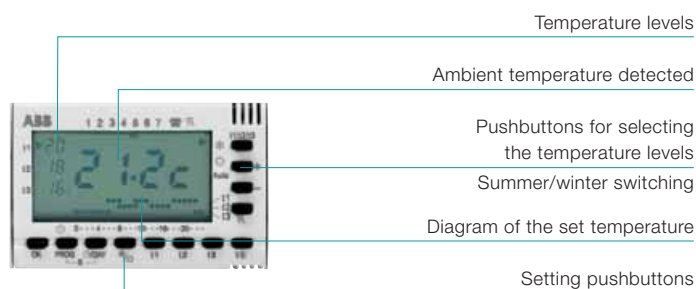
EN60730-1, EN60730-2-9, EN61000-3-2, EN61000-3-3, EN55014-1, EN55014-2

Chiara - Technical details

Safety and comfort devices

Description	Code
Summer/winter electronic time-programmed thermostat with 4 temperature levels, relay output, 1 NO/NC change-over contact 8A (AC1)/2A (AC15) - Power supply 230V~ 50/60Hz	2CSK1201CH

Components



Used in heating and air conditioning systems, the electronic time-programmed thermostats of the Chiara series include the possibility of summer/winter switching and the choice four levels of temperature: comfort, activity, reduction and anti-freeze. Each level is already preset in the memory of the device according to specific standards, that can be modified with the maximum simplicity of according to daily needs. On the display, values are displayed in real time for the programme activated, the current temperature, the time and the status of all the other functions set. It is possible to programme the desired temperature for every hour of the day (programming at 30 minute intervals is also possible), and for every day of the week. In addition, using a special function, the time-programmed thermostat of the Chiara series is able to automatically advance or delay switching on or off of systems in order to reach the ideal temperature exactly at the moment for which it was programmed. Adjustment of the thermal residual current device from 0.2°C to 2°C.

Characteristics

- Preset, adjustable and modifiable temperature levels: comfort, activity, reduction, anti-freeze fixed at +5°C
- Change-over switching: winter for heating, summer for air conditioning
- Limitation of the temperature values that can be set
- Possibility to change at any time from comfort temperature to activity, reduction or anti-freeze
- Display of the time and the ambient temperature
- Temporary or permanent manual operation
- Deletion from memory or modification of all the set information (day, time, temperature levels, etc.)
- Availability of a totally free program, which can be programmed according to the strictest personal requirements
- Possibility to suspend the program in progress for a set time cycle (maximum 999 hours)
- Connection to a telephonic programming device for remote control
- Possibility to activate the pump for 2 minutes every day of the year
- Signalling of faults during operation of the installation (for example, boiler blocked)
- Signalling that the battery for maintaining data in memory is low

Preset temperature settings

- T1 Comfort temperature 20°C adjustable
- T2 Activity temperature 18°C adjustable
- T3 Reduction temperature 16°C adjustable
- T Anti-freeze temperature 5°C fixed

Shown on the display

- Days, hours, minutes
- Ambient temperature detected
- Temperature levels
- Daily programming
- Type of operation: manual, automatic, summer, winter

Programming

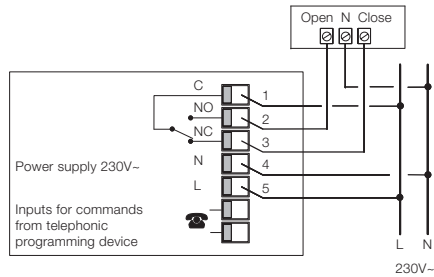
- 4 fixed programs
- 1 free program
- Programming at intervals of 30 minutes
- Holidays program
- Switching on or off with automatic management

Areas of application

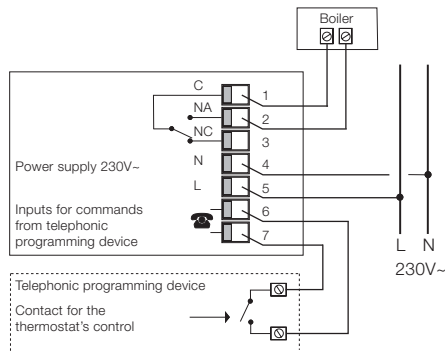
In residential applications, such as apartments and villas with independent heating, apartments with centralized heating, apartments or villas with independent air conditioning. In the services sector in environments equipped with air conditioning systems with fan coils and in environments equipped with centralized heating and zone valves.

Wiring diagrams

Example of connection to a motorized solenoid valve



Example of connection to a boiler and telephonic programmer



Technical specifications

Power supply voltage	230 V - 50/60 Hz
Maintenance of programs during power outages	72 hours minimum
Output contact	NO/COM/NC 8(2)A / 250 V~
Type of insulation	Class II
Protection class	IP 30 (flush-mounted)
Temperature adjustment range	from + 5 °C to + 39 °C
Temperatures setting resolution	0.5 °C
Temperature display resolution	0.°C
Thermal gradient	max 1°K/15 min.
Differential operation	T modifiable from 0,2 °C to 2 °C
Updating of the temperature display	Once every 60 seconds
Operating temperature limits	-5°C + 50°C

Reference standards

LVD EN60730-2-7, EN60730-2-9, EMC EN60730-2-7, EN60730-2-9

Chiara - Technical details

Safety and comfort devices

Dimmer

Loads that can be controlled with the dimmer

Dimmer type		Loads						
Dimmer code	Description	Fluorescent or halogen lamps 230V	Fluorescent lamps	Toroidal transformers	Electronic transformers	Electro-mechanical transformers	Drills	Air agitators
2CSK1205CH	Electronic dimmer with rotary control	YES	NO	NO	NO	NO	NO	NO
2CSK1207CH	Electronic dimmer with button control	YES	NO	YES	NO	YES	NO	NO
2CSK1204CH	Electronic dimmer with rotary control and two-way switch	YES	NO	NO	NO	NO	NO	NO

Description	Code
Electronic dimmer with rotary control for resistive loads 100-500W, 230V~ - 50/60Hz	2CSK1205CH

Components



Electronic dimmer with rotary control for resistive loads 100-500W 230V~ 50/60Hz (visible in the dark).

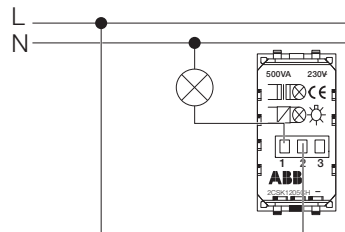
Operation

The load can be controlled and adjusted by rotating the knob. The light intensity of the location LED is attenuated as the brightness of the controlled lamps increases.

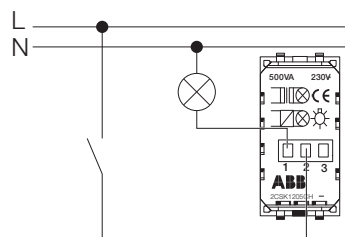
Wiring diagram

The connection can be made between phase and neutral or between phase and phase, always in series with the load.

Control with dimmer



Control with a switch and adjustment with a dimmer



Technical specifications

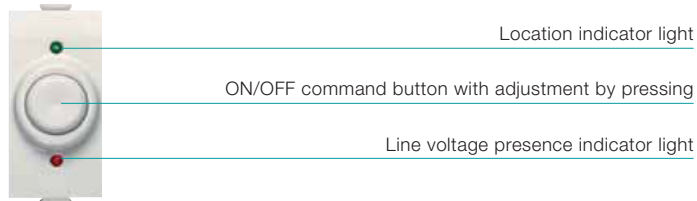
Rated voltage	230V - 50/60Hz	110V - 50/60Hz
Resistive load power	100 - 500W	50 - 250W
Inductive load power	100 - 500VA	50 - 250VA
Technology	TRIAC	TRIAC
Operating temperature	-5 °C ÷ +35 °C.	
Adjustable load	Filament and halogen lamps	

Reference standards

CEI 23-9 (EN 60669-1)

Description	Code
Electronic dimmer with pushbutton control for resistive and inductive loads 60-500W, (60-500VA) 230V~ - 50/60Hz	2CSK1207CH

Components



Electronic dimmer with pushbutton control for resistive and inductive loads 60-500W 60-500VA 230V~ -50/60Hz (visible in the dark).

Operation

The load can be controlled and adjusted using a pushbutton. The light intensity of the location LED is attenuated as the brightness of the controlled lamps increases.

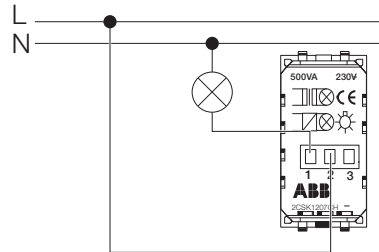
The load can be turned on, adjusted and turned off using the pushbutton present on the dimmer or with normal non-luminous NO pushbuttons connected to the dimmer.

- Storage of the adjustment set when the load was switched off (apart from network outages).
- Switch-on and switch-off of the load is gradual.
- Pressing the pushbutton quickly causes the load to be switched on or off. Adjustment is obtained by keeping it pressed. To reverse the direction of adjustment, interrupt and then resume pressing the pushbutton.
- If the pushbutton is pressed approximately between 0.3 s and 1 s, the dimmer will light up the controlled lamps, automatically and gradually, to their maximum brightness.

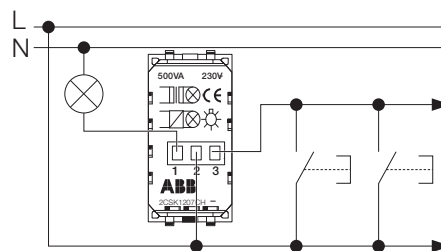
Wiring diagram

The connection can be made between phase and neutral or between phase and phase, always in series with the load.

Control and adjustment with a dimmer pushbutton



Control and adjustment with a dimmer pushbutton and NO button connected in parallel



Technical specifications

Rated voltage	230V - 50/60Hz	110V - 50/60Hz
Resistive load power	60 - 500W	30 - 250W
Inductive load power	60 - 500VA	30 - 250VA
Technology	TRIAC	TRIAC
Operating temperature	-5 °C ÷ +35 °C.	
Adjustable load	Filament and halogen lamps, ferromagnetic transformers for halogen lamps	

Reference standards

CEI 23-9 (EN 60669-1)

Chiara - Technical details

Safety and comfort devices

Description	Code
Electronic dimmer with rotary control and with two-way switch for resistive loads 100-500W, 230V~ - 50/60Hz	2CSK1204CH

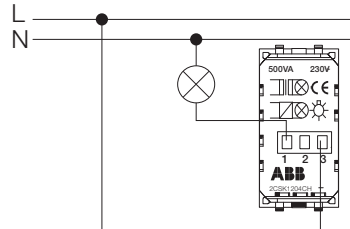
Components



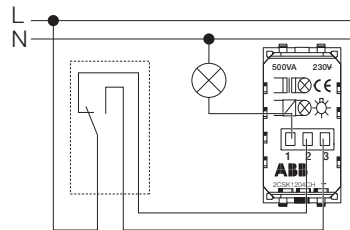
Wiring diagram

The connection can be made between phase and neutral or between phase and phase, always in series with the load.

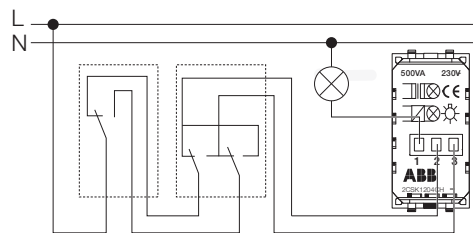
Control and adjustment with a dimmer



Control with two-way switch and dimmer, adjustment with dimmer



Control with two-way switch, intermediate switch and dimmer, adjustment with dimmer



5 Electronic dimmer with rotary control and two-way switch for resistive loads 100-500W 230V~ -50/60Hz (visible in the dark).

Operation

The load is controlled directly by means of a pressed two-way switch. Adjustment is performed by rotating the knob.

The light intensity of the location LED is attenuated as the brightness of the controlled lamps increases.

Once the desired lighting level has been set, pressing the knob will switch the light source off, while pressing it again will switch it back on at the set lighting level.

Technical specifications

Rated voltage	230V - 50/60Hz	110V - 50/60Hz
Resistive load power	100 - 500W	50 - 250W
Inductive load power	100 - 500VA	50 - 250VA
Technology	TRIAC	TRIAC
Operating temperature	-5 °C ÷ +35 °C.	
Adjustable load	Filament and halogen lamps	

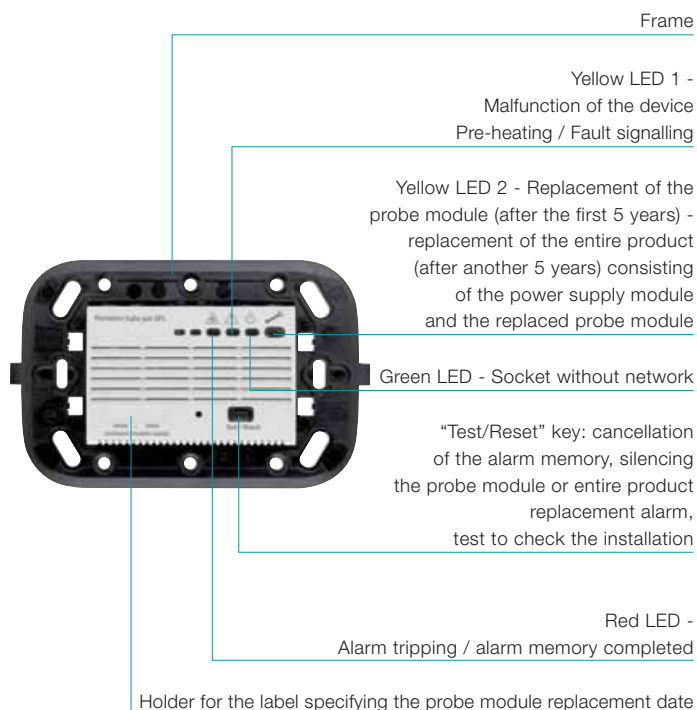
Reference standards

CEI 23-9 (EN 60669-1)

Gas detectors

Description	Code
Electronic natural gas detector with acoustic and indicator signal, relay output, 1 NO/NC change-over contact 6A (AC1)/2A (AC15) - 250V~. Power supply 230V~ - 50Hz. Equipped with dedicated frame for installation on type 503 box	2CSK1210CH
Electronic LPG gas detector with acoustic and indicator signal, relay output, 1 NO/NC change-over contact 6A (AC1)/2A (AC15) - 250V~. Power supply 230V~ - 50Hz. Equipped with dedicated frame for installation on type 503 box	2CSK1211CH

Components

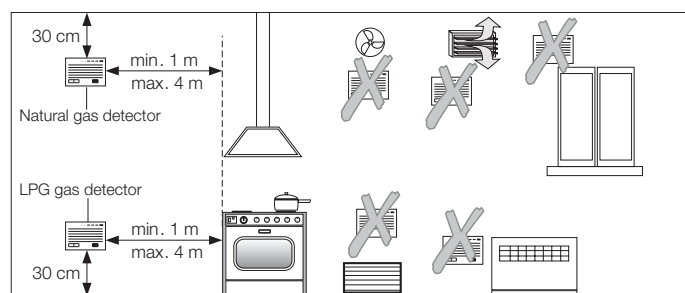


The wiring accessories natural gas (CH₄) or LPG gas detectors, flush-mounted with 3 modules (503 box embedded in the wall) contribute to guarantee the safety of civil environments where gas operated domestic appliances are installed, such as: boilers, cookers.

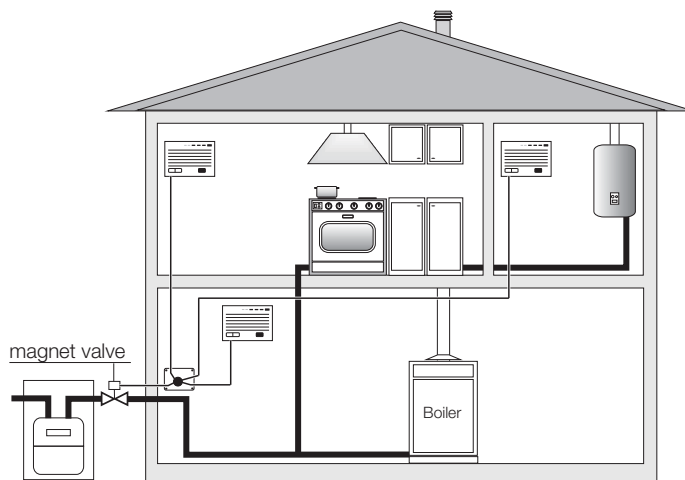
The equipment consists of a fixed power supply module and removable sensor module, which must be replaced after 5 years of continuous use. This allows a saving on the purchase and installation costs, with a lower impact on the environment due to the extension of the life time of the power supply/relay module for a further 5 years.

Positioning of the detector

The installation of the gas detector does not exonerate users from observance of all current laws and standards in the country of installation regarding the specifications, installation and use gas powered equipment, the ventilation of rooms and the release of combustion products.



- Install the natural gas detector at a maximum of 30 cm from the ceiling
- Install the LPG detector at a maximum of 30 cm from the floor surface.
- Install the detectors between 1 m and 4 m from the gas appliances.
- Do not install the detectors outdoors or in places exposed to atmospheric agents
- Do not install the detectors close to: sinks, air intakes, heating and air conditioning devices, windows and ventilation devices; in addition, the detectors must not be installed in closed spaces, such as behind a curtain or inside a cabinet.



Illustrative example: installation with 3 gas detectors (natural gas) that command the solenoid valve for shutting off the gassupply.

Chiara - Technical details

Safety and comfort devices

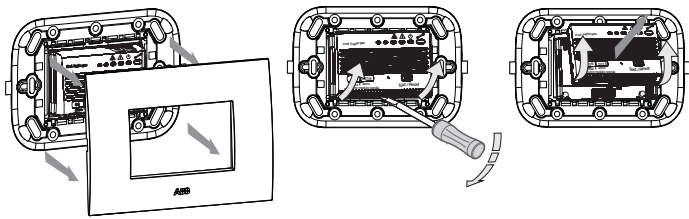
Extraction of the probe module (for example: to replace it)
CAUTION: always deactivate the line voltage 230V~

1. Remove the frame.
2. Delicately insert the flat blade of a small screwdriver and use it as a lever to uncouple the sensor module.
3. Rotate the sensor module upwards in order to uncouple it completely.

Replacement probe modules:

2CSY1220MC: Natural Gas replacement probe module

2CSY1223MC: LPG Gas replacement probe module



Characteristics

- Devices equipped with a control circuit with microprocessor that performs self-diagnosis tasks to ensure the perfect efficiency of the sensor over time.
- Sensor equipped with a special selective filter in order to avoid alarms in response to the presence of gas vapours that are not meant to be detected, such as steam from cooking, vapours from cleaning fluids etc.
- Devices equipped with an operating time meter, in order to signal the necessary replacement of the sensor module after the first 5 years of use.
- Luminous (red LED) and acoustic alarm signal.
- TEST (to verify that the device is operating properly) and Reset system with a single pushbutton.
- The gas detectors are equipped with an output relay that can command a valve to shut off the distribution of gas.

Key to signals

Luminous LED	Acoustic BUZZER
off	off
flashing	intermittent
on, fixed	-

Reference standards

LVD CEI 216-8 - EMC EN 50270

Wiring diagrams

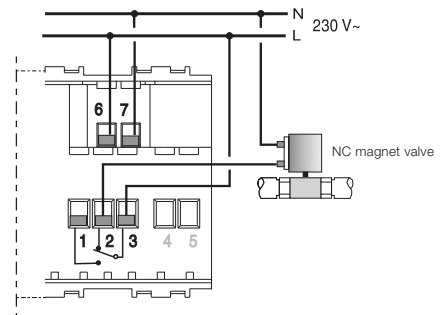
CAUTION: the power supply network must incorporate a device to guarantee omnipolar disconnection.

The detector must be powered by a voltage of 230V~ 50Hz with continuity in order to guarantee maximum safety and correct signalling of replacement within the declared time limits.

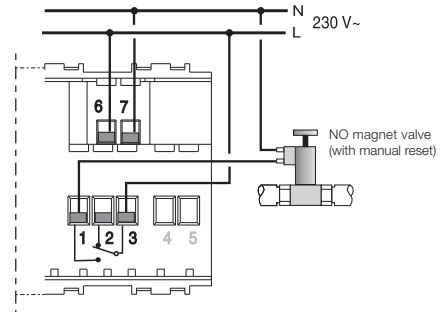
For the electrical connections, bring cables with a maximum cross-section of 2.5 mm² to the terminals of the detector.

The diagrams (illustrative examples) show the position of the relay contacts at rest (no alarm).

Connection with solenoid valve normally closed



Connection with solenoid valve normally open



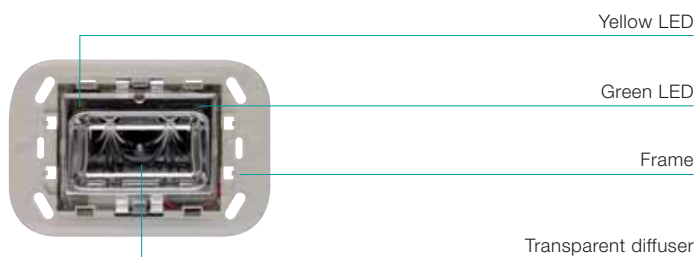
Technical specifications

Power supply voltage	230 V~ +/- 10% 50 Hz
Solenoid valve command relay	1 potential-free change-over contact
Capacity of relay contacts (max)	6 (2) A 250 V ~
Protection class	IP40
Type of insulation	Class II
Area of application	Domestic - type A
Semiconductor sensor	Installed inside the probe module
Operating temperature limits	- 10 °C ÷ + 40 °C
Operating humidity	90% UR (maximum)
Types of gas detected	Natural Gas - with model for natural gas LPG - with model for LPG gas
Alarm tripping	10% LIE (Lower Explosiveness Limit)
	For both models
Acoustic alarm	85 dB at 1 m
Sensor warm-up time at switch-on	1 minute
Storage temperature limits	- 15 °C ÷ + 50 °C

Emergency lighting

Description	Code
LED light for emergency lighting or steplight. Charge reserve up to 3h and recharge time 12h. Power supply 230V~ - 50Hz. Equipped with dedicated frame for installation on type 503 box	2CSK1303CH

Components



High efficiency LED-lit emergency device for embedded installation. Dimensions of 3 modules. Suitable for installation of frames of the Chiara wiring accessories' range.

Instructions for installation and operation

The light provides 6 distinct operating modes, that can be set by programming.

Mode	Description	Battery life	Terminals 1 and 2
1	inhibition not activated	1h	Switch-on / switch-off / adjustment
2	inhibition not activated	2h	Switch-on / switch-off / adjustment
3	inhibition not activated	3h	Switch-on / switch-off / adjustment
4	Inhibition activated	1h	Connection for inhibition switch
5	Inhibition activated	2h	Connection for inhibition switch
6	Inhibition activated	3h	Connection for inhibition switch

To access programming mode you need to connect the batteries using the appropriate connector: the yellow LED will light up and the green LED will flash a number of times equal to the mode set (for example, 2 flashes=mode 2). This sequence will be repeated 3 times.

If you wish to change the operating mode, press the transparent diffuser: the yellow LED will switch off for a fraction of a second to indicate that the key has been pressed and the green LED will indicate the value of the new mode by the number of flashes.

Each time the diffuser is pressed, it increases the operating mode by one unit. After three cycles of displaying the mode, the device will automatically complete the programming procedure, store the mode that has been set and the GREEN and YELLOW LEDs will switch off.

In modes 1-2-3 it is possible to adjust the lighting level (dimming) by pressing the transparent diffuser.

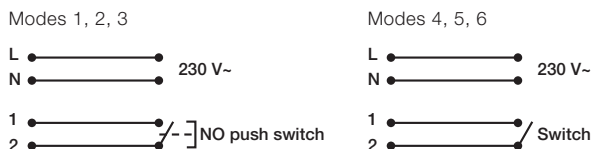
Functions

The device is equipped with 2 signalling LEDs:

Green LED	Meaning
Flashing	Apparatus connected to the electrical network being quick-charged.
On	Apparatus connected to the electrical network being recharged for maintenance
Off	Apparatus in emergency state.

Yellow LED	Meaning
On	The apparatus has faults (monthly test NOT passed)
Off	No malfunction

Wiring diagram



Technical specifications

Power supply voltage	230V~ ±10%, 50-60 Hz.
Emergency light flow	50 lumen with 1h autonomy 35 lumen with 3h autonomy
Consumption	SE mode (not permanent) 5mA at 230V~ = 1.6W SA mode (permanent) 30mA at 230V~ = 7 W Ni-Mh batteries, AA 3.6V 1300mAh High Temperature
Battery recharge time	12 hours quick charge
Battery life	1h, 2h and 3h
Lamp	2 white high efficiency 1W LEDs
Signalling	2 LEDs, GREEN and YELLOW
Ambient Temperature	25°C

Reference standards

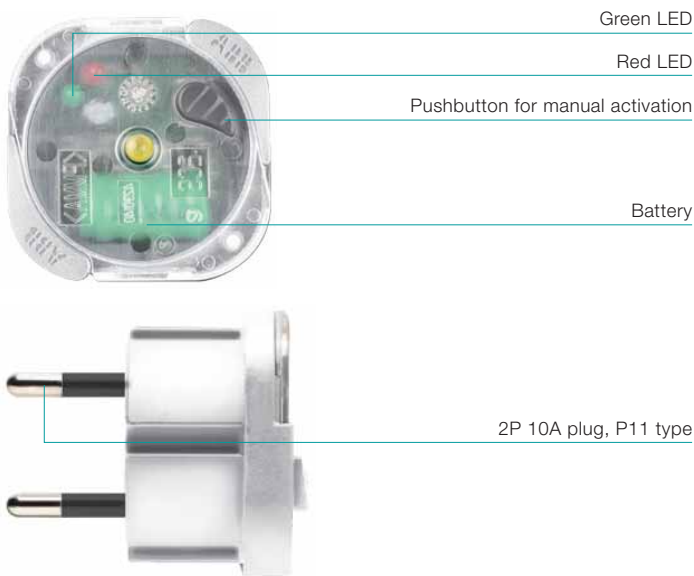
EN 60598-2-22

Chiara - Technical details

Safety and comfort devices

Description	Code
Removable anti-blackout light, 230V~. Charge reserve 4.5 h and recharge time 10-20h. To be combined with 230V~ plug sockets; particularly recommended for codes 2CSK1108CH and 2CSK1109CH.	2CSK1214CH

Components



The anti-blackout light is an automatic removable, rechargeable electronic lamp that can be inserted in any Schuko socket or Italian P11 standard 10A bivalent socket. Socket outlets particularly recommended for holding the lamp are the sockets of the Chiara wiring accessories' range 2CSK1108CH and 2CSK1109CH, that allow the body of the lamp to be embedded in the socket outlet, thus minimizing the external dimensions.

The device was designed to light up automatically in the event of a blackout (no voltage warning), or to be used as a portable lighting device, useful in order to guarantee visibility and facilitate maintenance operations and/or searching for faults in unlit environments.

Functions

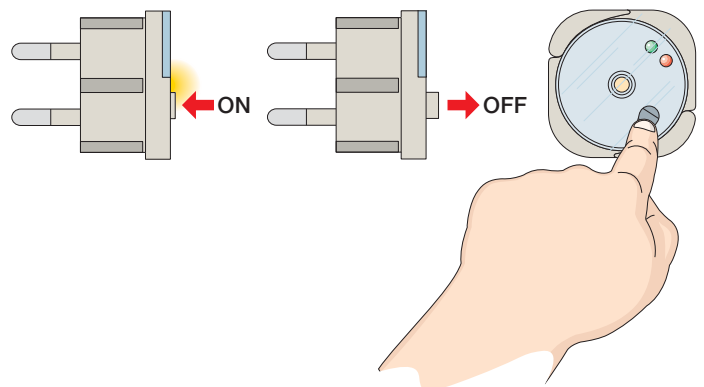
A light source is activated automatically whenever the line voltage is missing (blackout) thanks to rechargeable backup batteries.

- Possibility to extract it from the socket and use it as a normal pocket torch with an on/off button on the front.
- Long autonomy, 4.5 hours of continuous operation.
- Small dimensions - protrusion from the Schuko profile (only 8 mm).

On the front part there are two LEDs (one red and one green) that indicate the state of the lamp when it is powered:

- Red LED on, recharging in progress. In the event of a blackout the lamp will remain off (battery saving condition, used in the case of prolonged absence).
- Green LED on, recharging in progress. In the event of a blackout the lamp will light up and will switch off automatically when the network is restored.

The pushbutton on the front part allows you to switch from one condition to another.



Technical specifications

Plug	2P 10A
Center distance of the pins	19 mm
Ø of the pins	4 mm
Power supply	230V~50-60 Hz
Recharge time	10-20 hours
Useful battery life	4.5 hours

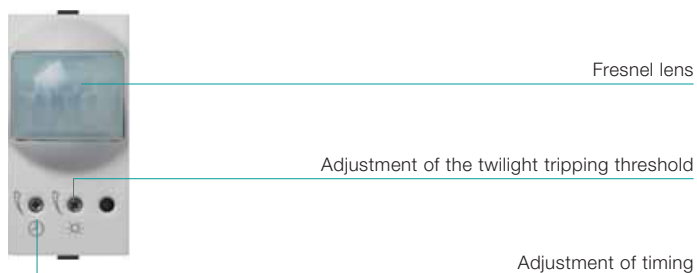
Reference standards

EN 60598-1, EN 60598-2

Other devices

Description	Code
IR motion detector with twilight sensor for control and adjustment of the operation time of lighting devices. Relay output NO 5A (AC1)/2A (AC15) - 250V~. Power supply 230V~ - 50/60Hz.	2CSK1216CH

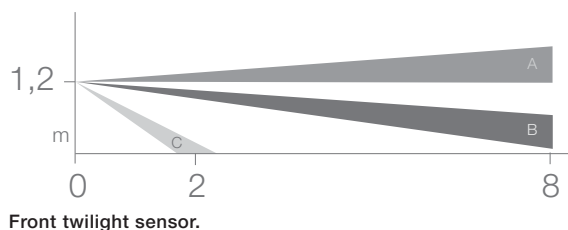
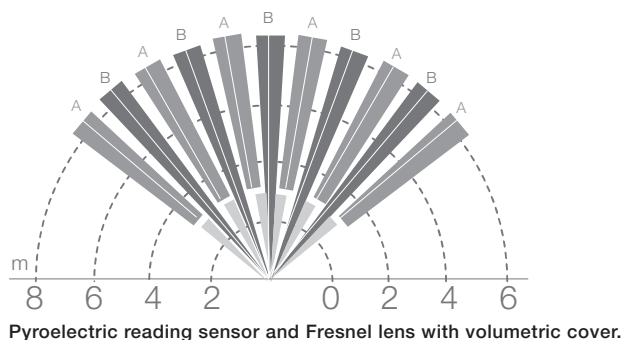
Components



Switch with infrared presence sensor in order to switch lights on through adjustable twilight sensor threshold and delay cycle.

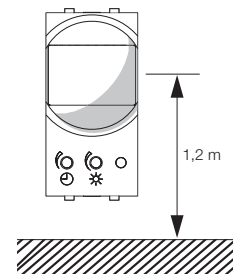
It operates the load automatically when persons or animals pass through the field of action of the sensor.

Sensor volumetric cover



Instructions for installation

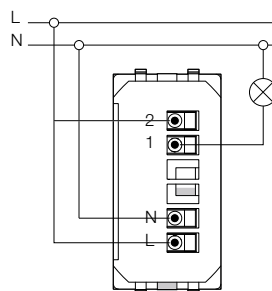
- for installation inside
- flush-mounted installation: 1.1-1.2 m from the walking surface



The apparatus cannot be installed in:

- environments with sudden changes in temperature.
- environments with high humidity.
- environments with presence of gas, corrosive fluids, sea air or dust.

Schema di collegamento



Examples of application



Technical specifications

Power supply	230V AC (L-N terminals)
Power relay output (terminals 1-2)	
Max load	
- resistive loads	10A / 250V AC
- inductive loads	2A / 250V AC
Tripping threshold	0-300 Lux Adjustable by means of a front trimmer
Time delay	From approximately 5 s to approximately 5 min Adjustable by means of a front trimmer
Operating temperature	-5 a +35 °C.

Reference standards

LV Directive; EMC Directive; EN 60730

Chiara - Technical details

Safety and comfort devices

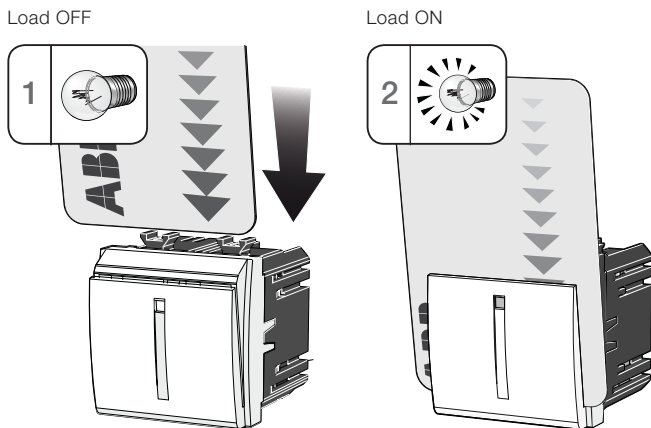
Description	Code
Universal badge switch with location light Relay output with NO contact 10A (AC1). Power supply 230V~ 50/60Hz	2CSK1426CH

Components



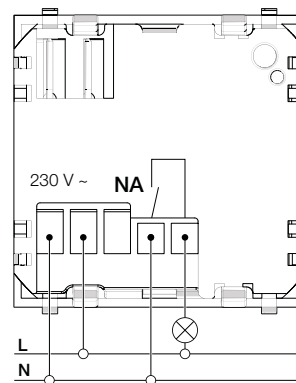
5

Operation



Vertical badge electronic switch, relay output 16 A 250 V~, power supply 230 V~ 50-60 Hz, modules. Supplied without ISO card (badge). The device is equipped with a courtesy LED for night-time location.

Wiring diagram



Technical specifications

Power supply	230 V~ ±10% 50-60 Hz
Output	relay with clean contact 10 A 250 V~ cos φ 1
Typical absorption	230 V~ 50-60 Hz: 30 mA, with relay active
Operating temperature	-5 °C +45 °C

Reference standards

LV Directive; EMC Directive; Standard EN 60669-2-1

Chiara - Technical details

Wall-mounted enclosures

IP40 and IP55 wall-mounted enclosures



IP40 enclosure

IP55 enclosure

Area of application

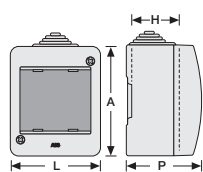
The IP40 wall-mounted enclosures, pursuant to Standard CEI 64-8, extend the area of application of the devices of the Chiara series to environments such as boiler rooms, warehouses, mechanical workshop, basements etc., where protection class IP40 is prescribed, defined by Standard EN 60529 (CEI 70-1).

This is guaranteed through devices installed in the enclosures, if the installation is carried out according to the supported procedures, through the use of connections, cable grommets and pipe ducts.

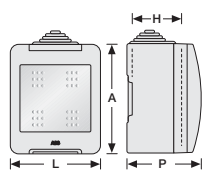
For devices with an open front (e.g. socket outlets) the protection class is less than IP40 but never less than IP20.

IP55 watertight wall-mounted enclosures, on the other hand, allow the application of the equipment of the Chiara series in environments such as building sites, sports installations, marinas, industrial and agricultural establishments, gardens, camp sites etc. The protection class IP55, defined by the Standard EN 60529 (CEI 70-1), is guaranteed by devices installed in the enclosures, if the installation is carried out according to the supported procedures, through the use of the suitable accessories and with the cover closed.

Dimensions of IP40 and IP55 enclosures



IP40 enclosure	no. modules	H	A	L	P
2CSK2140CH	1	38	80	65	55
2CSK2240CH	2	38	80	65	55
2CSK2340CH	3	38	80	104	55
2CSK2440CH	4	38	80	130	55



IP55 enclosure	no. modules	H	A	L	P
2CSK2155CH	1	40,5	80	65	63
2CSK2255CH	2	40,5	80	65	63
2CSK2355CH	3	40,5	80	104	63
2CSK2455CH	4	40,5	80	130	63

Chiara - Technical details

Wall-mounted enclosures

Because of the maximum depth dimension H, the IP40 and IP55 wall-mounted enclosures of the Chiara series cannot house the following contact blocks:

Code	Description
2CSK1204CH	Electronic dimmer with rotary control and two-way switch for resistive loads 100-500W
2CSK1205CH	Electronic dimmer with rotary control for resistive loads 100-500W
2CSK1207CH	Electronic dimmer with pushbutton control for resistive and inductive loads
2CSK1317CH	Electro-mechanical bell, 12V, 5VA, sound intensity 80 dB
2CSK1318CH	Electro-mechanical bell, 230V, 8VA, sound intensity 80 dB
2CSK1321CH	Electro-mechanical buzzer, 12V, 5VA, sound intensity 70 dB
2CSK1322CH	Electro-mechanical buzzer, 230V, 8VA, sound intensity 70 dB
2CSK1304CH	Automatic MCB 1P+N, C6
2CSK1305CH	Automatic MCB 1P+N, C10
2CSK1306CH	Automatic MCB 1P+N, C16

Code	Description
2CSK1307CH	Automatic RCD 1P+N, C6 – 10 mA
2CSK1308CH	Automatic RCD 1P+N, C10 – 10 mA
2CSK1309CH	Automatic RCD 1P+N, C16 – 10 mA
2CSK1328CH	Automatic RCD 1P+N, C6 – 30 mA
2CSK1329CH	Automatic RCD 1P+N, C10 – 30 mA
2CSK1330CH	Automatic RCD 1P+N, C16 – 30 mA
2CSK1324CH	Interlocked socket with MCB (2P+E 16A 230V P17/11)
2CSK1325CH	Interlocked socket with MCB (2P+E 16A 230V)
2CSK1326CH	Interlocked socket with automatic RCD 10mA (2P+E 16A 230V P17/11)
2CSK1012CH	Single pole latching relay, 230V, 1 10A output contact
2CSK1014CH	4 sequence switch relay, 230V, 2 10A output contacts

The installation of similar devices in the form of a DIN rail in the distribution board is recommended where possible.

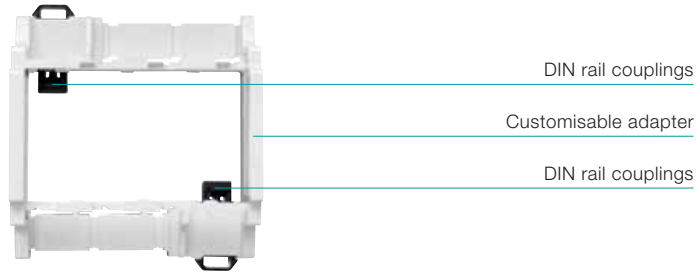
Chiara - Technical details

Other installation solutions

Support for DIN bar 1-2-3 modules

Description	Code
Support for DIN bar for 1-2-3 modules, customisable	2CSK1608CH

Components

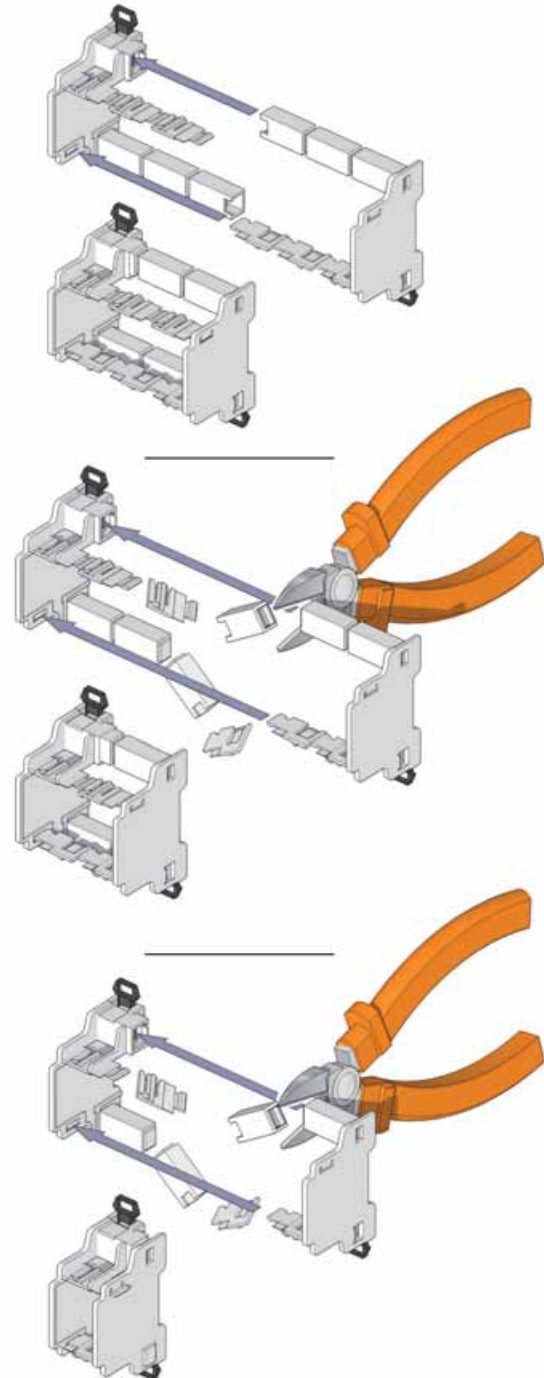


Reference dimensions:

1 module version: 1,9 DIN modules
 2 modules version: 3,4 DIN modules
 3 modules version: 4,4 DIN modules

Instruction for installation

3 modules: snap assemble the two halves.
 1 or 2 modules: using a cutter, cut along lines 1 or 2 respectively and assemble the two halves.



Chiara - Technical details

Frames

The frames of the Chiara series are made from technopolymer with natural/pastel colour shades or surface galvanic painting, and are characterised by their minimal protrusion from the wall, since they are not fitted with an under-plate.

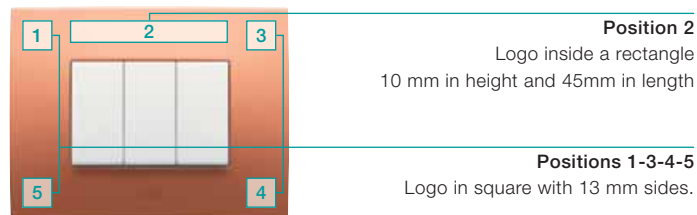
Reference standards

CEI 23-9 (EN 60669-1).



5 Customization

Frames customized with a logo/text string can be supplied on request. They are produced by means of monochromatic pad printing on the areas highlighted below.



Customization is possible with standard colours (black, Pantone cool gray 3C, Pantone 5425 C) or with a colour specified by the customer.

Minimum order batch: 36 pieces including various modularities.

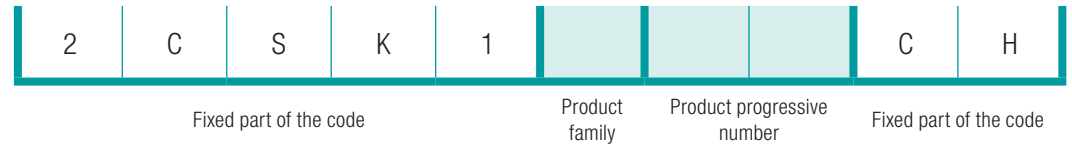
For quotes and delivery times contact an ABB sales executive.

Chiara - Coding

Order information



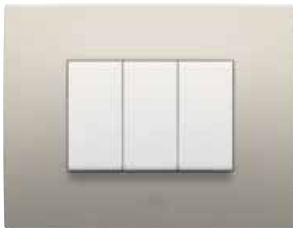
Coding criteria of the devices



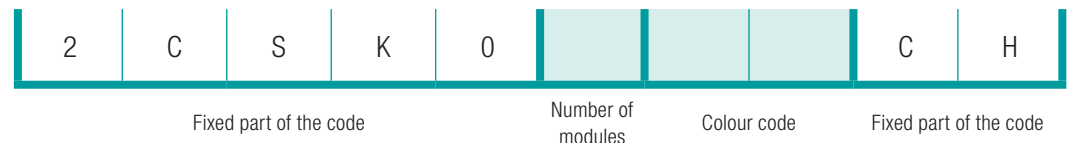
- 0 Control devices
- 1 Socket outlets
- 2 Comfort devices
- 3 Protection devices and signalling devices
- 6 Components for installation, accessories and spare parts

5

Example: single-pole switch



Coding criteria of the frames



- 2 2-module frame
- 3 3-module frame
- 4 4-module frame
- 7 7-module frame

- 01 white
- 02 sand
- 03 stone
- 04 volcano
- 11 pastel yellow
- 12 pastel orange
- 13 pastel green
- 14 pastel blue
- 15 glossy chromium
- 16 satin chromium
- 17 glossy metal
- 18 satin metal black
- 51 glossy bronze
- 52 satin bronze
- 53 glossy gold
- 54 satin gold

Example: technopolymer frame, 3 modules, sand colour



Packaging

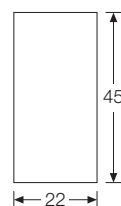
To enable automatic warehouse management using optical readers, the devices and frames of the Chiara wiring accessories' range are packaged in boxes that bear the EAN bar code and that protect the contents adequately against dust and shocks. For a better explanations of the installation methods, a specific instruction sheet is supplied. Individual packages are available for only for the codes with the lowest turnover.

Chiara

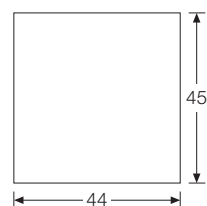
Overall dimensions

Chiara code	Description	No. Modules	Depth mm
2CSK1001CH	Single-pole switch, 16A - 250V~	1	30
2CSK1002CH	Double-pole switch, 16A - 250V~	1	30
2CSK1003CH	Single-pole two-way switch, 16A - 250V~	1	30
2CSK1004CH	Single-pole switch, 16A - 250V~, 2 modules	2	30
2CSK1005CH	Single-pole push switch NO, 16A	1	30
2CSK1006CH	Double-pole switch, 16A - 250V~, with key control	1	25
2CSK1006CHU	Double-pole switch, 16A - 250V~, with universal key control	1	25
2CSK1007CH	Single-pole two-way switch, 16A - 250V~, 2 modules	2	30
2CSK1008CH	Intermediate switch, 16A - 250V~, 2 modules	2	30
2CSK1009CH	Double-pole push switch, NO, 16A - 250V~, with key control	1	25
2CSK1009CHU	Double-pole push switch, NO, 16A - 250V~, with universal key control	1	25
2CSK1010CH	Intermediate switch, 16A - 250V~	1	30
2CSK1011CH	Change-over switch, 10A - 250V~, 3 positions	1	31
2CSK1012CH	Single pole latching relay, 230V	1	31
2CSK1014CH	4 sequence switch relay, 230V, 2 10A output contacts	1	31
2CSK1016CH	Single-pole push switch NC, 16A	1	30
2CSK1017CH	Double single-pole push switch, NO+NO, 16A - 250V~	1	30
2CSK1018CH	Double single-pole push switch, NO+NO, 16A - 250V~, with interlock	1	30
2CSK1022CH	Single-pole push switch 1 NO and 1 NC, 16A, with ON	1	30
2CSK1023CH	Single-pole push switch 1 NO and 1 NC, 16A, with OFF symbol	1	30
2CSK1020CH	Single-pole push switch NC with cord pull, 16A	1	30
2CSK1021CH	Single-pole push switch NC with cord pull, 16A	1	30
2CSK1028CH	Single-pole push switch NO, 16A, with BELL	1	30
2CSK1029CH	Single-pole push switch NO, 16A, with KEY	1	30
2CSK1030CH	Single-pole push switch NO, 16A, with STAIR LIGHT	1	30
2CSK1024CH	Single-pole push switch NO, 16A, with red diffuser	1	30
2CSK1025CH	Single-pole push switch NO, 16A, with green diffuser	1	30
2CSK1026CH	Single-pole push switch NO, 16A, with orange diffuser	1	30
2CSK1027CH	Single-pole push switch NO, 16A, with white diffuser	1	30
2CSK1031CH	Single-pole pushbutton NO, 16A, with backlit label holder plate push switch	2	30
2CSK1032CH	Single-pole push switch NO, 16A, with backlit label holder plate, 3 modules	3	30
2CSK1101CH	2P+E socket outlet, 10A - 250V~, P11 type	1	22
2CSK1102CH	2P+E socket outlet, 16A - 250V~, P17 type	1	22
2CSK1103CH	2P+E socket outlet, 10/16A - 250V~, P17/P11 type	1	22
2CSK1104CH	2P+E socket outlets, 10/16A, red	1	22
2CSK1105CH	2P+E socket outlets, 10/16A, green	1	22
2CSK1106CH	2P+E socket outlets, 10/16A, orange	1	22
2CSK1108CH	2P+E socket outlet, 16A - 250V~, P30 type	2	31
2CSK1114CH	2P+E socket outlets, 16A - 250V~, P30 type, red	2	31
2CSK1115CH	2P+E socket outlets, 16A - 250V~, P30 type, green	2	31
2CSK1116CH	2P+E socket outlets, 16A - 250V~, P30 type, orange	2	31
2CSK1109CH	2P+E socket outlet, 16A - 250V~, P30/17 type	2	35
2CSK1110CH	2P+E socket outlets, 16A - 250V~, P30/17 type, red	2	35
2CSK1111CH	2P+E socket outlets, 16A - 250V~, P30/17 type, green	2	35
2CSK1112CH	2P+E socket outlets, 16A - 250V~, P30/17 type, orange	2	35
2CSK1113CH	2P shaver socket with insulating transformer	3	37,5

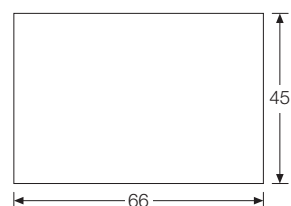
1 module



2 modules



3 modules



Chiara code	Description	No. Modules	Depth mm
2CSK1324CH	2P+E socket outlet, 16A - 250V~, interlocked with MCB, P17/11	2	37,5
2CSK1325CH	2P+E socket outlet, 16A - 250V~, interlocked with MCB, P30	3	37,5
2CSK1326CH	2P+E socket outlet, 16A - 250V~, with RCD 10mA, P17/11	3	37,5
2CSK1117CH	TV coaxial socket, direct, male IEC connector \varnothing 9.5 mm, insulated type	1	21
2CSK1118CH	TV/SAT coaxial socket, direct, male IEC connector \varnothing 9.5 mm, with feedthrough of direct current	1	21
2CSK1132CH	TV/SAT coaxial socket, feedthrough, male IEC connector \varnothing 9.5 mm, attenuation 7dB	1	21
2CSK1136CH	TV/SAT coaxial socket, feedthrough, male IEC connector \varnothing 9.5 mm, attenuation 10dB	1	21
2CSK1137CH	TV/SAT coaxial socket, feedthrough, male IEC connector \varnothing 9.5 mm, attenuation 14dB	1	21
2CSK1138CH	TV/SAT coaxial socket, feedthrough, male IEC connector \varnothing 9.5 mm, attenuation 18dB	1	21
2CSK1119CH	TV/SAT coaxial socket, direct, female F connector, with feedthrough of direct current	1	21
2CSK1133CH	Double demixed TV/SAT coaxial socket, direct, male IEC connector \varnothing 9.5 mm and female F connector	1	21
2CSK1120CH	Double demixed TV/SAT coaxial socket, feedthrough, male IEC connector \varnothing 9.5 mm and female F connector, attenuation 7dB	1	21
2CSK1130CH	Double demixed TV/SAT coaxial socket, feedthrough, male IEC connector \varnothing 9.5 mm and female F connector, attenuation 10dB	1	21
2CSK1131CH	Double demixed TV/SAT coaxial socket, feedthrough, male IEC connector \varnothing 9.5 mm and female F connector, attenuation 14dB	1	21
2CSK1139CH	Double demixed TV/SAT coaxial socket, feedthrough, male IEC connector \varnothing 9.5 mm and female F connector, attenuation 18dB	1	21
2CSK1121CH	RJ11 telephone connector	1	21
2CSK1122CH	RJ12 telephone connector	1	21
2CSK1124CH	RJ45 connector, Cat. 5e, UTP (unshielded)	1	21
2CSK1125CH	RJ45 connector, Cat. 5e, FTP (shielded)	1	21
2CSK1127CH	RJ45 connector, Cat. 6, UTP (unshielded)	1	21
2CSK1128CH	RJ45 connector, Cat. 6, FTP (shielded)	1	21
2CSK1160CH	Flush-mounted USB charger 500-650mA	1	35
2CSK1210CH	Electronic natural gas detector	3	39
2CSK1211CH	Electronic LPG gas detector with acoustic and indicator signal	3	39
2CSK1301CH	Fuse holder, for fuses \varnothing 5x20 / \varnothing 6.3x32 mm, max. 16A	1	26
2CSK1303CH	LED light for emergency lighting or steplight	3	50
2CSK1304CH	Automatic MCB, 1P+N, C6, breaking capacity 1.5kA	1	36
2CSK1305CH	Automatic MCB, 1P+N, C10, breaking capacity 3kA	1	36
2CSK1306CH	Automatic MCB, 1P+N, C16, breaking capacity 3kA	1	36
2CSK1307CH	Automatic RCD, 1P+N, C6 - 10 mA, breaking capacity 1.5kA	2	36
2CSK1308CH	Automatic RCD, 1P+N, C10 - 10 mA, breaking capacity 3kA	2	36

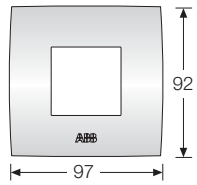
Chiara

Overall dimensions

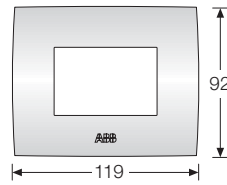
Chiara code	Description	No. Modules	Depth mm
2CSK1309CH	Automatic RCD, 1P+N, C16 - 10 mA, breaking capacity 3kA	2	36
2CSK1315CH	Overvoltage limiter, 75J, 230V~	1	26
2CSK1328CH	Automatic RCD, 1P+N, C6 - 30 mA, breaking capacity 1.5kA	2	36
2CSK1329CH	Automatic RCD, 1P+N, C10 - 30 mA, breaking capacity 3kA	2	36
2CSK1330CH	Automatic RCD, 1P+N, C16 - 30 mA, breaking capacity 3kA	2	36
2CSK1310CH	Warning light, ORANGE colour	1	20
2CSK1311CH	Warning light, WHITE colour	1	20
2CSK1312CH	Warning light, RED colour	1	20
2CSK1313CH	Warning light, GREEN colour	1	20
2CSK1317CH	Electro-mechanical bell, 12V	1	37
2CSK1318CH	Electro-mechanical bell, 230V,	1	37
2CSK1321CH	Electro-mechanical buzzer, 12V	1	37
2CSK1322CH	Electro-mechanical buzzer, 230V	1	37
2CSK1201CH	Summer/winter electronic time-programmed thermostat	3	38
2CSK1202CH	Summer/winter electronic thermostat	2	29,5
2CSK1205CH	Electronic dimmer with rotary control for resistive loads 100-500W	1	39
2CSK1204CH	Electronic dimmer with rotary control and two-way switch for resistive loads 100-500W	1	39
2CSK1207CH	Electronic dimmer with pushbutton control for resistive and inductive loads 60-500W	1	39
2CSK1214CH	Removable anti-blackout light, 230V	see drawing	
2CSK1216CH	IR motion detector with twilight sensor for control and adjustment of the operation time of lighting devices	1	32
2CSK1426CH	Universal badge switch with location light	2	32

Frames

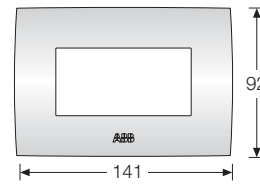
2 modules



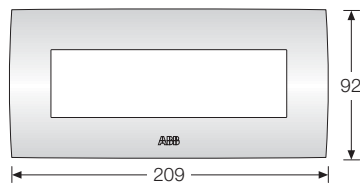
3 modules



4 modules

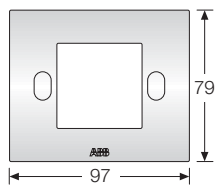


7 modules



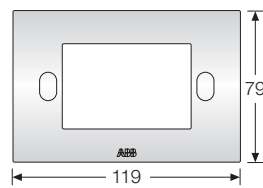
Self-supporting frames

2 modules



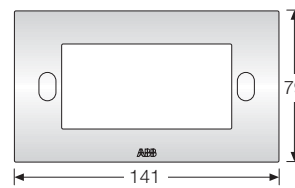
Screw distance: 60 mm

3 modules



Screw distance: 83.5 mm

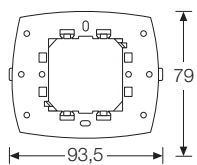
4 modules



Screw distance: 108 mm

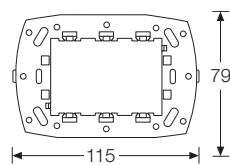
Supports

2 modules



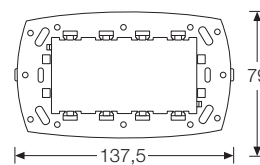
Screw distance of the box: 60 mm

3 modules



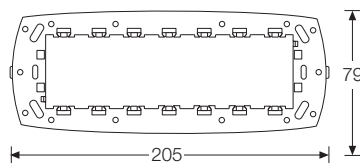
Screw distance of the box: 83.5 mm

4 modules



Screw distance of the box: 108 mm

7 moduli



Screw distance of the box: 100 mm

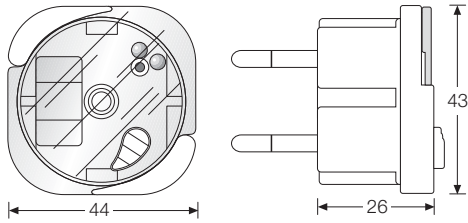
All measurements are in millimetres.

Chiara

Overall dimensions

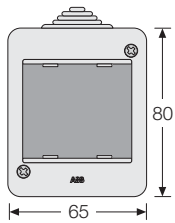
Safety and comfort devices

Anti-blackout light

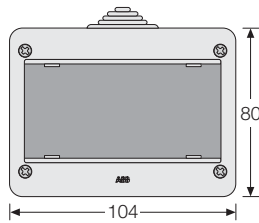


5 IP40 wall-mounted enclosures

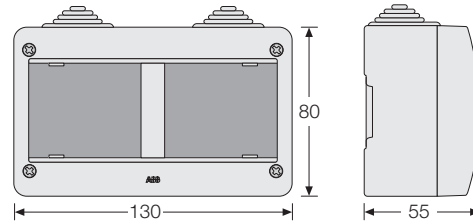
2 modules



3 modules

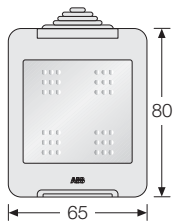


4 modules

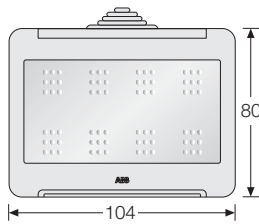


IP55 wall-mounted enclosures

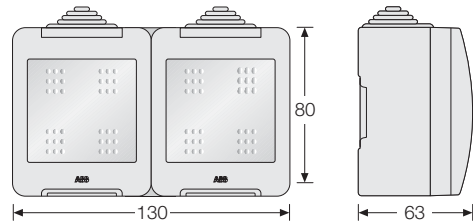
2 modules



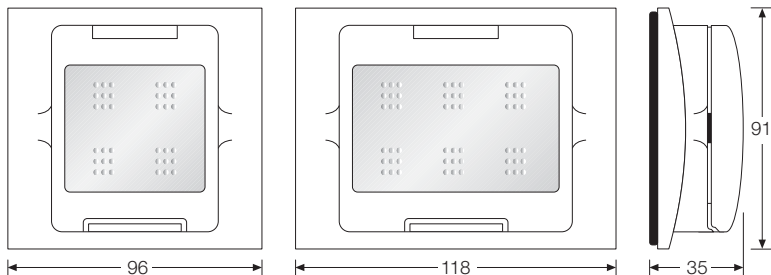
3 modules



4 modules



IP55 flush-mounted escutcheon plate



All measurements are in millimetres.