

Smart Electrical Panel

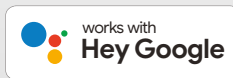
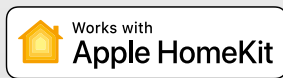
BTDIN ^{WITH} Netatmo





BTDIN with Netatmo forms part of Eliot,
the BTicino program for connected objects.

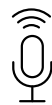
Take full control of your home, from lights to high energy consumption devices.



Home + Control App



CONTROL
WITH SMARTPHONE



VOICE
CONTROL



SCHEDULE



SMART ENERGY
MANAGEMENT



MONITORING
OF ELECTRIC
CONSUMPTIONS

Home + Control can be downloaded free from App Store and Google Play



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What is BTDIN with NETATMO?

BTDIN with Netatmo is the new range of intelligent modular switches for direct installation in the electrical panel, in the heart of the house.



Control of lights
and appliances powered
from the electrical panel
of the home



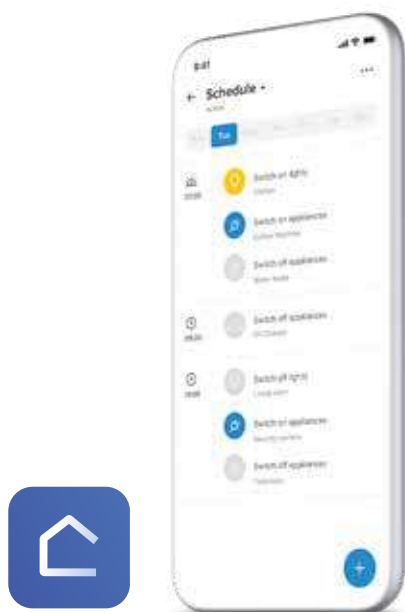
Intelligent load
management and
balancing of energy
consumption



Maximum consumption
control and energy waste
reduction

Take control of your home

From your smartphone, easily control lights, home appliances, high energy consumption devices such as induction plates, wallboxes for recharging electric vehicles and air conditioning fan coils.



Home + Control App

BENEFITS

WASTE REDUCED TO A MINIMUM

Receive a notification if a light or appliance is left on for too many hours. Display abnormal device consumption levels.



MAXIMUM COMFORT

Take advantage of pre-set and customizable scenarios, or easily create your own. No more going around the house to turn everything off and on, or unplugging all your devices one at a time.



TOTAL CONTROL

View charts of your home energy consumption. If consumption reaches a certain threshold set in advance, you receive a notification on your smartphone and some appliances are switched off to avoid overloading. Each device is assigned a default priority, which can be changed at any time using the App.



What can your Customer do with the Smart BTDIN with Netatmo solution?

MANAGE THE SCENARIOS

Operate and customize 4 pre-set scenarios using the App: in and out, day and night, and 4 scenarios that can be customised by the user.



CONTROL LIGHTS AND APPLIANCES

Comfortably control lights, appliances and every load in your home.



CONTROL THE ENERGY CONSUMPTIONS

Use the smartphone to check the energy consumption of the home or appliances and receive an alarm notification to prevent a blackout (when your energy limit is exceeded).



RECEIVE ALARM NOTIFICATIONS

Receive warning notifications on the smartphone in case of faults (blackout, appliance fault).




LOAD CONTROL TO AVOID BLACKOUTS

Set load priorities, so that in case of overload the system automatically disconnects less important appliances, avoiding the tripping of the meter (black-out).

BENEFITS

Also in the small service sector

			
SELF-SERVICE DISTRIBUTORS	NEWSAGENTS	BAR TOBACCONISTS	SMALL RETAILERS

PROGRAM EVERY SITUATION

With a few simple steps use your smartphone to define and automatically activate daily action profiles to be run on a weekly basis.



AVOID BLACKOUTS AND ENSURE SERVICE CONTINUITY

Receive warning notifications on your smartphone in case of faults (blackout, automatic vending machine fault).



24/7 SUPERVISION AND CONTROL

Remotely monitor consumption through the smartphone, receive notifications and avoid blackouts in case of fault or if the energy consumption limits are exceeded.



Turn on the air conditioner between 10:00 p.m. and 7:00 a.m. every day



Raise the living room shutters every day of the week at dawn



Turn off the charging unit from 10:00 a.m. to 05:00 p.m. every day of the week

FORGETTING

Remotely turn off lights and the air conditioning, manage and customise scenarios (e.g.: in - out) easily with one simple click, using your smartphone.



Home + Control

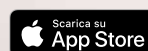
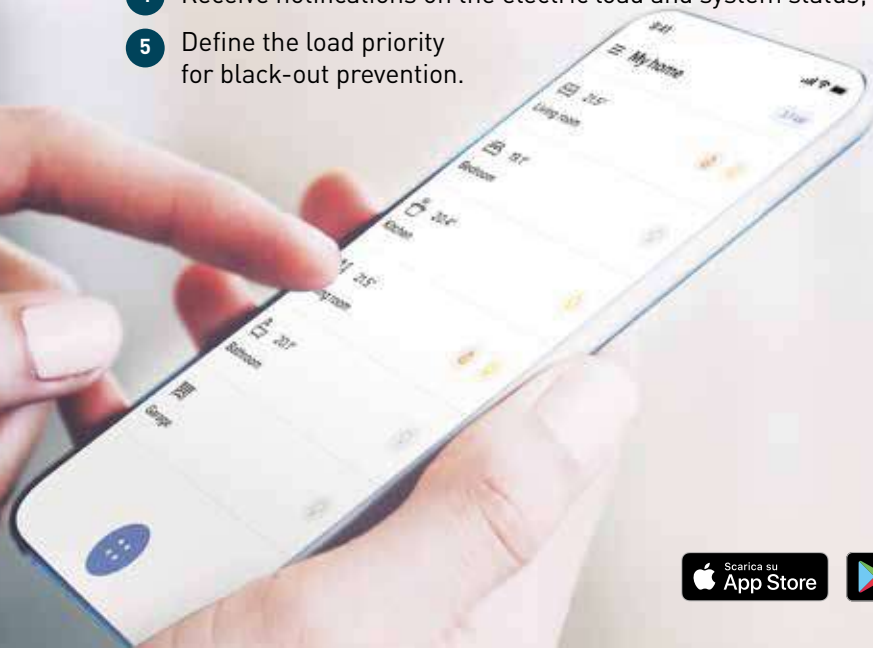


One single App, many connected advantages

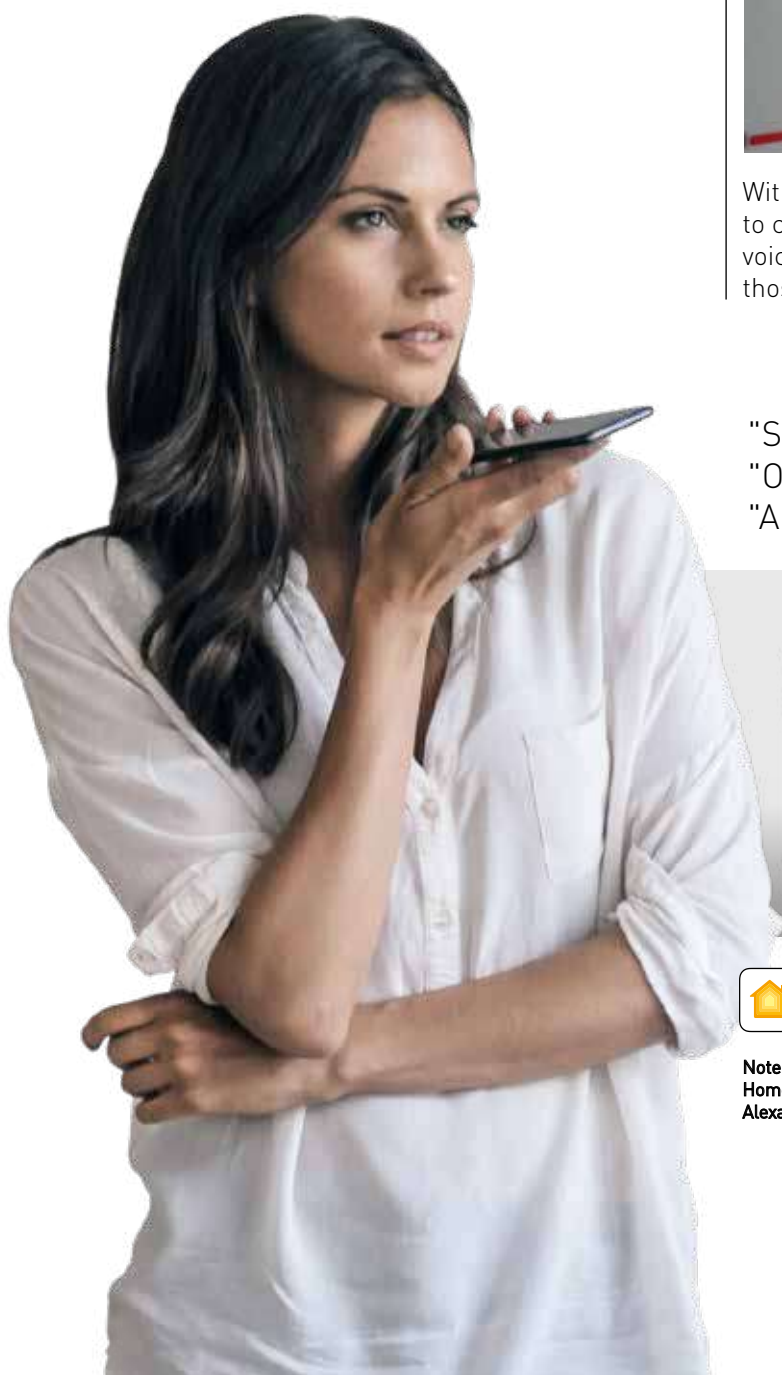
Home+Control is the App that makes it simple to supervise all the BTDIN with Netatmo system functions using iOS and Android mobile devices, inside and outside the home.

Using the App you will be able to:

- 1 Activate and customise 8 scenarios (4 preconfigured scenarios, coming in, going out, day, night and 4 scenarios customisable by the user);
- 2 Display and check the status of lights and appliances connected to sockets;
- 3 Check the total home consumptions;
- 4 Receive notifications on the electric load and system status;
- 5 Define the load priority for black-out prevention.

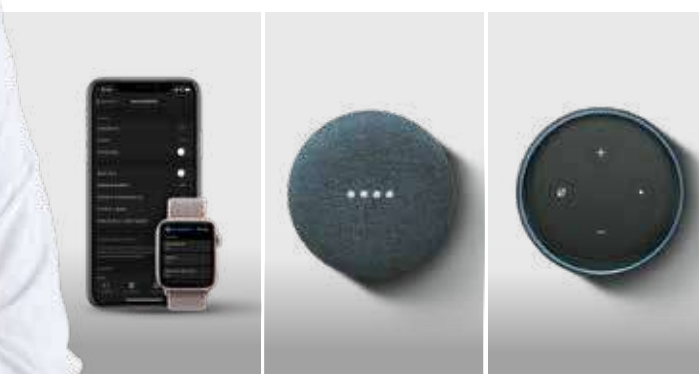


Your customer can also
manage the home
with the voice



With BT DIN with Netatmo, your customer will be able to control the system using Apple, Google and Amazon voice assistants. An extremely useful function, also for those with mobility problems.

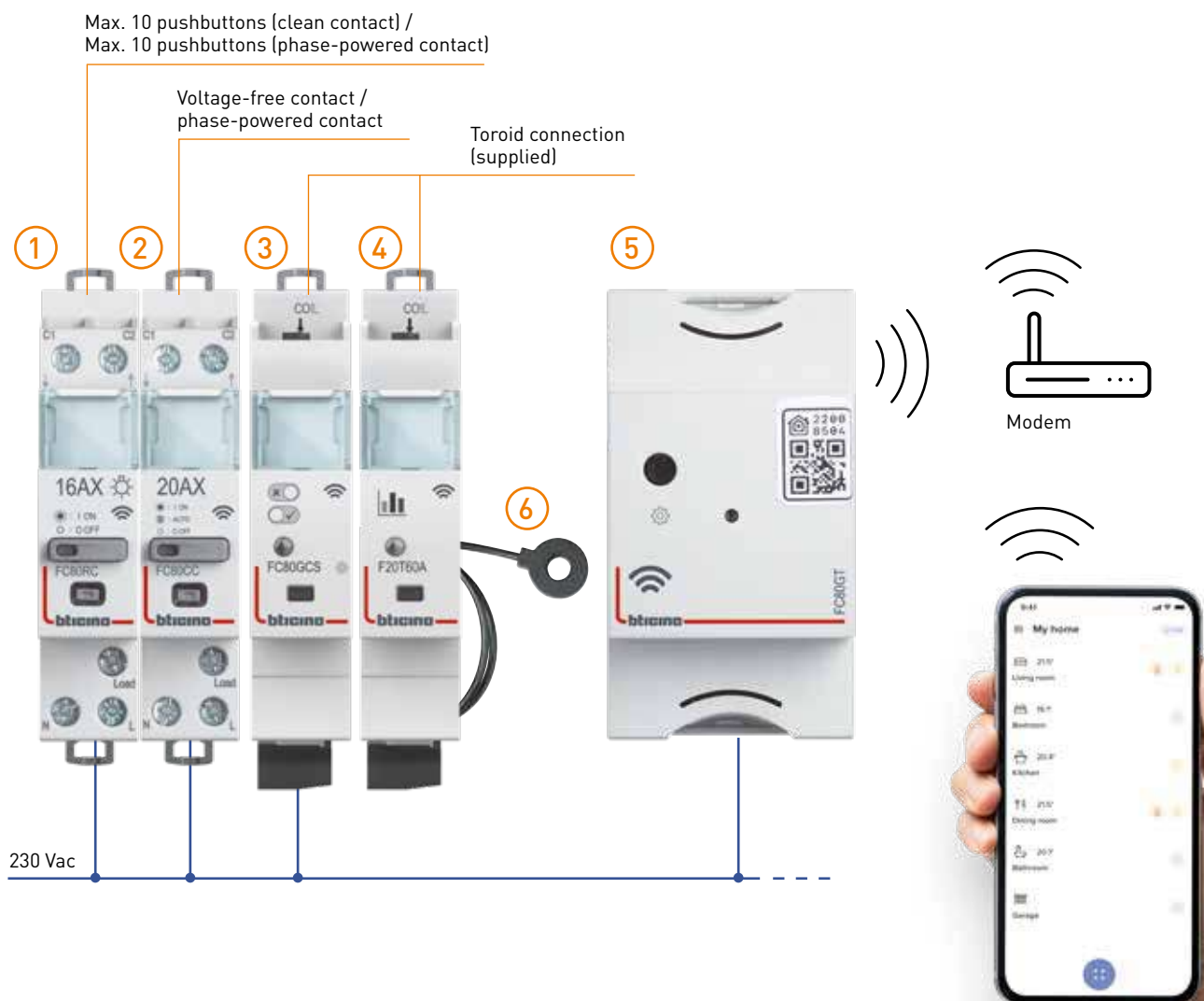
"SIRI, turn on the pool pump."
"Okay Google, turn on the air conditioner."
"ALEXA, turn off the basement lights."



Note: HomeKit is a registered trade mark which is the property of Apple Inc. Google Home is a registered trade mark which is the property of Google LLC, Amazon Alexa is a registered trade mark which is the property of Amazon.com, Inc.

The SMART components of the electrical panel

- 1 - **Relay 16 A:** control of lights up to 16 A;
- 2 - **Contactor 20 A:** control of loads up to 20 A;
- 3 - **Load management module:** load priority management and setting of scenarios for all connected contactors and sockets;;
- 4 - **Meter:** measurement of the consumption of individual power lines;
- 5 - **Gateway:** internet connection and control using the Home + Control App;
- 6 - **Toroid** input current reading (supplied with the FC80GCS and F20T60A modules).



Integration with Living Now with Netatmo and Livinglight with Netatmo smart ranges



Living Now ^{WITH} Netatmo



Livinglight ^{WITH} Netatmo



Home + Control App

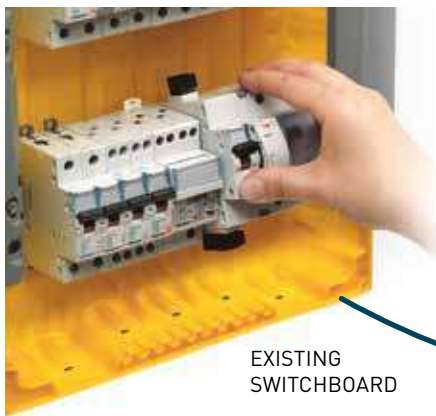
Home + Control is the same App that manages and controls the BTicino Smart ranges, together with the Gateway, which is fully compatible.

For this reason, if in addition to the smart electrical panel the system also includes the Living Now with Netatmo and Livinglight with Netatmo ranges, it will be possible to control all the smart functions: single sockets, light dimmer function, shutter, curtain and single light control.

For detailed information please refer to the specific documentation available also for download from the www.bticino.com website.



From traditional system to SMART system



EXISTING SWITCHBOARD

An ideal evolution for transforming existing traditional systems into Smart systems **without changing working habits**. Easy to install, BTDIN with Netatmo integrates in the electric system of your home without being noticed.



SMART SWITCHBOARD

Smart modules can be installed inside any standard electrical panel to replace or complement existing unconnected modules. BTDIN devices are snap-fitted on DIN35 rails in switchboards, panels and distribution cabinets.



HABITA SERIES

BTDIN with NETATMO also perfectly integrates with the finish of the HABITA and SPACE series switchboards.

Find out more by visiting the bticino.com website


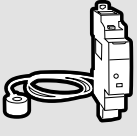

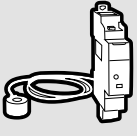



SPACE SERIES

BTDIN WITH NETATMO

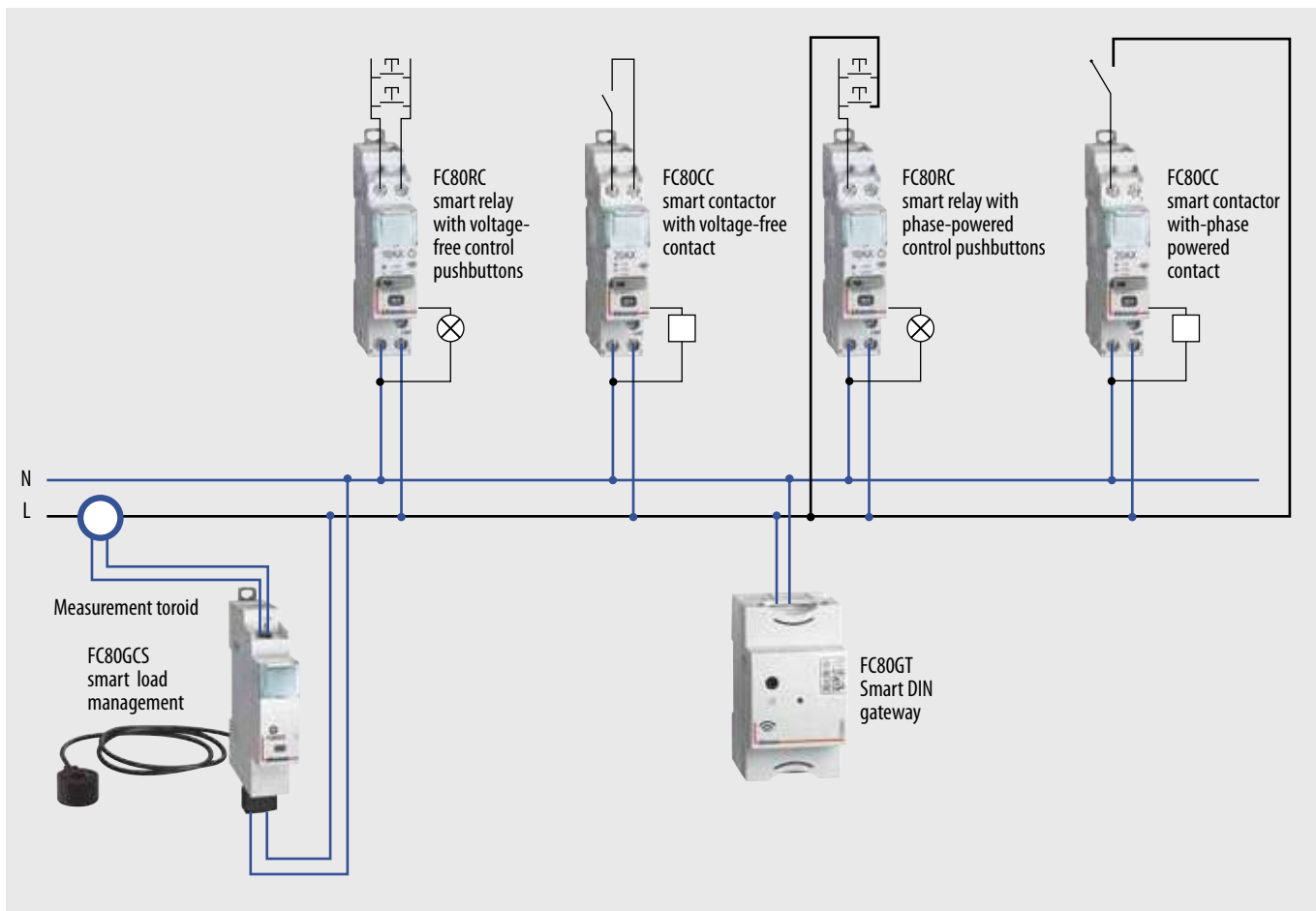
Catalogue



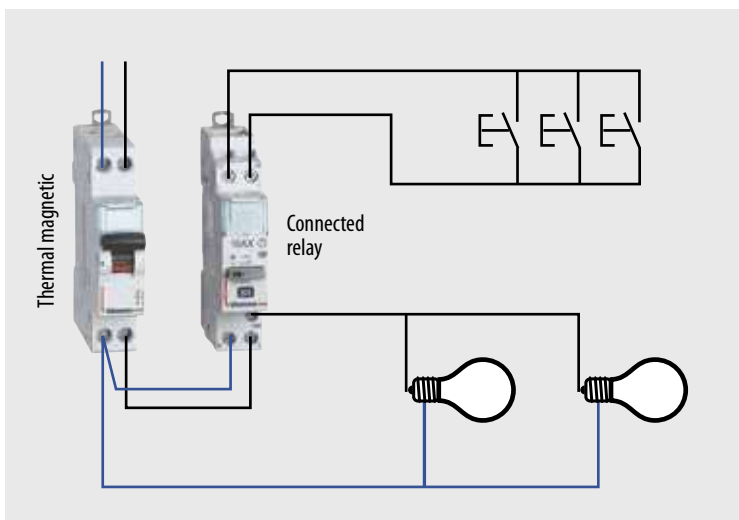
Item	CONNECTED CONTROL DEVICES	Item	CONNECTED CONTROL DEVICES
FC80RC 	<p>Smart DIN relay for light control with maximum absorption $I_n=16$ A. Fitted with contacts for remote pushbutton control (max 10 buttons). It allows local and remote control of the lights through wireless controls, wired pushbuttons, smartphones with the "Home+Control" App or using a voice assistant.</p> <p>1 DIN module. Power supply 100-240 Va.c. 50/60 Hz.</p>	FC80GCS (*) 	<p>Smart DIN load management module for the monitoring of the consumptions of the whole electric system, the powering or disconnection of the loads, and the setting of scenarios with priority or non-priority loads. When the maximum intended power is reached, the non-priority loads are temporarily disconnected to avoid possible and annoying blackouts. A toroid for the input current measurement is provided. Power supply 100-240 Va.c. 1 DIN module.</p>
FC80CC 	<p>Smart DIN contactor, suitable for controlling single-phase loads < 20 A. The smart contactor allows remote control (ON / OFF) of loads such as water heaters, pool pumps, induction plates and electric vehicle charging sockets from smartphones with the Home+Control App or using a voice assistant.</p> <p>With meter for the measurement of the current absorbed by the load.</p> <p>1 DIN module. Power supply 100-240 Va.c. 50/60 Hz.</p>	F20T60A 	<p>Smart DIN meter for measuring the energy consumption of the entire single-phase system of the house (instantaneous, daily, monthly), as well as of individual power lines. A toroid for the input current measurement is provided. Power supply 100-240 Va.c. 1 DIN module. (Single-phase systems only).</p>
FC80GT 	<p>Smart DIN gateway for remote control of lights and sockets through the connected FC80RC remote contactor, the connected FC80CC contactor and the FC80GCS load management module, using a smartphone with the HOME + CONTROL App and/ or a voice assistant. Zigbee/IP Wi-Fi communication.</p> <p>It can be used as an alternative to the L/N/NT4500C flush mounted Gateway of the connected Livinglight series and the K4500C flush mounted Gateway of the connected Living Now series.</p> <p>Power supply 100-240 Va.c. 2.5 DIN modules.</p>		

BTDIN WITH NETATMO

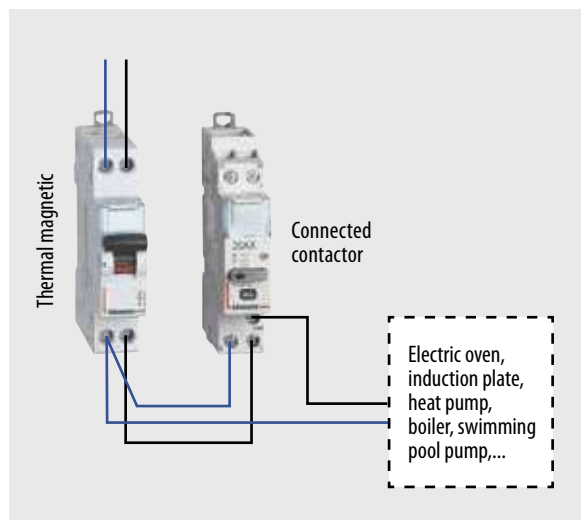
Examples of connection



SMART DIN RELAY - FC80RC



SMART DIN CONTACTOR - FC80CC














Once the smart DIN devices have been installed and connected, it is possible to test and verify the correct operation of the system by controlling lights and loads using the local pushbuttons on the front of the respective DIN modules. After ascertaining that local operation is correct, it is possible to proceed with the association to the system of all the connected devices following the procedure indicated in the instructions supplied with the Gateway (FC80GT).

BTDIN WITH NETATMO

Compatibility with BTicino connected ranges

It is also possible to complete the smart electrical system by associating it with other connected devices (e.g. Living Now with Netatmo, Living Light with Netatmo).

	DIN PANEL DEVICES	RESIDENTIAL RANGE DEVICES	JUNCTION BOX DEVICES
GATEWAY	 FC80GT	 K4500C - L4500C	
CONNECTED LOADS	 FC80CC	 K4531C - L4531C	
CONNECTED LIGHT SWITCH / LIGHT RELAY	 FC80RC	 K4003C - L4003C	 K4411C - L4411C
			 3584C
SHUTTERS		 K4027C - L4027C	
LOAD MANAGEMENT AND CONSUMPTION METER	 FC80GCS	 F20T60A	

Note: for the complete range of compatible devices please refer to the Living Now with Netatmo and Living Light with Netatmo catalogues.

WIRELESS CONTROLS

 K4003CW - L4003CW	 K4003DCW - L4003DCW	 K4570CW - L4570CW	 K4027CW - L4027CW	 3577C	 K4574CW - L4575CW
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TECHNICAL INFORMATION


16 A Smart DIN relay - FC80RC



FC80RC



Smart DIN relay for the control of lights with maximum absorption $I_n=16$ A. Equipped with contacts for remote pushbutton control (maximum 10 pushbuttons). The smart relay allows to control the lights either locally or remotely, using wireless controls, wired pushbuttons, a smartphone with the "Home+Control" App or a voice assistant. 1 DIN module. Power supply 100-240 Va.c. 50/60 Hz.

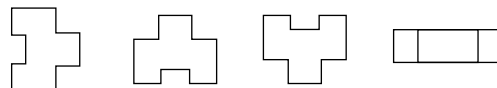
Noise level	Silent switch: <10 dB
Width	1 modules 17.8 mm
Types of contact	"F" closing contact 
Rated current	16 A
Rated voltage	100- 240 V AC
Rated frequency	50/60 Hz
Poles	1 «1F» pole

USE

As "standard" non-connected relay.
As connected relay controlled using the Home + Control App.
As connected relay controlled using a voice assistant.

INSTALLATION

On EN / IEC 60715 or DIN 35 symmetrical rail
Vertical, Horizontal, Flat



HOME + CONTROL app
for connected device management



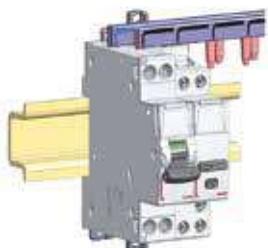
TECHNICAL INFORMATION

16 A Smart DIN relay - FC80RC

ROW POSITIONING

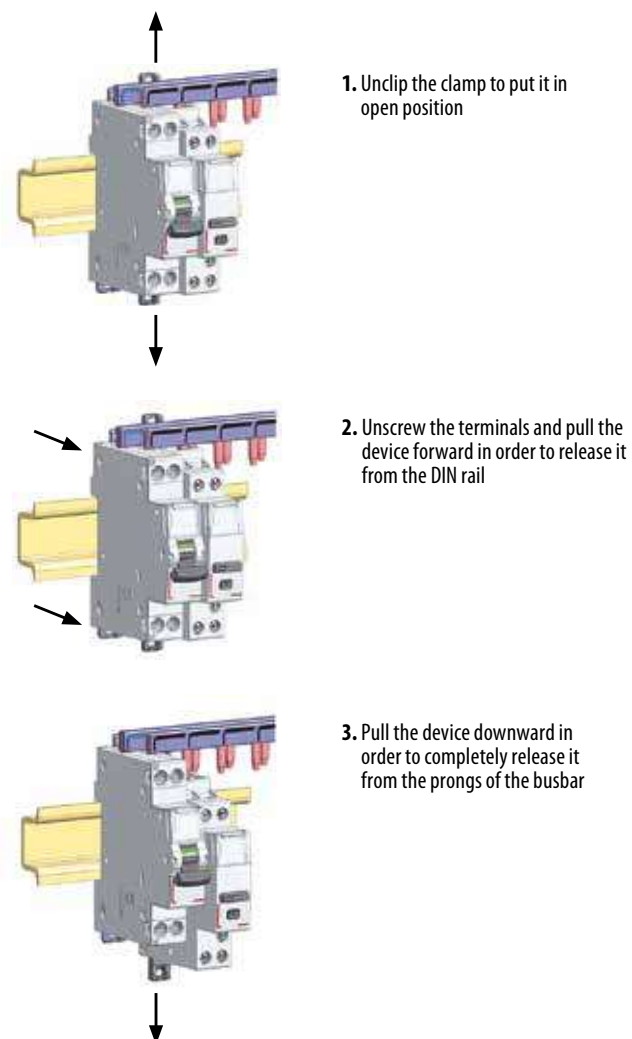
The product shape and the positioning of the terminals allow the passage of single-line, three-lines and plug-in supply busbars in the upper part of the product.

Then, it is possible to freely choose the position of the Connected Latching Relay in the row and to connect by supply busbar the other devices put on the same DIN rail.

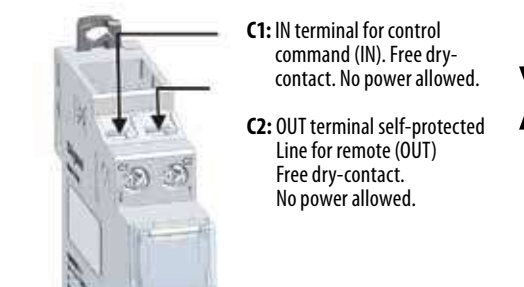


MODULE MAINTENANCE

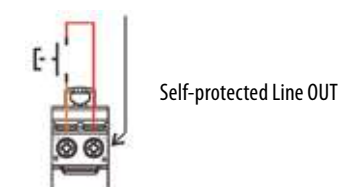
It is possible to switch a Connected Latching Relay in the middle of a row supplied with an upstream busbar without disconnecting the other devices on the same DIN rail.



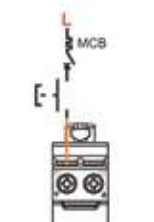
WIRING OF THE UPSTREAM TERMINALS



In case of a remote control done via a wired pushbutton, the control is done either via **C1** and **C2** terminals.

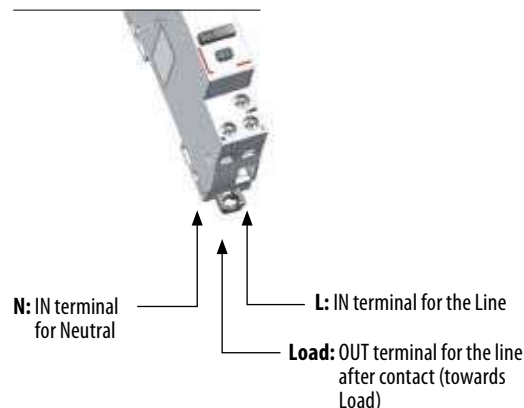


or via a push button through the phase line protected by a circuit breaker on terminal **C1**



Warning: Do not wire from Neutral to **C1** or **C2**

WIRING OF THE POWER SUPPLY AND THE LOAD (DOWNSTREAM TERMINALS):

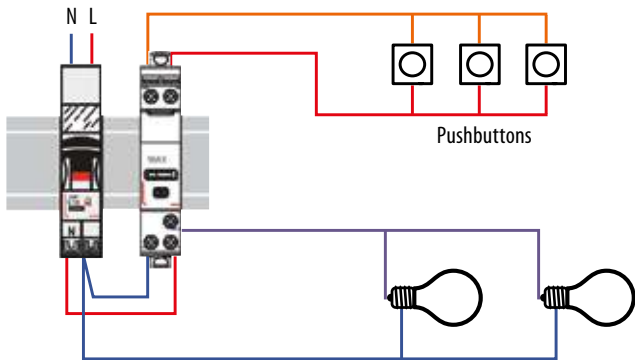


TECHNICAL INFORMATION

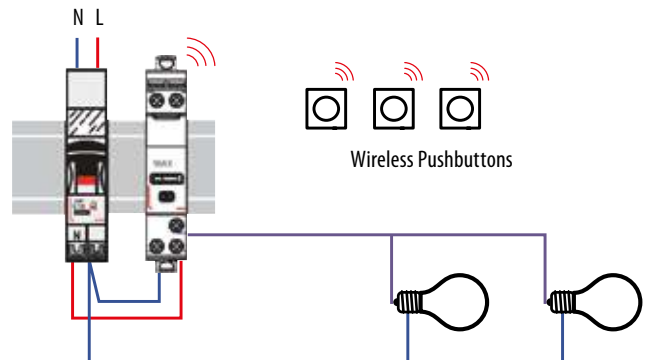
16 A Smart DIN relay - FC80RC

EXAMPLES OF CONNECTION AND COMMISSIONING

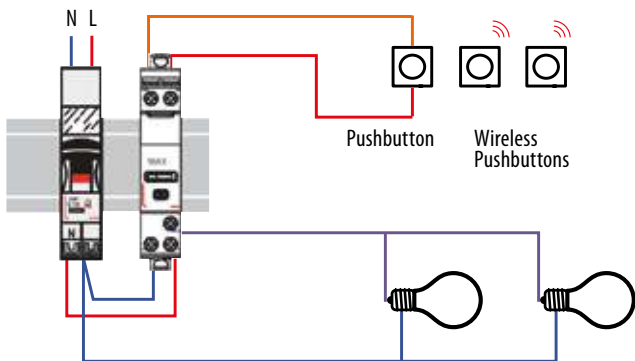
WIRED INSTALLATION



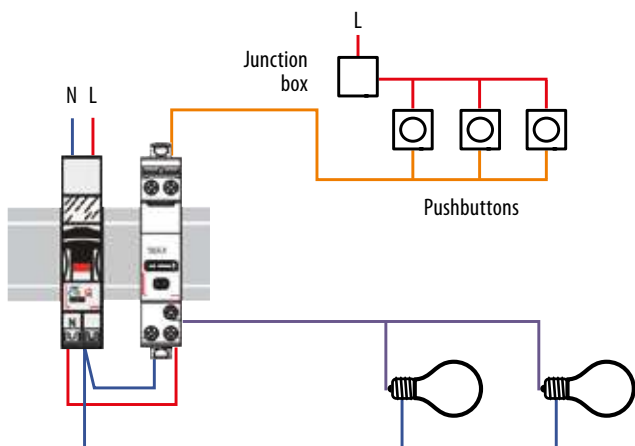
WIRELESS INSTALLATION



WIRED AND WIRELESS MIXED INSTALLATION



WIRED INSTALLATION WITH JUNCTION BOX



RECOMMENDED TOOLS

For the terminals: screwdriver flat-blade 3.5 mm
 For DIN rail fixing:
 screwdriver flat-blade 5.5 mm (6 mm max)

CONNECTION

Control and power screw terminals:
 Terminal type: cage
 - Depth: 9 mm
 - Stripping length recommended: 9 mm
 - Screw head: Pozidriv
 - Type of screw: M3.5
 - Minimum tightening torque: min 0.8 Nm / max 1.4 Nm
 advised: 1 Nm

CONDUCTOR TYPE FOR REMOTE CONTROL TERMINALS (C1, C2)

Copper cables

	WITHOUT FERRULE	WITH FERRULE
Rigid cable	1x (0.75 to 2.5 mm ²) 2x (0.75 to 1.5 mm ²)	-
Flexible cable	1x (0.75 to 2.5 mm ²) 2x (0.75 to 1.5 mm ²)	1x (0.75 to 2.5 mm ²) 2x (0.75 to 1.5 mm ²)

CONDUCTOR TYPE FOR POWER TERMINALS (N, L, LOAD)

Copper cables

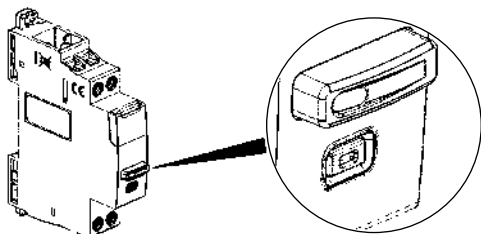
	WITHOUT FERRULE	WITH FERRULE
Rigid cable	1x (0.75 to 6 mm ²) 2x (0.75 to 2.5 mm ²)	-
Flexible cable	1x (0.75 to 6 mm ²) 2x (0.75 to 2.5 mm ²)	1x (0.75 to 2.5 mm ²) 2x (0.75 to 1.5 mm ²)

TECHNICAL INFORMATION

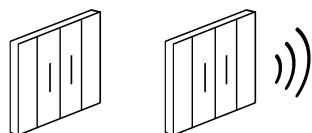
16 A Smart DIN relay - FC80RC

REMOTE CONTROL COMMANDS

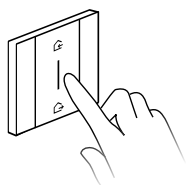
Operation on-site, directly with the front face pushbutton of the device



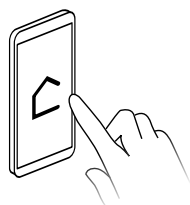
Via on-wall pushbutton control wireless or standard "wired" ones (refer to wiring diagrams)



Via the General Scenario Wireless Command "Departure/Arrival"



Via smartphone with the Home + Control smartphone app

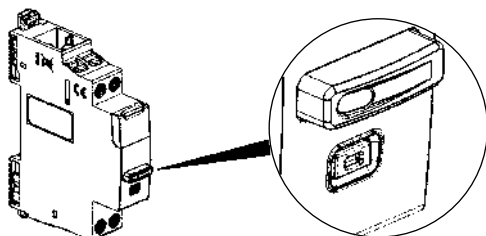


By voice through a vocal assistant



VISUALIZATION OF THE OPERATING MODE OF THE DEVICE AND CONTACTS

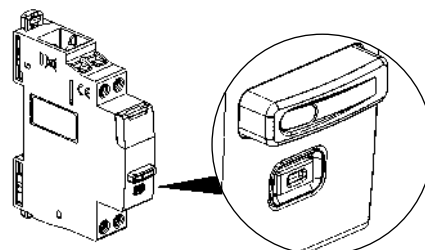
Via the LED, on the pushbutton command



COLOUR	STATUS	OPERATION
	OFF	Manual mode and opened Contact: (OFF)
	Fixed	Manual mode and closed Contact: (ON)

VISUALIZATION OF THE SETUP

Via the LED on the settings button



COLOUR	STATUS	OPERATION
	Fixed	Temporary status. Device not connected to the radio network
	Fixed	Temporary status. Device correctly paired to the radio network (when the radio network is still open)
	OFF	Normal status. Device paired to the radio network (when the radio network is closed)

CONFIGURATIONS AND ACTIONS

Refer to the online guides and to the indications provided through the "Home + Control" application.

SELF-PROTECTION

The load is disconnected (OFF) if the current exceeds the rated value for more than 7.5 seconds.

LABELLING

Circuit identification by way of a label inserted in the label holder situated on the front of the product.



TECHNICAL INFORMATION

16 A Smart DIN relay - FC80RC

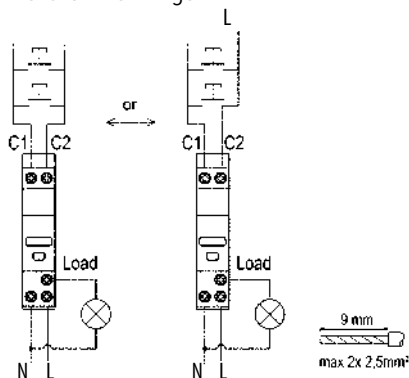
GENERAL FEATURES

MARKING OF THE CONNECTED LATCHING RELAY

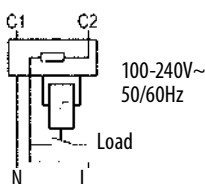
Markings of the front side



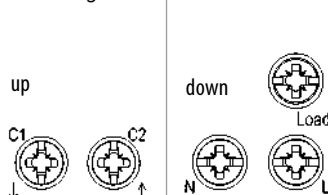
Lateral markings



Markings on the upper side



Terminal markings



Sectioning distance:

micro-gap contact according to the standard EN 60669-2-1

Rated insulation voltage (Ui):

Ui - 250 V

Degree of pollution:

2

Rated impulse withstand voltage (Uimp):

4 kV

Influence of altitude:

No influence up to 2 000 m

Assigned frequency:

50/60 Hz

Rated voltage of use (Ue):

Ue = 100 - 240 V ~

Resistance to short-circuits:

Presumed short circuit current

1500 A according to EN 60669-2-1

Thermal stress: from 15 000 A² EN 60669-2-1

Recommendations:

For the device protection against short circuits according to the conditional current, it is recommended to use a circuit breaker or fuse gG rated current ≤ 16 A.

Endurance:

20 000 000 operations without load

10000 operations under fluo load according to EN 60669-2-1

10000 operations under inductive load according to EN 60669-2-1

10000 operations under load SBL650W according to EN 60669-2-1

200000 operations under resistive load according to EN 60669-2-5

Characteristics of the radio interface:

Standard IEEE 802.15.4

Frequencies from 2.4 to 2.4835 Ghz

Transmitter output power <100mW

Dielectric resistance:

2000V between front face and rail

750V between upstream and downstream

Protection degree:

Protection index of terminals against direct contacts: IP2X (IEC/EN 60529)

Protection index of the front face against direct contacts: IP3XD (IEC/EN 60529)

Class II, front panel with faceplate

Class of protection against mechanical impacts IK04 (IEC/EN 62262)

Vibrations and shaking resistance:

Vibrations: 10 to 55 to 10Hz single amplitude 0.75mm

Shaking: 1000m/s² (6 x 1ms)

Plastic material:

Self-extinguishing polycarbonate.

Heat and fire resistant according to IEC/EN 60669-2-1, glow-wire test at 960°C

Classification UL 94 V0 (1.5 mm)

Ambient operating temperature:

Min -5°C - Max +45°C

Ambient storage temperature:

Min. -40°C - Max. +70°C

Average weight:

78 g

Volume when packed:

0,17 dm³.

COMPLIANCE AND APPROVALS

Compliance to standards:

NF EN 60669-2-1 / IEC 60669-2-1

Environment respect - Compliance with European Union Directives:

Compliance with Directive 2002/95/EC of 27/01/03

Compliance with the Directive 91/338/EEC of 18/06/91

Compliant with regulation REACH

Conformity with electromagnetic interference (EMC):

Compliant EN 301 489-1, IEC 60669-2-5, NF EN 60669-2-1

Immunity to shock waves

Radio transmission

Immunity to electrical transients in bursts.

Immunity to conducted disturbances induced by radio fields

Immunity to radiated fields

Electrostatic discharge immunity

Immunity to voltage dips and short break

Compliance mission radiated according to NF EN55032

Plastic materials:

Halogen-free plastics.

Marking of parts according to ISO 11469 and ISO 1043.

ISO 7000: 2004, Graphical symbols to be used on equipment

Packaging:

Design and manufacture of packaging in accordance with

Decree 98-638 of 20/07/98 and Directive 94/62 / EC.

TECHNICAL INFORMATION

20 A Smart DIN contactor - FC80CC



FC80CC



Smart DIN contactor suitable for controlling single-phase loads < 20 A. The smart contactor allows remote control (ON / OFF) of loads such as water heaters, pool pumps, induction plates and electric vehicle charging sockets from smartphones with the Home+Control App or using a voice assistant. With meter for the measurement of the current absorbed by the load. 1 DIN module. Power supply 100-240 Va.c. 50/60 Hz.

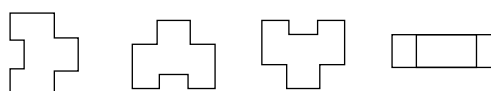
Noise level	Silent switch: <10 dB
Width	1 modules 17.8 mm
Types of contact	"F" closing contact
Rated current	20 A
Rated voltage	100- 240 V AC
Rated frequency	50/60 Hz
Poles	1 «1F» pole

USE

As "standard" non-connected relay.
 As connected relay controlled using the Home + Control App.
 As connected relay controlled using a voice assistant.

INSTALLATION

On EN / IEC 60715 or DIN 35 symmetrical rail
 Vertical, Horizontal, Flat



HOME + CONTROL app
 for connected device management



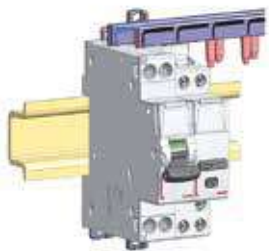
TECHNICAL INFORMATION

20 A Smart DIN contactor - FC80CC

ROW POSITIONING

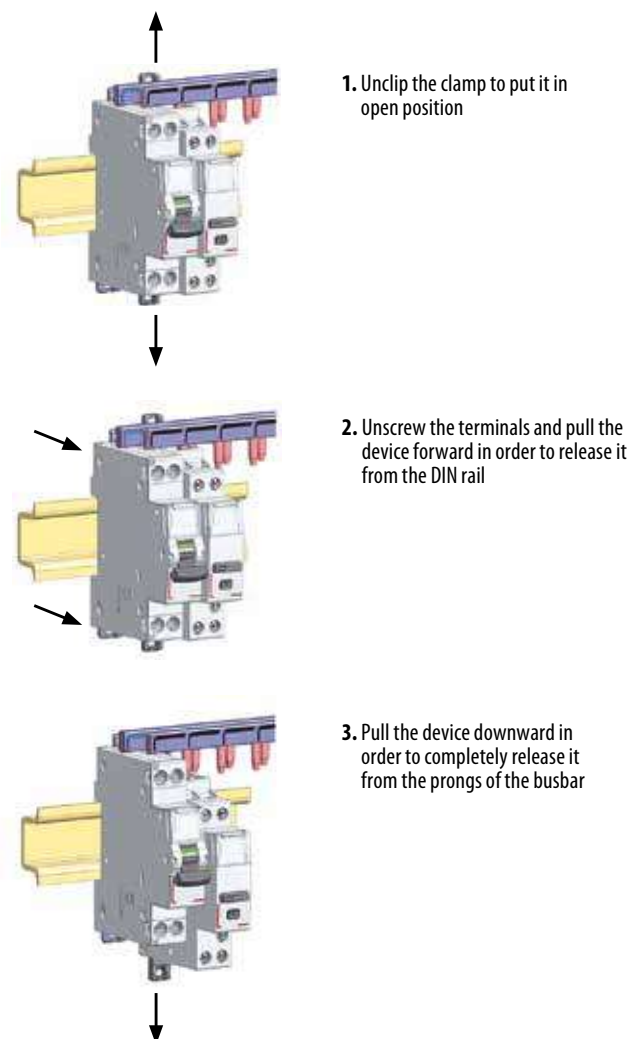
The product shape and the positioning of the terminals allow the passage of single-line, three-lines and plug-in supply busbars in the upper part of the product.

Then, it is possible to freely choose the position of the Connected Latching Relay in the row and to connect by supply busbar the other devices put on the same DIN rail.

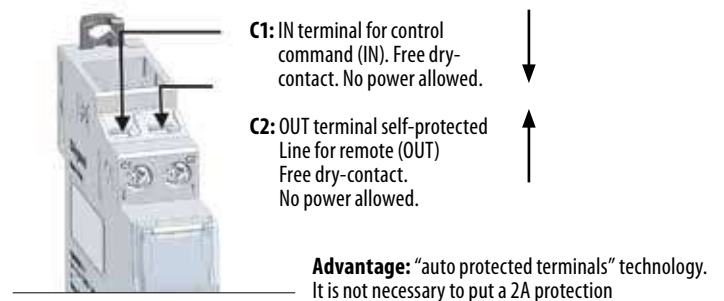


MODULE MAINTENANCE

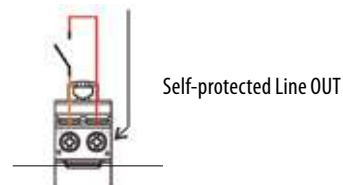
It is possible to switch a Connected Latching Relay in the middle of a row supplied with an upstream busbar without disconnecting the other devices on the same DIN rail.



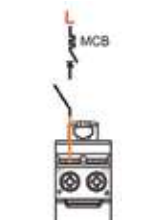
WIRING OF THE UPSTREAM TERMINALS



In case of a remote control done via a wired pushbutton, the control is done either via **C1** and **C2** terminals.

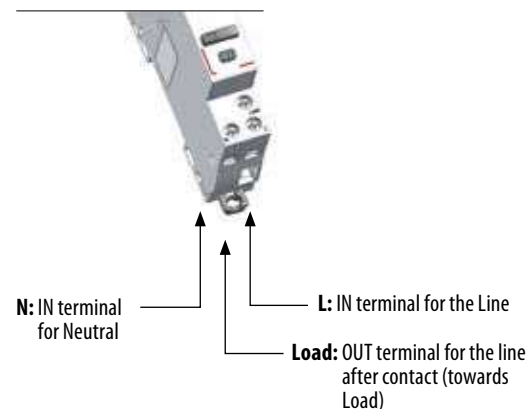


or via a push button through the phase line protected by a circuit breaker on terminal **C1**



Warning: Do not wire from Neutral to **C1** or **C2**

WIRING OF THE POWER SUPPLY AND THE LOAD (DOWNSTREAM TERMINALS):

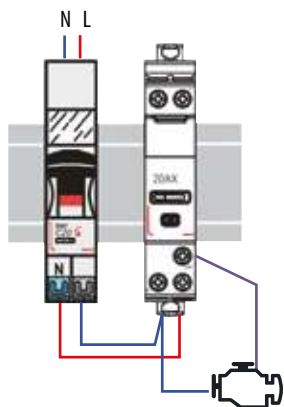


TECHNICAL INFORMATION

20 A Smart DIN contactor - FC80CC

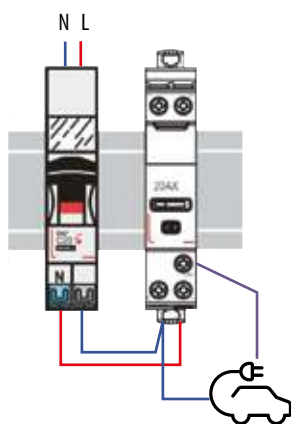
EXAMPLES OF CONNECTION AND COMMISSIONING

INSTALLATION FOR ELECTRICAL MOTOR



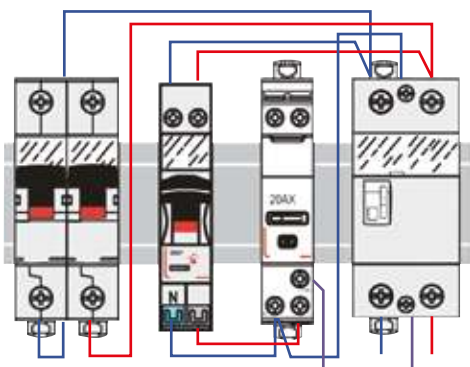
Note: C1 and C2 terminals are self-protected.

INSTALLATION FOR CHARGING ELECTRIC CARS



Note: C1 and C2 terminals are self-protected.

CONTROL OF A SINGLE LINE STANDARD CONTACTOR (> 20A)



RECOMMENDED TOOLS:

For the terminals: screwdriver flat-blade 3.5 mm
For DIN rail fixing: screwdriver flat-blade 5.5 mm (6 mm max)

CONNECTION:

Control and power screw terminals:

Terminal type: cage

- Depth: 9 mm

- Stripping length recommended: 9 mm

- Screw head: Pozidriv

- Type of screw: M3.5

- Minimum tightening torque: min 0.8 Nm / max 1.4 Nm
advised: 1 Nm

CONDUCTOR TYPE FOR REMOTE CONTROL TERMINALS (C1, C2):

Copper cables

	WITHOUT FERRULE	WITH FERRULE
Rigid cable	1x (0.75 to 2.5 mm ²) 2x (0.75 to 1.5 mm ²)	-
Flexible cable	1x (0.75 to 2.5 mm ²) 2x (0.75 to 1.5 mm ²)	1x (0.75 to 2.5 mm ²) 2x (0.75 to 1.5 mm ²)

CONDUCTOR TYPE FOR POWER TERMINALS (N, L, LOAD):

Copper cables

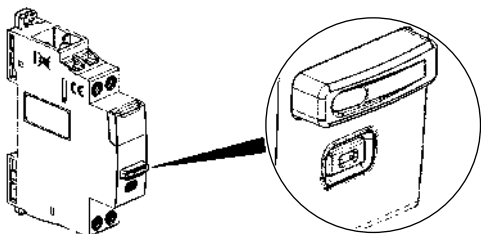
	WITHOUT FERRULE	WITH FERRULE
Rigid cable	1x (0.75 to 6 mm ²) 2x (0.75 to 2.5 mm ²)	-
Flexible cable	1x (0.75 to 6 mm ²) 2x (0.75 to 2.5 mm ²)	1x (0.75 to 2.5 mm ²) 2x (0.75 to 1.5 mm ²)

TECHNICAL INFORMATION

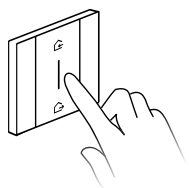
20 A Smart DIN contactor - FC80CC

REMOTE CONTROL COMMANDS

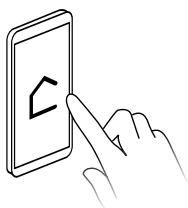
Operation on-site, directly with the front face pushbutton of the device



Via the General Scenario Wireless Command "Departure/Arrival"



Via smartphone with the Home + Control smartphone app

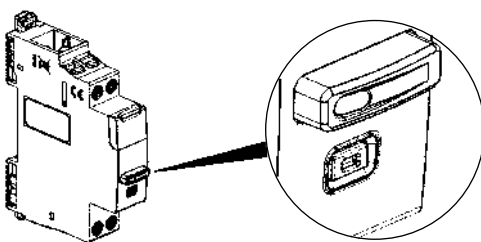


By voice through a vocal assistant



VISUALIZATION OF THE OPERATING MODE OF THE DEVICE AND CONTACTS

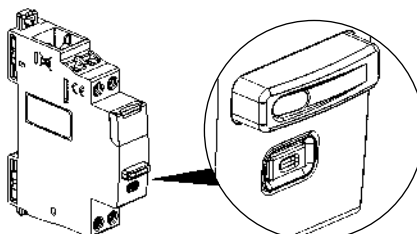
Via the LED, on the pushbutton command



COLOUR	STATUS	OPERATION
	OFF	Manual mode and opened Contact: (OFF)
	Slow blinking	Manual mode and opened Contact: (OFF)
	Slow blinking	Automatic mode and closed Contact: (ON)
	Fixed	Manual mode and closed Contact: (ON)

VISUALIZATION OF THE SETUP

Via the LED on the settings button



COLOUR	STATUS	OPERATION
	Fixed	Temporary status. Device not connected to the radio network
	Fixed	Temporary status. Device correctly paired to the radio network (when the radio network is still open)
	OFF	Normal status. Device paired to the radio network (when the radio network is closed)

CONFIGURATIONS AND ACTIONS

Refer to the online guides and to the indications provided through the "Home + Control" application.

SELF-PROTECTION

The load is disconnected (OFF) if the current exceeds the rated value for more than 7.5 seconds.

LABELLING

Circuit identification by way of a label inserted in the label holder situated on the front of the product.



TECHNICAL INFORMATION

20 A Smart DIN contactor - FC80CC

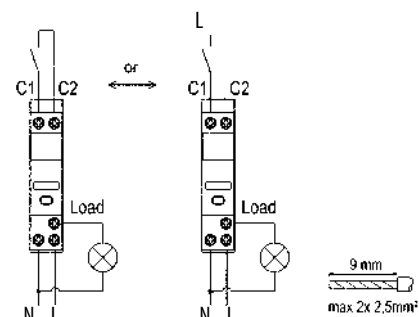
GENERAL FEATURES

MARKING OF THE CONNECTED LATCHING RELAY

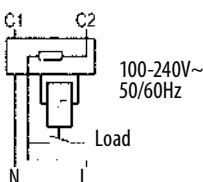
Markings of the front side



Lateral markings



Markings on the upper side



Terminal markings



Sectioning distance:

micro-gap contact according to the standard EN 60669-2-1

Rated insulation voltage (Ui):

Ui - 250 V

Degree of pollution:

2

Rated impulse withstand voltage (Uimp):

4 kV

Influence of altitude:

No influence up to 2 000 m

Assigned frequency:

50/60 Hz

Rated operational current (Ie) depending on utilization category:

AC-7a or AC1 (heaters): Ie = 20 A

AC-7b or AC3 (electric motors): Ie = 10 A

Rated voltage of use (Ue):

Ue = 100 - 240 V ~

Resistance to short-circuits:

Presumed short circuit current 1500 A according to EN 60669-2-1

Thermal stress: from 15 000 A² EN 60669-2-1

Recommendations:

For the device protection against short circuits according to the conditional current, it is recommended to use a circuit breaker or fuse gG rated current ≤20 A.

Endurance:

20 000 000 operations without load

10000 operations under fluo load according to EN 60669-2-1

10000 operations under inductive load according to EN 60669-2-1

10000 operations under load SBL650W according to EN 60669-2-1

200000 operations under resistive load according to EN 60669-2-5

Characteristics of the radio interface:

Standard IEEE 802.15.4

Frequencies from 2.4 to 2.4835 Ghz

Transmitter output power <100mW

Dielectric resistance:

2000V between front face and rail

750V between upstream and downstream

Protection degree:

Protection index of terminals against direct contacts: IP2X (IEC/EN 60529)

Protection index of the front face against direct contacts: IP3XD (IEC/EN 60529)

Class II, front panel with faceplate

Class of protection against mechanical impacts IK04 (IEC/EN 62262)

Vibrations and shaking resistance:

Vibrations: 10 to 55 to 10Hz single amplitude 0.75mm

Shaking: 1000m / s² (6 x 1ms)

Plastic material:

Self-extinguishing polycarbonate.

Heat and fire resistant according to IEC/EN 60669-2-1, glow-wire test at 960°C

Classification UL 94 V0 (1.5 mm)

Ambient operating temperature:

Min -5°C - Max +45°C

Ambient storage temperature:

Min. -40°C - Max. +70°C

Average weight:

78g

Volume when packed:

0.17 dm³

COMPLIANCE AND APPROVALS

Compliance to standards:

NF EN 60669-2-1 / IEC 60669-2-1

Environment respect

Compliance with European Union Directives:

Compliance with Directive 2002/95/EC of 27/01/03

Compliance with the Directive 91/338/EEC of 18/06/91

Compliant with regulation REACH

Conformity with electromagnetic interference (EMC):

Compliant EN 301 489-1, IEC 60669-2-5, NF EN 60669-2-1

Immunity to shock waves

Radio transmission

Immunity to electrical transients in bursts.

Immunity to conducted disturbances induced by radio fields

Immunity to radiated fields

Electrostatic discharge immunity

Immunity to voltage dips and short break

Compliance mission radiated according to NF EN55032

Plastic materials:

Halogen-free plastics.

Marking of parts according to ISO 11469 and ISO 1043.

ISO 7000: 2004, Graphical symbols to be used on equipment

Packaging:

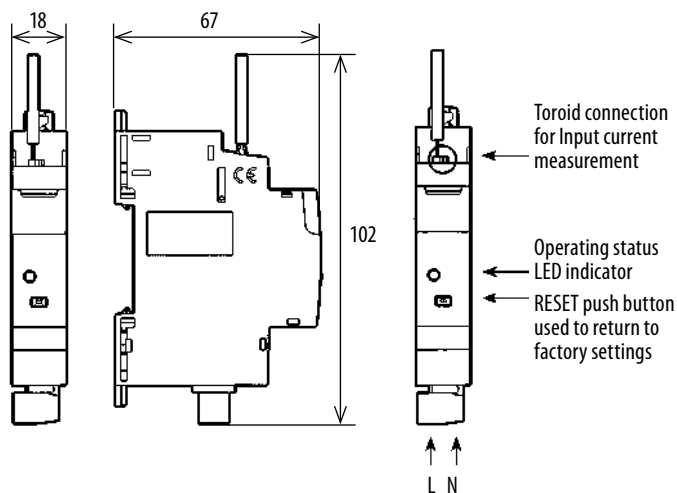
Design and manufacture of packaging in accordance with Decree 98-638 of 20/07/98 and Directive 94/62 / EC.

TECHNICAL INFORMATION

Smart DIN meter - F20T60A



F20T60A



DIN meter. For measuring the energy consumption of the entire single-phase system of the house (instantaneous, daily, monthly), as well as of individual power lines. A toroid for the input current measurement is provided. Power supply 100-240 Va.c. 1 DIN module. (Single-phase systems only).

TECHNICAL FEATURES

Mechanical characteristics:

Protection against impacts: IK 04
Protection against solid bodies/liquids:
IP 20 assembled product

Material characteristics:

Module: PC 10% GF
Halogen-free
UV resistant

Self-extinguishing:

+ 850°C/30 s for insulating parts holding live parts in place.
+ 650°C/30 s for the other insulating components.

Electrical characteristics:

Voltage: 100/240 V~
Intensity max of measurement (coil): 72 A
Frequency: 50/60 Hz
Power: < 100mW
Standby consumption: 1 mA
Zigbee technology 2.4 GHz to 2.4835 GHz
Power level: REC 70-03: < 20 dBm
Range: 200 m of unobstructed space
10 m between products

Climate characteristics:

Storage temperature: 0°C to +45°C
Usage temperature: +5°C to +45°C

CONNECTION

Terminal type: screw
Terminal capacity: 1 x 2.5 mm² - 2 x 1.5 mm²
Stripping length: 7 mm
Screwdriver: 3 mm flat

CARE

Clean the surface with a cloth.
Do not use acetone, tar-removing cleaning agents or trichloroethylene.
Resistant to the following products: Hexane (EN 60669-1), methylated spirit, soapy water, diluted ammonia, bleach diluted to 10%, window-cleaning products, pre-impregnated wipes.

Caution: Always test before using special cleaning products.

STANDARDS AND APPROVALS

Compliant with installation and manufacturing standards. The undersigned, BTICINO, declares that the radio-electric equipment type (F20T60A) complies with directive 2014/53/EU.



HOME + CONTROL app
for connected device management



TECHNICAL INFORMATION

Smart DIN load management - FC80GCS



FC80GCS



Smart DIN load management module for the monitoring of the consumptions of the electric system, the powering or disconnection of the loads, and the setting of scenarios with priority or non-priority loads. When the maximum intended power is reached, the non-priority loads are temporarily disconnected to avoid possible and annoying blackouts. It allows to measure the total energy consumption thanks to the toroid provided, and to display it on a smartphone through the Home + Control App. Through the same App, it is also possible to view the electricity consumption log, set a power/maximum consumption threshold at which to disable loads and monitor the individual electrical appliances for a precise and accurate load disconnection management. Power supply 100-240 Va.c. - 1 DIN module.

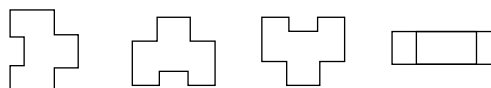
Width	1 modules 17.8 mm
Rated current	1pn 72 A AC
Rated voltage	100 - 240 V AC
Rated frequency	50/60 Hz
Input power	0.3 W max.

USE

In Smart BT DIN with Netatmo systems, together with the Home + Control App that can be downloaded free of charge from the App stores.

INSTALLATION

On EN / IEC 60715 or DIN 35 symmetrical rail
Vertical, Horizontal, Flat



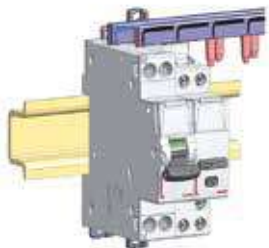
TECHNICAL INFORMATION

Smart DIN load management - FC80GCS

ROW POSITIONING

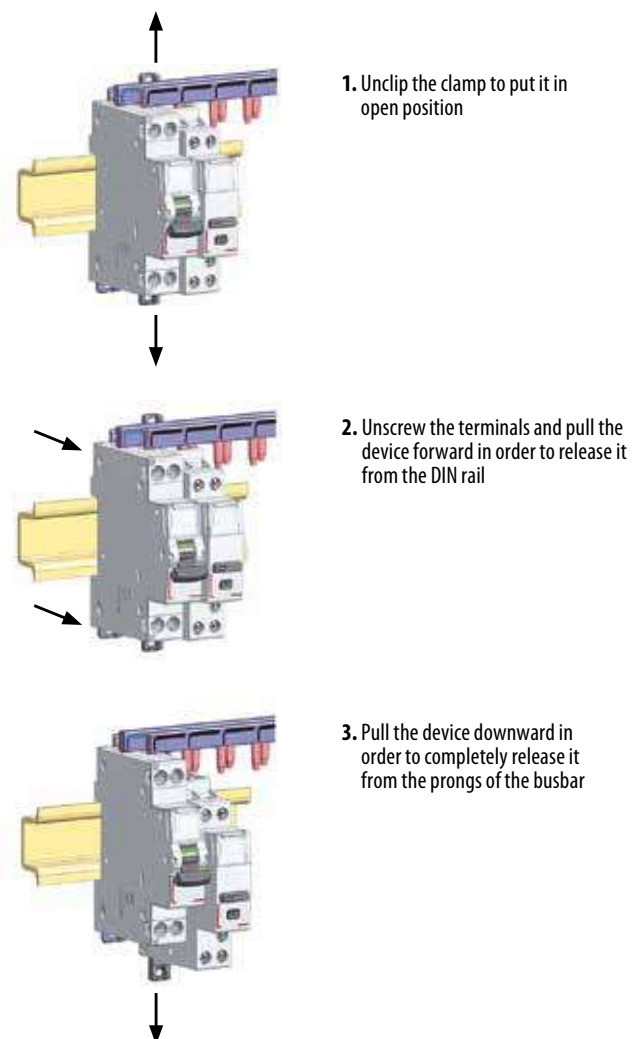
The product shape and the positioning of the terminals allow the passage of single-line, three-lines and plug-in supply busbars in the upper part of the product.

Then, it is possible to freely choose the position of the Connected Latching Relay in the row and to connect by supply busbar the other devices put on the same DIN rail.



MODULE MAINTENANCE

It is possible to switch a Connected Latching Relay in the middle of a row supplied with an upstream busbar without disconnecting the other devices on the same DIN rail.

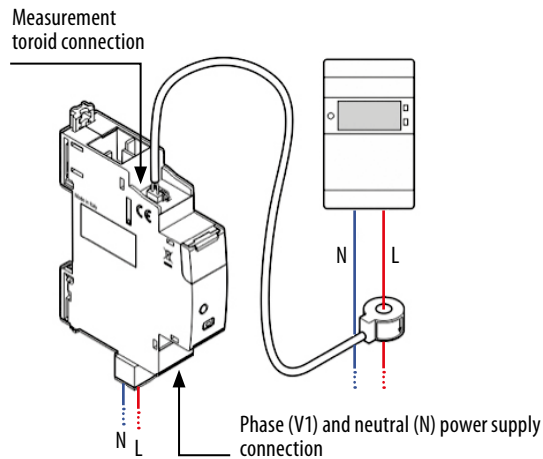


1. Unclip the clamp to put it in open position

2. Unscrew the terminals and pull the device forward in order to release it from the DIN rail

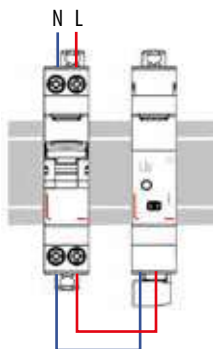
3. Pull the device downward in order to completely release it from the prongs of the busbar

CONNECTION AND COMMISSIONING



Wire the load management module with an upstream circuit breaker.

The connection of the toroid to the module is made through the specific connector, already wired.



RECOMMENDED TOOLS

For the terminals: screwdriver flat-blade 3.5 mm
For DIN rail fixing: screwdriver flat-blade 5.5 mm (6 mm max)

CONNECTION

Screw terminals:
Terminal type: cage
- Depth: 9 mm
- Stripping length recommended: 9 mm
- Screw head: 3.5 mm slotted
- Type of screw: M3,5
- Tightening torque: 0.5 Nm

SECTION OF COPPER CABLES THAT CAN BE CONNECTED

	WITHOUT FERRULE	WITH FERRULE
Rigid cable	1x (1 to 2.5 mm ²) 2x (1 to 1.5 mm ²)	-
Flexible cable	1x (1 to 2.5 mm ²) 2x (1 to 1.5 mm ²)	1x (1 to 1.5 mm ²)

TECHNICAL INFORMATION

Smart DIN load management - FC80GCS

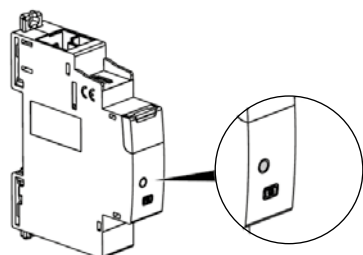
CONNECTION AND COMMISSIONING



Real time data display and log through the smartphone with the Home + Control App.

VISUALIZATION OF THE SETUP

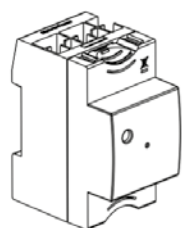
Via the LED on the settings button



COLOUR	STATUS	OPERATION
	Fixed	Temporary status. Device not connected to the radio network
	Fixed	Temporary status. Device correctly paired to the radio network (when the radio network is still open)
	OFF	Normal status. Device paired to the radio network (when the radio network is closed)

INSTALLATION OF A LOAD MANAGEMENT MODULE IN A CONNECTED INSTALLATION.

1. To create a connected installation, the system requires a gateway module (FC80GT) for connection to the Internet.



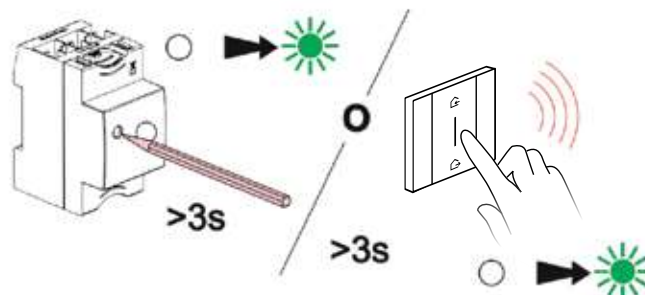
2. Set the main switch to OFF, wire the installation and then turn it ON, so that all the devices connected to the installation are powered at the same time.



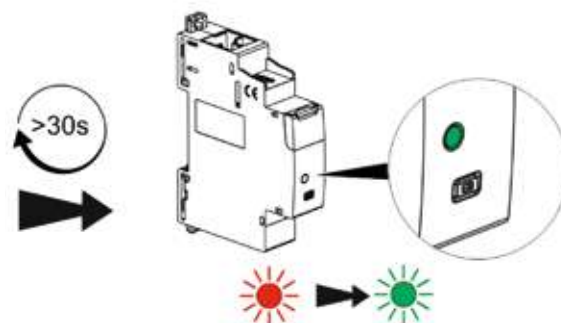
Disconnect the power supply from the system.

Power up the system once the installation has been completed and checked

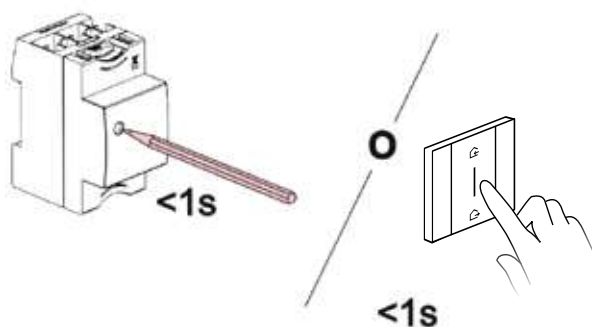
3. Press the pushbutton on the front of the DIN module for more than 3 seconds, or if using the IN / OUT wireless scenario control press and hold the centre of the control until the indicator light turns green, and then release.



The configuration LEDs of the "... with Netatmo" devices in the system will turn green steady.



4. To complete the configuration, briefly press and release the pushbutton on the front of the DIN module or the centre of the IN/OUT wireless scenario control.



The configuration LEDs of all the "... with Netatmo" devices in the system will go off.

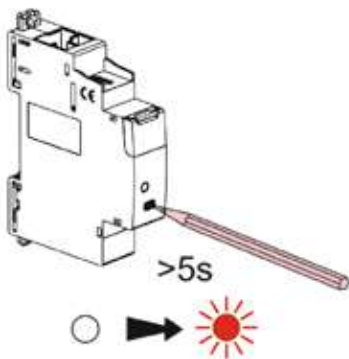
TECHNICAL INFORMATION

Smart DIN load management - FC80GCS

CONNECTION AND COMMISSIONING

DISASSOCIATING A LOAD MANAGEMENT MODULE FROM A CONNECTED SYSTEM

Press the pushbutton on the front of the DIN module associated with the system for more than 5 seconds until the LED turns on red steady.
The module will no longer be associated with the system.



OTHER CONFIGURATIONS AND ACTIONS

All other configurations, the programming of scenarios and schedules and related customizations, are made from your smartphone using the Home + Control App.

LABELLING

Circuit identification by way of a label inserted in the label holder situated on the front of the product.



GENERAL FEATURES (Measurement toroid)

Max measured primary current

72 A AC

Transformer ratio

1000: 1

Thermal short circuit rated current

$I_{th} = 3$ kA effective / 1 s

Rated dynamic current

$I_{dyn} = 9$ kA

Level of rated insulating voltage

3 KV effective value 50 Hz / 1 min

Insulation class

Class A according to IEC61869-1 and IEC61869-2

Measurement precision

Class 1 according to IEC61869-1 - (+/-1%) with I_{pn} 63 A

Impulse withstand voltage U_{imp}

4 kv

Overvoltage category

II

GENERAL FEATURES

Degree of pollution

2

Influence of altitude

No influence up to 2 000 m

Assigned frequency

50 / 60 Hz

Rated voltage of use (U_e)

100 - 240 V ~

Recommendations

For the device protection against short circuits according to the conditional current, it is recommended to use a circuit breaker or fuse gG.

Characteristics of the radio interface

Standard IEEE 802.15.4

Frequencies from 2.4 to 2.4835 Ghz

Transmitter output power <100mW

Protection degree

Protection index of terminals against direct contacts:

IP2X (IEC/EN 60529)

Protection index of the front face against direct contacts:

IP3XD (IEC/EN 60529)

Class II, front panel with faceplate

Class of protection against mechanical impacts IK04

(IEC/EN 62262)

Plastic material

Self-extinguishing polycarbonate

Classification UL 94: V0 (1.5 mm)

Operating temperature

Min. = - 5 °C Max. = + 45 °C.

Storage temperature

Min. = - 40 °C Max. = + 70 °C.

Average weight

91 g

Packaging volume

0.62 dm³

COMPLIANCE AND APPROVALS

Compliance to standards

EN 61869-1

EN 61869-2

EN 61010-1

Environment respect – Compliance with European Union

Directives:

Compliance with the 2011/65 / EU Directive, known as "RoHS II", prohibits the use of hazardous substances such as lead, mercury, cadmium, hexavalent chromium, flame retardant Polybrominated diphenyl ethers (PBDE) and Polybrominated biphenyls (PBB).

Compliance with the Directives 91/338 / CEE of 18/06/91 and Decree 94-647 of 27/07/04.

Compliance with regulation REACH

Plastic materials

Halogen-free plastics.

Marking of parts according to ISO 11469 and ISO 1043.

EN ISO 306: 2004 Plastic - Thermoplastic materials -

Determination of the softening temperature

Vicat (VST) (ISO 306: 2004).

ISO 7000: 2004, graphic symbols to be used on equipment - index and synopsis.

Packaging:

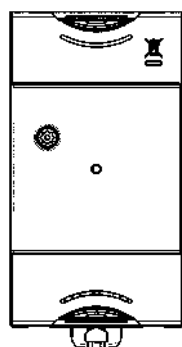
Design and manufacture of packaging in accordance with Decree 98-638 of 20/07/98 and Directive 94/62 / EC.

TECHNICAL INFORMATION

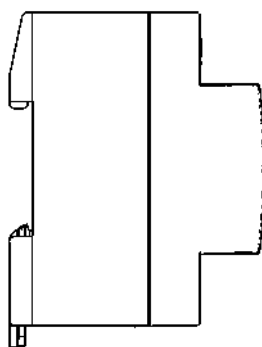
Smart DIN gateway - FC80GT



FC80GT



2.5 DIN modules



Smart DIN gateway for remote control of lights and sockets through the connected FC80RC remote contactor, the connected FC80CC contactor and the FC80GCS load management module, using a smartphone with the HOME + CONTROL App and/or a voice assistant. Zigbee/IP Wi-Fi communication. It can be used as an alternative to the L/N/NT4500C flush mounted Gateway of the connected Livinglight series and the K4500C flush mounted Gateway of the connected Living Now series.

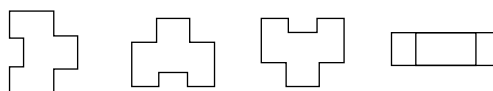
Width	2.5 modules - 45 mm
Energy consumption	2W Max
Rated voltage	100 - 240V AC
Rated frequency	50Hz / 60Hz

USE

In Smart systems, it allows connection of the connected devices to the home network. For the control of the devices using the smartphone it is necessary to download and install the Home + Control App. The devices can be controlled by voice through voice assistants.

INSTALLATION

On EN / IEC 60715 or DIN 35 symmetrical rail
Vertical, horizontal, on the side, upside down



HOME + CONTROL app
for connected device management



TECHNICAL INFORMATION

Smart DIN gateway - FC80GT

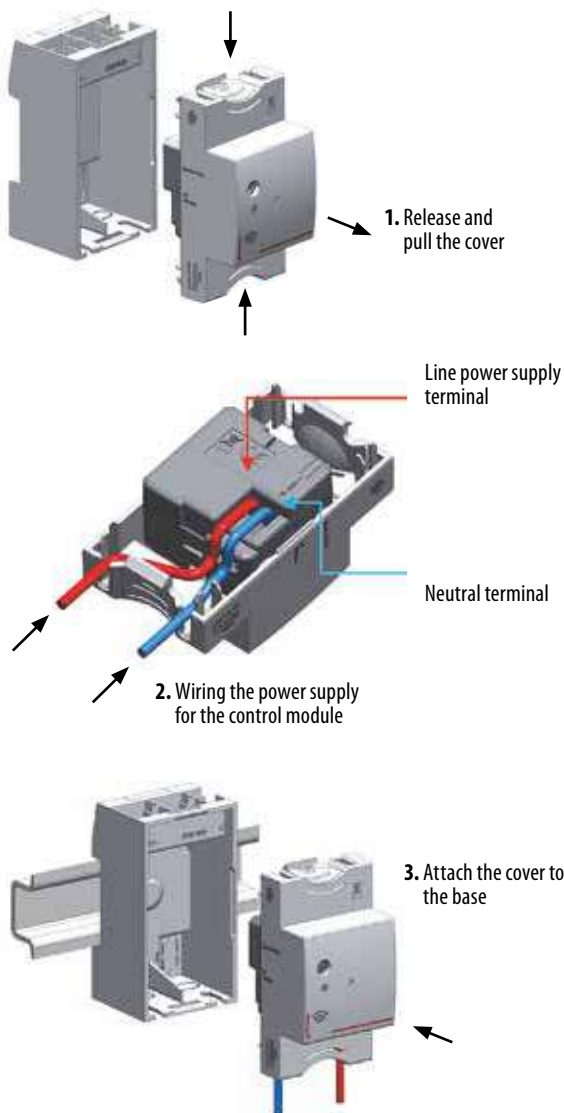
ROW POSITIONING

The product shape and the positioning of the terminals allow the passage of single-line, three-lines and plug-in supply busbars in the upper part of the product.

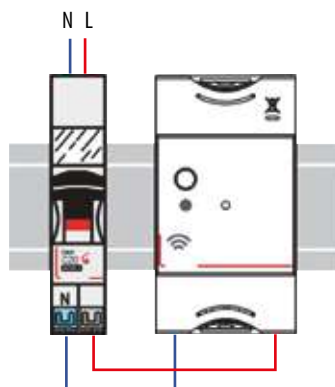
Then, it is possible to freely choose the position of the GATEWAY module in the row and to connect by supply busbar the other devices put on the same DIN rail.



POWER SUPPLY WIRING



WIRE THE GATEWAY MODULE MAKING SURE TO INSTALL A THERMAL MAGNETIC CIRCUIT BREAKER UPSTREAM THE SAME



RECOMMENDED TOOLS

For the terminals: screwdriver flat-blade 3.5 mm
For DIN rail fixing: screwdriver flat-blade 5.5 mm (6 mm max)

CONNECTION

Screw terminals:

Terminal type: cage

- Depth: 9 mm
- Stripping length recommended: 9 mm
- Screw head: 3.5 mm slotted
- Type of screw: M3.5
- Tightening torque: 0.5 Nm

SECTION OF COPPER CABLES THAT CAN BE CONNECTED

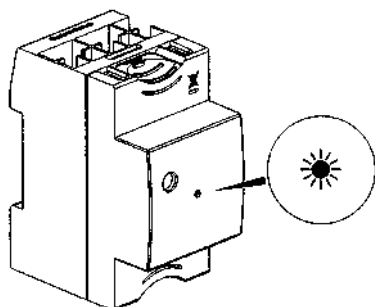
	WITHOUT FERRULE	WITH FERRULE
Rigid cable	1x (1 to 2.5 mm ²) 2 x (1 to 2.5 mm ²)	-
Flexible cable	1x (1 to 2.5 mm ²) 2 x (1 to 2.5 mm ²)	1 x (1 to 2.5 mm ²)

TECHNICAL INFORMATION

Smart DIN gateway - FC80GT

VISUALIZATION OF THE SETUP

Via the LED on the settings button



COLOUR	STATUS	OPERATION
	OFF	Normal operation
	Fixed	Transitory status. Initial phase
	Fixed	Transitory status. Open the network to associate the connected devices
	Fixed	Transitory status. Configuration initialization phase (restore the factory settings)

CONFIGURATIONS AND ACTIONS

Refer to the online guides and to the indications provided through the "Home+Control" application.

Influence of altitude:

No influence up to 2 000 m

Frequency:

50 / 60Hz

Rated voltage of use (Ue):

Ue = 100 - 240 Vac

Recommendations:

For the protection of the device against short circuits we recommend the use of a circuit breaker with fuse rated current $I_G \leq 16$ A.

Characteristics of the radio interface:

Standard IEEE 802.11

Standard IEEE 802.15.4

Frequencies from 2.4 to 2.4835 Ghz

Transmitter output power <100 mW

Protection degree:

Protection index of terminals against direct contacts:

IP2X (IEC/EN 60529)

Protection index of the front face against direct contacts: IP3XD

(IEC/EN 60529)

Class II, front panel with faceplate

Plastic material:

Self-extinguishing polycarbonate.

Operating temperature:

Min. = - 5°C Max. = + 45°C.

Storage temperature:

Min. = - 40°C Max. = + 70C.

Average weight:

Weight = 86 g

Packaging volume:

0,62 dm³.

COMPLIANCE AND HOMOLOGATION

Compliance to standards:

EN 301 489-1

Respect for the environment

Compliance with European Union Directives:

Compliance with Directive 2002/95 / EC of 27/01/03 known as "RoHS" which provides for a restriction on the use of hazardous substances such as lead, mercury, cadmium, hexavalent chromium and polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) brominated flame retardants from 1 July 2006

Conformity with electromagnetic interference (EMC):

Compliance with EN 301 489-1:

Immunity to electrical transients in bursts

Shock wave immunity (2KV)

Plastic Material:

Halogen-free plastic materials.

Marking of parts according to ISO 11469 and ISO 1043.

ISO 7000: 2004, graphic symbols to be used on equipment - index and synopsis.

Packaging:

Design and production of packaging in accordance with Decree 98-638 of 20/07/98 and Directive 94/62 / EC.



BTicino SpA
Viale Borri, 231
21100 Varese - Italy
www.bticino.com

AD-EXBD/NET21C/GB - Version 5/2021