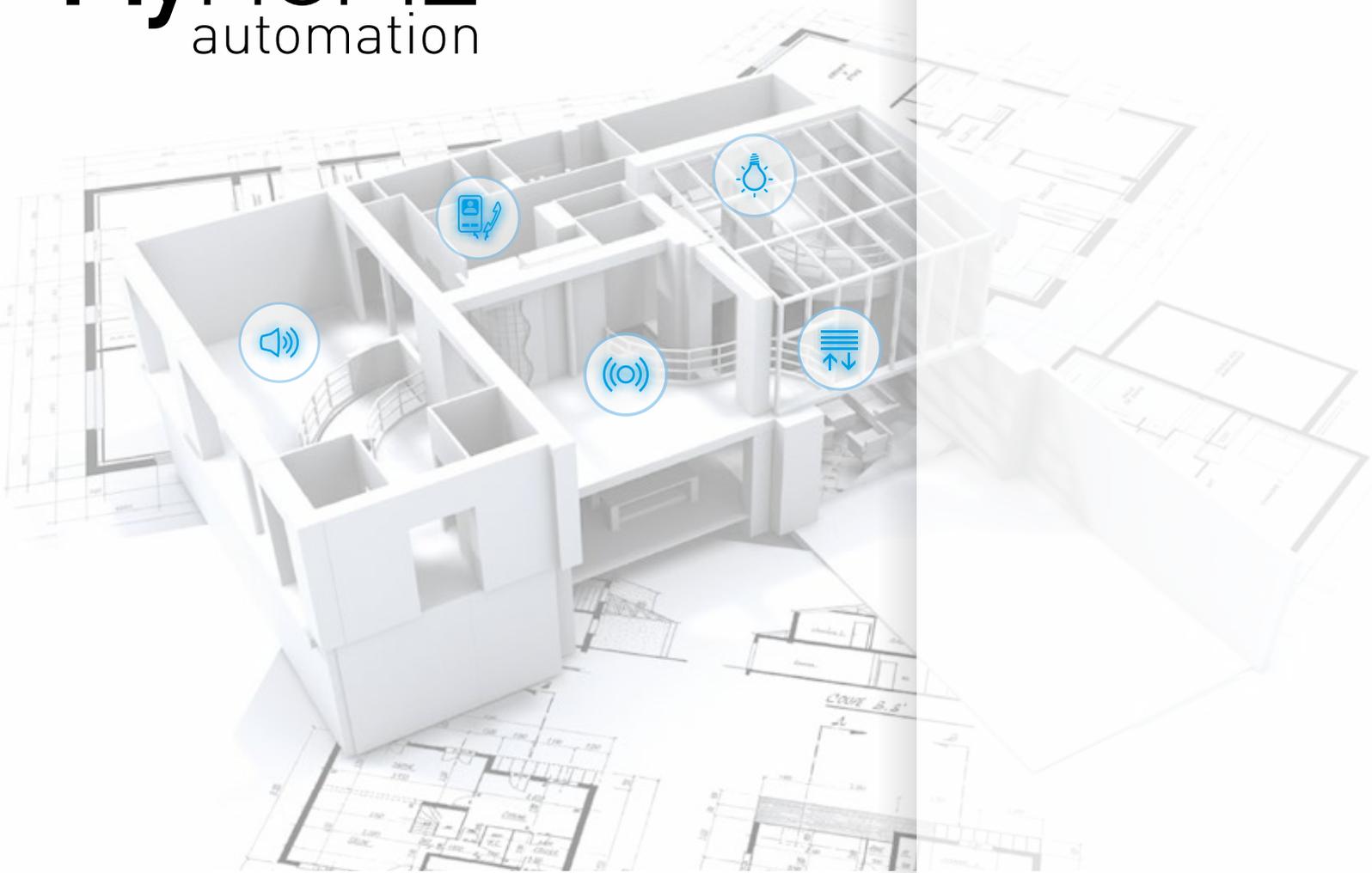


MyHOME automation



GUIDELINES FOR DESIGN AND INSTALLATION

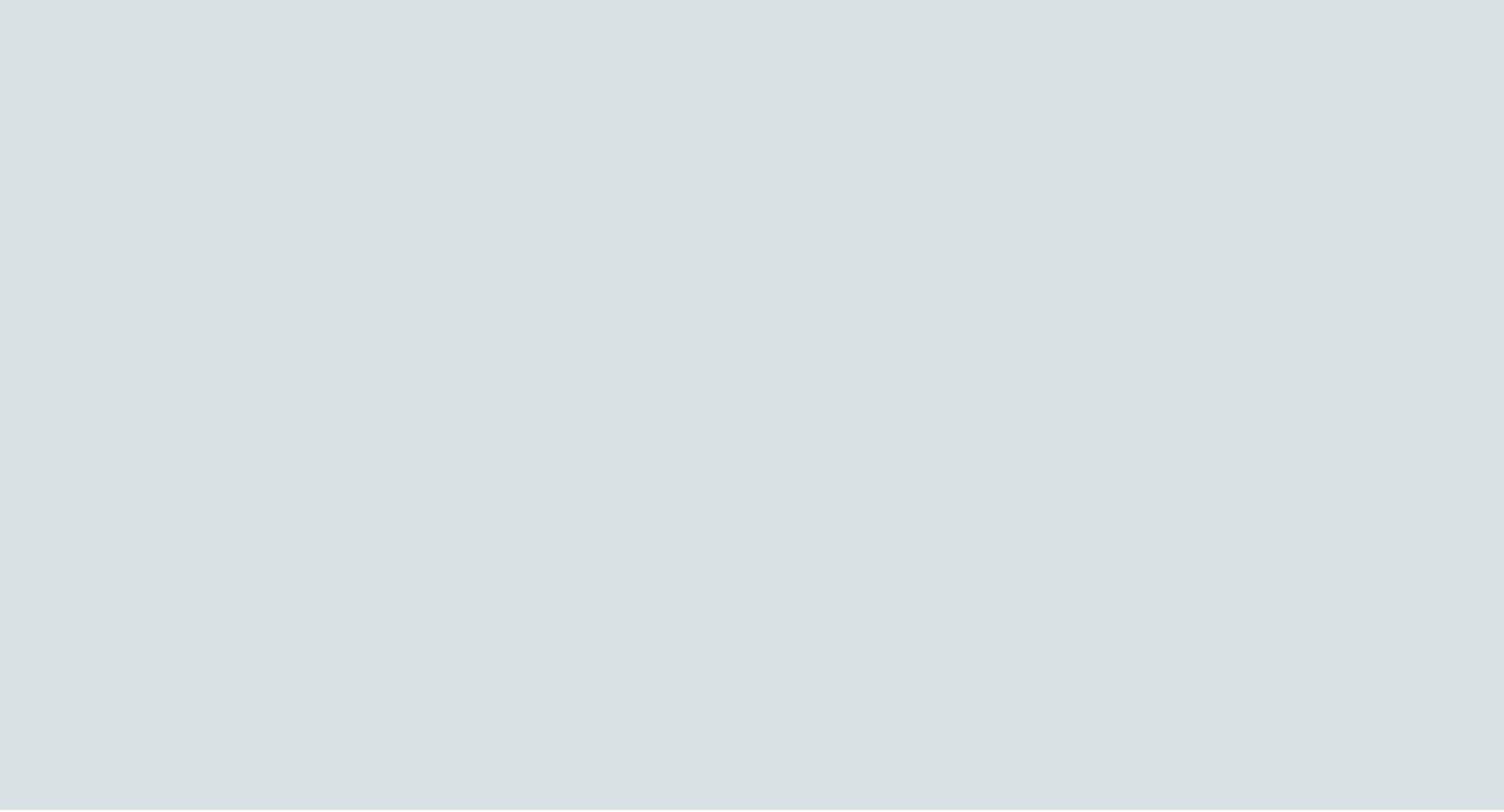
INTRODUCTION

LIGHTS AND AUTOMATION

ENERGY MANAGEMENT Temperature control – Consumption Display
Load control management

SYSTEM INTEGRATION AND CONTROL

CATALOGUE



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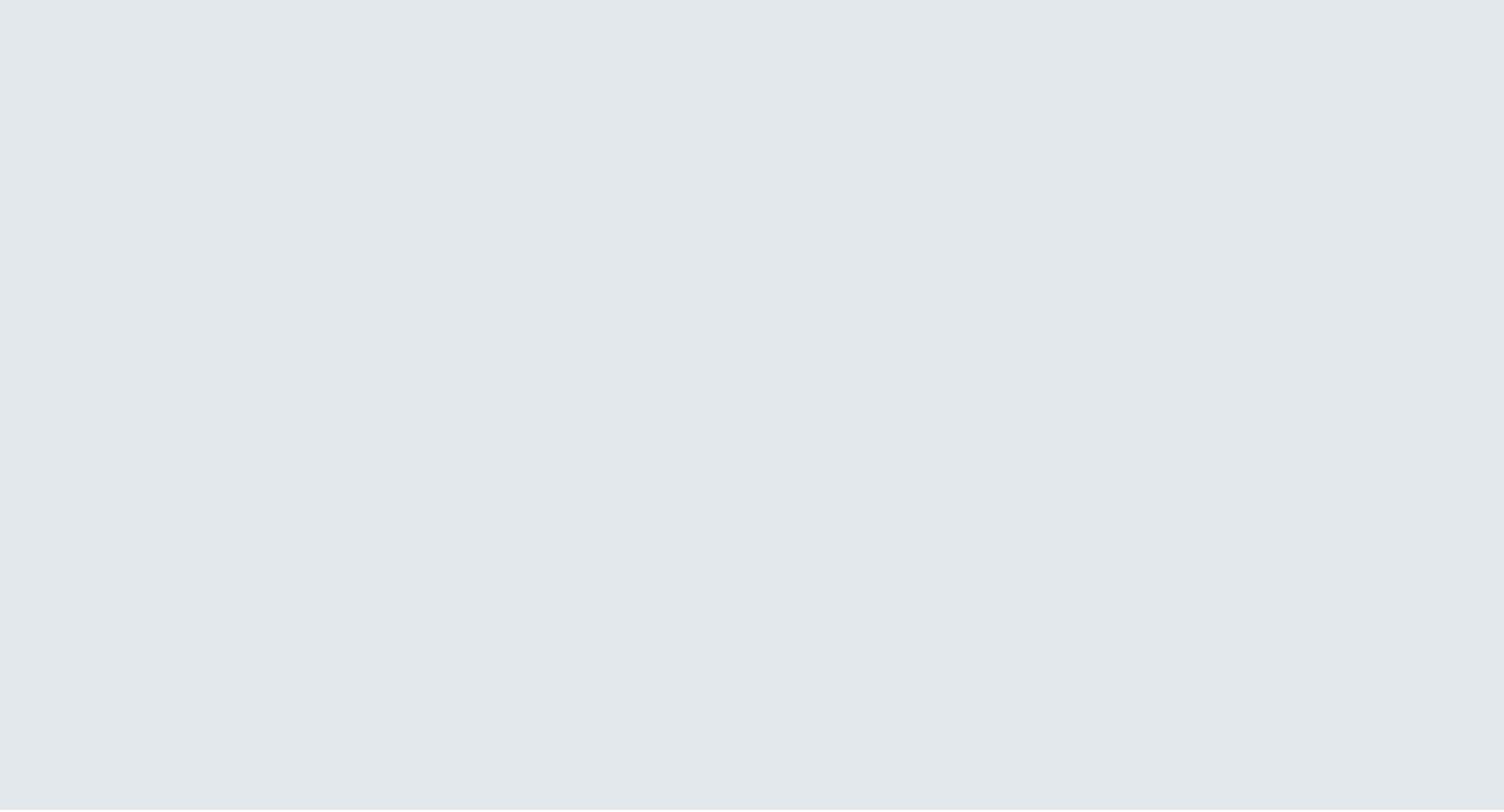
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GENERAL FEATURES

MyHOME HOME AUTOMATION

Through a wide range of devices MyHOME offers simple and efficient solutions to meet safety, comfort, energy saving and communication needs which are applicable in any type of home and tertiary sector. My HOME is also the answer to the latest low energy consumption requirements in buildings; its different applications in fact allow the creation of systems that meet the requirements of the highest

energy efficiency class for buildings, required by the European Standard EN 15232.

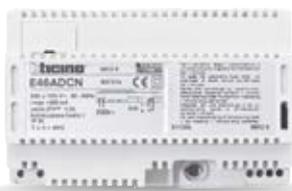
Through the use of intelligent and programmable electronic devices MyHOME makes advanced features, difficult to achieve in a traditional electrical systems, become accessible in a simple and personalized way. Moreover, its installation modularity and the functional integration of

different devices gives the freedom to choose which applications install immediately and which to integrate in the future without major structural works and with an excellent cost management. MyHOME uses the 2-wire twisted pair BUS installation technology and can also be integrated in different systems such as, for example, KNX and DALI. Furthermore, through dedicated

Temperature control probe



Lights control



Power supply



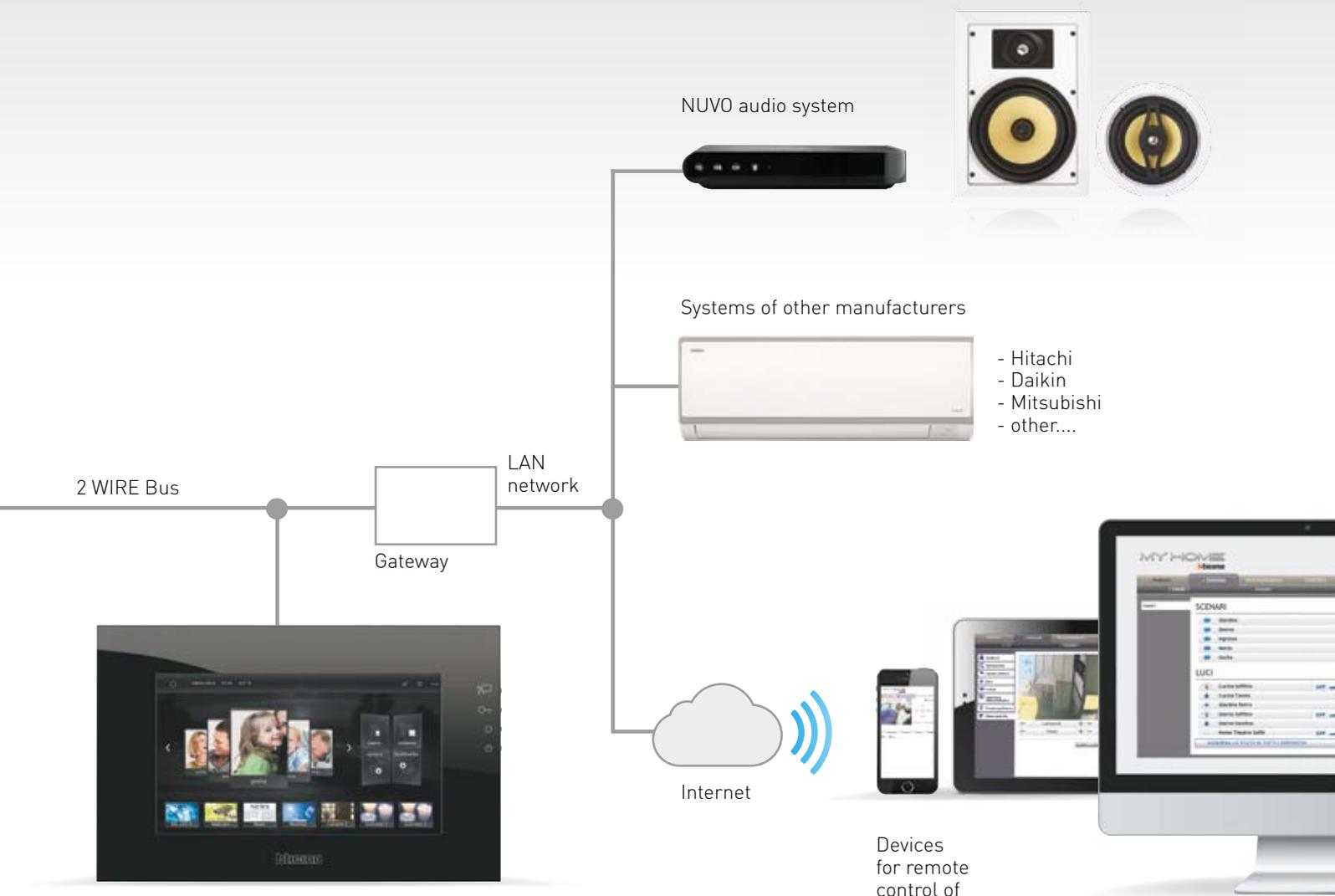
8-key control and lights general control



Touch screen functions with consumption displaying

interfaces and use of TCP/IP protocol, MyHOME is able to:

- manage the functions of the NUVO digital audio system;
- integrate with devices and systems of other manufacturers;
- manage and monitor your home even remotely using a landline, or mobile phone or an Internet connection.



MyHOME_Screen 10: device for central control of all the functions

SAFETY MyHOME



COMFORT

LIGHTING AND GENERAL LOADS MANAGEMENT¹

- light intensity adjustment,
- lights switching on and off singly, in groups or in general,
- management of LEDs, dimmable compact fluorescent lamps (CFL), halogen energy saving lamps, electronic transformers and 0-10 ballasts.

WINDOW AND SHUTTER MANAGEMENT¹

- control of curtains and shutters singly, in groups or in general,
- recalling of a preset position.
- control of watering systems and other systems with maximum flexibility and simplicity.

MANAGEMENT OF SCENARIOS³

- manual or automatic activation depending on events or conditions, lighting, motorized shutters, sound system and ideal environment temperature.



General control actuator



8-key control

FOR MORE INFORMATION REFER TO THE SECTION: ¹ Automation, ² Sound system, ³ System integration and control. ⁴ Burglar-alarm system, ⁵ Energy management - Temperature control, ⁶ Energy Management-Consumption Display ⁷ Energy Management-Load control ⁸ Video door entry system, ⁹ System integration and control



ENERGY MANAGEMENT

TEMPERATURE CONTROL AND AIR CONDITIONING ⁵

- temperature control differentiated by zones (max. 99).
- management of radiator systems, fan coils and radiant panels with ON/OFF and proportional 0-10V valves,
- splitter management.

CONSUMPTION MANAGEMENT ⁶

- instantaneous display of water, gas and electricity consumptions,
- accounting and quantitative assessment of the economic cost.

LOADS MANAGEMENT ⁷

- management of the power consumption of household appliances in order to prevent activation of the limiter.

CENTRAL CONTROL OF THE FUNCTIONS

LOCAL CONTROL ⁹

- use of Touch screen devices,
- use of mobile devices (Ipad and Iphone) provided with a specific App MyHOME.

REMOTE CONTROL ⁹

- management home automation functions by telephone commands or direct connection to the system via the Internet,
- MyHOME_Web service for management through customized Web pages and specific APP for Android and iOS devices



MyHOME_Screen 3,5:
daily power consumption graph



Touch screen MyHOME_Screen 10
for local management of all functions

MyHOME: AN OPEN SYSTEM

My Home is an open system that easily integrates, without any changes to the system, with the best technologies and third-party systems and devices.

This is achieved in two ways:

- by means of the MyHOME_Link integration platform which involves the use of the Driver Manager F459

device configured for interfacing, through the TCP/IP protocol, of temperature control systems such as Mitsubishi Electric, Daikin etc .. All the heating and cooling functions can be operated by Touch screen and by probes or thermostats for each zone of the system. In the same way it is possible to manage

even the NUVO sound system using MyHOME control devices such as for example, the 8-key control and the 4 scenarios control.



BUS



Driver manager F459

LAN Network

NUVO audio system



Systems of other manufacturers:

Air conditioning systems



Lighting with RGB lamps



Weather stations and sensors management



MyHOME

- through the use of a communication protocol called Open Web Net (Open Protocol for Electrical Network) developed by Bticino and made available through the MyOpen Community for integration with standard Konnex, BACNET, DALI and TCP / IP devices. For more information visit the website http://www.professionisti.bticino.it/integrazione_myhome/

MyHOME

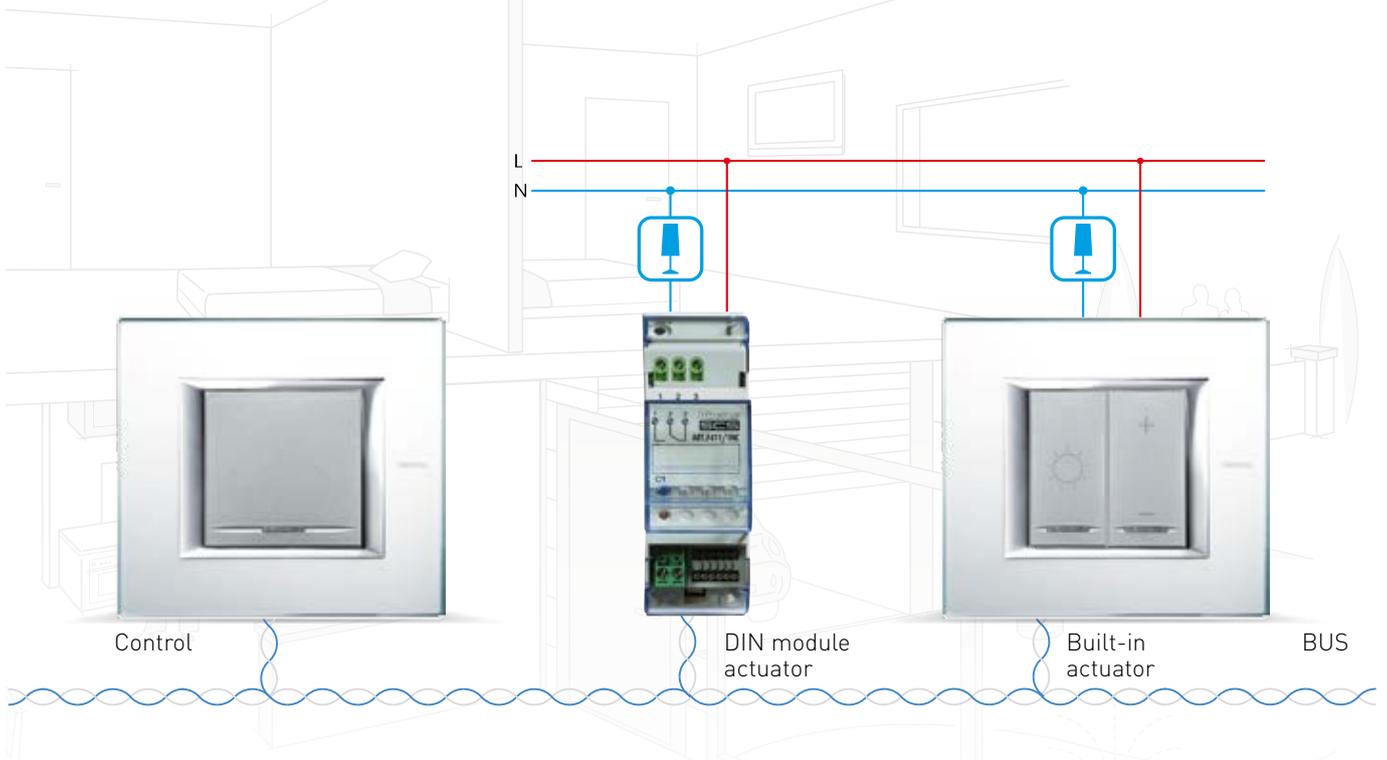


Web Server

DALI dimmer actuator DALIdimmer

 KNX Lighting management in the service sector	 BACnet Supervision	TCP/IP Internet communication	 DALI Supervision monitoring
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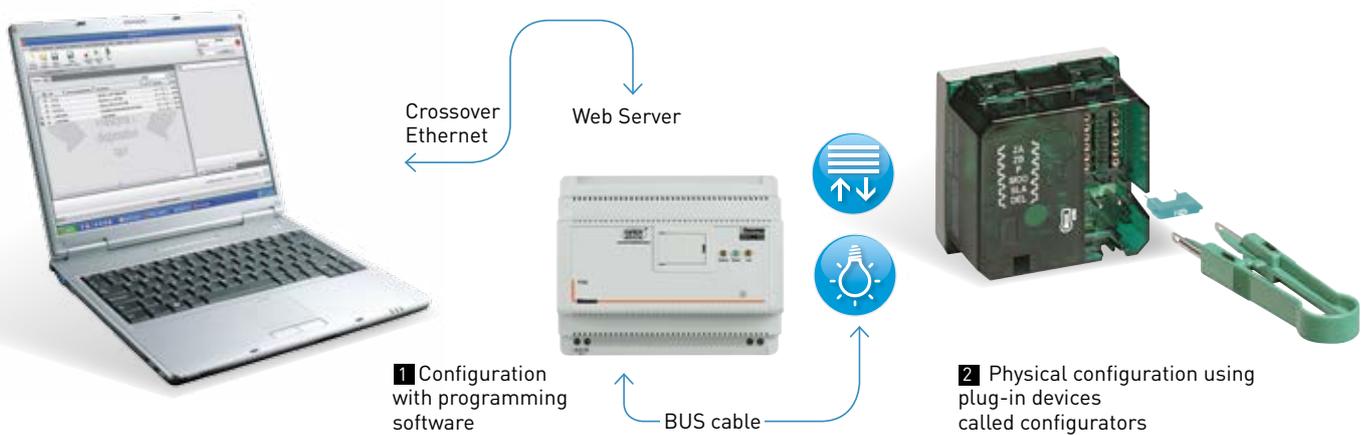
BUS TECHNOLOGY



FEATURES

BUS technology is based on the use of devices connected to each other by a cable (BUS) with two conductors, used for the transport of information and low voltage power supply (27 Vdc). Through appropriate interfaces, the MyHOME BUS systems can be easily integrated into BUS systems with different communication protocols such as Konnex standard, Dali etc. and extended with radio ZigBee control devices.

DEVICES CONFIGURATION



1 Configuration with programming software

2 Physical configuration using plug-in devices called configurators

AN INTERFACE FOR EVERY NEED



BASIC CONTROLS



Basic control



Soft touch control

Scenario control



Capacitive control



Remote control and IR receiver



Control with badge transponder

Interacting with MyHOME is easy and intuitive, thanks to the wide range of digital devices ranging from the simple immediacy of basic commands, that enable the command of lights or shutters or

recalling preconfigured scenarios with the pressure of simple buttons, to the great potential offered by the most sophisticated and complete devices such as Touch Screen controls.

PRESENCE SENSORS



Passive infrared sensor for the detection of movement and the lighting level



IR sensor of Green Switch series for evolved lighting management

MyHOME_Screen 10 represents the latest example of innovation and technological evolution as it allows to use customizable icon menus to manage all home automation functions and enjoy multimedia content from other external devices and from the Internet. The device can also be used as video handset.

TOUCH SCREEN DEVICES



Local display 1.2



MyHOME_Screen 3.5



MyHOME_Screen 10

ADVANCED VIDEO HANDSETS



AXOLUTE Video display with menu for management of home automation functions

CENTRAL CONTROL DEVICES BY LAN NETWORK AND INTERNET



Mobile access



Vocal access with SMS message



IPad with MyHOME application BTicino for functions local control.

GENERAL FEATURES

DRESS MyHOME AS YOU WANT

The originality of the MyHOME system is the perfect integration in the AXOLUTE, LIVINGLIGHT and MATIX series to create synergy and harmony among the devices in the system and the decor of the house.

The functions are in fact built into the device and can be "dressed" with the same aesthetic of the whole electrical system; from the simple digital control to the most evolved Touch device.

This page shows some aesthetic combinations; for a full and detailed understanding of all the available finishes consult the catalogs of individual series.

MATIX



White



Cobalt



Green tea



Coffee brown

LIVING-LIGHT



Maple



Titanium graphite



Deep green

Livinglight ^{Air}

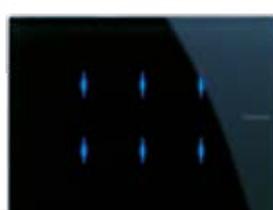


Satin nickel

AXOLUTE



White
AXOLUTE



NIGHTER



Cherrywood

Axolute ^{Air}



Anthracite

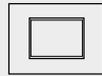


Ivory

Aesthetic combinations



White device



Square Cover plate

DEVICES COMMON TO THE THREE SERIES



Standard burglar alarm central unit



Video handset Polyx Memory Display



Palladium



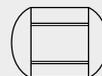
White device



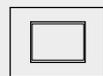
Tech gray device



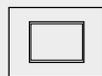
Anthracite device



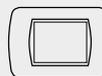
Round Cover plate



Air Cover plate



Square Cover plate



Living International cover plate



Mat white



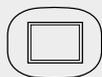
White device



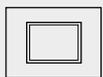
Tech gray device



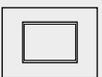
Anthracite device



Elliptical Cover plate



Square Cover plate

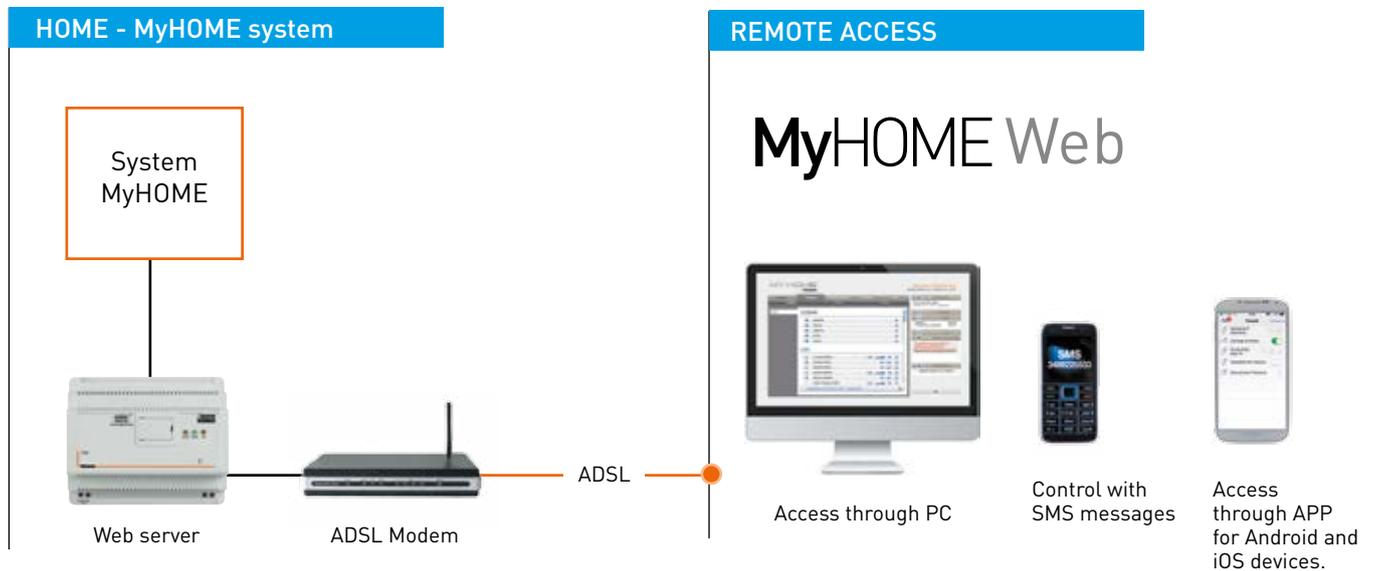


Air Cover plate



MyHOME_Screen 10

MyHOME_Web: PORTAL FOR REMOTE HOME MANAGEMENT.



MyHOME_Web is an innovative service which allows to remotely control the functions of the MyHOME system and be promptly informed of any alarm which may occur. By using a Smartphone or a PC connected to the Internet, it will be possible to interact remotely with the system.

MyHOME_Web IS DIVIDED INTO TWO AREAS:

1 Installer Area

dedicated to the MyHOME installer to register the systems made. Following customer's request, the installer can activate the Remote Assistance service, which gives the possibility of remotely monitoring the home, and receive real time notifications in case of faults.

2 Customer Area

aimed exclusively to those who are interested in the Telemangement, i.e. the remote control of all MyHOME home automation functions. This area allows to have exclusive services which can only be realized with the portal (notifications in case of danger, web scenarios activation, etc.).

For more information, see the Home automation section of MyHOME Web Site www.bticino.com



CONNECTION SAFETY AND PROTECTION

The most stringent security policies were adopted in the development of the MyHOME_Web portal to ensure high levels of:

- data protection from unauthorized access;
- safeguard of the accuracy and completeness of the information;
- accessibility of data and information when required.

For the characteristics described, the service has been certified **ISO27001 "Information technology - Security management systems"**.

ENERGY SAVING WITH MyHOME SAVING ENERGY HAS NEVER BEEN SO EASY.

MyHOME, THE WINNING COMBINATION

Displaying information on energy consumption and managing and controlling energy loads; this is what THE NEW MyHOME solutions deliver to end users - making them very much more

aware of their energy use, be it to meet their "green aspirations" or their desire to make financial savings.



VISIBILITY DRIVES SAVINGS

An aware user is one that saves with resulting benefits for the environment and in reduced costs. Studies have shown that displaying energy consumption

results in users changing there (bad) routines or correcting faults which result in savings of 10 to 15%.

WITH MyHOME IT IS POSSIBLE

- Create a living space with maximum comfort, only using the necessary energy and heat..
- Improve the energy class of the building, and therefore also of its economic value.

MyHOME_Screen 10



MyHOME_Screen 3.5

TO ENSURE ENERGY EFFICIENCY. WITH MyHOME IT'S EASY

BUS-SCS MyHOME



Zone temperature control

HEATING ONLY WHEN AND WHERE NEEDED.

Using this function, the user can decide the temperature of each individual room based on its use and the time of day. It is also possible to select the rooms that are not being used, and therefore don't need to be heated. The activation of the system also takes into account the heat produced by the sun and by any open door (optional function). Thanks to the zone temperature control function the building gains an energy class, and users save on the bill.

For details see the TEMPERATURE CONTROL chapter



UP TO
30%
SAVINGS



Light automation management

SWITCH OFF THE LIGHT, SWITCH ON ENERGY SAVINGS

Management of lighting level depending on the presence of people and the level of natural light: this means maximum visual comfort for the users, and a big contribution to energy savings. In the service sector, savings from 55% up to 75% are possible.

For details see the LIGHTS AND AUTOMATION chapter



UP TO
75%
SAVINGS

BUS-SCS MyHOME





Display visualization

A COMPLETE CONSUMPTION AND ENERGY PRODUCTION CHECK-UP.

The user can display on the touch screen not only the consumptions inside their home (power, water and gas), but also the energy and hot water output obtained using photovoltaic or solar panels.

With a few simple steps, the user can select the type of consumption that needs to be checked, the type of display (instantaneous or graphs), and the period (day, month, year). Extremely useful information, for using one's own systems at their best, reducing waste and faults.

For details see the ENERGY CONSUMPTION DISPLAY chapter



UP TO
15%
SAVINGS



Management of loads

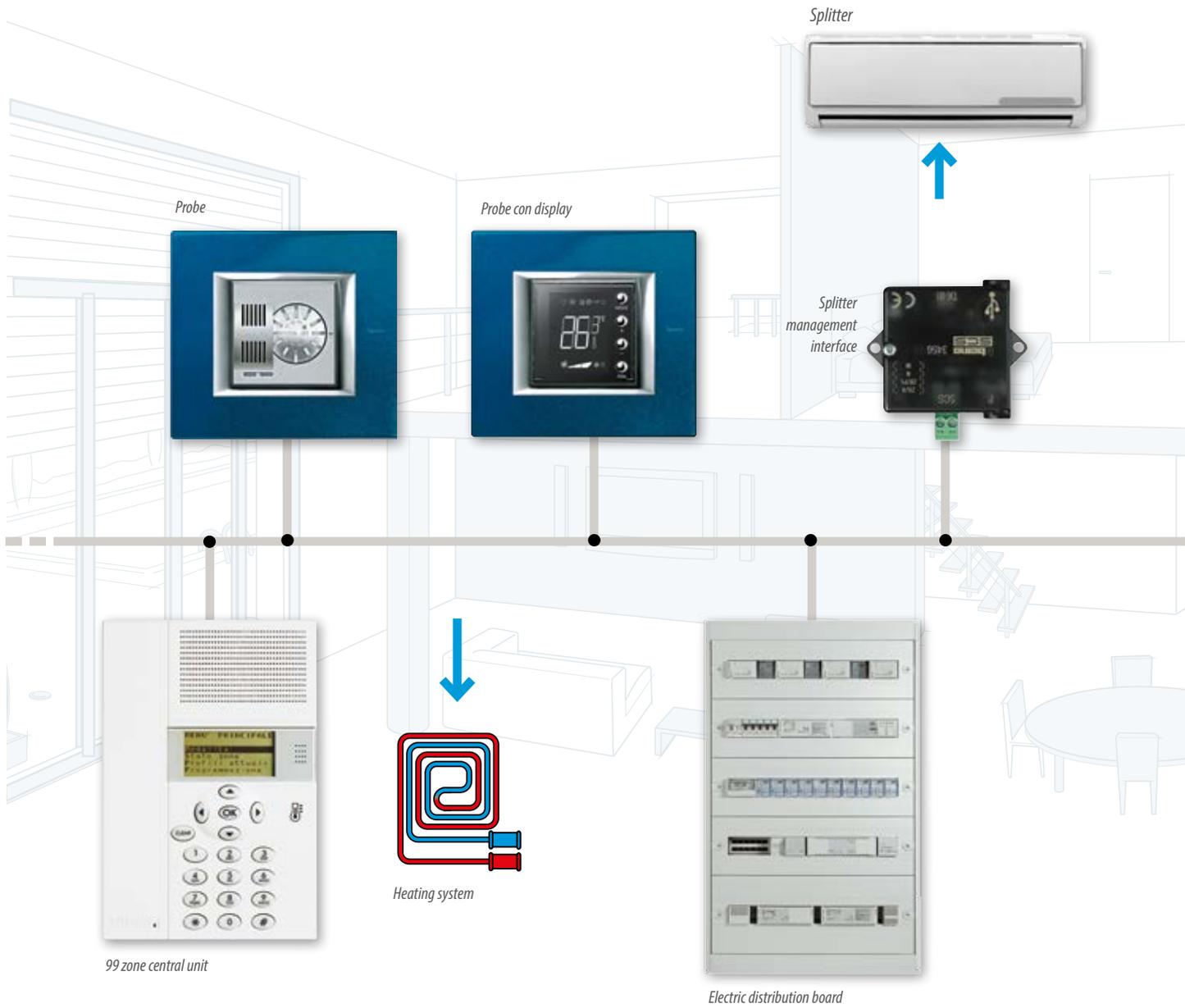
THE END OF THE BLACK-OUT.

This function can be used to manage the maximum power to be used, and automatically disconnect the least important appliances in case of overload. Using the Touch screens, the user can check the total consumption of the individual circuit, and decide if the priorities need changing. The user can also decide to delay the activation of a particular load.

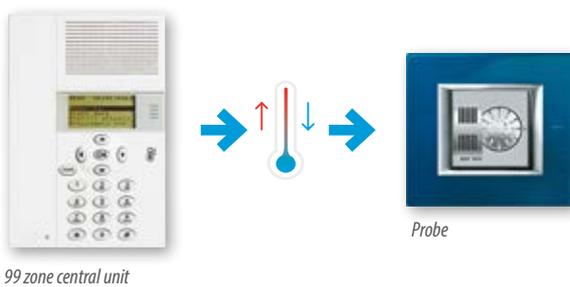
For details see the LOAD CONTROL MANAGEMENT chapter



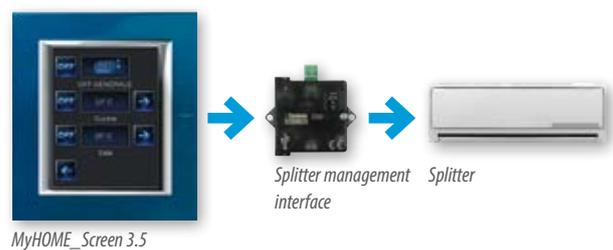
ENERGY EFFICIENCY MANAGEMENT DEVICES OVERVIEW

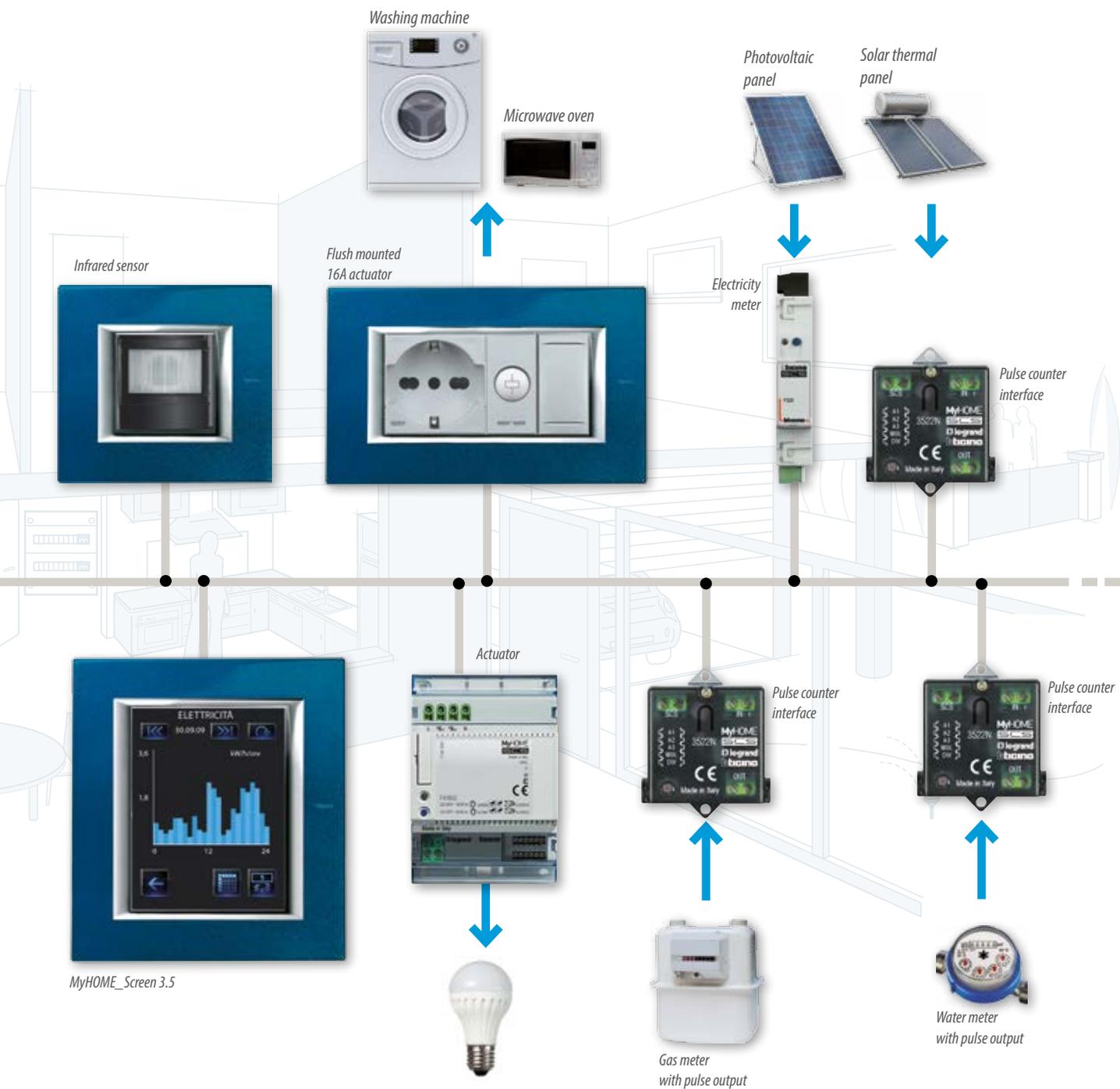


ZONE TEMPERATURE CONTROL



AIR CONDITIONING

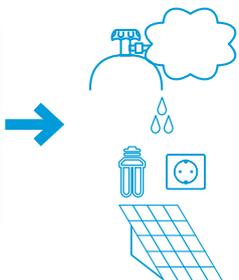




CONSUMPTION AND PRODUCTION DISPLAY

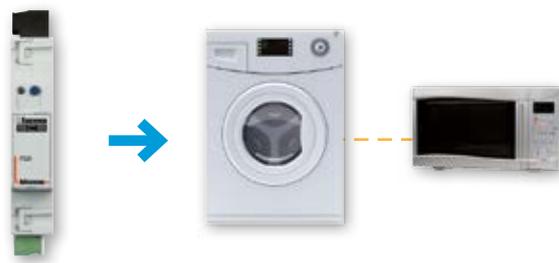


MyHOME_Screen 3.5

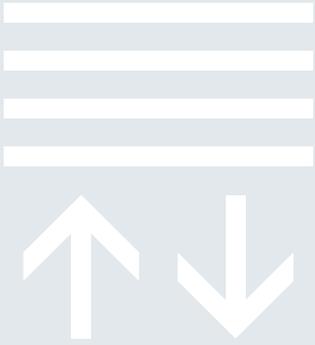


- m³/€
- m³/€
- KWh/€
- KWh
- Kcal

LOAD CONTROL MANAGEMENT



Load control central unit



CONTENTS**MyHOME – Lights and Automation**

General features	20
Configuration	38
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Wiring diagrams	75

Introduction to the light system and shutter automation

The MyHOME Automation system allows you to manage functions in a simultaneous and integrated way. To date, these functions have been performed with special and complex electrical devices such as:

- lighting control
- control for shutters and/or electric curtains.

There are two types of devices in the system:

- controls, connected only to the BUS cable;
- Actuators, connected to the BUS cable and to the 230 Vac power line for managing the connected load.

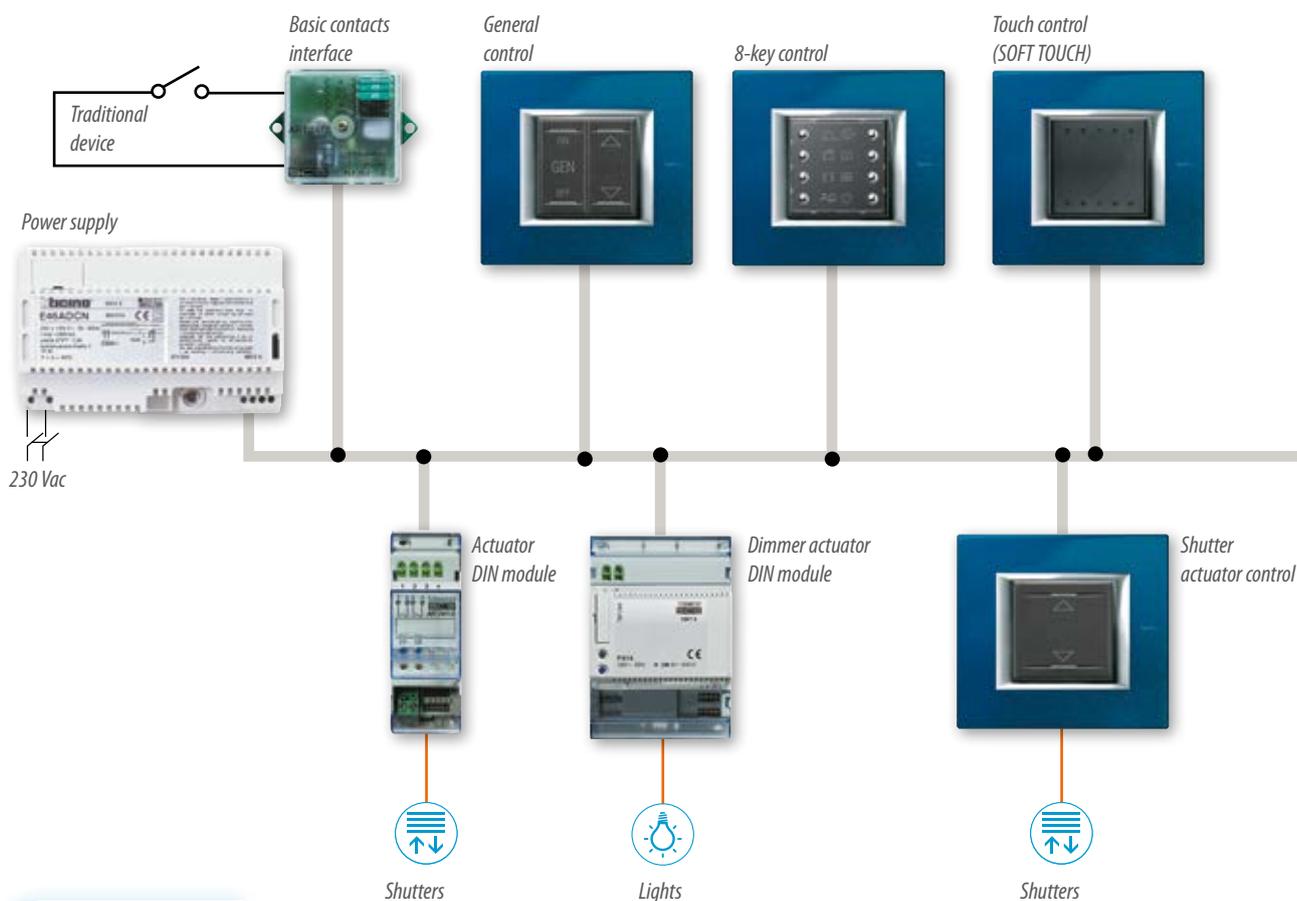
If it is required to expand an existing system without performing masonry work, the system can be expanded with wire/radio interfaces and ZigBee radio control devices.

Properly choosing and configuring the devices, it is possible to perform the following functions:

LIGHTING MANAGEMENT

Traditional incandescent lamps, LED, halogen and fluorescent lamps can be easily managed with ON/OFF and DIMMER mode to fulfill comfort and energy saving needs.

Wire system



The MyHOME Automation system devices are IMQ certified, as they comply with the CEI EN 50428 standard "non-automatic control devices for fixed electrical home installations and similar uses".

AUTOMATION OF SHUTTERS, CURTAINS, AND VARIOUS DEVICES

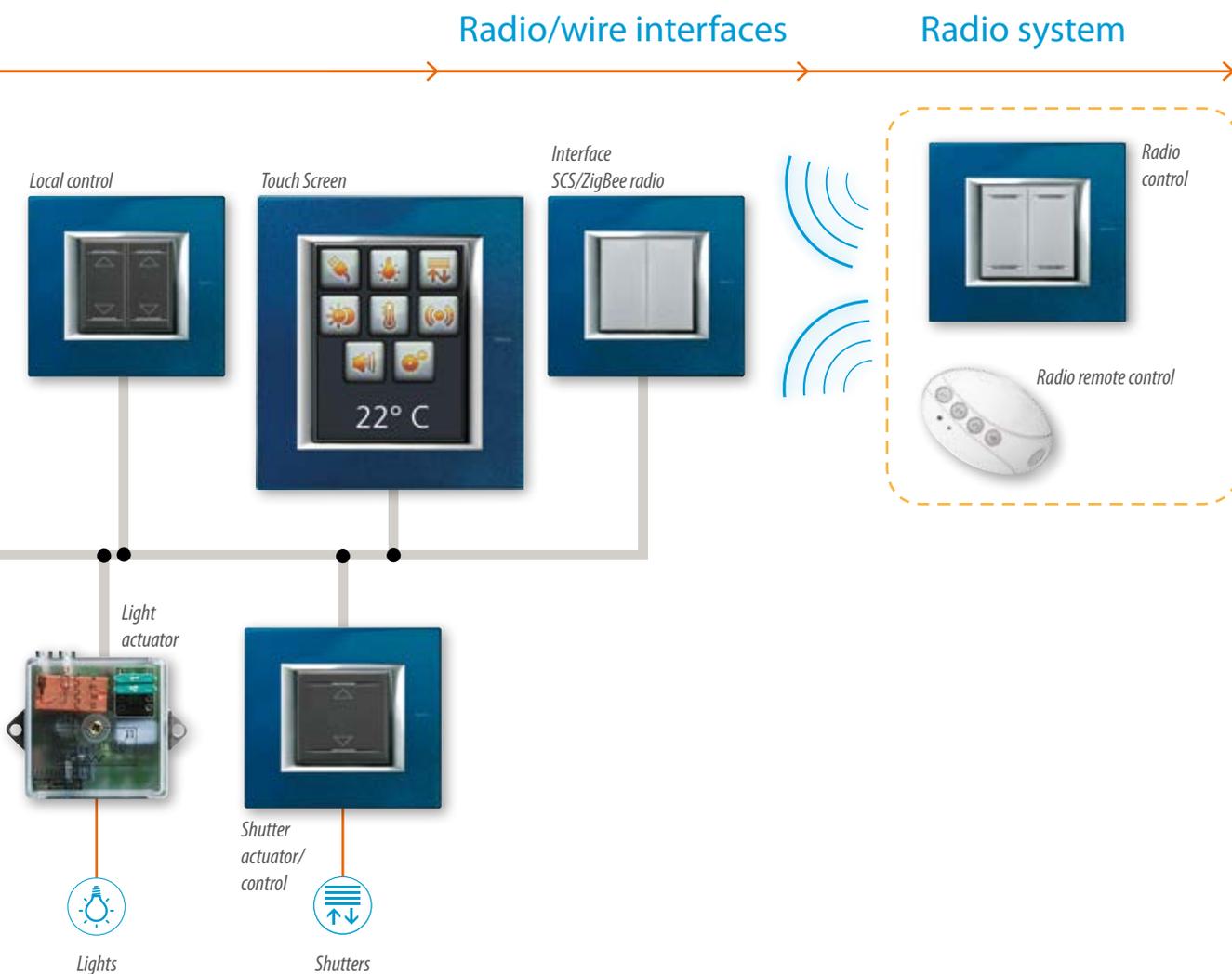
It is also possible to manage the movement of shutters, curtains, doors and other motorized devices. In addition to the UP/DOWN (or OPEN/CLOSE) mode, either monostable or bistable, it is possible to store and recall a desired position of the controlled load (Preset) acting directly on the actuator, on a Touch screen etc.

LIGHTS SCENARIO AND AUTOMATION

The system may be configured to execute a series of simultaneous operations acting on a single control device or on the menu of a Touch Screen.

This function is normally called "scenario". For example, it is possible to simultaneously turn on some lights in a room with different levels of brightness and opening some

shutters to create situations of comfort responding to the user's lifestyle. The room can also be set with a musical background and the desired temperature if the system is integrated with the Sound system and Temperature Control systems. The feasible solutions in this field are varied.



Control devices

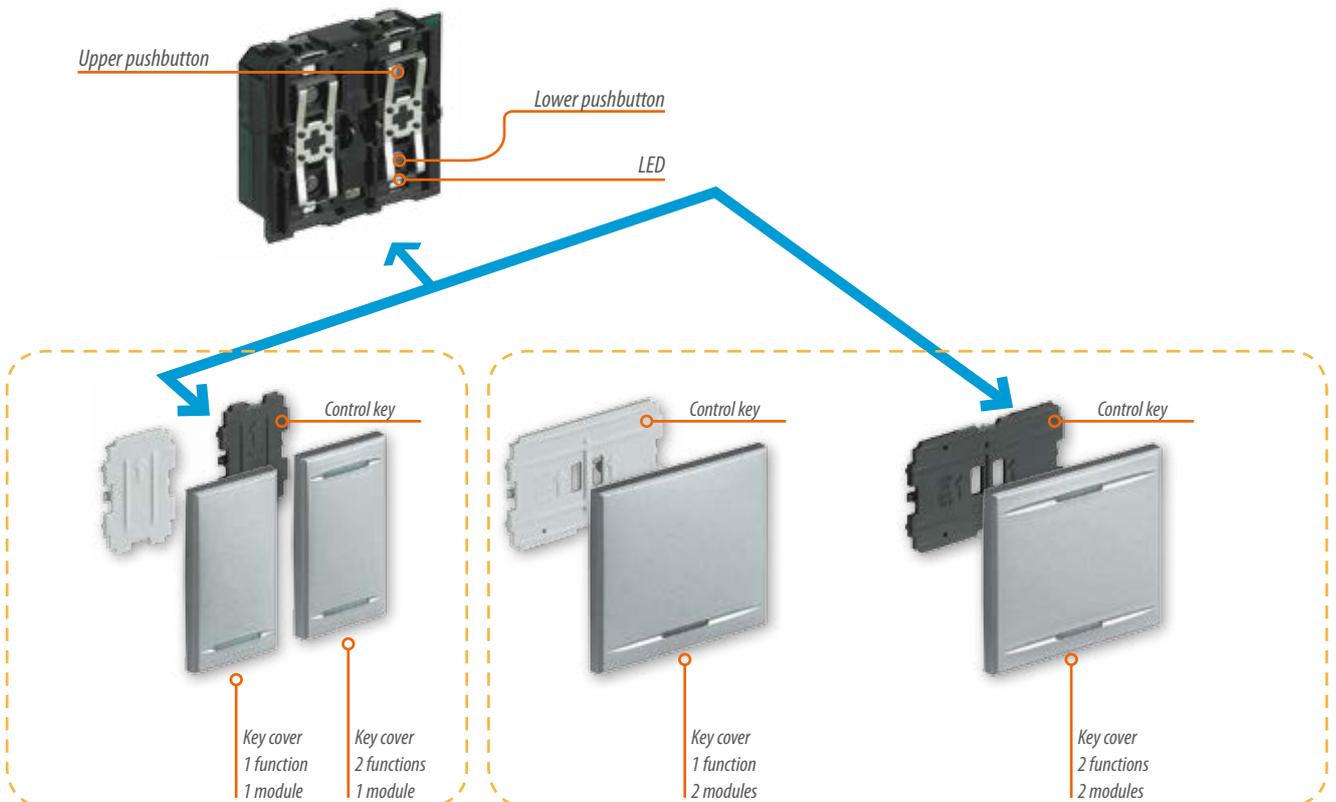
Control devices allow you to control the state of the actuators, thus executing different functions: ON, OFF, Dimmer, UP/DOWN, timing, etc., which depend on the functioning mode that has been assigned to them through an appropriate configuration.

All devices are equipped with a light indicator that indicates the load status (active or inactive) and facilitates their detection in the dark. The intensity of the signaling LEDs can be adjusted/excluded.

DEVICES TO BE COMPLETED WITH KEY COVER FOR LIGHTS, SHUTTER AUTOMATION AND SCENARIOS MANAGEMENT

These devices are completed with keys and key covers of two types:

- 1 function, one or two modules, to be used with the gray control key;
- 2 function, one or two modules, to be used with the black control key.



The control with the single key cover can become integrated with a traditional closing contact (pushbutton or switch).

*The double key cover (tilting) can become integrated with a traditional exchanging contact.
NOTE: control pushbuttons are supplied with the device as standard.*

Some examples of control devices complete with key covers.



Shutters control with 2 module key cover



Lights and shutters general control

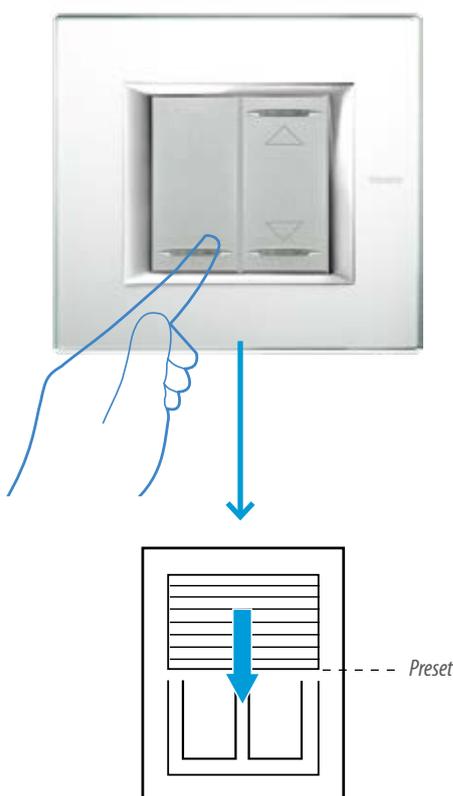


Control for shutter and dimmer lights

**SPECIFIC CONTROLS FOR
ADVANCED SHUTTER
MANAGEMENT**

Using specific devices item H/LN4660M2, item AM5860M2 with actuator module DIN F401 and flush mounted H/LN4661M2, AM5861M2, it is possible to manage shutters equipped with standard motor or pulse motor, with advanced features. In addition to the UP/DON monostable and bistable operations, with these devices it is possible to save a specific shutter opening position (Preset), stored in the actuator, by simply pressing the STOP pushbutton when the shutter is still.

It is also possible to set a different position as required by the user.



Control devices for lights management

In addition to control devices with customizable key covers it is possible to choose control devices with different operation modes.

TOUCH CONTROLS WITH 2 OR 3 MODULES

This device is able to send actuation and adjustment controls for lighting (ON/OFF, Dimmer, timer etc.), sound and video door entry functions simply by touching the control surface.

2 module Soft Touch control



LIGHT AND PRESENCE SENSORS (*)

Using brightness and movement/ presence sensors, it is possible to manage the lighting, in a MyHOME system, depending on the presence of people and the amount of natural light, respecting the requirements of the highest energy efficiency class for buildings, contemplated by European Standard EN 15232.

This provides two advantages:

- *greater energy management*
reducing energy waste through an intelligent management of the lights, ensuring the necessary lighting levels, at the right time and in the right place. The various operating modes that can be set with the configuration enable the user to obtain different levels of energy efficiency.

- *Comfort and wellbeing*

The new sensors allow increasing the level of comfort of the users, with the automatic switching on of the light when entering the room, and the preservation of the desired lighting level based on external conditions.



IR movement sensor



Passive infrared sensor for the detection of movement and the lighting level

NOTE (*): for the choice and installation of these products, see the specific chapter "General rules for installation - brightness/movement/presence sensors"

Control devices for the management of lights and automations (shutters, curtains, etc.)

MULTI-FUNCTION CONTROL

8 KEYS

Equipped with 8 buttons with backlit icons indicating the respective assigned functions, this particular control device is capable of controlling lighting functions, shutters automation, sound system, scenarios and video door entry functions.

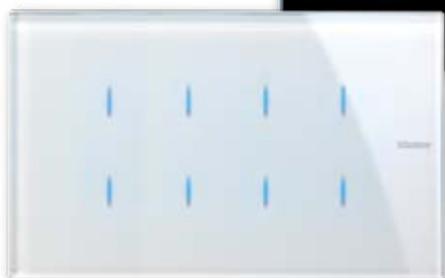


8-key control

Nighter 3 module control



Whice 4 module control



CONTROLS WITH CAPACITIVE SENSORS

Devices with buttons made of capacitive sensors.

Each zone corresponding to a key is marked in the middle by an illuminated LED that increases in intensity when the user puts his finger to activate the control. From the point of view of the manageable functions, this control is comparable to the control device with the capacitive sensors described above. It is produced in versions with 3 and 4 flush mounted modules, respectively with 6 and 8 keys.

INFRARED REMOTE CONTROL AND RECEIVER

The receiver allows to add or replace to the manual control, the remote control via the infrared remote control.

It is possible to associate to the remote control buttons, the controls for actuators related to lighting and automation of shutters, curtains, etc. It is also possible to manage scenarios and operate on the sound and video door entry systems.

IR remote control



IR receiver



Control devices - scenarios

LIGHTS AND AUTOMATION SHUTTERS

The control devices described in the preceding pages can be configured to activate, for example with the push of a button, several users simultaneously.

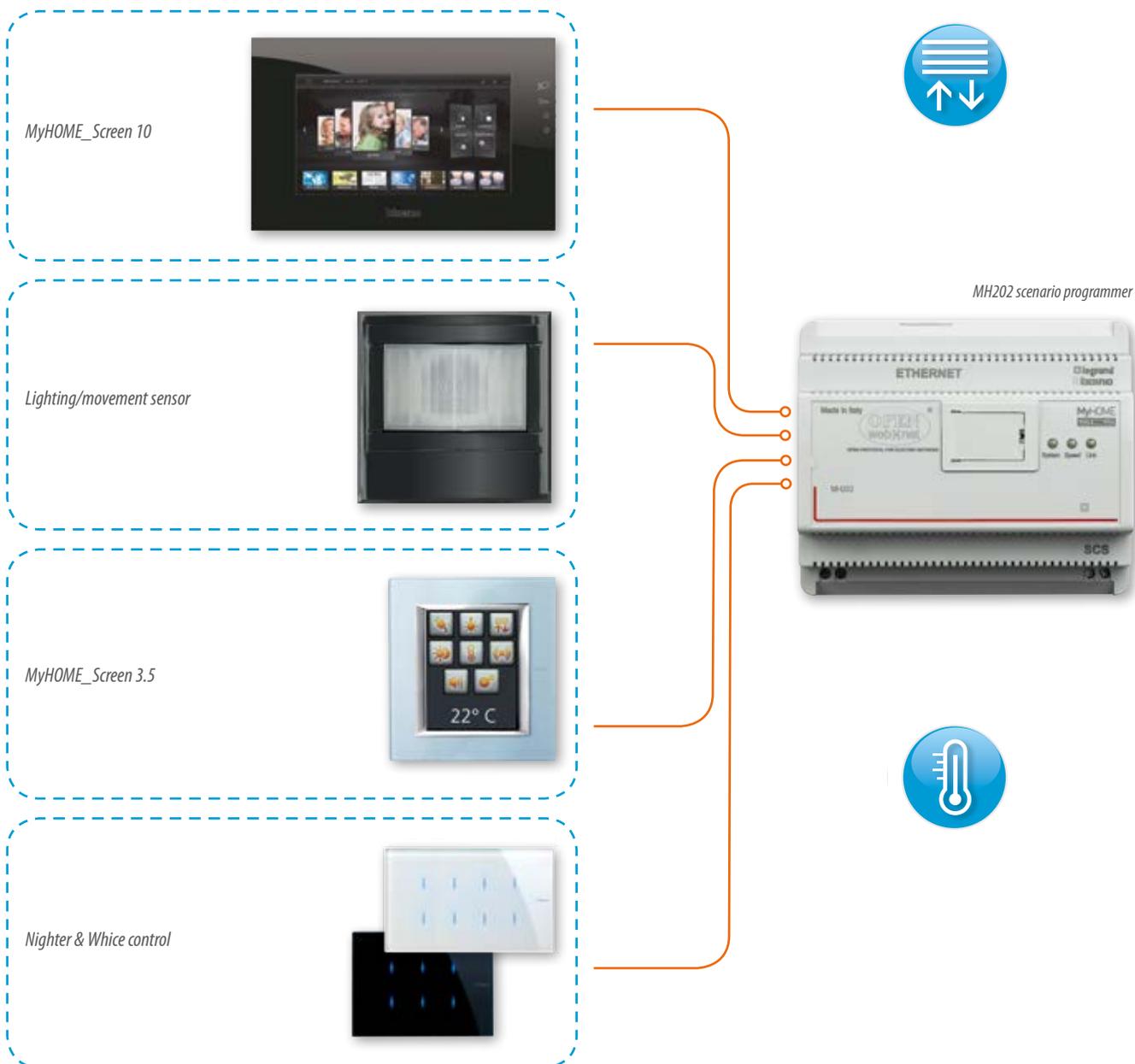
This feature, called "scenario" is carried out in conjunction with the use of special devices capable of saving or programming all individual

activations which constitute the environmental situation of comfort to replicate.

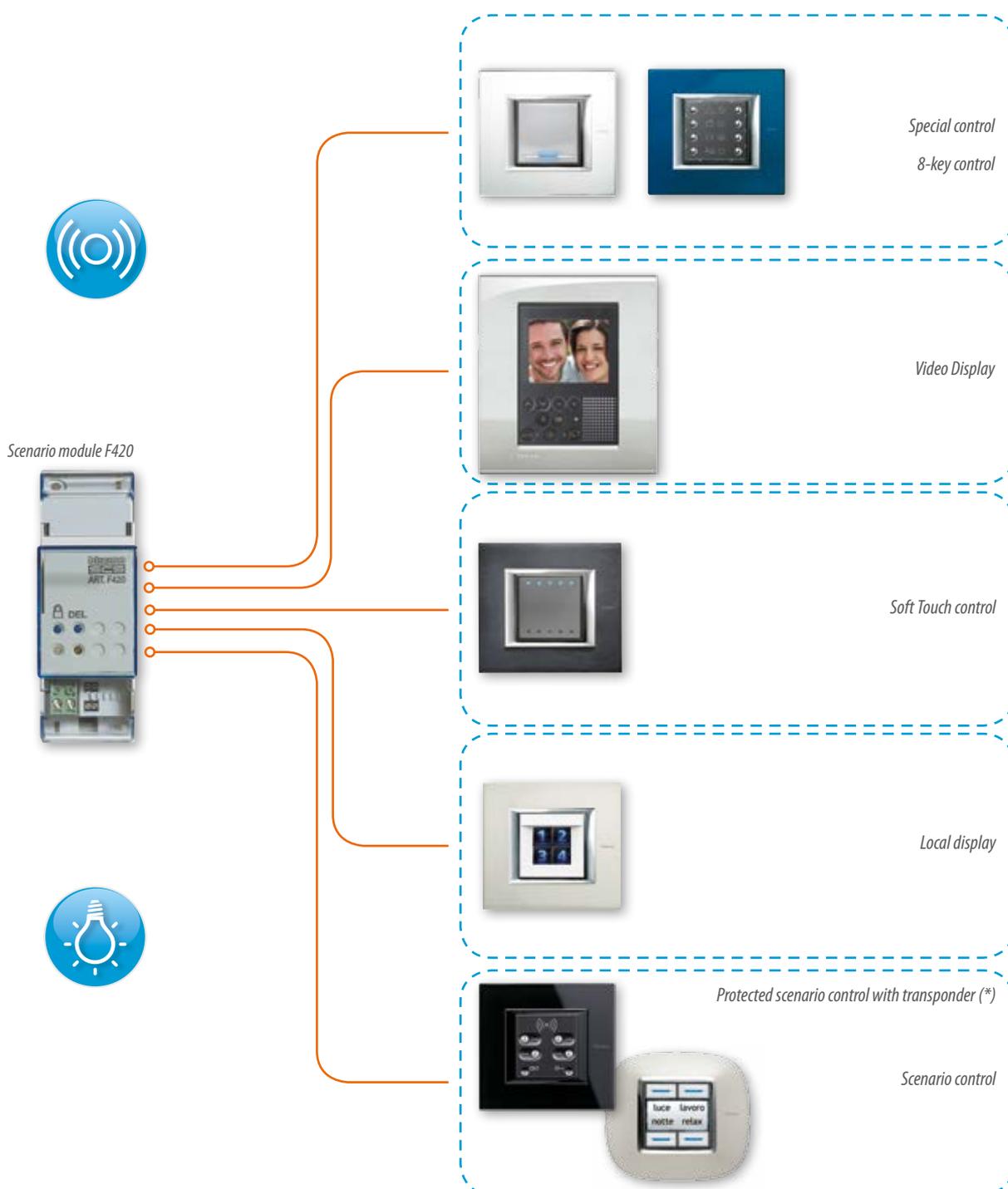
A scenario example is switching on some lights to a certain intensity level, and positioning some shutters for watching the television or reading a book, following the lifestyle of the user.

The devices mentioned are the following:

- Scenario module F420 with two DIN modules for saving up to 16 scenarios.
- MH202 scenario programmer for the creation and management of advanced scenarios, also linked to time events, system status, and more.



In addition to the lights and shutter features, both devices can manage sound system, temperature control and video entry system applications.



NOTE (*): at the moment these devices cannot activate scenarios managed by the MH202 scenario programmer.

Control devices: table for selection

CONTROL SELECTION BASED ON THE FUNCTION TO BE MANAGED

		BASIC CONTROL	SPECIAL CONTROL	SOFT TOUCH CONTROL	8-KEY CONTROL	REMOTE CONTROL
FUNCTIONS PERFORMED		 H4652/2 L4652/2 AM5832/2 H4652/3 L4652/3 AM5832/3	 H4651M2 L4651M2 AM5831M2	 HD4653M2/3 HC4653/2/3 HS4653/2/3	 H/LN4652	 3529 HD4654 HC4654 HS4654 L/N/NT4654N 88232
LIGHTING	Cyclical ON/OFF	●	●	●		●
	ON/OFF control with light intensity adjustment	●	●	●	●	●
	General room and group controls	●	●	●		●
	Timed controls	●	●	●		●
AUTOMATION	Shutter control UP/DOWN in normal mode UP/DOWN in safe mode General room and group controls	●	●			●
SCENARIO MANAGEMENT	Recalling of scenarios saved in the F420 scenario module		●	●	●	●
	Activation of scenarios saved in the MH200N scenario programmer (CEN configurator)	●	●	●	●	●

BRIGHTNESS AND MOVEMENT/PRESENCE SENSOR	BADGE-HOLDER POCKET	TRANSPONDER READER	CAPACITIVE NIGHTER AND WHICE CONTROL	SCENARIO CONTROL
 <p>HC/HD/HS4658 HC/HD/HS4659 L/N/NT4658 L/N/NT4659 BMSE3001 BMSE3003 048834</p>	 <p>H4648 H4649 LN4648 LN4649</p>	 <p>HD4607 HC4607 HS4607 L/N/NT4607</p>	 <p>HD4657M3/4 HC4657M3/4 HS4657M3/4</p>	 <p>HD4680 HC4680 HS4680 L4680 N4680 NT4680</p>
●			●	
●				
		●		
	●	●	●	●
●	●		●	●

Actuator devices

GENERAL INFORMATION

These devices execute direct controls and control the connected load in the same way as an electromechanical relay.

For this reason, in addition to being connected to the BUS cable through

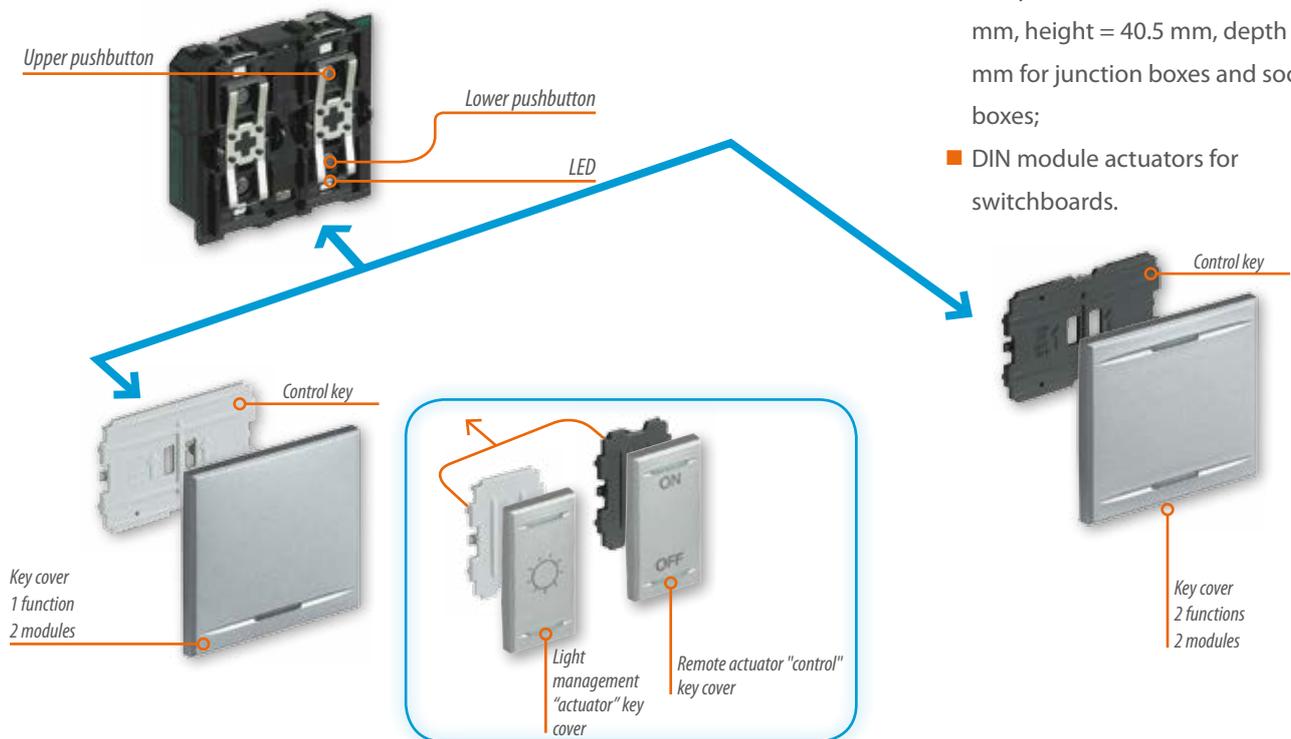
the removable terminals, they must be connected to the 230 Vac load power supply line.

There are different types of actuators that differ by type of load, controlled power and shape.

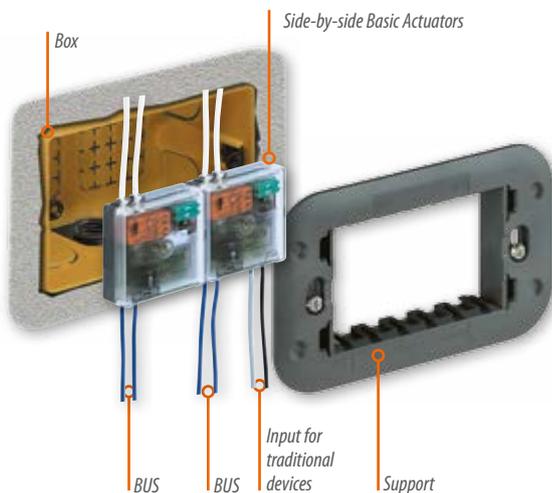
Based on the installation

characteristics they can be divided into:

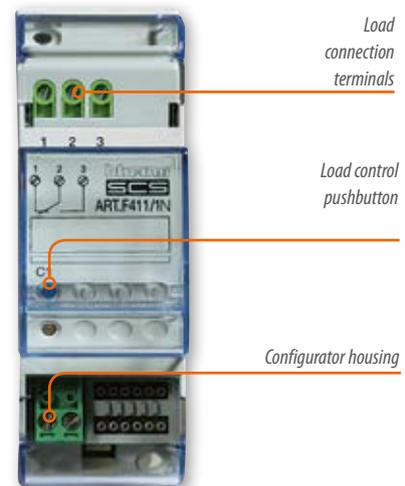
- actuators with two flush-mounted modules to be completed with key covers;
- Basic modular actuators characterized by extremely compact dimensions: width = 40.5 mm, height = 40.5 mm, depth = 18 mm for junction boxes and socket boxes;
- DIN module actuators for switchboards.



Example of installation in flush mounted boxes



DIN Actuator for installation in switchboards



Actuator devices - lighting control

The range of actuators in the MyHome catalog allows to meet any design requirement. Regardless of the construction shape and installation features, it is possible to choose devices for switching on in ON/OFF mode or gradually (dimmed) lights with power from 40 to 2300 W of these type:

- LED;
- fluorescent;
- halogen;
- incandescent;

- powered with ferromagnetic or electronic transformers;
- ballast 1to10V DALI.

item dimmer F418



ON/OFF actuator Basic module
item 3475

ON/OFF ACTUATORS AND DIMMER WITH POWER LINE SUPPLY

These devices, thanks to the line power supply, can control the load even in the absence of voltage from the BUS using the buttons on the device itself.

In addition, by absorbing very low current from the BUS, it is possible to use several actuators in the system without considerably affecting the maximum number of devices which can be installed in the system.

The catalog includes:

- **ON/OFF actuators** in versions with 2, 4 and 8 relays with 16A contacts and independent outputs and characterized by the "zero crossing" power supply; particularly suitable for the

management of the new energy-saving lamps, such as compact fluorescent lamps and LED lamps;

- **dimmers with 1/10V output** for electronic ballasts or driver power supplies with power up to 1000VA.

item BMSW1001



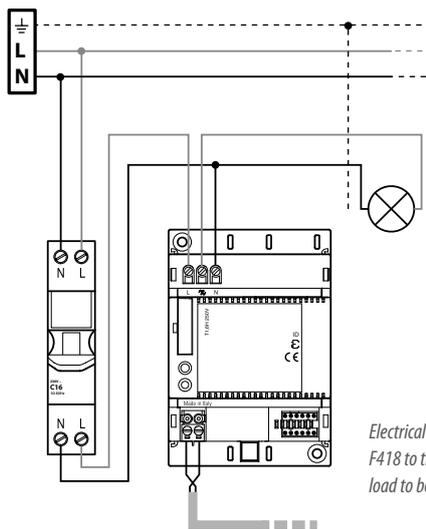
item BMSW1003

item BMD1001



Actuator devices - lighting control

- "universal" dimmer with 1 and 2 outputs for the control of LED lamps, CFL and any other type of load with powers up to 300W.



Electrical connection of the Dimmer item F418 to the electric power line and to the load to be controlled



item F418U2



item F417U2

ENERGY MANAGEMENT

ACTUATORS

Some devices of the Energy Management range are suitable also for controlling light points with maximum absorption of 16A.

The range consists of:

Flush mounted actuator:

Designed to be installed in flush mounted supports of the domestic line, this device has equivalent performance to the actuator item F523 but is not equipped with "zero crossing power supply" function.

DIN Actuators:

Two actuator devices with NO relay capable of performing both energy management and automation functions; one in the basic version item F523 and one fitted with an integrated current sensor item F5222 for the controlled load consumption measurement (instantaneous consumption and 2 energy totalizers that can be reset independently).

Configured in automation mode, (the relay sets in the NC status) they enable performing all the operations available on the Control devices, with the exception of the management of the shutters.

Thanks to load power supply in "zero crossing" mode these devices are compatible with the new energy-saving lamps (Compact Fluorescent and LED).

Flush mounted actuator
Axolute series

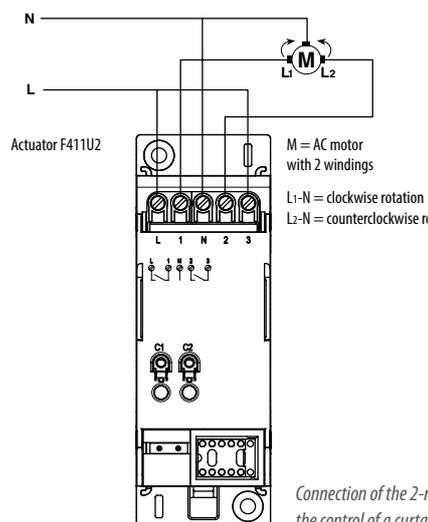


Actuator
item F522

Actuator devices for shutters, curtains automation

The control of shutter and/or curtain motors can be made using:

- **2 and 4-relay actuators** provided for ON/OFF control of the lighting and specially configured in "interlock" mode for operation in pairs of the relays.

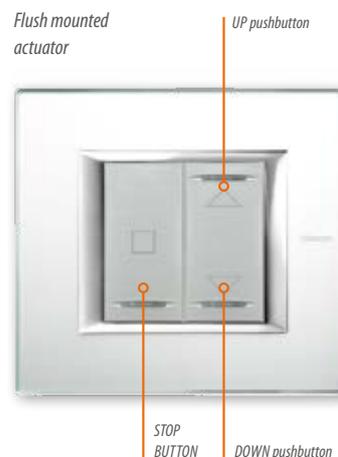


2 Relay actuator item F411U2

4 Relay actuator item F411/4

- **actuator with 2 interlocked relays** for the control of standard motors with automatic calibration, standard motors with manual calibration and pulse motors. Used together with specific control devices for the management of shutters, the device gives the possibility of performing advanced functions, like the management of 100 different positions, the management of the 3rd limit switch (blade position adjustment), and saving a shutter position (Preset). If used with other generic control devices, it only performs the basic functions (UP and DOWN). Available in flush mounted version to be completed with key covers and 2-module DIN modularity.

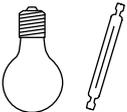
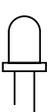
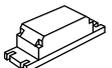
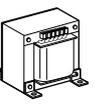
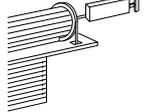
Preset function: In addition to the Monostable and Bistable UP/DOWN operating modes, by pressing the STOP pushbutton the control gives the possibility of moving the shutter to a specific position (Preset) saved by the actuator. During this mode of operation, the Preset LED will be on. The actuator is supplied with 9 preset positions, selectable by configuration; in addition to these, according to the user's requirements, it is however possible to set a new position through configuration. The Preset function can be managed even with the Scenario module. The actuator is also available in DIN modular version.



Actuator devices: actuators selection

The table allows identification of the actuator device depending on what it is to be used for, the electrical features of the load to be controlled and the installation features.

Warning: Unless otherwise specified in the instruction leaflet, a 10 A thermal magnetic protection must be fitted on the power line to the actuators.

CONTROLLABLE LOADS (230 Va.c. 50/60 Hz)							
Actuators	Type						
							
	Incandescent and halogen lamps energy saving	LED lamps	Linear fluorescent lamps ¹⁾	Compact fluorescent lamps	Electronic transformers ³⁾	Ferromagnetic transformers ^{2) 3)}	Motor reducers for shutters ⁴⁾
H/L4671M2 AM5851M2	2 A 460 W	70 W Max. 2 lamps	0.3 A 70 W	70 W Max. 2 lamps	0.3 A 70 W	2 A cosφ 0.5 460 VA	2 A 460 W
H/L4671/1 AM5851/1	6 A 1380 W	150 W Max. 3 lamps	0.65 A 150 W	150 W Max. 3 lamps	0.65 A 150 W	2 A cosφ 0.5 460 VA	- -
H/L4678	0.25 - 1.30 A 60 - 300 W	- -	- -	- -	- -	0.25 - 1.30 A 60 - 300 VA	- -
3475 3476	2 A 460 W	40 W Max 1 lamp	- -	40 W Max 1 lamp	- -	2 A cosφ 0.5 460 VA	- -
H/L4661M2 AM5861M2 F401	-	-	-	-	-	-	2 A 250 Va.c.
F411U1	10 A 2300 W	500 W Max. 10 lamps	4 A 920 W	500 W Max. 10 lamps	4 A 920 W	4 A cosφ 0.5 920 VA	- -
F411U2	10 A 1380 W	250 W Max. 4 lamps	4 A 230 W	250 W Max. 4 lamps	4 A 230 W	4 A cosφ 0.5 460 VA	2 A 460 W
F411/4	2 A 460 W	70 W Max. 2 lamps	0.3 A 70 W	70 W Max. 2 lamps	0.3 A 70 W	2 A cosφ 0.5 460 VA	2 A 460 W
F411/1NC	10 A 2300 W	500 W Max. 10 lamps	4 A 920 W	500 W Max. 10 lamps	4 A 920 W	4 A cosφ 0.5 920 VA	- -
BMSW1002	16 A 3680 W	2.1 A 500 VA	10 X (2 X 36 W) 4.3 A	1150 W 5 A	16 A 3680 W	16 A 3680 W	- -
BMSW1003	16 A 3680 W	2.1 A 500 VA	10 X (2 X 36 W) 4.3 A	1150 W 5 A	16 A 3680 W	16 A 3680 W	- -
BMSW1005	16 A 3680 W	2.1 A 500 VA	4.3 A 10X2X36W	5 A 1150 VA	16 A 3680 W	16 A 3680 W	- -

Notes:

- 1) Power factor corrected fluorescent lamps, energy saving lamps, discharge lamps.
- 2) In order to calculate the actual power of the load connected to the actuator, it will be necessary to take into account the transformer performance. For example, when connecting a dimmer to a 100 VA ferromagnetic transformer with 0.8 performance, the actual load power will be 125 VA.
- 3) The transformer must be loaded at its rated power, or in any case never below 90% of its rated power. It will be preferable to use a single transformer, rather than several transformers in parallel.
For example, it will be preferable to use one single 250 VA transformer with 5 x 50 W spotlights connected, rather than using 5 x 50 VA transformers in parallel, with one 50 W spotlight each.
- 4) The  symbol shown on the actuators refers to the shutter motor reducers.

CONTROLLABLE LOADS (230 V A.C. 50/60 HZ)

Actuators	Type						
	Energy saving incandescent and halogen lamps	LED lamps	Linear fluorescent lamps ¹⁾	Compact fluorescent lamps	Electronic transformers ³⁾	Ferromagnetic transformers ^{2) 3)}	Motor reducers for shutters ⁴⁾
BMDI1001	4.3 A 1000 VA	-	4.3 A 1000 VA	4.3 A 1000 VA	-	-	-
BMDI1002	Dimmer for ballast - 4 4.3 A outputs 4x 1000VA@ 230 Vac 4x500VA@ 230 Vac						
F413N	-	-	2 A 460 W ⁵⁾ Max. 10 ballast type T5, T8, compact or driver for LED	-	-	-	-
F414	0.25 - 4.3 A 60 - 1000 VA	-	-	-	-	0.25 - 4.3 A 60 - 1000 VA	-
F416U1	4.3 A 40 - 1000 W	-	-	-	4.3 A 40 - 1000 W	4.3 A 40 - 1000 W	-
F417U2	1.7 A 40 - 400 W	-	-	-	1.7 A 40 - 400 W	1.7 A 40 - 400 W	-
F418	1÷300 W	1÷300 VA	-	1÷300 VA	1÷300 VA	-	-
F418U2	2x300 W	2x300 VA	-	2x300 VA	2x300 VA	2x300 VA	-
F429	SCS/DALI dimmer interface - 8 x16 ballast						

Notes:

- 1) Power factor corrected fluorescent lamps, energy saving lamps, discharge lamps.
- 2) In order to calculate the actual power of the load connected to the actuator, it will be necessary to take into account the transformer performance. For example, when connecting a dimmer to a 100 VA ferromagnetic transformer with 0.8 performance, the actual load power will be 125 VA.
- 3) The transformer must be loaded at its rated power, or in any case never below 90% of its rated power. It will be preferable to use a single transformer, rather than several transformers in parallel.
For example, it will be preferable to use one single 250 VA transformer with 5 x 50 W spotlights connected, rather than using 5 x 50 VA transformers in parallel, with one 50 W spotlight each.
- 4) The symbol shown on the actuators refers to the shutter motor reducers.
- 5) Only compatible with lamps with 1/10 V Ballast.

Interfaces

With these devices it is possible to connect to the BUS traditional equipment such as switches and buttons expanding the use of the BUS to already existing traditional systems.

It is also possible to interface thermostats, control devices, humidity sensors, wind detectors, etc..

Available in two versions:

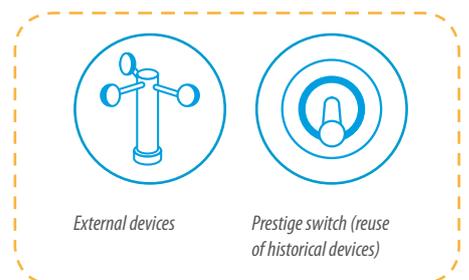
- **DIN module** for installation in switchboards;

- **Basic module** characterized by reduced dimensions for installation behind the traditional sockets (e.g.switch, button) or low electronic sockets (e.g.: controls, sensors) present in a 503E box. This installation solution simplifies the conversion of traditional electric systems into home automation systems, as it makes it possible to keep the existing flush mounted boxes, without the need for masonry work.

Contact interface in DIN module



Contact interface in DIN module



BUS system extension with ZigBee radio devices

The system described in the previous pages can be expanded at any time by extending the wiring and adding new devices.

Not always, however this operation is easy to carry out; often in environments such as buildings with historic and/or architectural value it is necessary to intervene heavily on the wall structure.

These problems can be easily solved using radio controls of the Home connected - lights and automations offer, battery-powered and independent of the system wiring.

The integration between the two technologies, one radio and one BUS, is carried out by a particular interface.

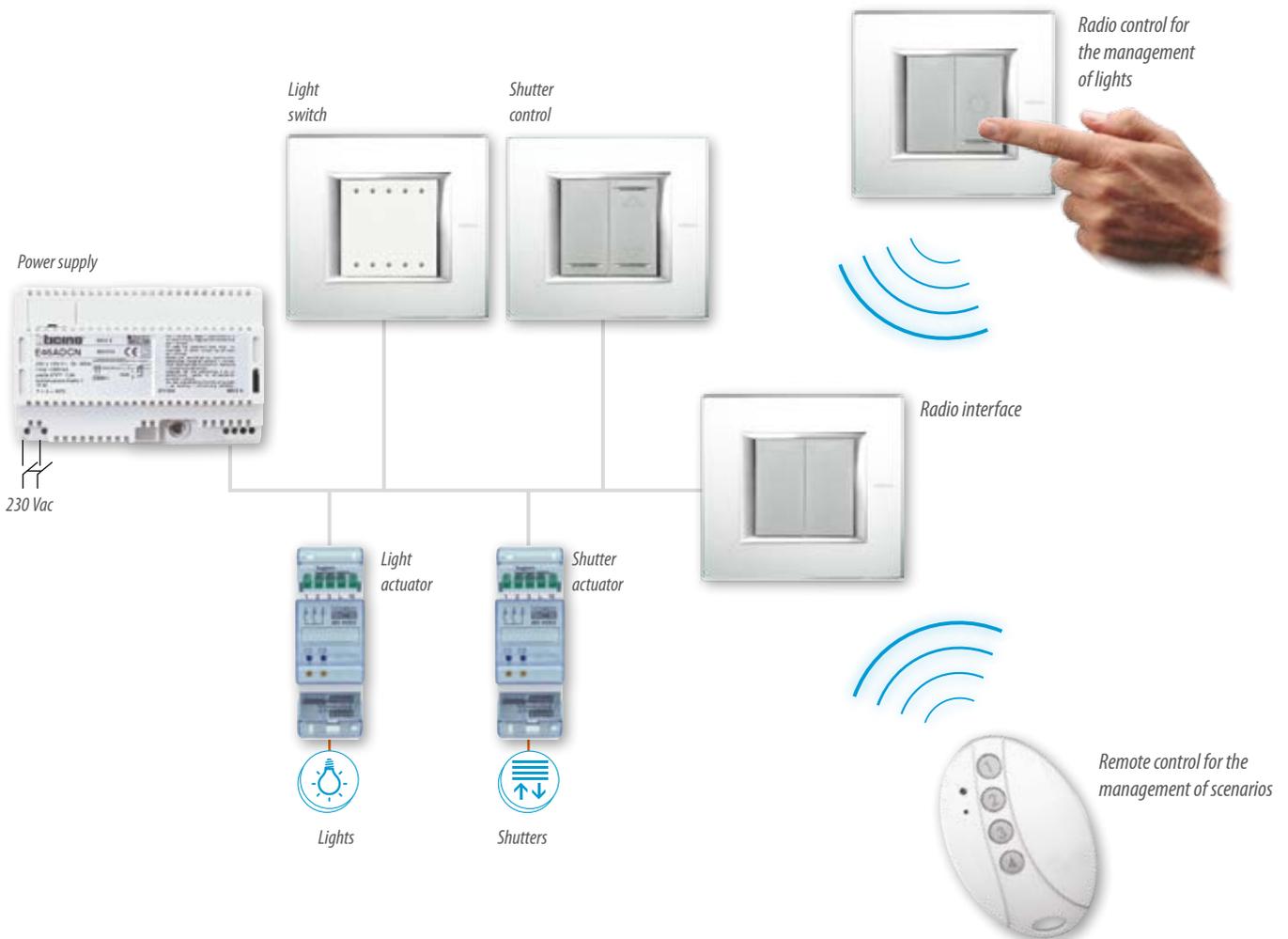
This solution can also be extended with some advantages, to new buildings.

For example in offices with moving walls and with false ceiling mounted BUS actuators, the radio controls are the used as flexible light points, easy to reposition in case of modification in the arrangement of the offices, or the furniture.

For more information and choice of control devices see the specific technical documentation "Home connected - lights and automations"

POSSIBLE FUNCTIONS

- Shutter and rolling shutter automation;
- Lighting;
- Scenario management.



General concepts

This chapter describes the general concepts for the “physical” and “virtual” configuration of the MyHOME automation devices. For detailed information about the configuration of each device see the corresponding "technical sheet".

ACTUATORS: ADDRESS AND TYPE OF CONTROL

To understand the addressing logical it is useful to define some terms which will occur frequently in this guide.

Room (A)

Set of devices belonging to a logical area (in a home, for example, the living room, the bedroom, etc.).

Light Point (PL)

Numeric identification of the single actuators inside the Room.

Group (G)

Set of devices also belonging to different rooms but which must be controlled at the same time (e.g. the rolling shutters of the North side of the home, the lighting of the day area, etc.).

ACTUATOR ADDRESS - PHYSICAL CONFIGURATION

The address of each actuator is defined uniquely by assigning the numeric configurators 1 to 9 in positions A (Room) and PL (Light Point inside the Room). These values must correspond to those in positions A and PL of the respective control device.

A maximum of 9 addresses can be defined for each room; a maximum of 9 rooms can be defined in a system.

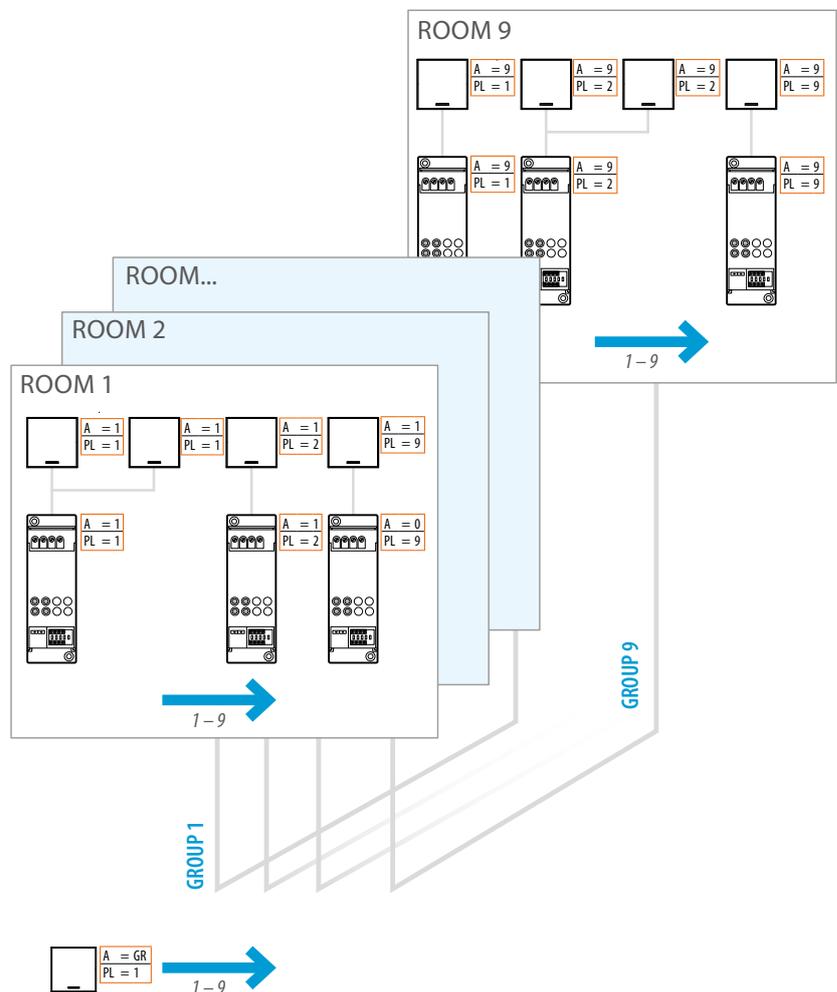
The group of belonging is defined by inserting a third numeric configurator

in the housing identified with G (Group).

Some actuators have several G positions (G1, G2 and G3) as they can belong to several different groups at the same time.

Example: The actuator configured with A = 1, PL = 3 and G = 4 is device 3 of room 1 belonging to group 4.

Physical configuration



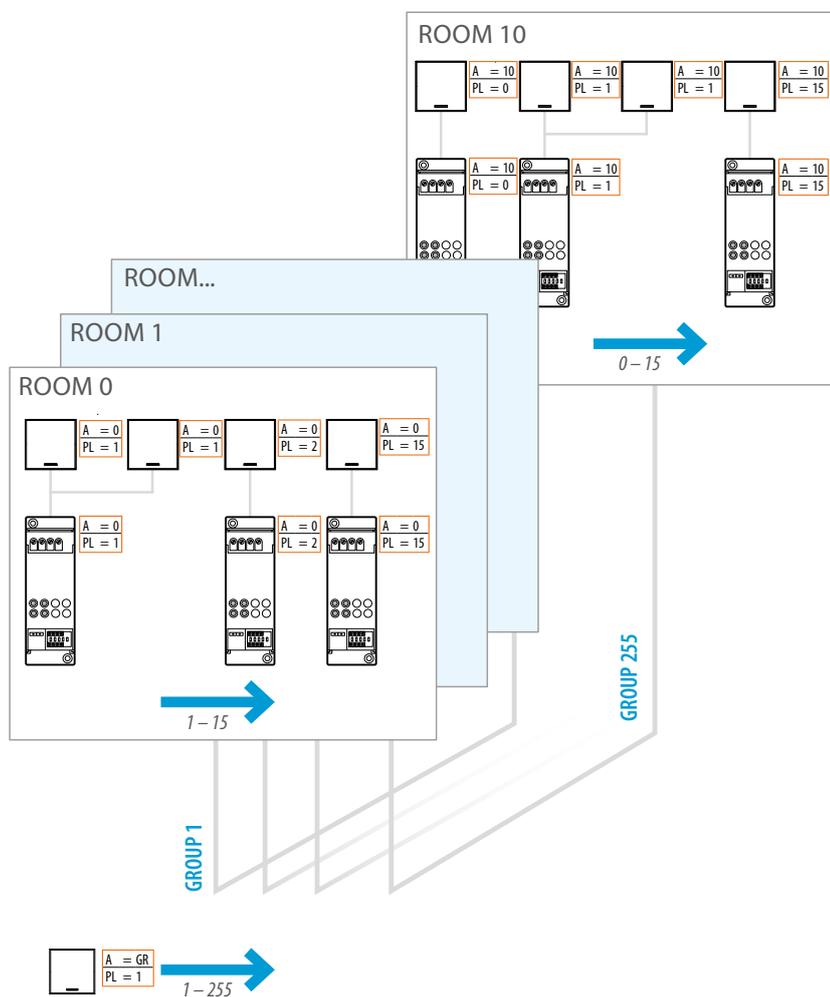
ACTUATOR ADDRESS - VIRTUAL CONFIGURATION

Using the MyHOME Suite application it will be possible to define a maximum of 16 addresses for each room (PL=0-15); a maximum of 11 rooms can be defined in a system. (A=0 -10).

LOGICAL EXTENSION

In case of exceeding the configuration limits mentioned (system with many devices), it is possible to an extended system consisting of more extended systems connected to each other through the appropriate interface item F422 in "logical expansion" (see the General Rules for Installation section).

Virtual configuration



General concepts

CONTROLS: ADDRESS AND TYPE OF CONTROL

The control devices also have positions A and PL to define the addresses of the devices which receive the control (actuators).

For these positions there are numeric

configurators with graphics which enable the device to send the control with the various ways listed in the table below.

Mode for addressing the devices using the Physical Configuration

TYPE OF CONTROL	CONTROL DEVICE	
	configurator socket	value of the configurator
Point-to-point	A	1-9
	PL	1-9
Room	A	AMB
	PL	1-9
Group	A	GR
	PL	1-9
General	A	GEN
	PL	-

Mode for addressing the devices using the Virtual Configuration

TYPE OF CONTROL	CONTROL DEVICE	
	Configurable address	Configuration
Point-to-point	A	0-10
	PL	0-15
Room	A	AMB
	PL	0-10
Group	A	GR
	PL	1-255
General	A	GEN
	PL	-

Examples of configuration

EXAMPLES OF CONFIGURATION

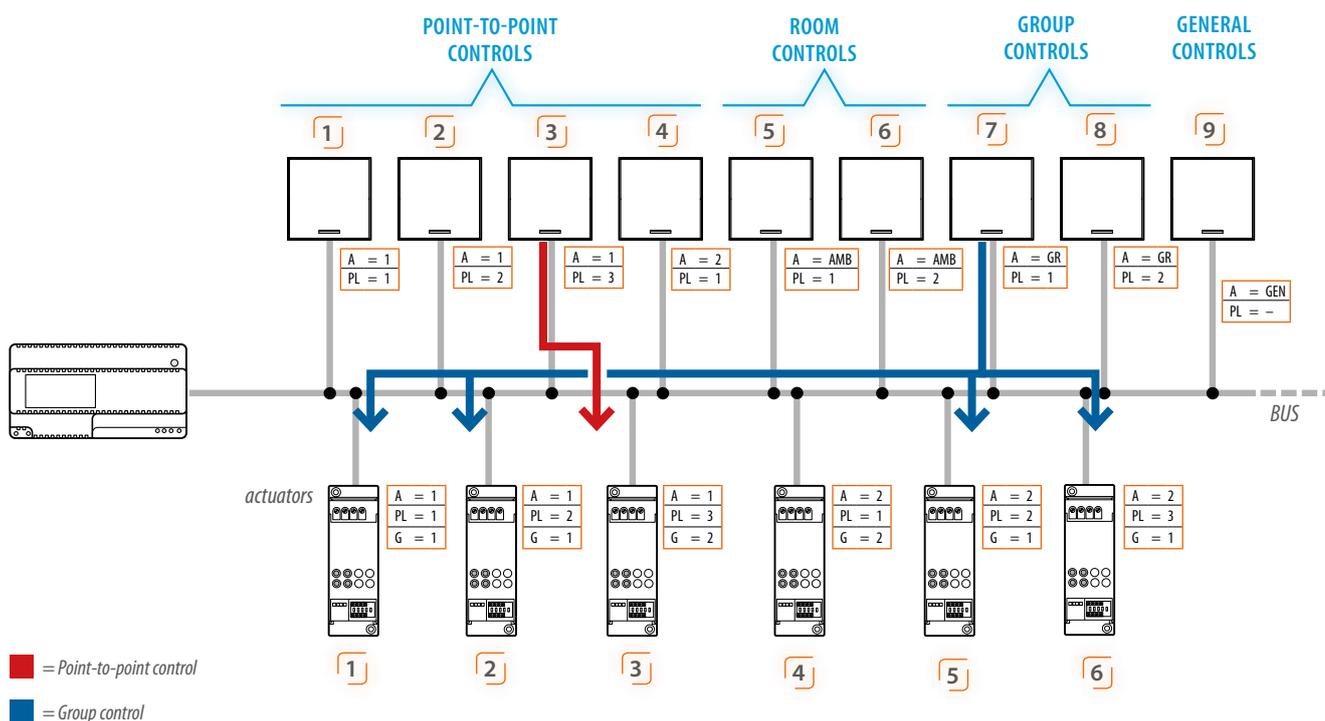
Point-to-point control

If the No. 3 control is configured with A = 2 and PL = 3, this device sends the control to the actuator identified with A = 2 and PL = 3.

Group control

If the No. 7 control is configured with A = GR and PL = 1, this device sends the control to the actuator

identified with G = 1 (thus belonging to group 1).



Maximum number of devices which can be configured

PHYSICALLY CONFIGURED

SINGLE SYSTEM

A single system can manage up to 9 rooms (A).

For each room, it will then be possible

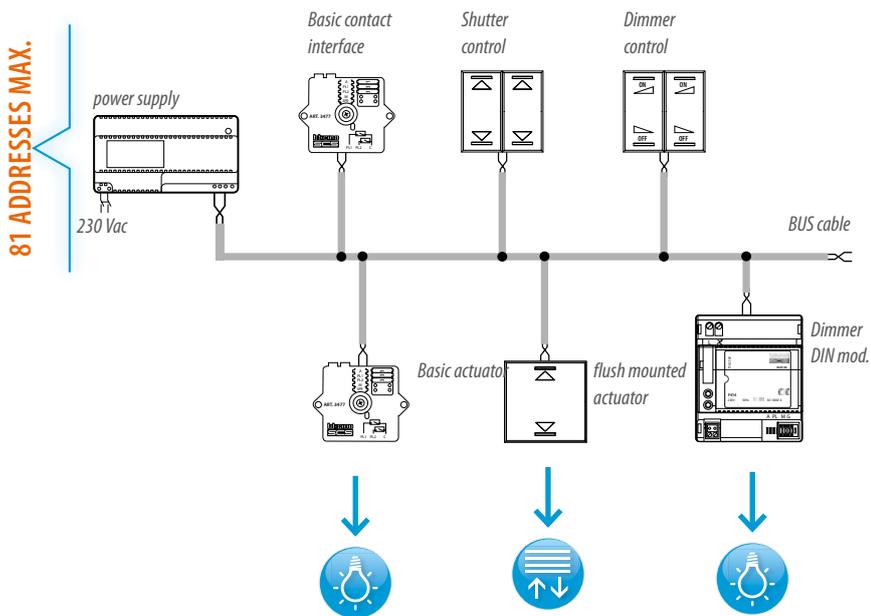
to manage up to 9 light points (PL), for a total of 81 addresses.

To these addresses, any inclusion in

one or more groups must be added.

It is also possible to have several

devices with the same address.



VIRTUALLY CONFIGURED

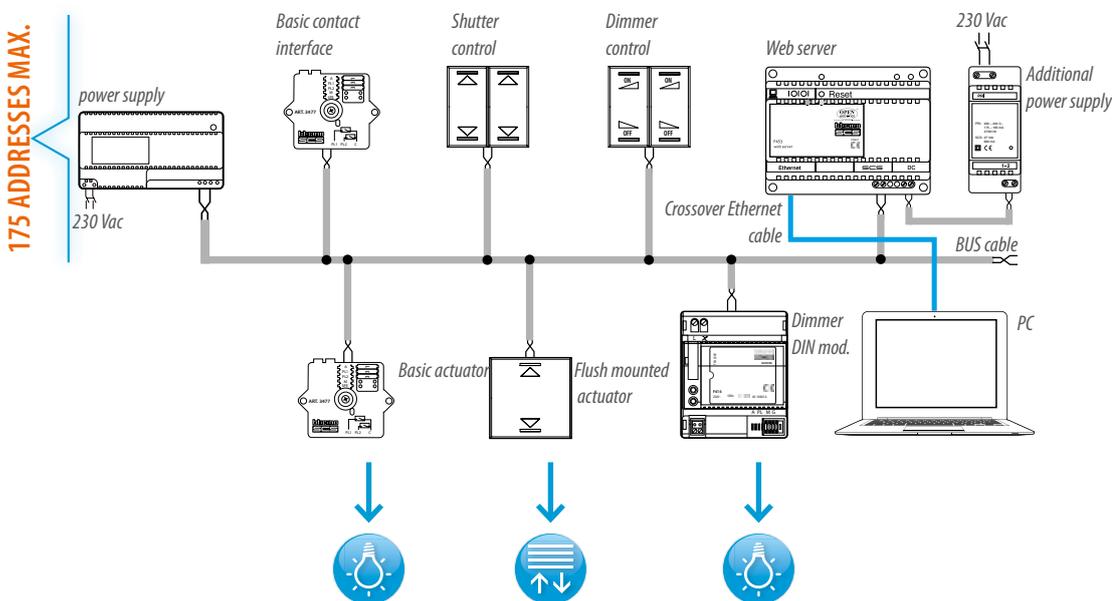
SINGLE SYSTEM

A single system can manage up to 11 rooms (A=0-10).

rooms (A=0-10).

For each room it will then be possible to manage up to 16 light points (PL=0-15), for a total of 175 addresses (the address A=0, PL=0 is not permitted).

15), for a total of 175 addresses (the address A=0, PL=0 is not permitted).

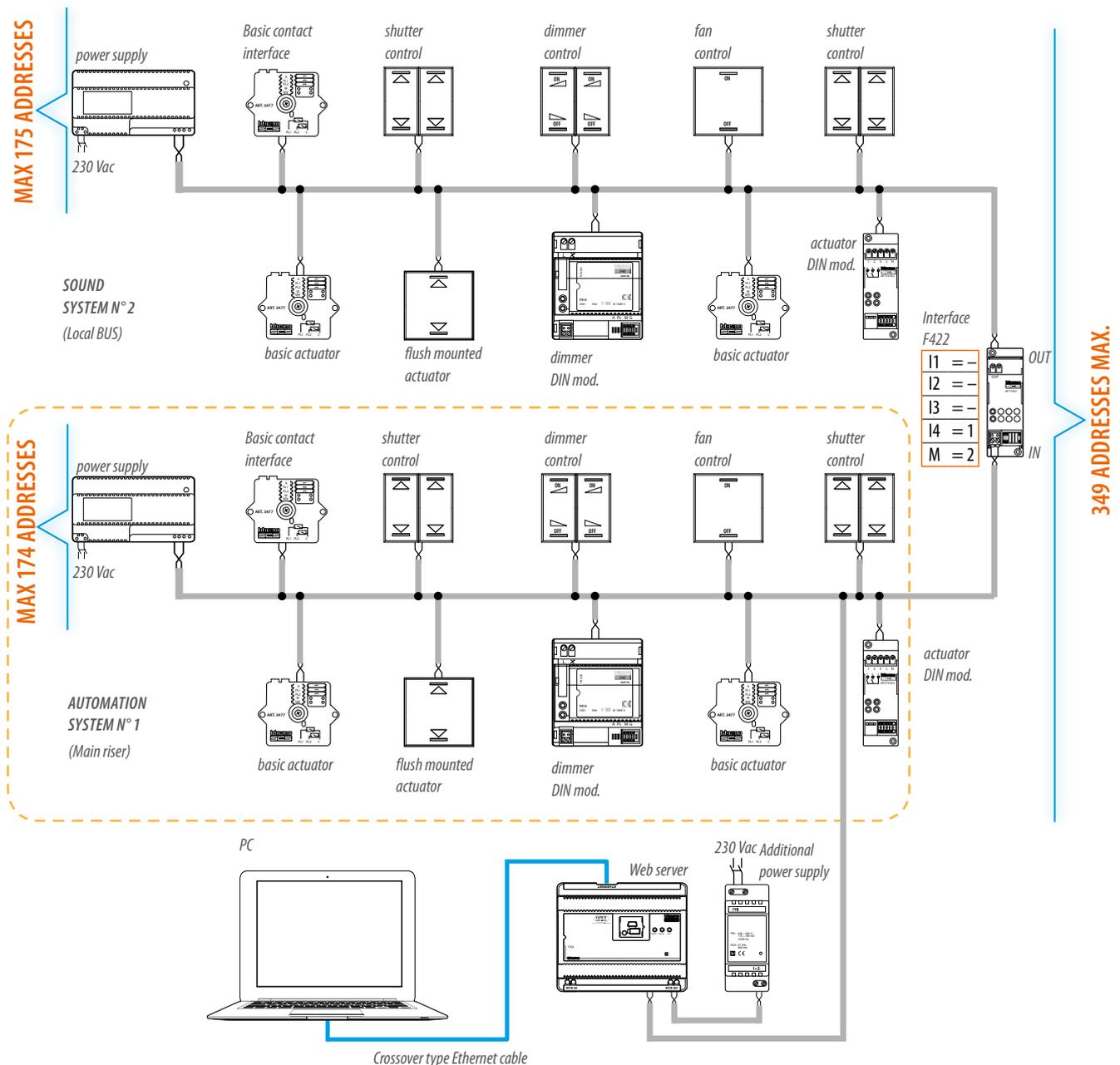


Logical expansion of the addresses

VIRTUALLY CONFIGURED EXTENDED SYSTEM WITH ONE F422 INTERFACE

In larger homes, or in the service sector, there might be the need for Automation systems with a higher number of functions than the above. In this case, it is possible to create an extended Automation system using

interface F422 configured in the "logic expansion" mode: with configurators N° 2 in position M and N° 1 in I4.



Logical expansion of the addresses

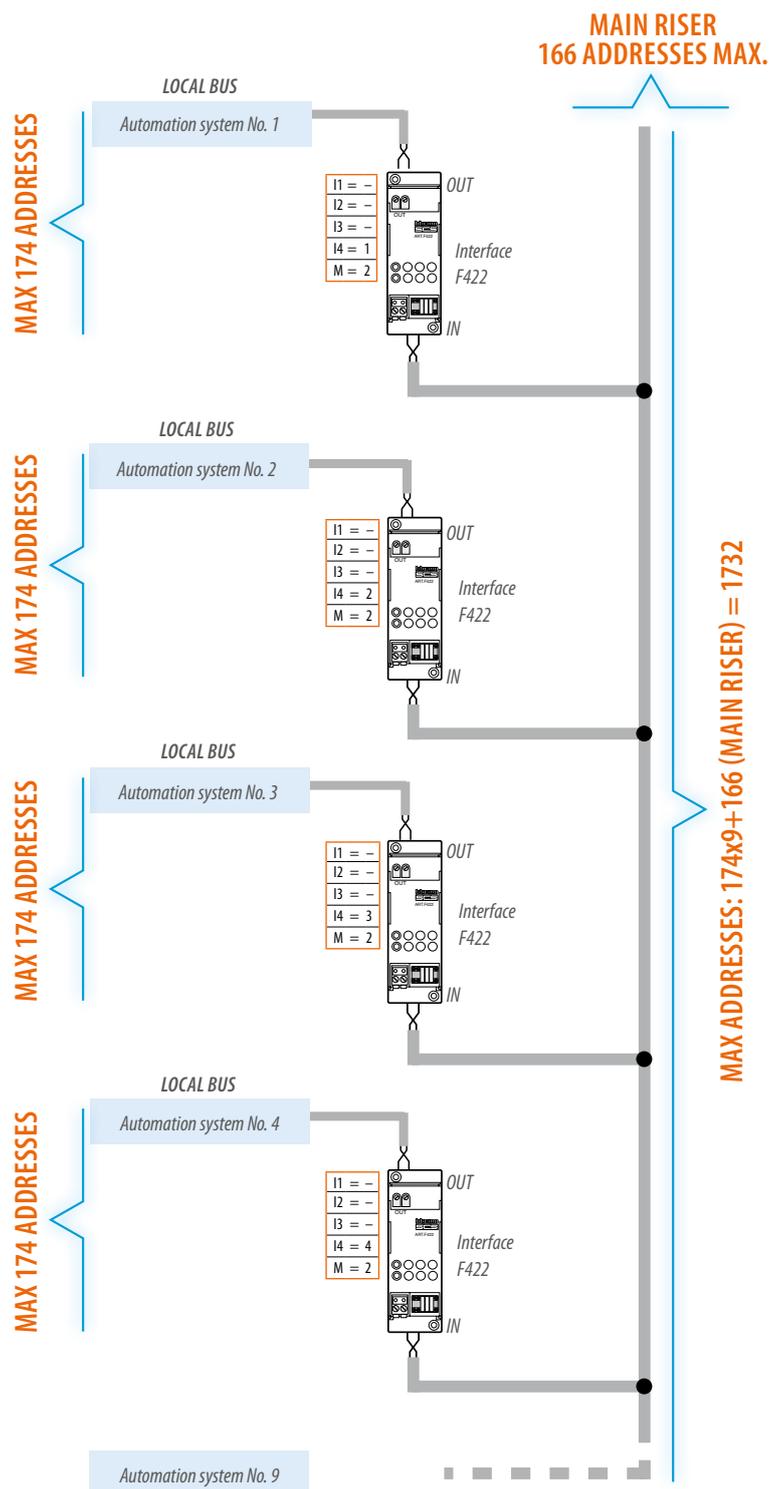
VIRTUALLY CONFIGURED EXTENDED SYSTEM WITH SEVERAL F422 INTERFACES

If three or more systems (up to a maximum of 9) must be combined, these must be connected by means of interfaces F422 with a common bus, which from now on we will call "riser", on which the control, activation and management (for example Touch Screen) devices can also be installed because they belong to the Automation system. The riser cannot be made, for example, with a Burglar-alarm or 2 wire Video door entry system. The F422 interfaces are configured for operation in "logic expansion" mode, connecting configurator no. 2 to the M position and configuring the address of position I4 with configurators from 1 to 9, as per the following diagram. For each of the 9 systems there will be 174 configuration addresses available, excluding the interface address, as well as 166 addresses on the riser, for a total of 1732 addresses.

Warnings:

- In the main riser it is possible to install control devices configured to send GROUP or GENERAL controls to some or all of the actuators situated in the single systems and in the same main riser.
- POINT-POINT controls generated inside each single system and on the main riser can reach the actuators situated in the whole system only if they are sent from the appropriately configured SPECIAL control device H/L4651M2, AM5831M2 situated on the main riser or on one of the single systems (max 9) connected.
- If you need to control and execute the centralized management of the system with Web Server,

Touch screen and Energy Management Control Unit, these devices will have to be installed in the main riser.

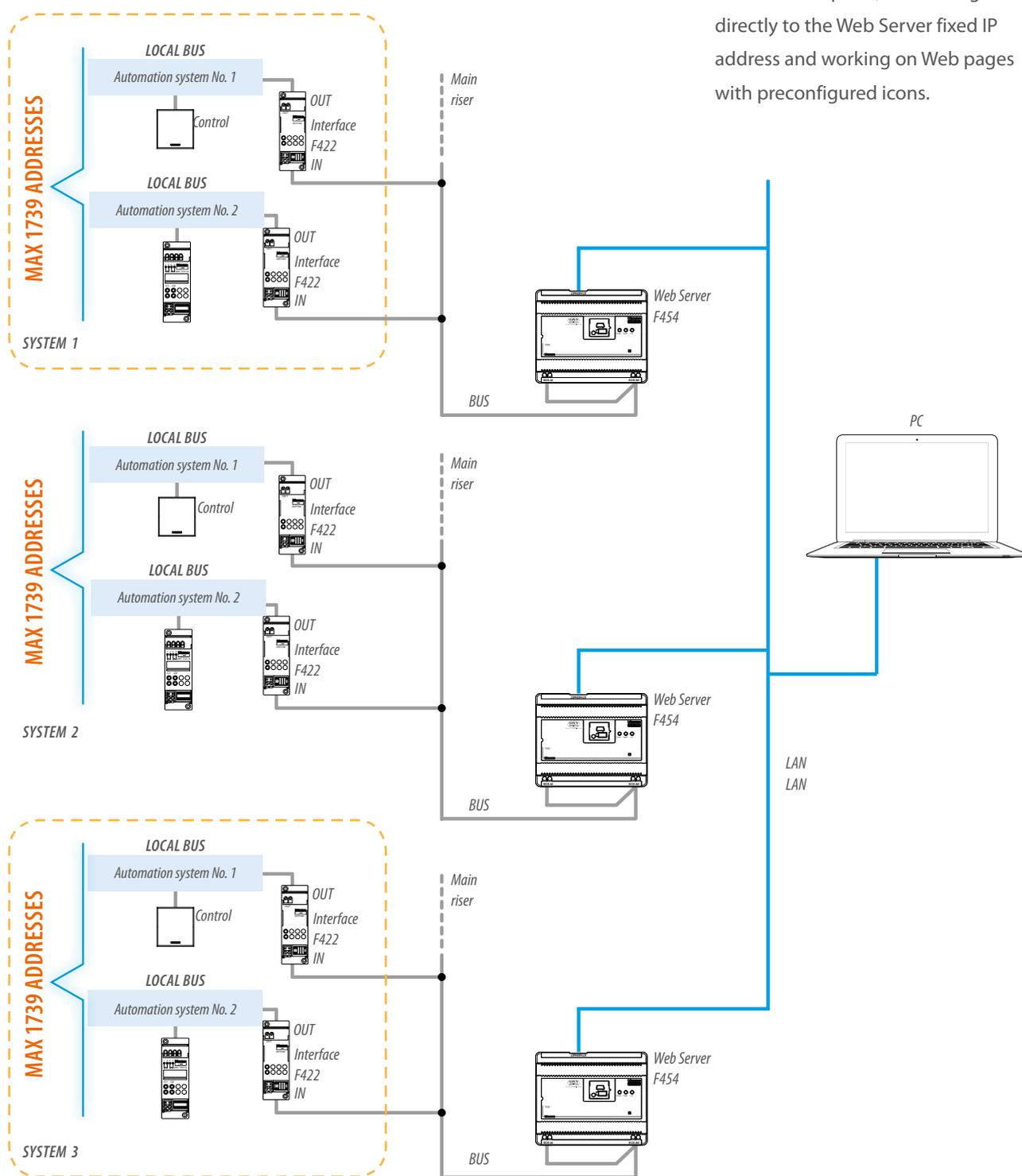


EXTENDED SYSTEM WITH INTERFACE F422 AND WEB SERVER

Special systems for which the availability of more than 1739 addresses is required can be made using one or more Web Servers F454

and a LAN network which forms the connection infrastructure. Referring to the picture below, in this case the extended system is made up of two

or more systems for each of which a maximum of 1739 addresses can be configured. The centralized control of the functions is obtained through Personal Computer, connecting directly to the Web Server fixed IP address and working on Web pages with preconfigured icons.



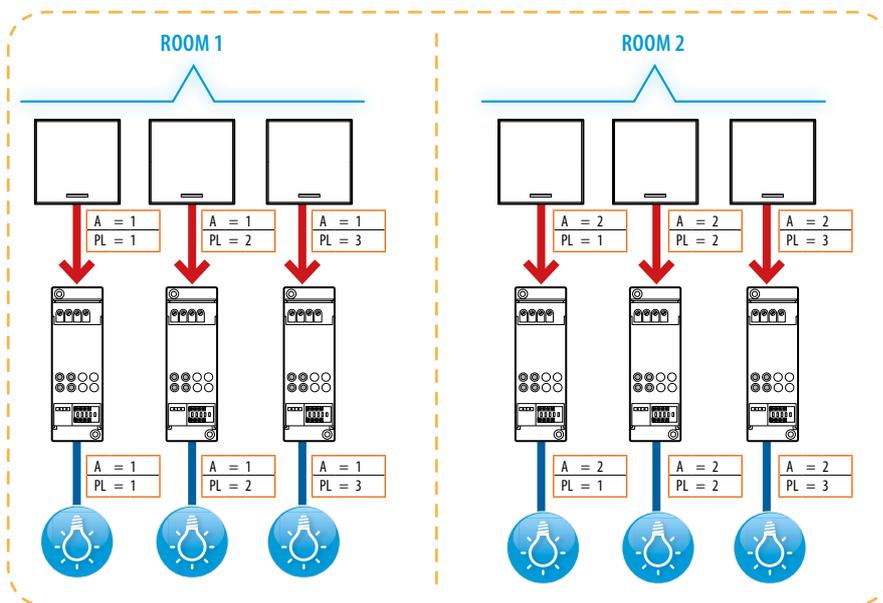
Addressing levels

For a better understanding of the concepts described in the previous page, the four addressing modes are described below. The control devices (senders) can activate the actuators (receivers) with the following modes:

POINT-TO-POINT CONTROL

Direct control to one actuator identified by a "room number" and a "light point number".

Example: control for a single load (lamp, fan, rolling shutter, etc.)

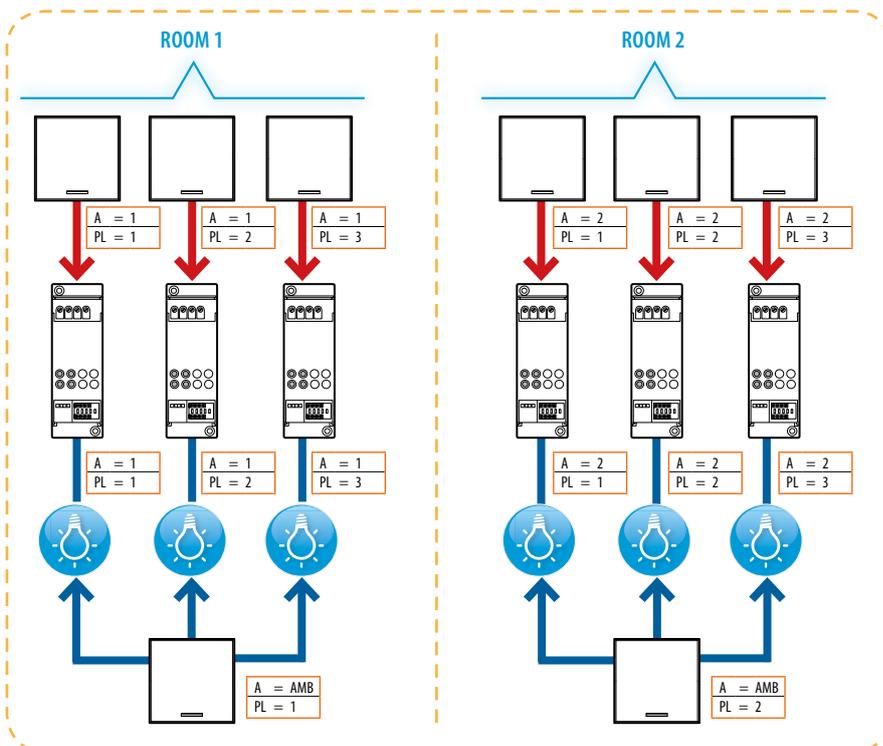


Control device: $A = n^*$ $PL = n^*$
 Actuator: $A = n^*$ $PL = n^*$

ROOM CONTROL

Direct control to all the actuators identified by the same room number.

Example: control for all the lamps of a room



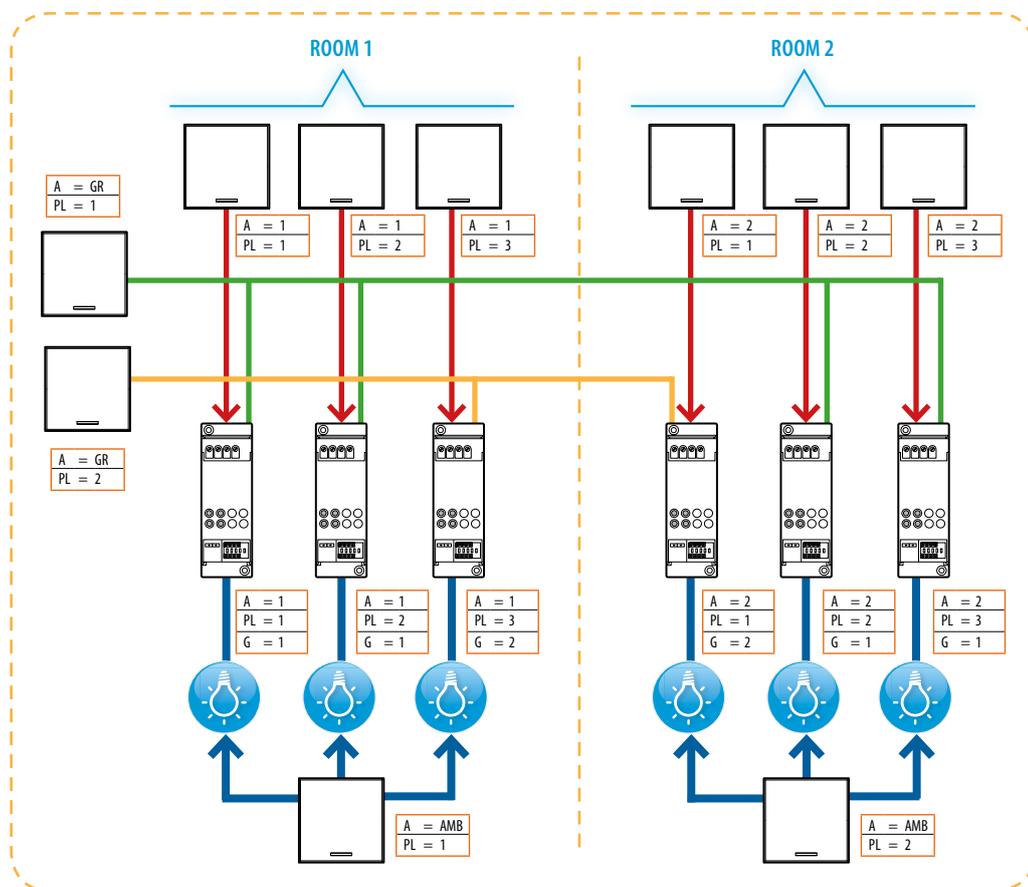
Control device: $A = AMB$ $PL = n^*$
 Actuator: $A = n^*$ $PL = n^*$

n^* = any numeric configurator from 1 to 9

GROUP CONTROL

Direct control to all the actuators
 which perform particular functions
 even if they belong to different
 rooms and are identified by the same
 "group number".

Example: control of all the lamps of a floor, on the North side of the building



Control device: A = GR PL = n*
 Actuator: A = n* PL = n* G = n*

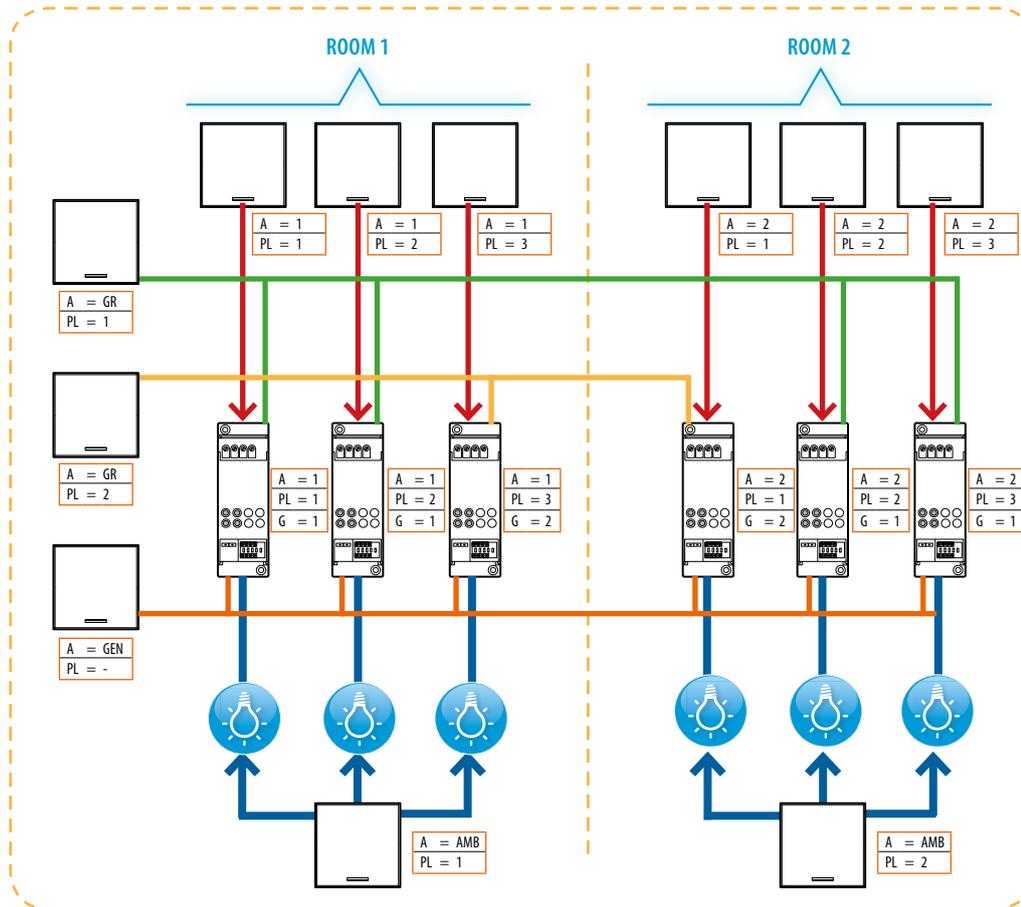
Addressing levels

GENERAL CONTROL

Direct control to all the system

actuators.

Example: control of all the lamps of the building



Control device:

A = GEN PL = /

Actuator:

A = n* PL = n* G = n* n* = any numeric configurator from 1 to 9

Main operating modes

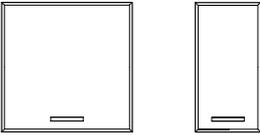
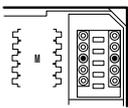
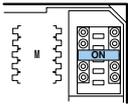
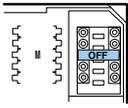
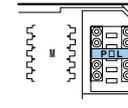
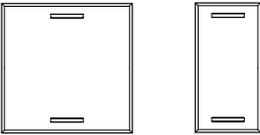
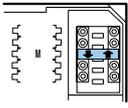
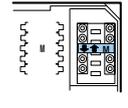
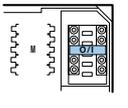
The devices in the automation system can perform different functions, such as setting the brightness, switching lamps on/off or opening/closing rolling shutters.

The function performed, i.e. what the

device must do, is defined by putting configurators into the housings marked with M of the control devices and completing the devices with keys and key covers (if the devices are flush mounted).

The table below lists the various operating modes as a function of the configurator and type of key cover used in the device.

CONTROL TABLE

Key covers	Configurator value (M)	Function performed
1 FUNCTION 	 no configurator	Cyclical ON-OFF control Repeatedly pressing the relay actuators device key cover, ON and OFF controls will be sent in a cyclical way. With dimmer actuators, keep the pushbutton pressed to adjust the load power.
	 configurator ON	ON control When pressing the corresponding key cover, the device sends the ON control.
	 configurator OFF	OFF control When pressing the corresponding key cover, the device sends the OFF control.
	 configurator PUL	Monostable ON-OFF control (pushbutton) This mode can perform an ON/OFF control similar to the control of a traditional point-point pushbutton, thus intended just for one address.
2 FUNCTION 	 configurator 	Bistable control with hold (UP-DOWN for rolling shutters) Pressing the key cover (lower or upper) sends the UP-DOWN control to the rolling shutter motor. After the control has been sent, press the lower or upper key cover again, to stop the rolling shutter in the required position.
	 configurator  M	Monostable control (UP-DOWN for rolling shutters) The device sends an UP-DOWN control for a rolling shutter motor as long as the lower or upper key cover is pressed. When the key cover is released, the motor STOPS.
	 configurator 0/1	ON/OFF control Used with relay actuators, when the upper key cover is pressed the device sends an ON control; when the lower key cover is pressed the device sends an OFF control. With dimmer actuators, pressing the upper and lower key cover adjusts the load power.

Main operating modes

CEN OPERATING MODE

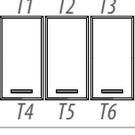
This particular mode is used to manage scenario programmer devices MH200N. As described in the pages of this guide, the device can manage even complex scenarios activated automatically after events in the system or manually by pressing a key of a control device configured with the CEN configurator in the M

position.

The key (upper or lower) of the control device and the scenario to be activated are linked through the TiMH200 program written to create the scenarios and then saving them in the MH200N device.

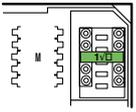
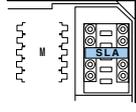
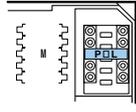
For example, it is possible to activate two independent scenarios using the special H/L4651M2, AM5831M2

control, using the T1 (upper) and T2 (lower) pushbuttons. For the correspondence between the control keys and the scenarios to activate see the table:

Type of control	Configuration	Identification of scenario activation keys
Special control H/L4651M2 and AM5831M2	A=0-9; PL=0-9; M=CEN; LIV1/AUX=0; LIV2=0; SPE=0; I=0	
Basic control for 2 independent loads H/L4652/2 and AM5832/2	A1=0-9; PL1=0-9; M1=CEN; A2=0; PL2=0; M2=0	
	A1=0-9; PL1=0-9; M1=CEN; A2=0; PL2=0; M2=CEN	
Basic control for 3 independent loads H/L4652/3 and AM5832/3	A1=0-9; PL1=0-9; A2=0; PL2=0; A3=0; PL3=0; M=CEN	

MAIN ACTUATOR OPERATING MODES

The actuators can be configured for the following operating modes:

ACTUATORS TABLE	
Configurator value (M)	Function performed
 configurator 1-4	Special functions This mode can perform special functions (OFF delayed, STOP timed) on the basis of the type of actuator used (single or double) and the numeric configurator inserted.
 configurator SLA	Slave This mode can perform a control with two or more actuators. In practice the actuators with the SLA (Slave) configurator repeat the function performed by another actuator which acts as Master. The actuators must have the same addresses and must be of the same type (either all light actuators or all rolling shutter actuators).
 configurator PUL	PUL The device does not operate with the Room and General controls.

Examples of configuration

The drawing shows a system for the management of three lamps and three shutters. Each actuator is identified by three numbers: room number (A), device progressive number (PL for light actuators and PL1 and PL2 for shutter actuators) and Group (G) of belonging.

DEFINING THE ADDRESSES

Point-to-point control

Control 1 (A = 1, PL = 1) controls actuators 1 (A = 1, PL = 1 and G = 1). In the same way control 2 (A = 1, PL = 2) controls actuator 2 (A = 1, PL = 2 and G = 1) etc.

Room control

Room control 8 (A=AMB, PL=2) controls actuators 4 and 5 marked with A=2

Group control

Group control 7 marked with A=GR and PL=1, controls actuators 1 and 2 marked with G=1

General control

The devices identified A=GEN and PL= - (no configurator) send a general control to all the actuators, for the lights and for the shutters, in the system.

NOTE: The actuators which manage the shutters, unlike those for the lights, are configured in the same way in the two positions PL1 and PL2.

The control devices are instead distinguished from the configurators in positions A and PL which specify the addresses of the actuators receiving the control (one only, a group or several room actuators) and

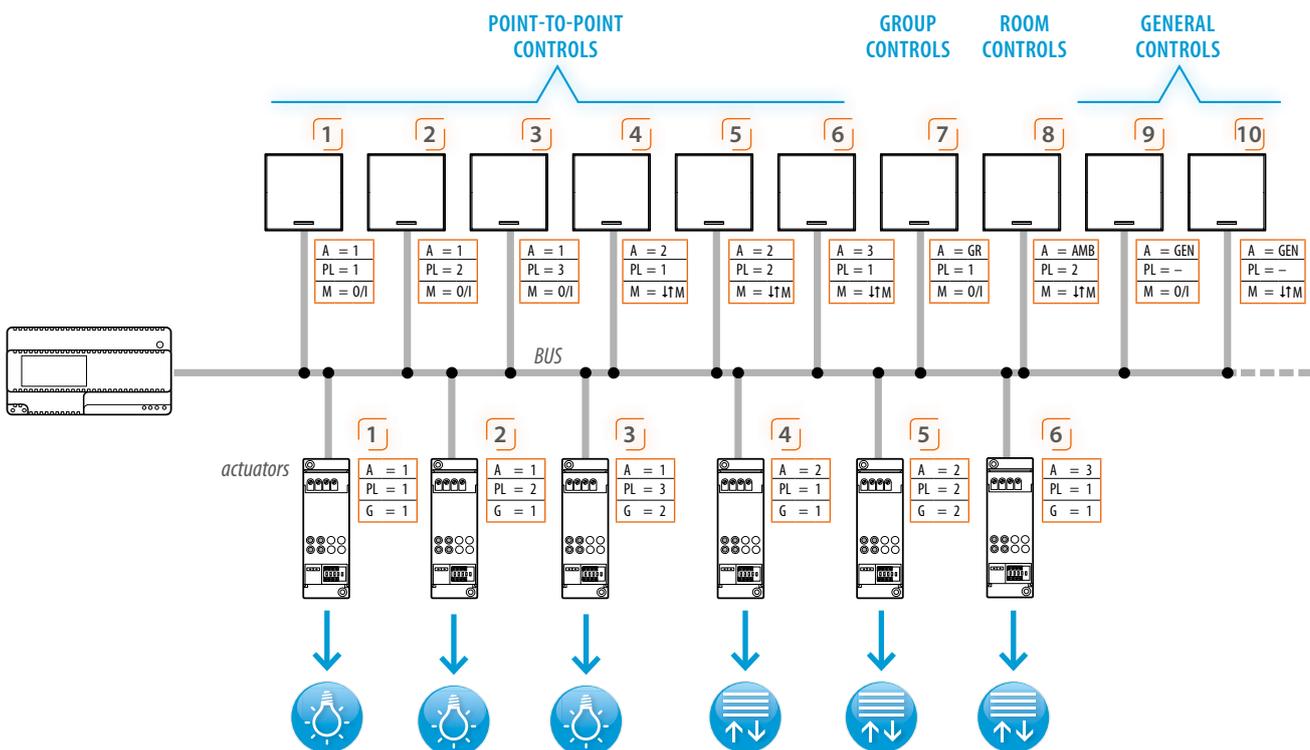
from the configurators in position M to define the function (ON/OFF or ON/DOWN).

CONTROL OPERATING MODE

The configurator inserted in position M of each control device identifies the operating mode.

The O/I configurator specifies a lamp switching on control which is given by pressing the upper key cover (ON) and the lower key cover (OFF).

The configurators $\uparrow\downarrow$ and $\uparrow\downarrow$ M in position M instead specify a control to manage the rolling shutters intended for actuators 4, 5 and 6.



CONFIGURATION

Configuration by MyHOME Suite of scenarios stored in the MH202 scenarios programmer and activated by movement/presence sensors

Depending on the desired application, it is possible to start the scenarios based on the following events:

- Presence/Absence;
- Movement.

Depending on the desired function, it is necessary to configure the sensors differently and to create different types of scenario in the MH202 programmer editor.

Some examples are shown briefly below.



MH202 scenario programmer

EXAMPLE 1 - SCENARIO BASED ON PRESENCE/ABSENCE

After an event of the presence/absence type, the sensor activates a scenario, after which it will continue to manage the lights automatically.

A possible application is the following: when presence is detected the sensor loads a scenario stored in the MH202 scenario programmer in which a Fan coil is activated, while the sensor switches on the lights at the same time; the lights are then managed autonomously by the sensors.

Once the presence is no longer detected, the sensor loads a programmed scenario in which the Fan coil is deactivated and, after the delay configured on the sensor, the sensor switches off the lights.

Sensor configuration



Configuration of objects for the scenario programmer, item HM202.

Configurazione	
Configurazione avanzata	
Modulo 1	
Modulo 2	
Modulo 3	
Abilitazione modulo	Si
Tipo funzione	Sensore di luminosità e presenza locale
Nome personalizzato	Sensore di presenza locale
Camera	Sensore di luminosità e presenza per scenari
Tipo di indirizzamento	Sensore di luminosità per scenari
Ambiente	Sensore di presenza per scenari
Punto luce	Sensore di luminosità locale
Tipo ciclo	Sensore di luminosità e presenza locale
	Anello chiuso

EXAMPLE 2 - SCENARIO BASED ON MOVEMENT

This type of scenario is activated whenever the sensor detects a movement. In this case the sensor simply loads the scenario stored in the MH202 programmer, but does not adjust the lights.

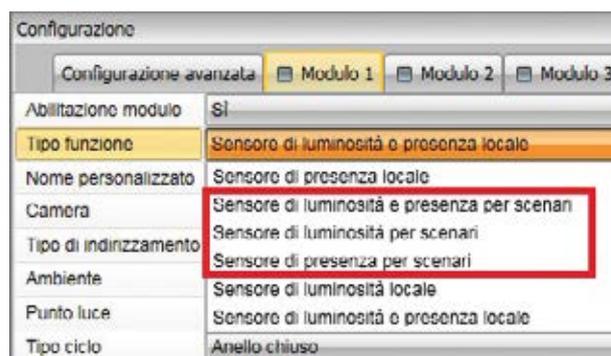
Example: timed lighting of stair lights after detecting movement.

Whenever the sensor detects a movement, it activates the scenario stored in the MH202 scenario programmer.

Sensor configuration



Configuration of objects for the scenario programmer, item HM202.



Maximum distances and absorptions

This chapter outlines the details for ensuring a correct realization of a MyHOME automation system:

- SELV Classification;
- Maximum distances and absorptions;
- Maximum number of devices which can be configured

SELV CLASSIFICATION

The automation system is SELV (Safety Extra Low Voltage) classified due to the fact that it is powered using double safety insulation  independent devices, not connected to the earth, and with maximum operating voltage of 27 Vdc, non-undulated, in accordance with CEI EN 600065 comparable to a SELV source as described in point 411.125 of CEI 64-8-4. The conformity to SELV

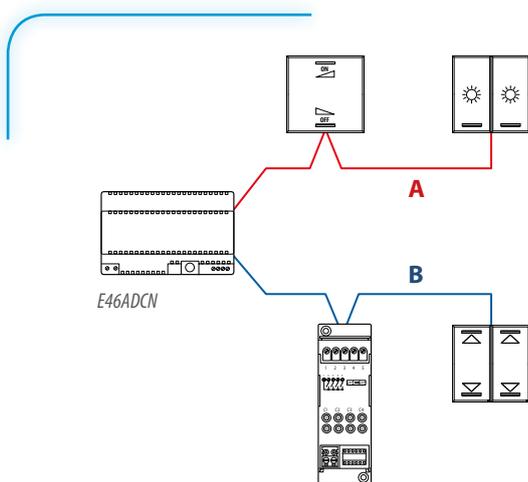
classification is only guaranteed subject to full compliance with current installation regulations, and with the general rules for installation for each single device and cable making up the system recommended by BTicino.

MAXIMUM DISTANCES OF THE BUS CABLE AND ABSORPTIONS

The maximum number of devices that can be connected to the BUS depends on their total absorption and on the distance between the connection point and the power supply. The power supply unit can deliver up to 1200 mA or 600 mA; hence, the maximum number of devices will be determined by the sum of the absorptions of the single devices you need to install.

For the calculations mentioned above, refer to the TECHNICAL DATA listed in the Technical sheets of every device. When calculating the absorptions, it is also necessary to consider the availability of current according to the length of the cable. When setting up, please observe the following rules:

- 1] The length of the connection between the power supply and the furthest device cannot exceed 250 m.
- 2] The total length of the connections must not exceed 500 m (extended cable).
- 3] In order to ensure optimum distribution of the currents on the BUS line, it is recommended to position the power supply in an intermediate position.



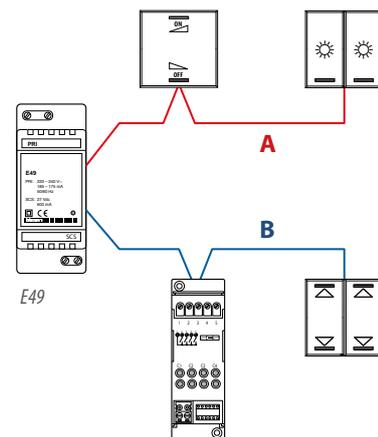
With E46ADCN power supply:

A = 250 m max

B = 250 m max

A + B = 500 m

The maximum current supplied by the power supply is: 1200 mA.



With E49 power supply:

A = 250 m max

B = 250 m max

A + B = 500 m

The maximum current supplied by the power supply is: 600 mA.

NOTE: If a UTP5 cable is used instead of a BUS L4669 cable, distances must halved.

ABSORPTIONS, SIZE AND DISSIPATIONS

Item	Description	(power supply 27 Vdc)	Size	Dissipation	
				Dissipated power with max. load	Max. load
3475	actuator	13 mA	Basic module		
3476	control actuator	13 mA	Basic module		
3477	contact interface	3.5 mA	Basic module		
E46ADCN	power supply		8 DIN modules	11 W	1.2 A
E49	compact power supply		2 DIN modules	5.3 W	
F411U1	1-relay actuator	5 mA standby - max 30 mA	2 DIN modules	1.5 W	
F412U1	2-relay actuator	55 mA (single loads) 30 mA (interlock)	2 DIN modules	1.7 W	
F411/4 ¹⁾	4-relay actuator	60 mA (single loads) 22 mA (interlock)	2 DIN modules	2.4 W	
F412 ¹⁾	1-relay NC/NA actuator	20 mA	2 DIN modules	1.5 W	
F413N ¹⁾	output 1 to 10 for ballast	30 mA	2 DIN modules	0.5 W	
F414	DIN dimmer	9 mA	4 DIN modules	11W	1000W
				5W	500W
F522	Actuator 16A with current sensor	30 mA	1 DIN module		
F418	DIN dimmer	10 mA	4 DIN modules	2.5 W	300 W
F523	16A actuator	10 mA	1 DIN module		
F420	scenario module	20 mA	2 DIN modules	0.6 W	
F422	SCS/SCS interface	IN: 25 mA OUT: 2mA	2 DIN modules	1 W	
F425	memory module	5 mA	2 DIN modules	0.1 W	
F426	SCS/EIB interface	30 mA	6 DIN modules		
F427	OPEN KNX interface		6 DIN modules		
F428	contact interface	9 mA	2 DIN modules	0.2 W	
F429	SCS/DALI interface	5 mA	6 DIN modules		
H/L4651M2 AM5831M2	special control	6 mA for H4651M2 8.5 mA for L4651M2 and AM5831M2	2 flush-mounted modules		
H/LN4652	8-key control	5 mA (stand-by) 20 mA	2 flush-mounted modules		
H/L4652/2 AM5832/2	control for 2 actuators	9 mA	2 flush-mounted modules		
H/L4652/3 AM5832/3	control for 3 actuators	9 mA	3 flush-mounted modules		
H/L4671/1 AM5851/1	1-relay actuator	16.5 mA	2 flush-mounted modules	0.9 W	
H/LN4671M2 AM5851M2	control/actuator	14 mA	2 flush-mounted modules		
H/L4678	flush-mounting dimmer	9 mA	2 flush-mounted modules	3 W	300 W
H/HW/AM4890 LN4890/A	Color touch screen	80 mA	3+3 flush mounted modules		
HD/HC/HS/L/N/NT4575SB	SB receiving radio interface	33 mA	2 flush-mounted modules		
HD/HC/HS/L/N/NT4607	protected control	15 mA	2 flush-mounted modules		
HD/HC/HS/L/N/NT4607/4	protected scenario control	12 mA	2 flush-mounted modules		
HD/HC/HS/L/N/NT4610	fixed IR detector	4.5 mA	2 flush-mounted modules		
HD/HC/HS/L/N/NT4611	swivel IR detector	4.5 mA	2 flush-mounted modules		
HD/HC/HS/L/N/NT4672N	16 A flush mounted 2 module actuator	10 mA	2 flush-mounted modules		
HD/HC/HS/L/N/NT4680	scenario control	9 mA	2 flush-mounted modules		
BMSE3001	passive infrared ceiling sensor	12mA	diameter 102mm - depth 55.6		
BMSE3003	double-technology IR sensor	17mA	diameter 120mm - depth 62.27		
BMSW1005	actuator	power supply 100-240Vdc	10 DIN modules		3600W
BMDI1002	1-10V Dimmer	power supply 100-240Vdc	10 DIN modules		1000W
F418U2	DIN Dimmer - 2 outputs	18mA	4 DIN modules		2X300W
F416U1	dimmer actuator1000W TC	5 mA	6 DIN modules	8 W	1000 W
F417U2	dimmer actuator1000W 2x400 W TC	5 mA	6 DIN modules	8 W	2 X 400 W
BMDI1001	dimmer actuator1000W 1/10 V	5 mA	6 DIN modules		
BMSW1002	2-relay 230 Vac actuator	5 mA	4 DIN modules	1.7 W	
BMSW1003	4-relay 230 Vac actuator	5 mA	6 DIN modules	2.8 W	
H/LN4660M2 AM5860M2	shutter control	7 mA			
H/LN4661M2 AM5861M2	shutter actuator	16 mA		2 A	250 Vac
F401					
HD/HC/HS4657M3/M4	touch control	25 mA	2 flush-mounted modules		

NOTE:

1) the dissipated power indicated is that corresponding to the device with all the relays loaded at the maximum load. With lower loads also the dissipated power is lower and may be calculated by means of the following formula: $P[mW]=140+400*N+10*[I1+I2+...IN2]$

P: dissipated power in mW, N: no. of loaded relays IN: load current corresponding to the N relay.

Install the items with greater dissipated power (in special power supplies and dimmers) in lower positions in the switchboard for easier heat dissipation.

Do not place devices which dissipate a power greater than 5W side by side, but leave an empty module between them.

Maximum distances and absorptions

For the power supply selection keep in mind the following guidelines: if the absorption of the whole system is less than 600 mA, the E49 compact power supply can be used. If the absorption is between 600 and 1200 mA, use the E46ADCN power supply. For extended systems with current absorption over 1200 mA or 600 mA powered by power supplies E46ADCN and E49, it will be necessary to split the system into several lines, each powered by its own power supply and connected to each other using interface F422 configured in "Physical expansion" mode.

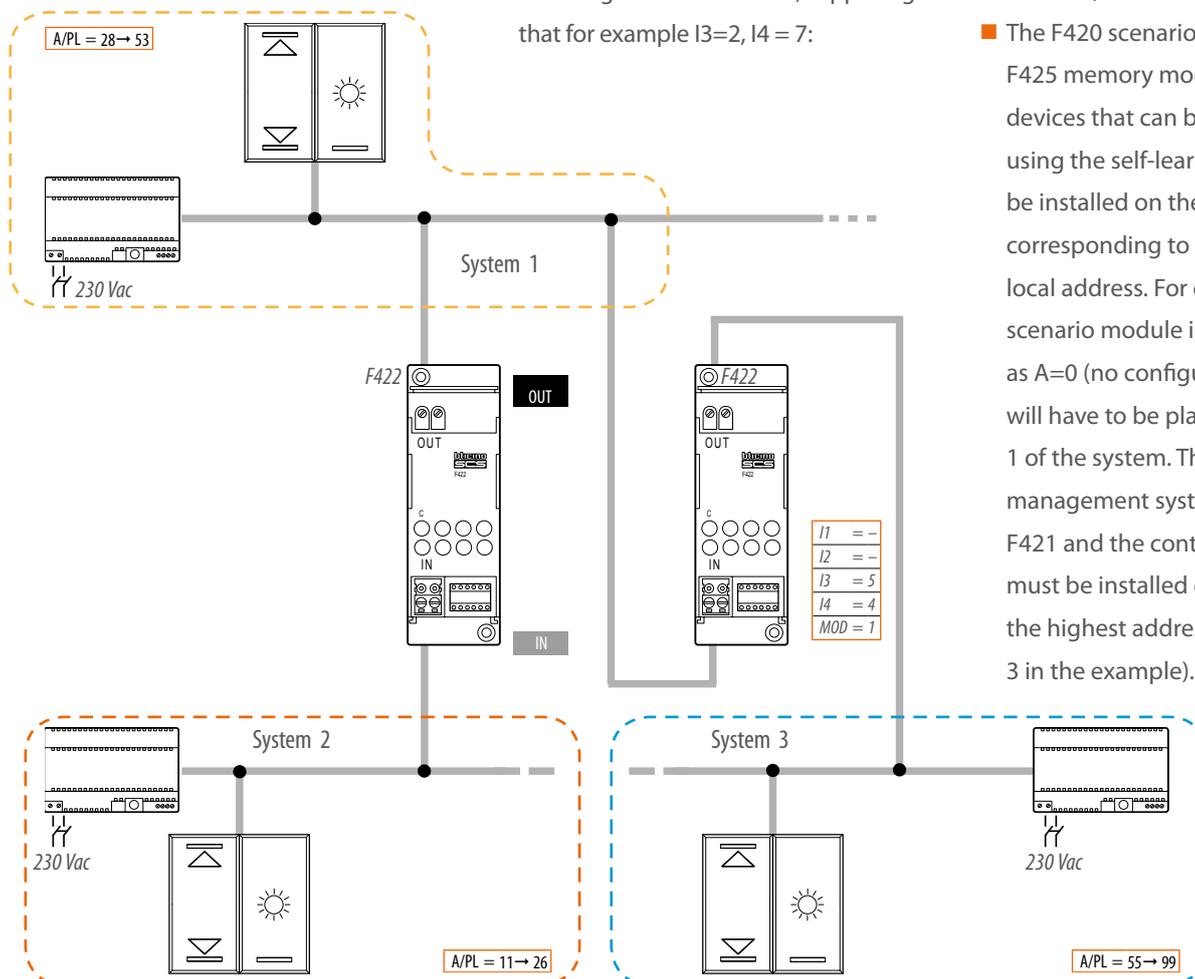
PHYSICAL EXPANSION MODE

Limit systems shall be applied to each bus in terms of absorption and maximum wiring distance, as shown in the previous page. Therefore, it is not possible to supply a system consisting of two or more buses with only one power supply unit E46ADCN or E49, connected to each other by interfaces configured in "physical expansion" mode even if the number and type of components connected to the system do not exceed the set maximum absorption (1200 mA). Positions I3 and I4 shall be configured according to the configuration of the Automation devices in the two systems connected to each other. Referring to the illustration, supposing that for example I3=2, I4 = 7:

- on the input bus (IN), the addresses of Automation devices No. 1 must be between A=1 / PL=1 and A=2 / PL=6;
- on the output bus (OUT), the addresses of Automation devices No. 2 must be between A=2 / PL=8 to the address of the next interface.

When setting up the system, keep in mind the following following recommendations:

- It is not possible to connect two interfaces in parallel to the same BUS;
- It is possible to use up to 4 interfaces in series, which divide the system into 5 separate sections;
- The F420 scenario module, the F425 memory module, and the devices that can be configured using the self-learning mode must be installed on the bus section corresponding to their own local address. For example if the scenario module is configured as A=0 (no configurator), PL=1, it will have to be placed on section 1 of the system. The energy management system central unit F421 and the control panel N4682 must be installed on the BUS with the highest addresses (system no. 3 in the example).



ACTUATORS CONNECTION TO THE LUMINARIES

In order to manage some types of loads correctly, it is necessary to observe the installation specifications for all actuators used.

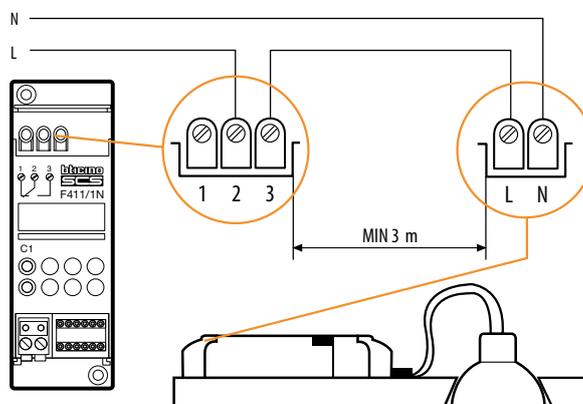
- Fluorescent lamps: the length of the connecting cable between the actuator and the load must not be less than 3m. Do not connect more than 15 actuators controlling this type of lamp on the same line;
- Metal halide and sodium vapor lamps: in addition to the indications given for the fluorescent lamps, please pay attention to the operating instructions of these lamps (for example, avoid switching on when hot), do not connect dimmers to the same line of these lamps, keep the bus line and the power line of these lamps separated from each other (at least 1 meter);
- Three-phase networks: when using three-phase networks, check the balance of the phases as well as the quality of the network.

Non-compliance of the above regulations may affect proper operation of the devices.

CONTACT INTERFACE CONNECTION WITH TRADITIONAL DEVICES

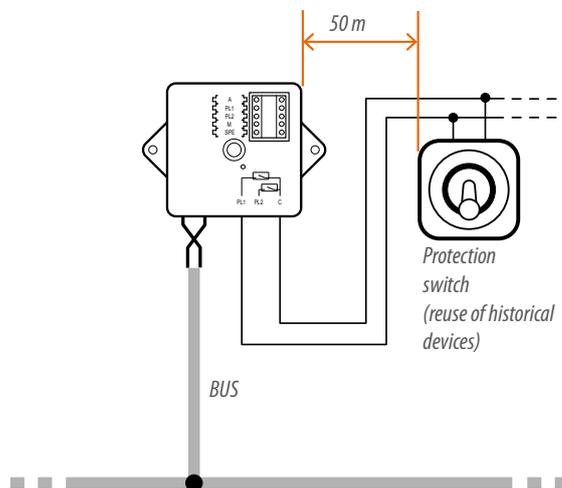
The connection between the interface (basic or DIN module) and the traditional type device must not exceed 50 meters in length. Several pushbuttons may be connected to the interface inputs.

Example of connection with F411/1N



Warning: Refer to the technical data shown on the technical sheets for each actuator.

Maximum distances for connecting the contact interface



Brightness and movement/presence sensors

DEVICE SELECTION CRITERIA

The following pages provide information for the selection and installation of brightness and movement sensors which, though designed for use in tertiary settings, are also applied in a residential setting, helping to make buildings more energy-efficient.

The most critical steps in planning a lighting system with the components mentioned above, from the simplest to the most complex, are those concerned with the choice of the most suitable type of sensor. What technology to use, how many sensors, where they are positioned, the type of coverage, etc., have a considerable influence on the good operation of the entire system.

Specifically, the choice of the type of sensor can be summed up in four fundamental steps:

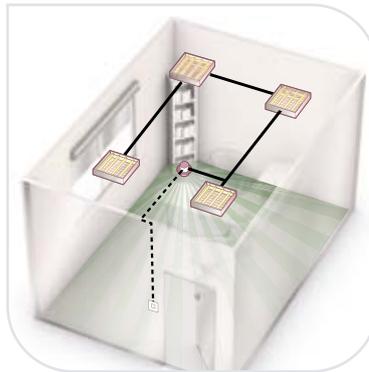
1 ANALYSIS OF THE ROOM CHARACTERISTICS



2 CHOICE OF THE SENSOR TECHNOLOGY



3 SENSOR COVERAGE AREA

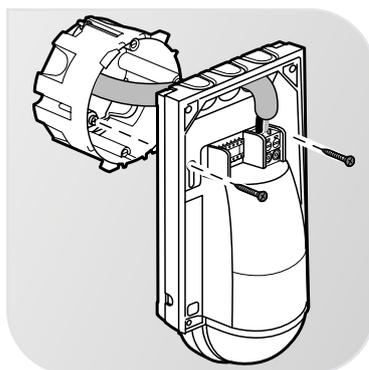


4 CHOICE OF THE OPERATING MODE



Once the sensor has been chosen, two further phases are required to complete the setup:

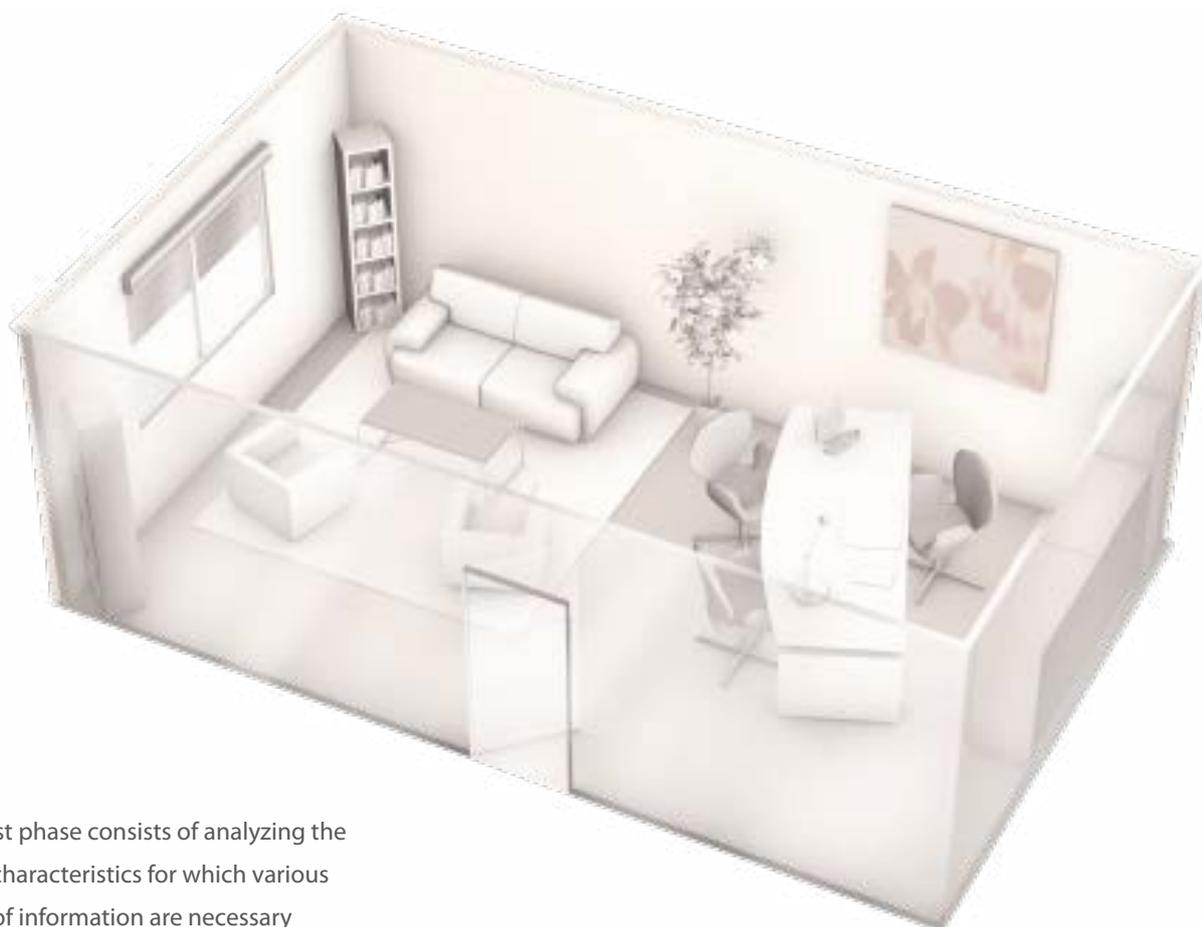
5 INSTALLATION



6 ADJUSTMENT OF THE OPERATING PARAMETERS



1 ANALYSIS OF THE ROOM CHARACTERISTICS



The first phase consists of analyzing the room characteristics for which various items of information are necessary concerning:

- Intended use of the room;
- Shape and size of the room;
- Main space of activity of the occupants;
- Ceiling height and presence of a false ceiling;
- Position of the walls, doors and windows;
- Presence of spaces with a supply of natural light;
- Position of work spaces;
- Position of shelves, cupboards and voluminous furniture;
- Position of the output terminals of the heating and cooling system;
- Characteristics of the light fixtures installed or to be installed.

WARNING: Remember to inform the occupants about the operation of the sensors so that they can consciously participate in sustainable development

Brightness and movement/presence sensors

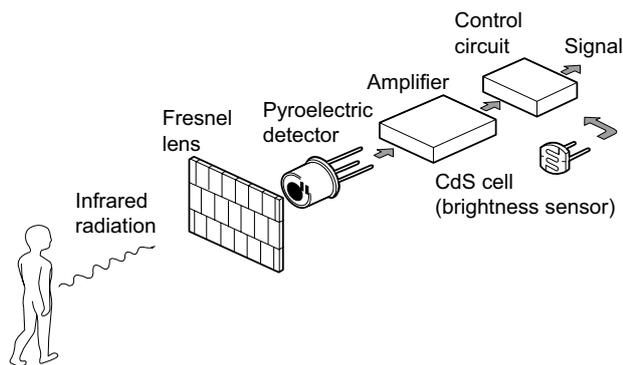
2 CHOICE OF THE SENSOR TECHNOLOGY

The second phase concerns the choice of the most suitable technology and is fundamental for optimizing detection, optimizing system operation, and avoiding malfunctions such as false detection or undesired switching off.

PIR: passive infrared



PIR (passive infrared) is a detection technology based on pyroelectric sensors, which measure the temperature variations in the room. The sensors detect the changes in temperature in their detecting area, defined by a curved and faceted lens from which numerous rays are emitted; as the distance from the sensor increases, the distance between the various rays increases, and consequently the detecting sensitivity decreases.



NOTE: The parameter measured by the sensor is temperature.

The sensor functions better, the more the room temperature is different from the body temperature.

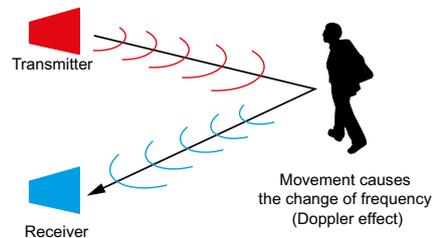
The best solution is to place the sensor perpendicular to people's trajectory.

ADVICE: use passive infrared sensors in passage areas or those with a non-sedentary presence, without obstacles that can hinder detection.

US: ultrasounds



These sensors emit sound waves that cannot be perceived by the human ear; they use a quartz crystal that oscillates at a frequency of 40 kHz, with power <110 dB at a distance of 1.5 m. The waves are emitted within the range of coverage of the sensor, bouncing off objects, surfaces and people. When the waves return to the sensor, it measures their frequency. The movement is detected by a slight change in frequency (Doppler effect), which determines the detection of presence. The ultrasound detector is able to "notice" objects and surfaces, as long as the surfaces in an enclosed area are sufficiently compact to allow the sound waves to bounce off. The ultrasounds have no effects on humans and animals.



Double technology (PIR + US)



Double-technology sensors use PIR/US technologies to guarantee maximum reliability and coverage, with minimum optimization of the possibility of false detection.

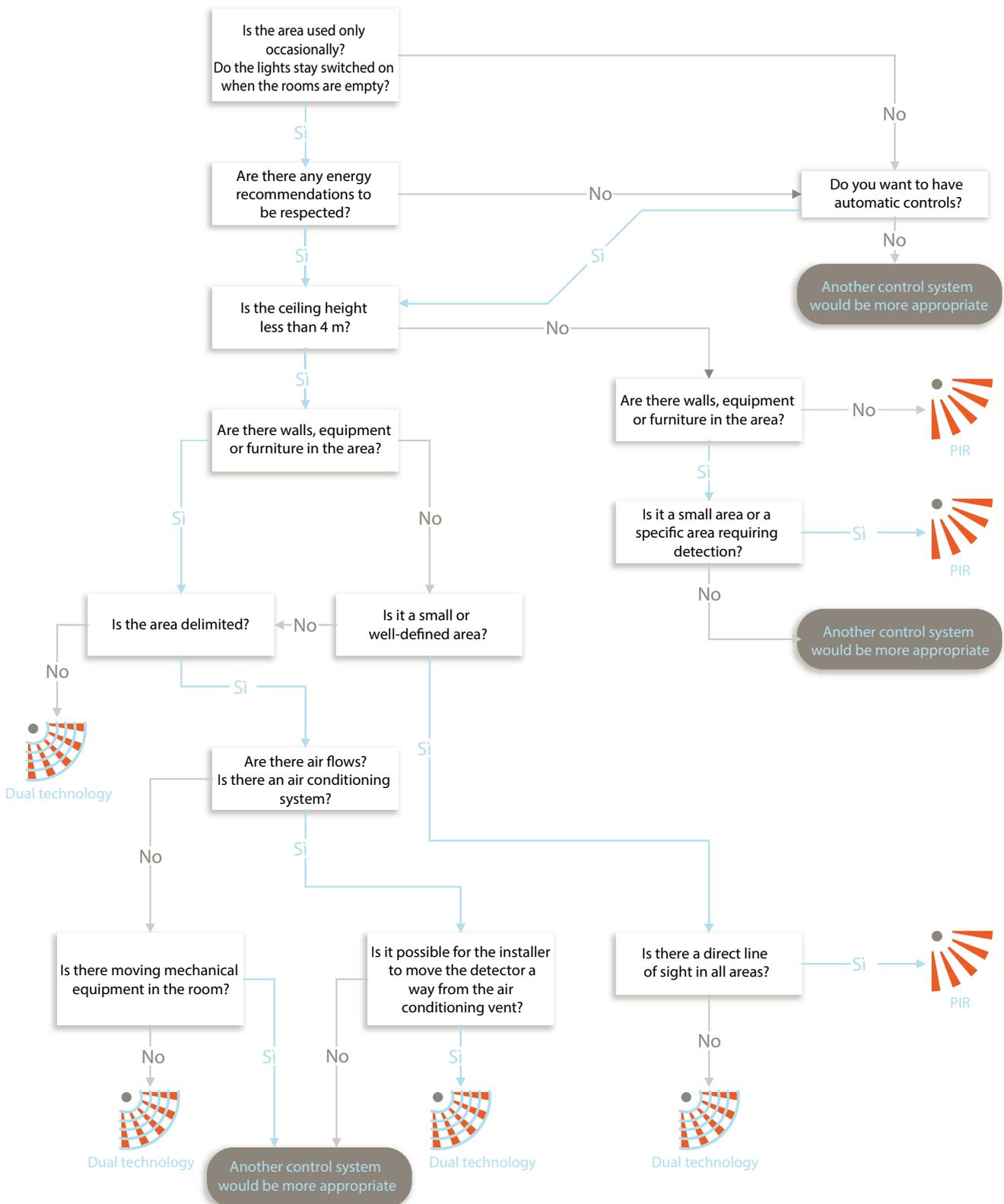


NOTE: The parameter measured by the sensor is the refraction of the ultrasound wave against an obstacle.

The best solution is to place the sensor parallel to people's trajectory.

ADVICE: use ultrasound sensors in work areas or those with a sedentary presence; avoid non-enclosed areas or those with glass walls.

The following diagram can be used to determine which sensor technology is best suited to each application/room.



Brightness and movement/presence sensors

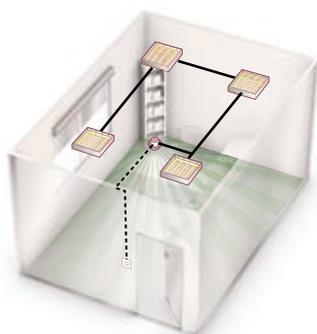
3 SENSOR COVERAGE AREA

The third phase consists of choosing the type and number of sensors best suited to control requirements.

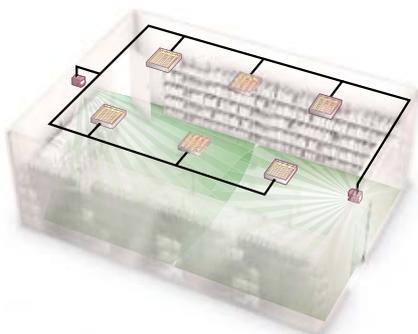
To do this it is necessary first of all to subdivide the room into control areas, that is areas within which the users operate and which must be controlled by means of one or more sensors.

Three typical situations may be presented:

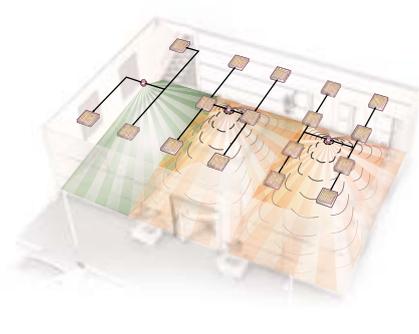
1 Small room with only one control area: a single sensor is enough to guarantee the correct coverage of the area.



2 Large room with only one control area: a single sensor is not enough to guarantee the correct coverage of the area. The solution is to place a sufficient number of sensors in parallel so as to cover the whole room uniformly.



3 Room with several control areas: or each control area it is indispensable to have one or more sensors in parallel, following the logic indicated in the two previous points.



Once the control area or areas have been defined, it is possible to choose the sensor best suited to the requirements.

The coverage area of a sensor depends on three factors:

- 1) Type of installation: wall, ceiling or flush fitted civil series;
- 2) Installation height;
- 3) Detecting sensitivity.

When these three factors vary, it is possible to adapt the coverage area of a sensor to the control area.

For further details on the coverage area of sensors and on detecting sensitivity, see the technical sheets of the specific products.

4 CHOICE OF THE OPERATING MODE

The fourth phase consists of choosing the operating mode. This influences both the comfort of use and energy saving; it is important to choose the one best suited to the reference area.

AUTO mode*



Activation and deactivation of the load are managed completely automatically by the sensor, depending on the detection of movement/presence and on the lighting level measured in the room.

The sensor keeps the load active as long as movement/presence is detected, otherwise, at the end of the set delay, the load is deactivated.



NOTE: (AUTO mode does not require the installation of an additional command, however it is possible to add one to force switching on or off)

ADVICE: to maximize energy saving, use AUTO mode in areas of passage or where there is non-sedentary presence

WALKTHROUGH mode*



Walkthrough mode helps to achieve increased energy saving: if the sensor detects movement/presence for a time of less than 20 seconds, the device reduces the delay to 3 minutes (on the other hand, if time is greater, the value remains unchanged).

ECO mode*



Activation of the load is manual and deactivation is managed automatically by the sensor, depending on the detection of movement/presence and on the lighting level measured in the room.

Once it has been activated manually, the load remains active as long as movement/presence is detected, otherwise, at the end of the set delay, the load is deactivated.

An option of ECO mode is the RETRIGGER* function (to be activated in the sensor parameters), which consists of temporary operation (30 seconds) in AUTO mode after switching off for non-detection of movement/presence. 30 seconds after switching off, the sensor resumes working in ECO mode and the load must be reactivated manually.



NOTE: (ECO mode does not necessarily require the installation of an additional command)

ADVICE: to maximize energy saving, use ECO mode in work spaces where there is sedentary presence

* For further information on the operating modes or the different parameters available, refer to the technical sheets of the products

Brightness and movement/presence sensors

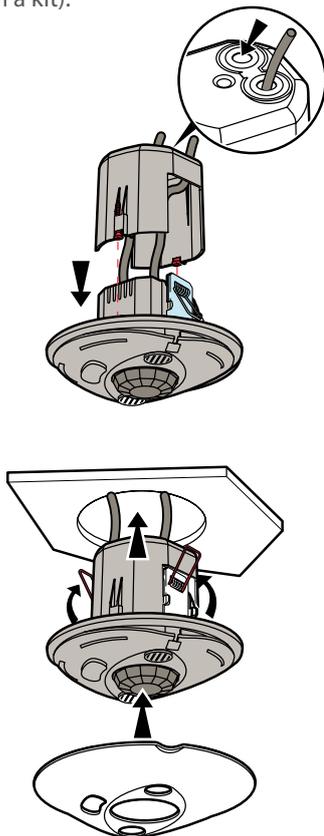
5 INSTALLATION

The sensors can be installed in different ways to adapt better to the control requirements and the configuration of the room.

FLUSH MOUNTED CEILING INSTALLATION



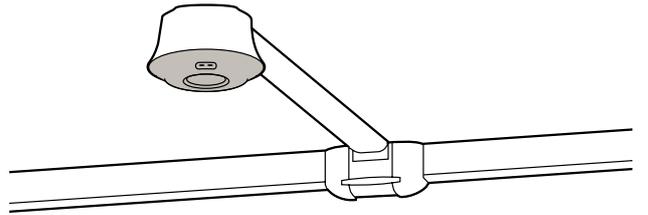
Flush mounted installation with springs, without flush mounting box and without cover (springs and cover are supplied in a kit).



Flush mounted installation with springs, without flush mounting box and with cover (springs and cover are supplied in a kit).

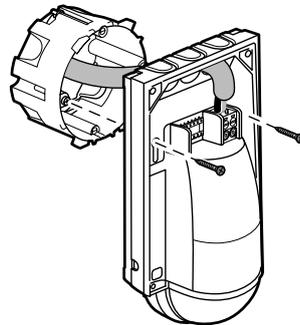
The ceiling sensors can be flush mounted even on masonry ceilings or on plasterboard ceilings, using the appropriate flush mounting boxes ref. 502E, PB502 and 89358.

SURFACE CEILING INSTALLATION

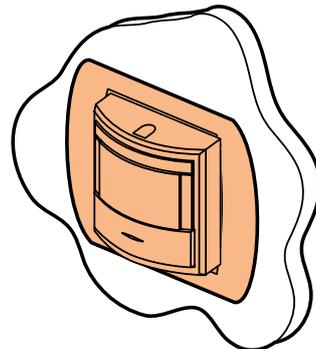


All ceiling sensors can be installed on the surface using the box for ceiling installation ref. 048875 to be bought separately.

WALL INSTALLATION



INSTALLATION OF FLUSH MOUNTED SENSORS



6 ADJUSTMENT OF THE OPERATING PARAMETERS

The sensor configuration parameters can be set and modified either with the MyHome_Suite software or with the configuration remote controls.

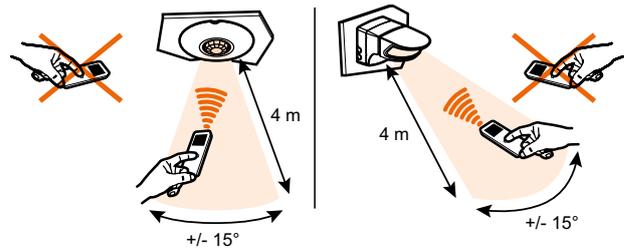
ADJUSTMENT WITH THE CONFIGURATION REMOTE CONTROL

Using the configuration remote controls it is possible to access and modify a wide range of parameters (*). The remote controls allow you to avoid having to use the configuration software to change the settings, and allow you to save a typical configuration and repeat it on other sensors.

There are two types of configuration remote controls:

- Basic item BMSO4003: allows you only to send information to the sensors;
- Advanced item BMSO4001: allows you to send and receive information from the sensors.

The operating principle is the same and consists of pointing the remote control directly towards the sensor, choosing the desired value and sending the parameter to the sensor.



** Consult the technical sheets of the sensors for details of the parameters available.*

Brightness and movement/presence sensors

BEHAVIOR OF SENSORS

The following table shows the behavior of sensors in the case of AUTO or WALKTHROUGH operating mode.

It is presumed that a person is present in a room where there is natural light.

ACTION	ON OFF ADJUSTMENT	DIMMER ADJUSTMENT
The person enters the room and the lighting level is sufficient	No action	No action
The person enters the room and the lighting level is insufficient	Immediate activation of the loads Activation of the adjustment function (only if activated and available only for advanced sensors)	Immediate activation of the loads at the level prior to switching off (if the previous level is insufficient, the loads are activated at 70% of their maximum power) Activation of the adjustment function (only if activated and available only for advanced sensors)
The person remains in the room, the sensor adjusts the loads, and the general lighting level decreases	If the loads are inactive, they are activated immediately If the loads are already active, no action is taken	If the loads are inactive, they are activated immediately at the level prior to the last deactivation If the loads are active, the level at which they are dimmed is increased
The person remains in the room, the sensor adjusts the loads, and the general lighting level increases	If the lighting level exceeds the brightness threshold set on the sensor, the loads are deactivated after 10 minutes If the lighting level does not exceed the brightness threshold set on the sensor, no action is taken	If the lighting level exceeds the brightness threshold set on the sensor, the level at which the loads are active is reduced gradually (1% per minute; if the difference is particularly great, this may take up to one hour)
The person remains in the room, the loads are active and the manual control is pressed briefly	Switch-off control (OFF): immediate deactivation of all loads Switch-on control (ON): activation of the adjustment algorithm	Switch-off control (OFF): immediate deactivation of all loads Switch-on control (ON): activation of the adjustment algorithm
The person remains in the room, the loads are active and the manual control is pressed and held down	The adjustment algorithm is stopped No effect on the loads	The adjustment algorithm is stopped Immediate increase or decrease of the load activation level
The person remains in the room, the loads are inactive and the manual control is pressed briefly	Switch-off control (OFF): stopping of the adjustment algorithm Switch-on control (ON): activation of the loads and of the adjustment algorithm	Switch-off control (OFF): stopping of the adjustment algorithm Switch-on control (ON): activation of the adjustment algorithm and of the load levels prior to the last deactivation
The person remains in the room, the loads are inactive and the manual control is pressed and held down	The adjustment algorithm is deactivated Immediate activation of the loads	The adjustment algorithm is deactivated Activation of the loads and increase or decrease of the load activation level
The person leaves the room	Deactivation of the loads and deactivation of the adjustment algorithm at the end of the delay set on the sensor	Deactivation of the loads and deactivation of the adjustment algorithm at the end of the delay set on the sensor
Interruption of the main power supply	The controllers (DIN or Room Controller) store the load activation level	The controllers (DIN or Room Controller) store the load activation level
Return of the main power supply	The controllers return to the state that they were in before the power supply interruption The adjustment algorithm is deactivated The switch-off delay set on the sensor starts to be measured If no movement/presence is detected, the loads are deactivated at the end of the delay	The controllers return to the state that they were in before the power supply interruption The adjustment algorithm is deactivated The switch-off delay set on the sensor starts to be measured If no movement/presence is detected, the loads are deactivated at the end of the delay

The following table shows the behavior of sensors in the case of ECO operating mode.

It is presumed that a person is present in a room where there is natural light.

ACTION	ON OFF ADJUSTMENT	DIMMER REGULACION
The person enters the room and the lighting level is sufficient	No action	No action
The person enters the room and the lighting level is insufficient	No action until the manual control is pressed	No action until the manual control is pressed
The person remains in the room, the sensor adjusts the loads, and the general lighting level decreases	If the loads are inactive, they are activated immediately If the loads are already active, no action is taken	If the loads are inactive, they are activated immediately at the level prior to the last deactivation If the loads are active, the level at which they are dimmed is increased
The person remains in the room, the sensor adjusts the loads, and the general lighting level increases	If the lighting level exceeds the brightness threshold set on the sensor, the loads are deactivated after 10 minutes If the lighting level does not exceed the brightness threshold set on the sensor, no action is taken	If the lighting level exceeds the brightness threshold set on the sensor, the level at which the loads are active is reduced gradually (1% per minute; if the difference is particularly great, this may take up to one hour)
The person remains in the room, the sensor does not adjust the loads, and the general lighting level decreases	No action	No action
The person remains in the room, the sensor does not adjust the loads, and the general lighting level increases	No action	No action
The person remains in the room, the loads are active and the manual control is pressed briefly	Switch-off control (OFF): immediate deactivation of all loads Switch-on control (ON): activation of the adjustment algorithm	Switch-off control (OFF): immediate deactivation of all loads Switch-on control (ON): activation of the adjustment algorithm
The person remains in the room, the loads are active and the manual control is pressed and held down	The adjustment algorithm is stopped No effect on the loads	The adjustment algorithm is stopped Immediate increase or decrease of the load activation level
The person remains in the room, the loads are inactive and the manual control is pressed briefly	Switch-off control (OFF): stopping of the adjustment algorithm Switch-on control (ON): activation of the loads and of the adjustment algorithm	Switch-off control (OFF): stopping of the adjustment algorithm Switch-on control (ON): activation of the adjustment algorithm and of the load levels prior to the last deactivation
The person remains in the room, the loads are inactive and the manual control is pressed and held down	The adjustment algorithm is deactivated Immediate activation of the loads	The adjustment algorithm is deactivated Activation of the loads and increase or decrease of the load activation level
The person leaves the room	Deactivation of the loads and deactivation of the adjustment algorithm at the end of the delay set on the sensor	Deactivation of the loads and deactivation of the adjustment algorithm at the end of the delay set on the sensor
Interruption of the main power supply	The controllers (DIN or Room Controller) store the load activation level	The controllers (DIN or Room Controller) store the load activation level
Return of the main power supply	The controllers return to the state that they were in before the power supply interruption The adjustment algorithm is deactivated The switch-off delay set on the sensor starts to be measured If no movement/presence is detected, the loads are deactivated at the end of the delay	The controllers return to the state that they were in before the power supply interruption The adjustment algorithm is deactivated The switch-off delay set on the sensor starts to be measured If no movement/presence is detected, the loads are deactivated at the end of the delay

Brightness and movement/presence sensors

MEASUREMENT OF THE LIGHTING LEVEL

The lighting level in the room is measured by the sensor by means of the built-in brightness cell.

Making a comparison with the set brightness threshold, the sensor adjusts the status or the switching-

on level of the loads.

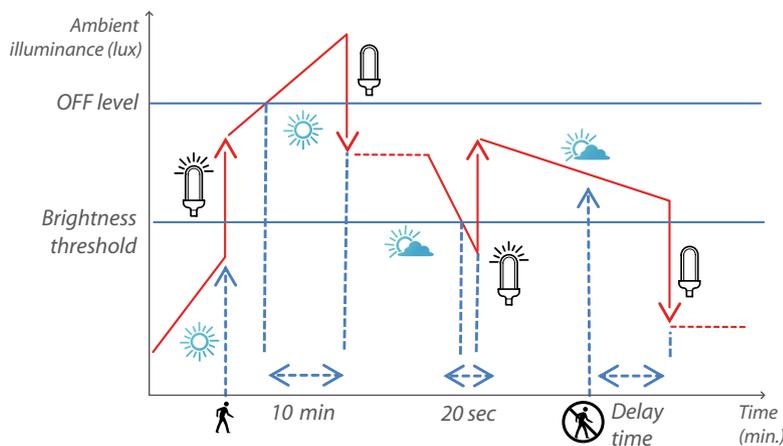
ON OFF ADJUSTMENT

This type of adjustment allows only the switching on or complete switching off of the load, it is not possible to adjust intermediate levels. To activate the switch-off control the sensor measures the level natural light (differentiating between it and

the artificial light supplied). In the case where the total lighting level (natural light + artificial light) exceeds the established threshold, the loads will be deactivated. This threshold must be exceeded for at least 10 minutes, before the sensor gives the

switch-off command. This avoids any involuntary switching off that might cause people problems.

ON-OFF ADJUSTMENT IN AUTO MODE



LEGEND:

Brightness threshold: value expressed in lux, pre-set in the factory but can be modified by the user. Represents the threshold below which the sensor controls the activation of the loads.

OFF level: value expressed in lux, pre-calculated by the sensor, which represents the threshold above which the sensor controls the deactivation of the loads. This value is composed of the sum of the lighting level and of the contribution of artificial light supplied by the light fixtures installed in the room.

Delay: value expressed in hours, minutes or seconds, pre-set in the factory but can be modified by the user; it represents the time threshold beyond which switching-off is determined following the failure to detect any movement/presence

Explanation:

1. Room not occupied: as the contribution of natural lighting increases, the lighting in the room increases

2. Detection of presence: the sensor detects a presence and checks a value of lux below the set brightness threshold, then adjusts the load through the actuator

3. Room occupied: as the contribution of natural lighting grows, the lighting of the room increases; when the OFF level is exceeded and 10 minutes have passed above that level, the sensor deactivates the load through the actuator

4. Room occupied: as the contribution of natural lighting falls,

the lighting of the room decreases; when the lighting level is exceeded in a downward direction and 20 seconds have passed below that level, the sensor deactivates the load through the actuator

5. Failure to detect movement/presence: after the delay, the sensor deactivates the load through the actuator

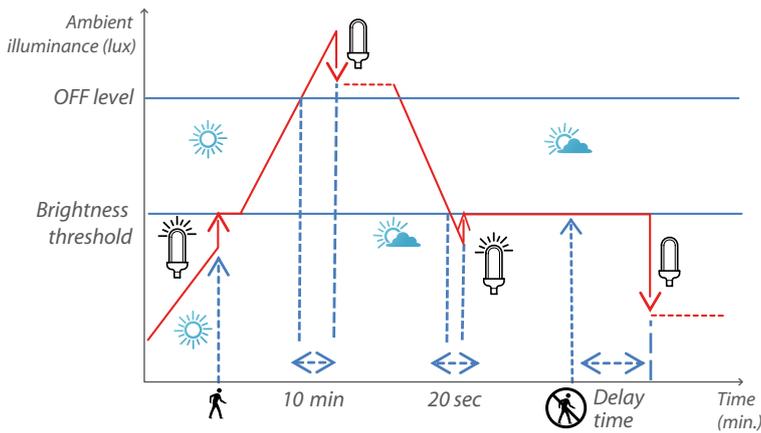
DIMMER ADJUSTMENT

This type of adjustment allows you to adjust the load activation level constantly, varying it and adapting it to environmental conditions. A

particular algorithm manages the increasing variation rapidly (so that people are not left in the dark when they enter a room) and the

decreasing variation more slowly (to avoid tiring the eyesight with fluctuations).

DIMMER ADJUSTMENT IN AUTO MODE



Legend:

Brightness threshold: value expressed in lux, pre-set in the factory but can be modified by the user. Represents the threshold below which the sensor controls the activation of the loads.

OFF level: value expressed in lux, pre-calculated by the sensor, which represents the threshold above which the sensor controls the deactivation of the loads. This value is composed of the sum of the lighting level and of the contribution of artificial light supplied by the light fixtures installed in the room.

Delay: value expressed in hours, minutes or seconds, pre-set in the factory but can be modified by the user; it represents the time threshold beyond which switching-off is determined following the failure to detect any movement/presence

Explanation:

- 1. Room not occupied:** as the contribution of natural lighting increases, the lighting in the room increases
- 2. Detection of presence:** the sensor detects a presence and checks a value of lux below the set brightness threshold and then, through the actuator, adjusts the load at a sufficient load to ensure the

required lighting.

- 3. Room occupied:** as the contribution of natural lighting grows, the lighting of the room increases; when the OFF level is exceeded and 10 minutes have passed above that level, the sensor deactivates the load through the actuator
- 4. Room occupied:** as the contribution of natural lighting falls,

the lighting of the room decreases; when the lighting level is exceeded in a downward direction and 20 seconds have passed below that level, the sensor deactivates the load through the actuator

- 5. Failure to detect movement/presence:** after the delay, the sensor deactivates the load through the actuator

The time intervals to pass from a load activation level of 0% to 100%, and vice-versa, vary and depend on the type of control adopted:

1-10V

Variation from 0% to 100%: from 2 to 6 seconds
 Variation from 100% to 0%: about 40 minutes with a non-linear trend

DALI

Variation from 0% to 100%: from 2 to 6 seconds
 Variation from 100% to 0%: about 6 minutes

ADVICE FOR GOOD ADJUSTMENT

Natural light should be distributed as uniformly as possible and it is preferable not to use dividing walls perpendicular to the windows. The area for measuring the lighting level should vary from about 12 to

20 m², with a height of 2.5 m. However, this does not preclude adjusting in an area smaller than 12 m², as long as it is an enclosed space. The distance between two sensors must be at least three meters,

to avoid problems of reciprocal "influence", or interference with light sources that are too close.

Brightness and movement/presence sensors

POSITIONING THE SENSOR FOR A CORRECT MEASUREMENT OF THE LIGHTING LEVEL

In a lighting management system, the positioning of the sensors is a matter of prime importance for ensuring correct operation. Below is a series of practical advice that will be useful during installation.

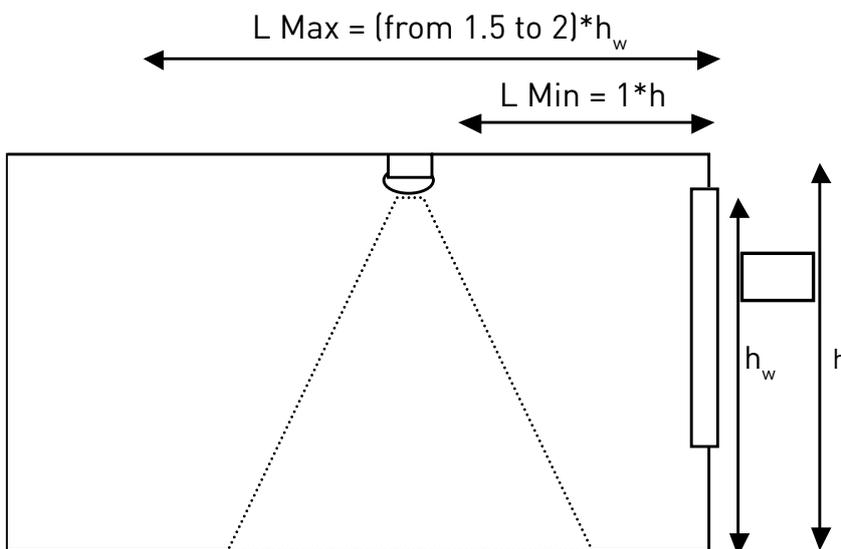
To obtain a satisfactory result in adjusting the lighting, it is advisable to have at least one opening (window) towards the outside.

It is important for the sensor to be placed at a distance between 1 time the height of the room and maximum 1.7 to 2 times the height of the window.

EXAMPLE:

for a ceiling height of 2.8 m and a maximum window height of 2.5 m, the sensor can be placed from 2.8 to 5 m from the window.

If this limit is exceeded, the lighting adjustment based on the natural light will be less effective, because the brightness cell of the sensor will receive a smaller amount of natural light.



WHAT TO DO:

- Use double-technology sensors in closed, restricted or generally limited areas;
- Use double-technology sensors in areas characterized by sedentary presence or low-mobility activities (office, meeting rooms...);
- Use passive infrared sensors in open, non-restricted areas;
- Position passive infrared sensors perpendicular to the trajectory of the space users;
- Position double-technology sensors parallel to the trajectory of the space users;
- Keep a minimum distance of 3 meters between two double-technology sensors;
- Generally, position the sensors above or close to the main control areas in the space in question;
- Subdivide large areas into sub-areas, each controlled by different sensors;
- Instruct the users of the system about the new devices and how to use them.

WHAT NOT TO DO:

- Use passive infrared sensors in areas characterized by sedentary presence or low-mobility activities (office, meeting rooms...);
- Use passive infrared sensors in areas where objects, modules or walls could interfere with detection;
- Use double-technology sensors in areas where the ceiling is higher than 4 meters;
- Position double-technology sensors at less than 2 meters from cooling/heating sources (fan coils, splitters, outlets...);
- Position double-technology sensors one facing the other;
- Position passive infrared sensors in places where the room temperature is very close to that of the human body;
- Position double-technology sensors on walls, ceilings or surfaces subject to vibrations;
- Manage the safety lighting and emergency exits by means of sensors.

Brightness and movement/presence sensors

SENSOR MALFUNCTION DIAGNOSTIC PROCEDURE

Shown below are some cases of the most common malfunctions due mainly to incorrect calibration, configuration or positioning of the sensors; the main methods of solving the problems are also listed for each type.

Each of the solving procedures envisages the use of the advanced configuration remote control, item BMSO4001, to which it refers several times regarding the menus to be accessed or the parameters to be changed. The names of the remote

control menus and the parameters concerned are shown in bold print. For all further details on the parameters of the sensors or of the remote control, see the respective technical sheets.



MALFUNCTION 1:

Failed or slow switching-on:
Case of double-technology sensor (PIR+US)

Malfunction due to an incorrect detection of movement/presence.

Parameters to be changed:

- Delay;
- Sensitivity;
- Detecting diagram.

STEP 1: Identifying the technology that causes the problems

1. Adjust the **“Delay”** at 30 seconds.
2. On the **“Detecting diagram”** menu, adjust the three detections (initial, maintenance and retrigger) only in **“US”**.
3. From the **“Test”** menu of the remote control, send the **“Initial status”** value and leave the detecting area.

If the problem persists, the technology that is causing problems is the US.

If the problem has not been solved:

1. On the **“Detecting diagram”** menu, adjust the three **detections (initial, maintenance and retrigger)** only in **“PIR”**.
2. From the **“Test”** menu, send the **“Initial status”** value and leave the sensor detecting area.

If the problem persists, the technology that is causing problems is the PIR.

STEP 2: Solving the problem

1. Return the **“Detection diagram”** to the factory setting (initial = PIR and US; maintenance = PIR or US; retrigger = PIR or US).
2. Gradually reduce the **“Sensitivity”** of the technology that is causing problems.
3. From the **“Test”** menu, send the **“Initial status”** value and leave the sensor detecting area.

STEP 3: Complete if necessary

1. Modify the **“Detecting diagram”** to make detection more powerful (initial = **PIR and US**; maintenance = **PIR and US**; retrigger = deactivated), or eliminate the technology that is causing problems by passing only to **PIR** or only to **US** as regards initial detection and maintenance.
2. If the malfunction persists, it is necessary to move the sensor away from the source of the problems (e.g. air flow coming from heating or air conditioning).
3. Reset the **“Delay”** at the value requested by the user.

**MALFUNCTION 2:**

Failed or slow switching-on:
Case of PIR single-technology sensor

Malfunction due to an incorrect detection of movement/presence.

Parameters to be changed:

- Delay;
- Sensitivity.

STEP 1: Solving the problem

1. Adjust the **“Delay”** at 30 seconds.
2. Gradually reduce the **“Sensitivity”**.
3. From the **“Test”** menu, send the **“Initial status”** value and leave the room between one test and another. If the malfunction persists, it is necessary to move the sensor away from the source of the problems (e.g. air flow coming from heating or air conditioning).
4. Reset the **“Delay”** at the value requested by the user.

**MALFUNCTION 3:**

After detecting a movement/presence, the light switches on even though the lighting level is sufficient

Malfunction due to an incorrect detection of the lighting level.

Parameters to be changed:

- Brightness threshold.

STEP 1: Solving the problem

1. Reduce the **“Brightness threshold”**.
2. From the **“Test”** menu, send the **“Initial status”** value.
3. Wait five seconds, then move about to be detected.
4. Repeat the procedure until the light no longer switches on.

Particular case (Expert mode):

Solving without changing the brightness threshold (Sometimes it is better not to change the brightness threshold set according to the user's preferences. In this case, it is opportune to re-calibrate the sensor.)

- Expert mode with luxmeter.

1. Deactivate the artificial lighting.
2. Measure the lighting level in various strategic positions in the sensor coverage area.
3. Calculate the average of the values obtained.
4. Send the average value obtained from the **“Advanced mode/Calibration”** menu of the configuration remote control BMSO4001.
5. Activate the natural lighting and lower the shutters (or wait for the sun to go down).
6. Measure the lighting level in the same strategic positions used in point 2.

7. Calculate the average of the values obtained.
8. Send the average value obtained from the **“Advanced mode/Calibration”** menu of the configuration remote control BMSO4001.
9. From the **“Test”** menu, send the **“Initial status”** value.
10. Using the configuration remote control, read the set of sensor parameters from the main menu.
11. Go to the **“Advanced mode/Calibration”** menu and compare the value displayed with those detected by the luxmeter (repeat the process from point 2 to point 11 if the external brightness level has varied).
12. Repeat the procedure until an optimal result is obtained.

If the sensor calibration has been excessively modified and there are adjusting problems, it is advised to restore the factory settings; briefly press and then hold down (about 10 seconds) the “Learn” button of the sensor.

Brightness and movement/presence sensors

SENSOR MALFUNCTION DIAGNOSTIC PROCEDURE



MALFUNCTION 4:

After detecting a movement/presence, the light switches off even though the lighting level is insufficient

SOLUTION 1:

1. Gradually increase the "Sensitivity" or sensitivities and send the "Initial status" value from the "test" menu.
Move the sensor closer to the work area.

Malfunction due to an incorrect detection of the lighting level.

Parameters to be changed:

- Sensitivity;
- Delay.

SOLUTION 2:

1. Increase the "Delay" and send the "Initial status" value from the "test" menu.
(For work areas, BTicino recommends timing from 10 to 15 minutes)

SOLUTION 3:

1. Move the sensor closer to the work area.



MALFUNCTION 5:

After detecting a movement/presence, the light does not switch on even though the lighting level is insufficient



MALFUNCTION 6:

After detecting a movement/presence, the light does not switch off even though the lighting level is sufficient

Malfunction due to an incorrect detection of the lighting level.

Same solution as in the case "After detecting a movement/presence, the light switches on even though the lighting level is sufficient" (previous page)

WARNING:

In the case of an ON/OFF managed lamp: the external brightness must exceed the "Brightness threshold" + a Safety coefficient; then at least ten more minute must pass before it is switched off.

In the case of a dimmed lamp: wait from ten to fifteen minutes to see whether the activation level has decreased significantly.

Safety coefficient = 0.5 x the "Brightness threshold".

Switch-off level = 1.5 x the "Brightness threshold" + "Light contribution".

When the set "Brightness threshold" is <100 lux, the formula becomes:

Switch-off level = 150 lux + "Light contribution".

Lighting management

DIAGRAM 1 SWITCHING ON/OFF OF 2 LAMPS FROM 4 LIGHT POINTS WITH GENERAL ON/OFF CONTROL

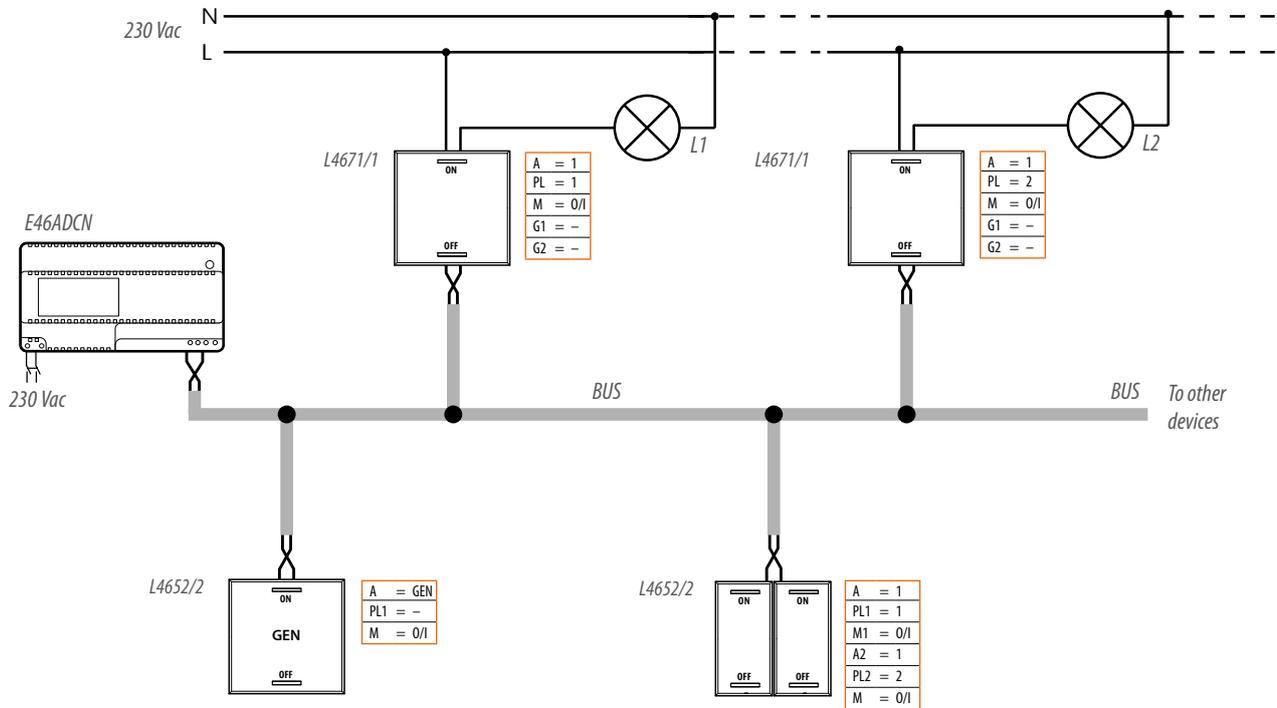
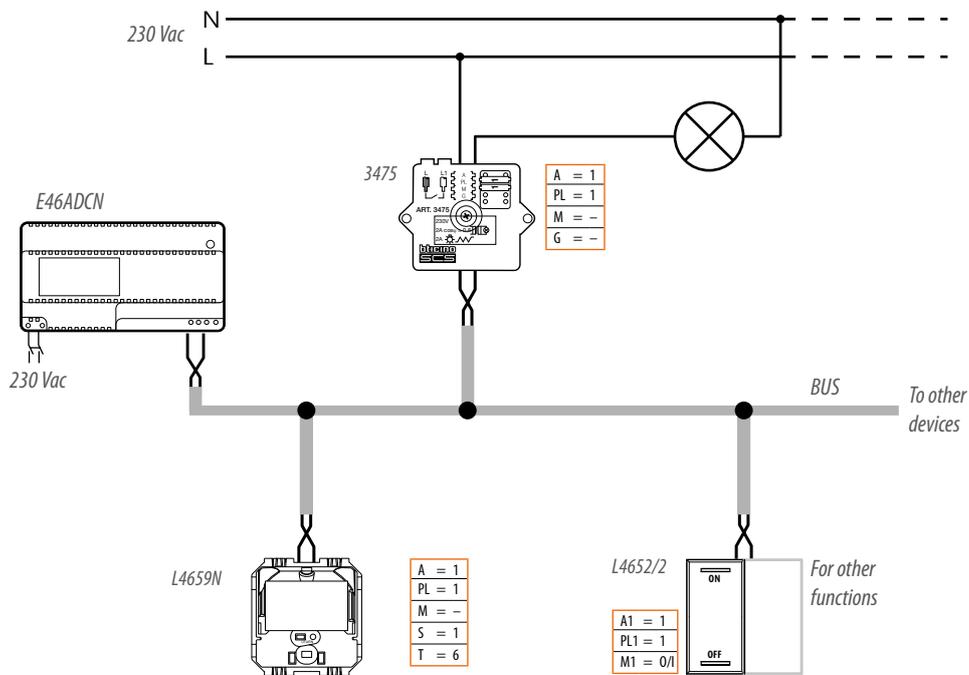


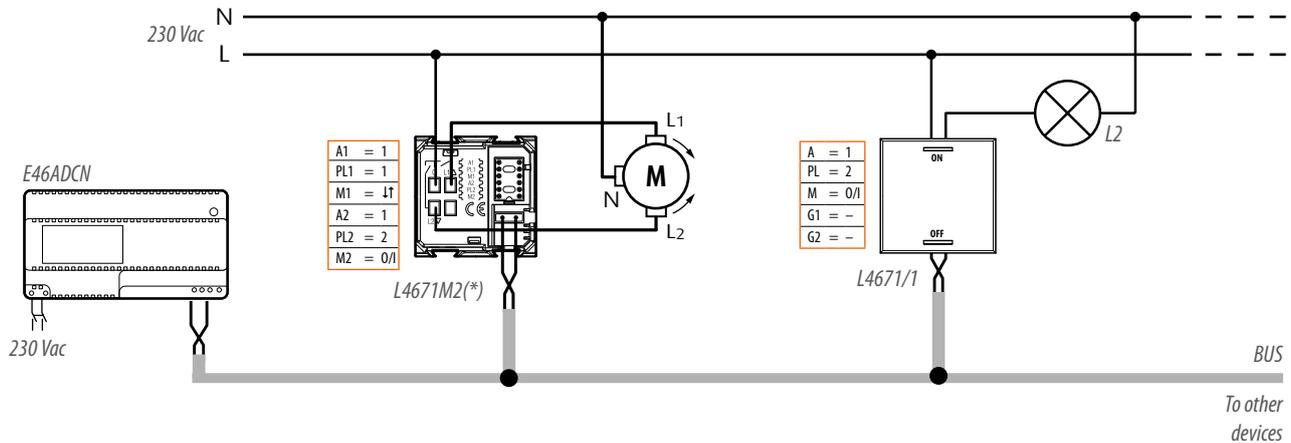
DIAGRAM 2 AUTOMATIC SWITCHING ON OF THE LIGHT WITH PASSIVE INFRARED CEILING SENSOR



The device controls the load with the address indicated in A and PL. When a movement is detected, if the lighting level is lower than the set level, the device switches the assigned load on, and keeps it on until the time set with the configurator connected to T expires. The sensitivity of the PIR motion sensor is set with the configurator in S. For proper operation, it is necessary to set the illumination Set Point of the sensor (see procedure). If the user switches the light off manually with a control device, the movement sensor is disabled until a movement is detected, for a time set in T

Management of different loads

DIAGRAM 3 SWITCHING ON AND OFF OF 1 LAMP AND ROLLING SHUTTER CONTROL USING AN ACTUATOR CONTROL



*Complete the device with key covers as per the drawing:

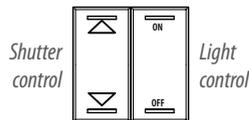
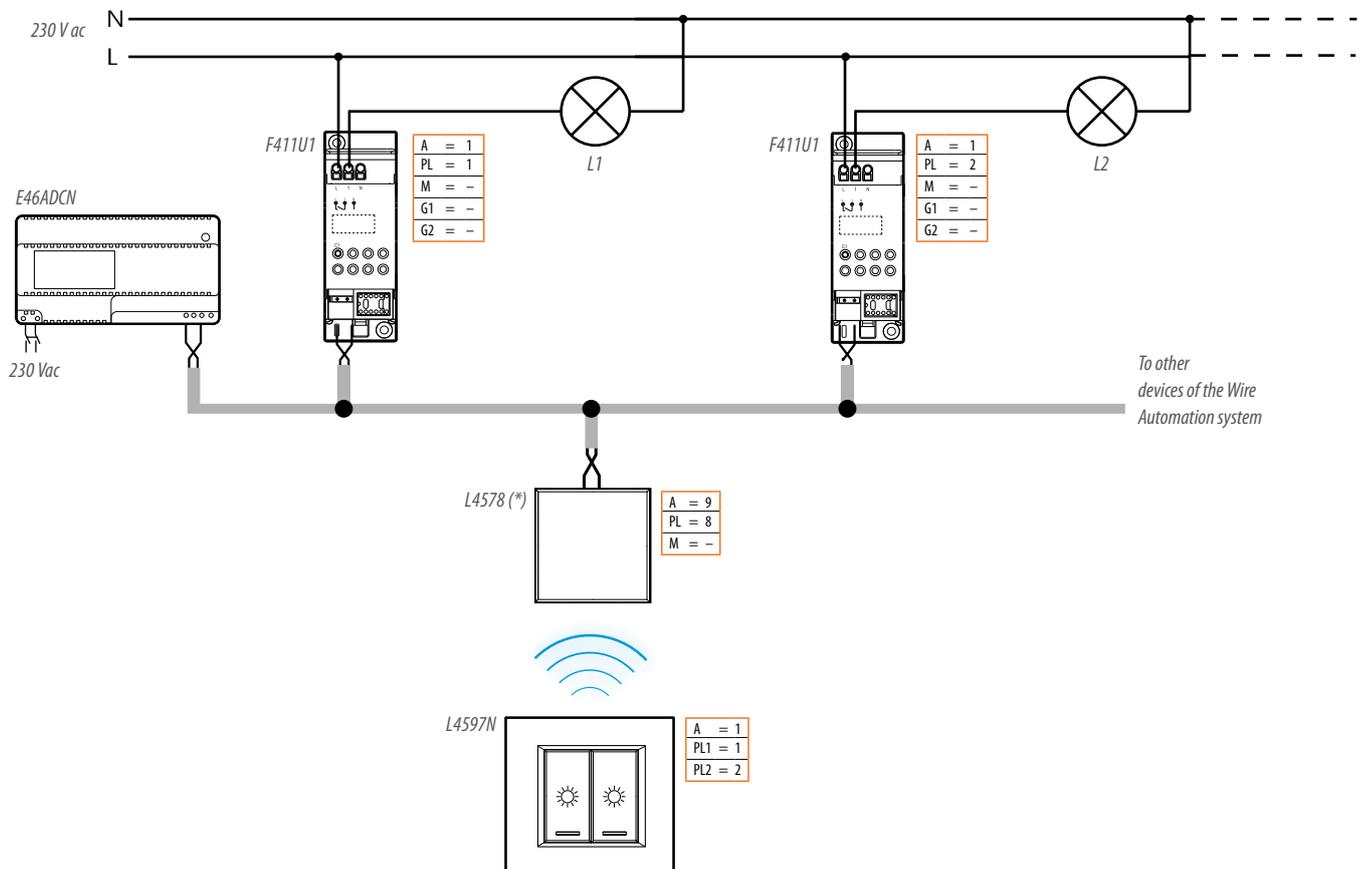


DIAGRAM 4 WIRE SYSTEM EXTENSION WITH RADIO CONTROL TO MANAGE TWO LAMPS



Note: Replacing actuator F411/1N with actuator dimmer F414 the lamp brightness can be adjusted as well.

Note (*): assign an address not used for other Automation devices. The interface can manage up to 36 radio control devices.

DIAGRAM 5 SWITCHING-ON CONTROL FOR BATHROOM LIGHT AND FAN WITH DELAYED SWITCHING-OFF

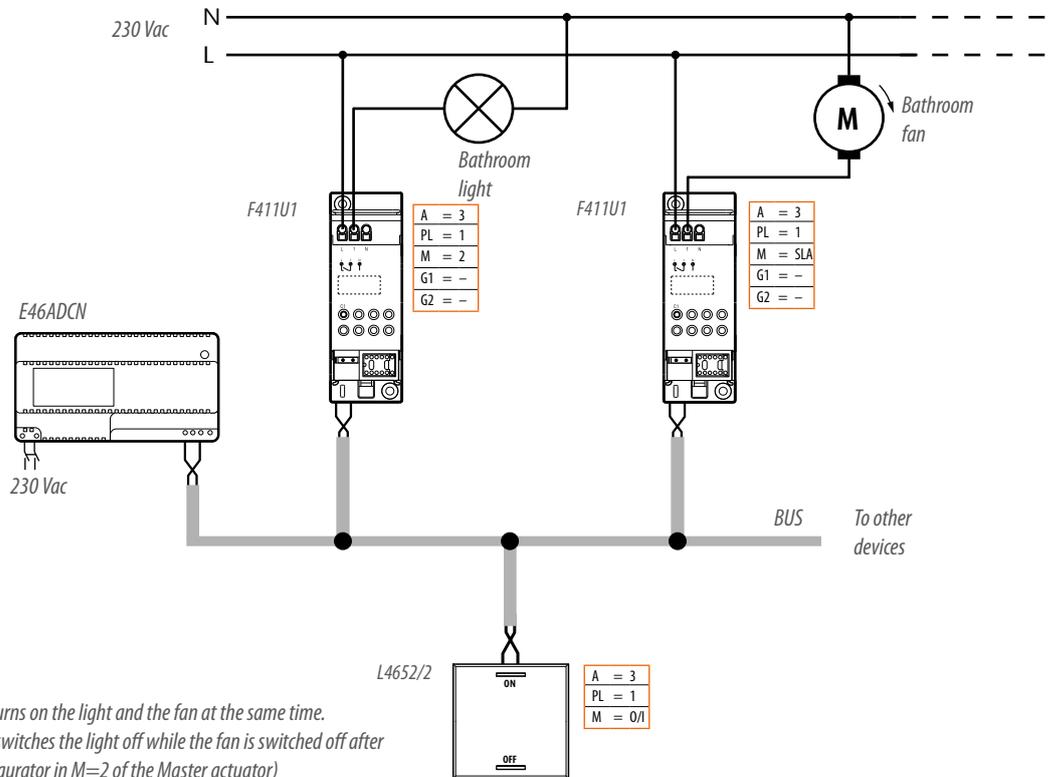
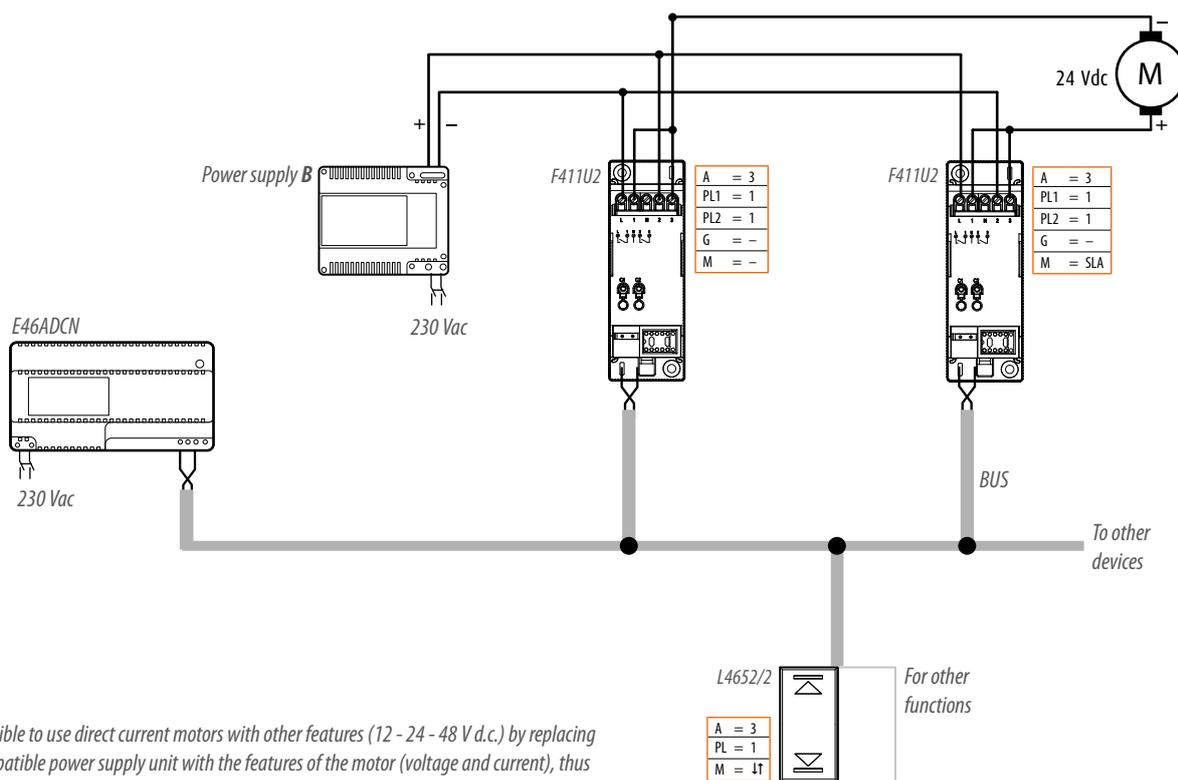


DIAGRAM 6 MOTOR CONTROL IN DIRECT CURRENT FOR MOTORIZED CURTAINS (EXAMPLE 24 V D.C.)



Window and shutter management

DIAGRAM 7 MOTOR CONTROL IN ALTERNATED CURRENT FOR ROLLING SHUTTERS, CURTAINS OR MOTORIZED SHUTTERS

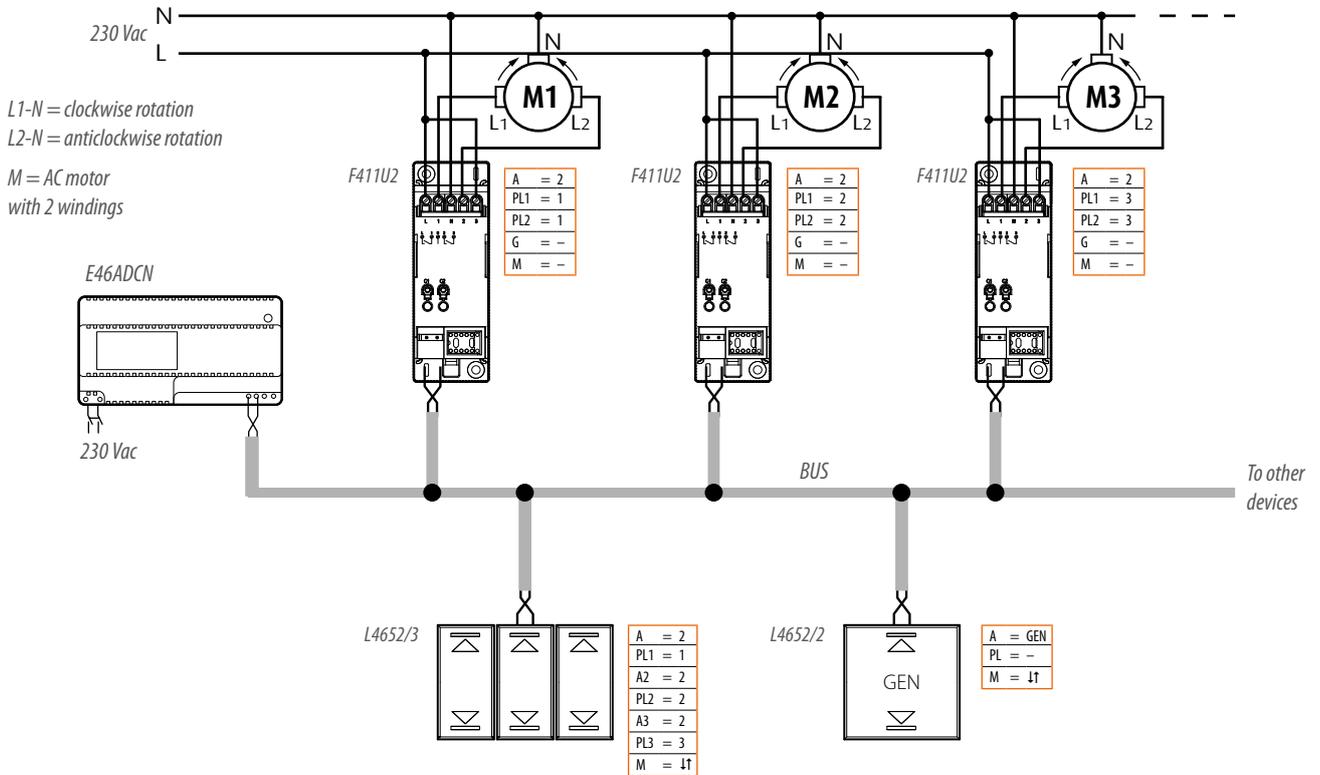
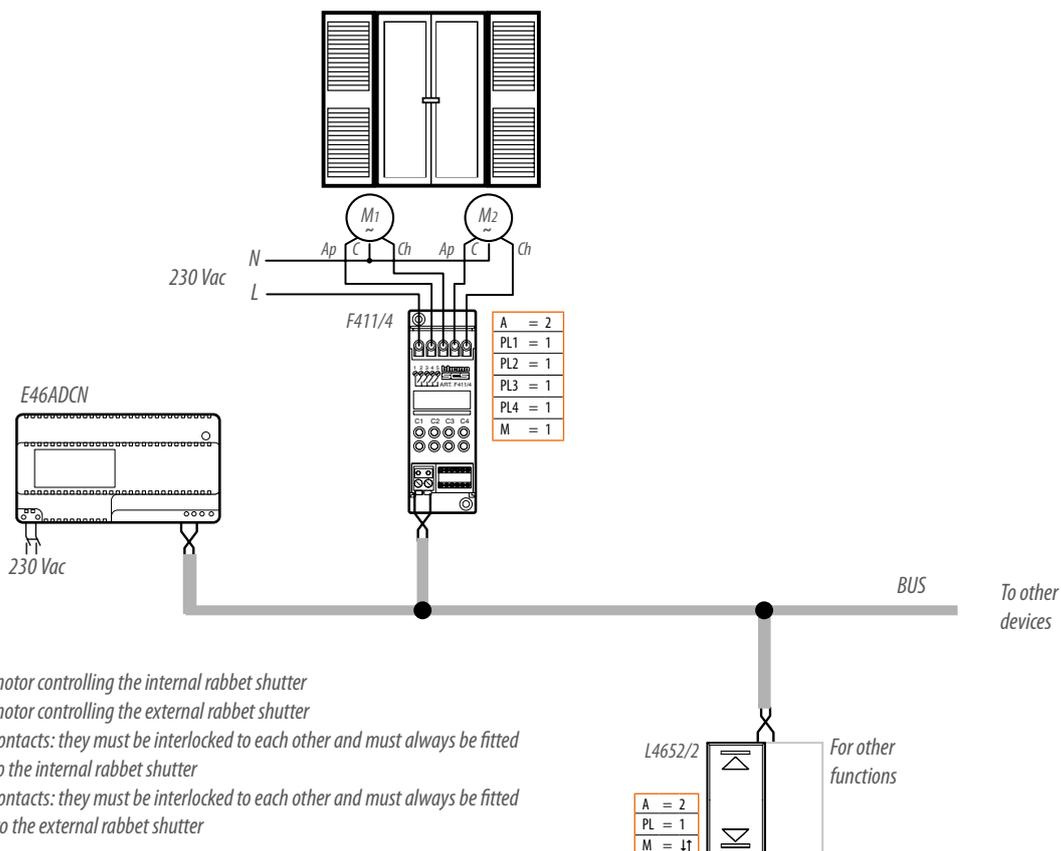


DIAGRAM 8 FOR OPENING/CLOSING MOTORIZED SHUTTERS



Management of dimmed lamps

DIAGRAM 9 SWITCHING ON AND OFF AND BRIGHTNESS ADJUSTMENT OF FLUORESCENT LAMPS BY MEANS OF THE "BALLAST"

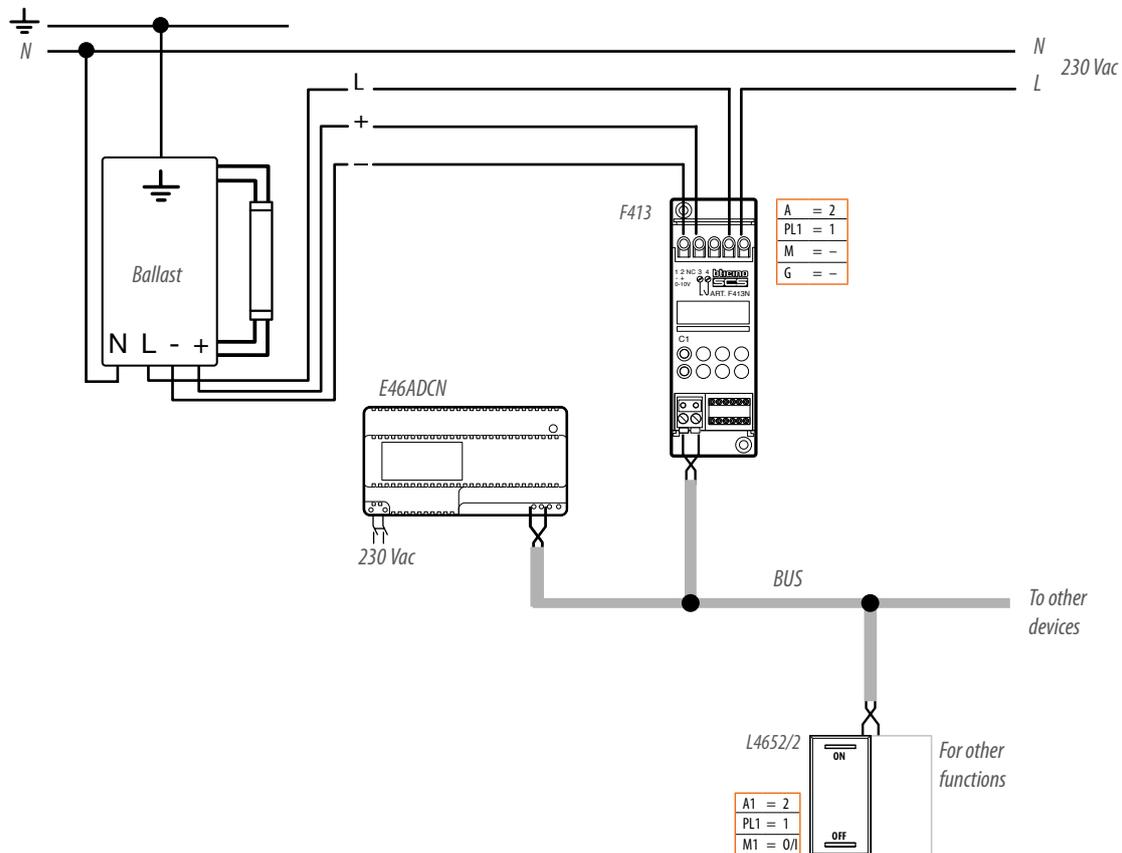
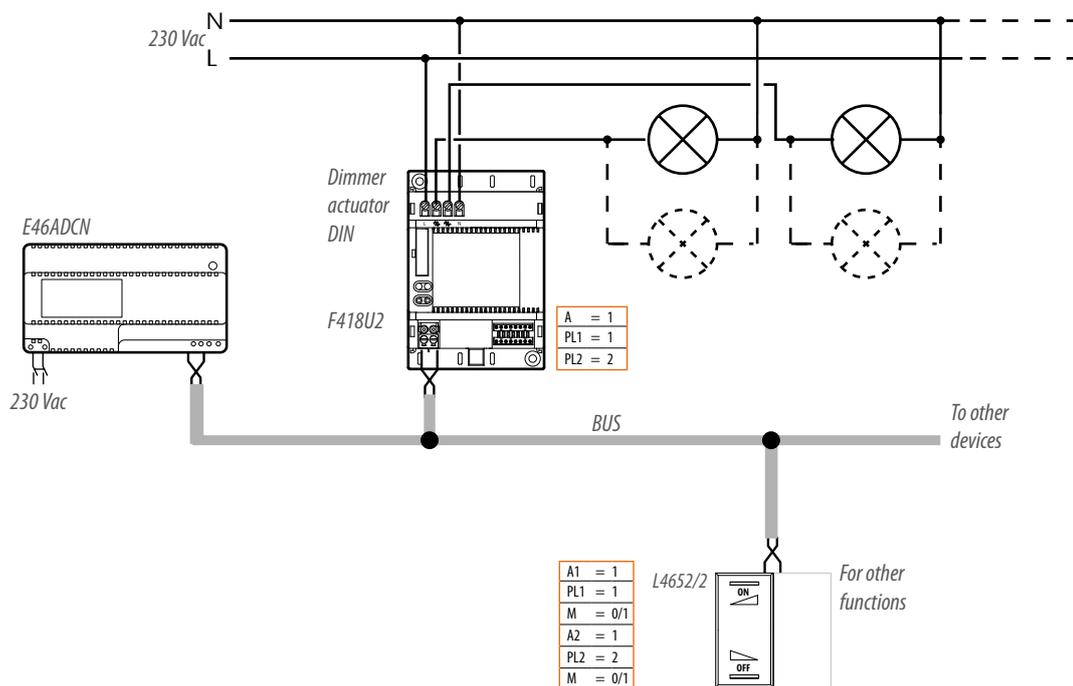


DIAGRAM 10 SWITCHING ON AND OFF AND BRIGHTNESS ADJUSTMENT OF LED LAMPS



Lighting and shutter management

DIAGRAM 11 LIGHTING AND SHUTTER MANAGEMENT SYSTEM – 100 M2 HOME

Here following is a description of an Automation system used for lighting and shutter management in a home of approximately 100 m², consisting of living room, kitchen, two bedrooms

and two bathrooms.

Functions performed by the system:

- Light general control;
- Shutters general control;
- Control of light points in each room;

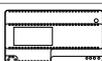
- Control of shutters in each room;
- Dimmer light control point in the living room and the bedrooms;

DISTRIBUTION COMPONENTS IN THE SINGLE ROOMS		ITEM
ENTRANCE	1 lighting general control (1) 1 shutter general control (2) 1 ceiling light point controlled by flush mounted actuator (3) 1 control (4) for the corridor light point	H4652/2 H4652/2 H4671/1 H4652/2
HALLWAY	2 ceiling light points controlled by flush mounted actuator and 8 other points (4 - 6 - 7 - 9 - 13 - 22 - 28)	H4671/1
KITCHEN	1 ceiling light point controlled from 1 point (7) and by a 1 relay actuator in the DIN module (*) 1 motorized shutter controlled from 1 point (8) and by a 2 relay actuator in the DIN module (*)	H4652/2 F411U1 H4652/2 F411U2
LIVING ROOM	1 wall light point controlled from 1 point (11) with light intensity adjustment and by 1 dimmer actuator in DIN module (*) 1 ceiling light point controlled from 2 points (9 - 11) and by a 1 relay actuator in the DIN module (*) 1 motorized shutter controlled from one point (10) and by a 2 relay actuator in the DIN module (*) 1 Touch Screen (12)	H4652/2 F415 H4652/2 F411U1 H4652/2 F411U2 H4890
BATHROOM 1	1 ceiling light point controlled from 1 point (13) and by a 1 relay actuator in the DIN module (*) 1 motorized shutter controlled from one point (14) and by a 2 relay actuator in the DIN module (*)	H4652/2 F411U1 H4652/2 F411U2
ROOM 1	1 ceiling light point controlled from 3 points (16 - 17 - 18) with light intensity adjustment and by 1 dimmer actuator in DIN module (*) 1 motorized shutter controlled from 1 point (15) and by a 2 relay actuator in the DIN module (*) 1 wall light point controlled from one point (17) 1 wall light point controlled from one point (18) and by a 2 relay actuator in the DIN module (*) 1 control (20) for the Corridor Light Point 1 Local Display (19)	H4652/2 F415 H4652/2 F411U2 H4652/2 H4652/2 F411U2 H4652/2 HS4891
ROOM 2	1 ceiling light point controlled from 3 points (22 - 23 - 24) with light intensity adjustment and by 1 dimmer actuator in DIN module (*) 1 motorized shutter controlled from 1 point (21) and by a 2 relay actuator in the DIN module (*) 1 wall light point controlled from one point (23) 1 wall light point controlled from 1 point (24) and by a 2 relay actuator in the DIN module (*) 1 control (26) for the Corridor Light Point 1 Local Display (25)	H4652/2 F415 H4652/2 F411U2 H4652/2 H4652/2 F411U2 H4652/2 HC4685

NOTE: All the controls must be completed with support, cover plate and key covers for the desired civil series. These can be found in the BTicino General Installation catalog.
For this specific example products of the AXOLUTE civil series have been used.

NOTE (*): All the actuators in DIN module are installed on the S4 module home automation panel in the hall.

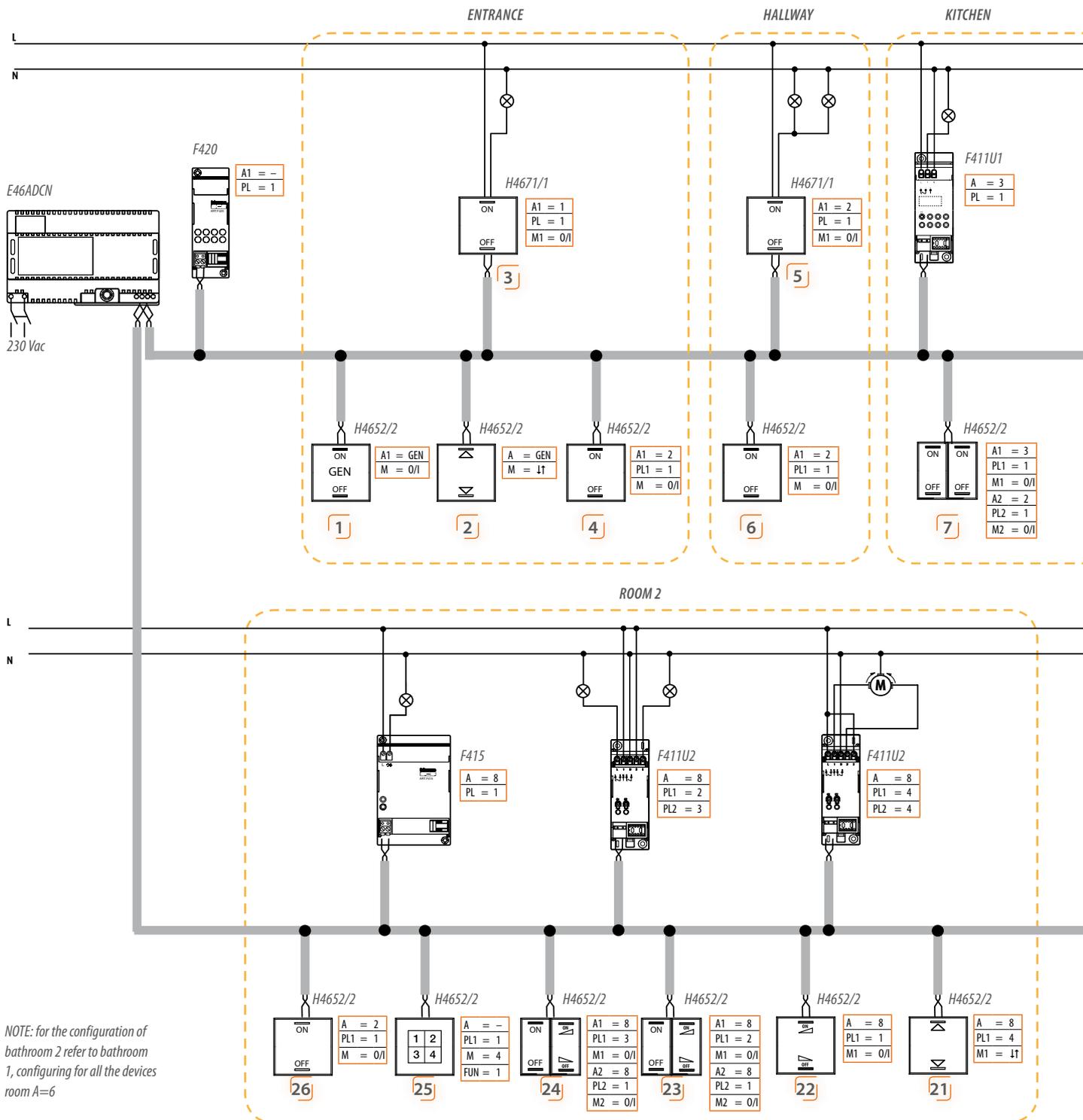
- Central control using the Touch
Screen installed in the living room;
- Recalling of scenarios with Local
Display in the two bedrooms.

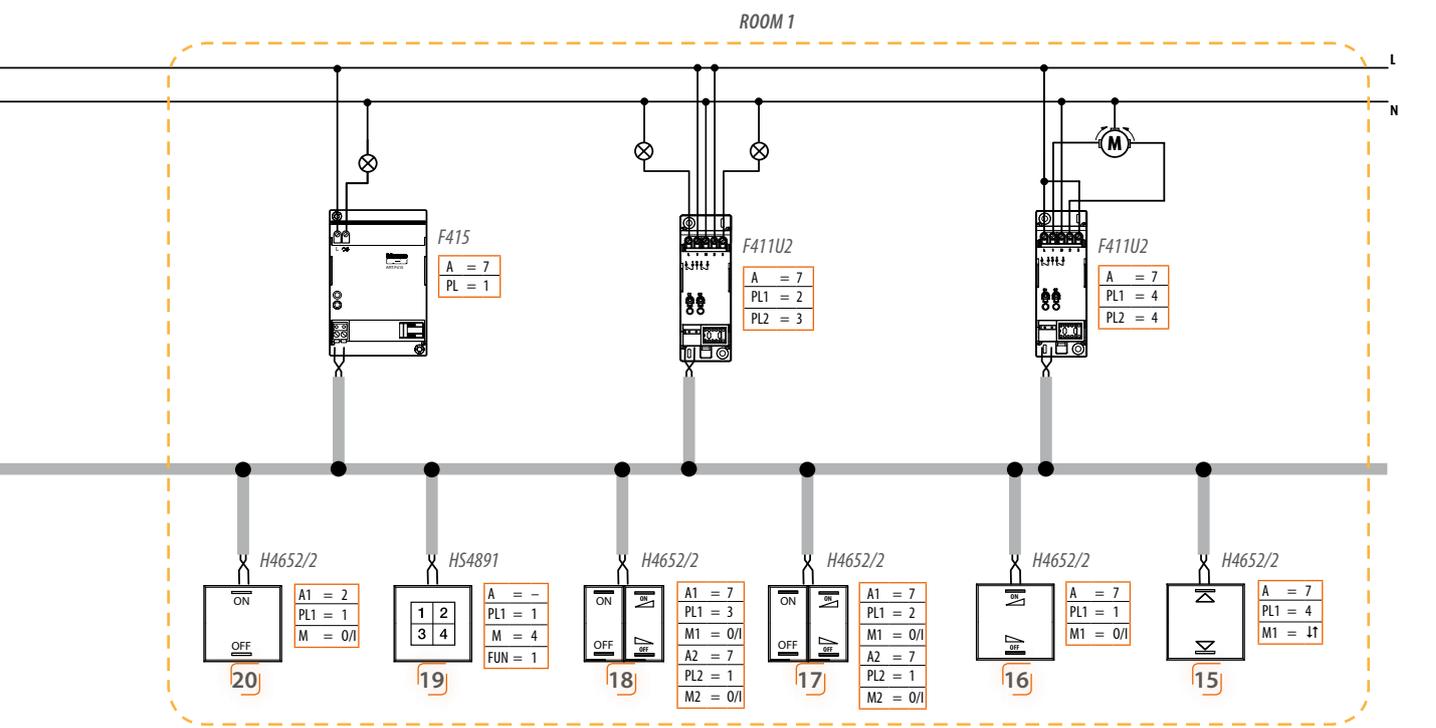
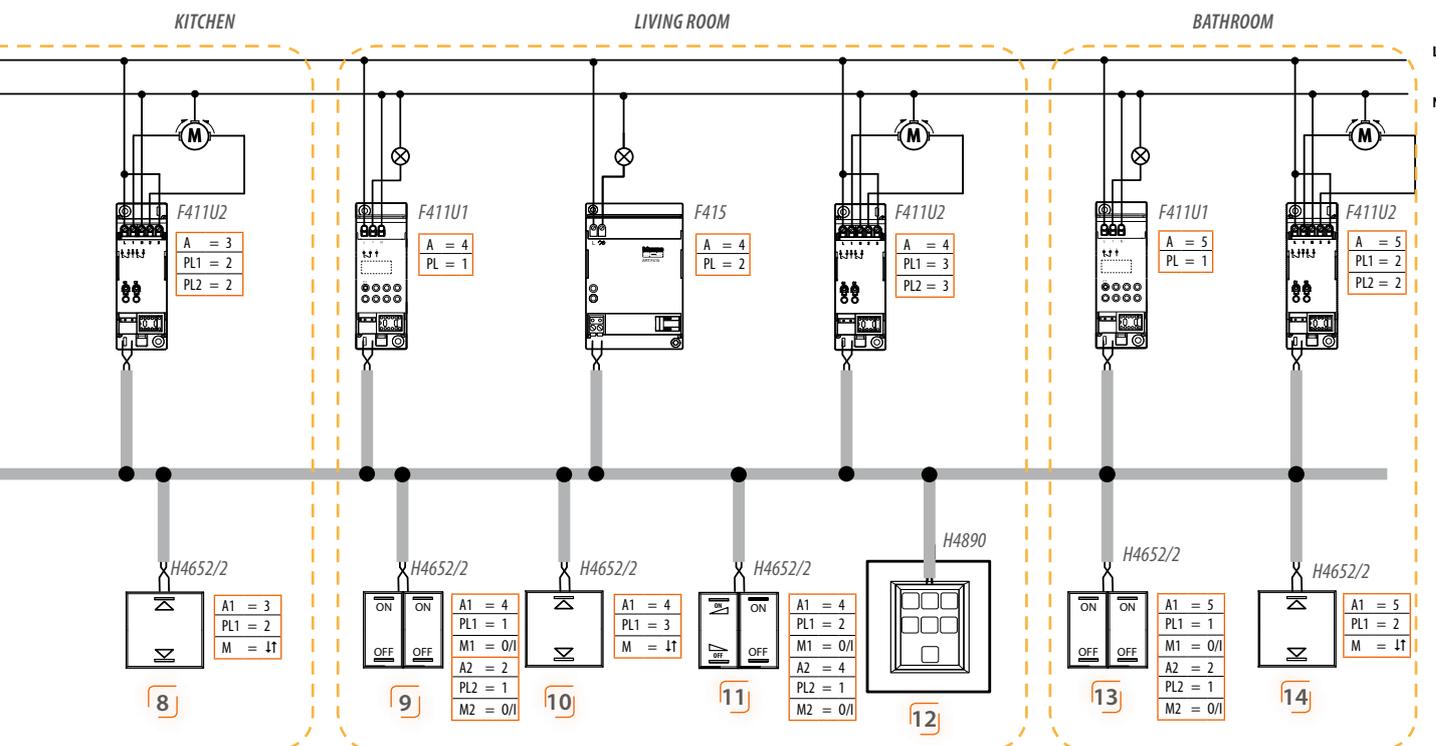
HOME AUTOMATION PANEL		DIN MODULE
	1 SCS power supply	8
	12 DIN actuators	24

HOME AUTOMATION DISTRIBUTION BOARD		DIN MODULE
	3 DIN dimmer	12
	1 scenario module	2
		Total 46

Lighting and shutter management

DIAGRAM 11 LIGHTING AND SHUTTER MANAGEMENT SYSTEM – 100 M2 HOME





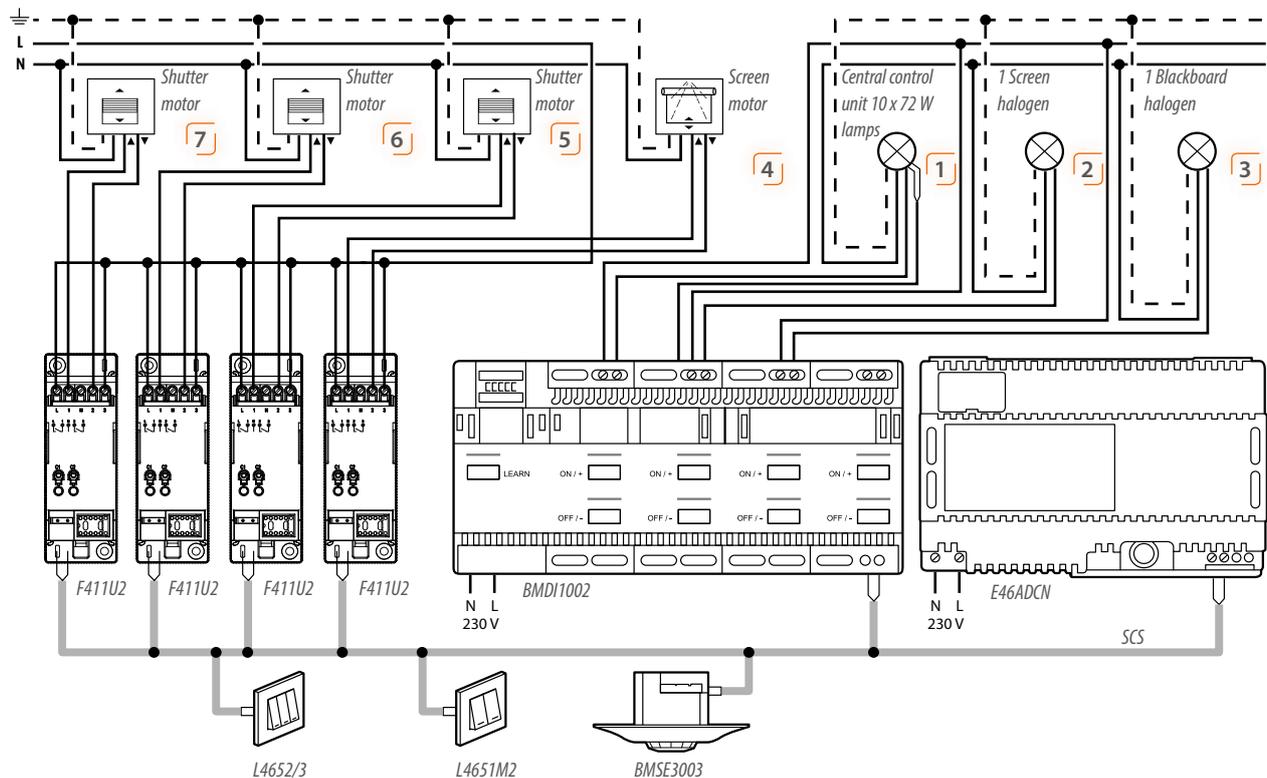
Lighting and shutter management

DIAGRAM 12 LIGHTING SYSTEM WITH PRESENCE AND LIGHTING SENSORS - LARGE MEETING ROOM

The dimmer SCS 1-10 V item BMDI1002 manages all the lighting circuits in the room: it switches on/off the lights of the screen (circuit 2), the blackboard (circuit 3) and adjusts the general lights (circuit 1). The double-technology sensor SCS item BMSE3003, configured in ECO mode, is installed in the center of the room to ensure optimum detection

and deactivates the general lighting of the room (circuit 1) automatically, based on the detection of presence and the contribution of natural light. It is also possible to adjust the light manually with one of the buttons of the SCS control with three modules, item L4652/3, installed near the entrance. The lights of the screen (circuit 2), the blackboard (circuit

3) and the general lights (circuit 1) are managed by means of the SCS control with three modules, item L4652/3. The shutters (circuit 5, 6 and 7) and the lifting and lowering of the screen (circuit 2) are controlled by the three SCS actuators, item F411U2, and adjusted by the special SCS control, item L4651M2.

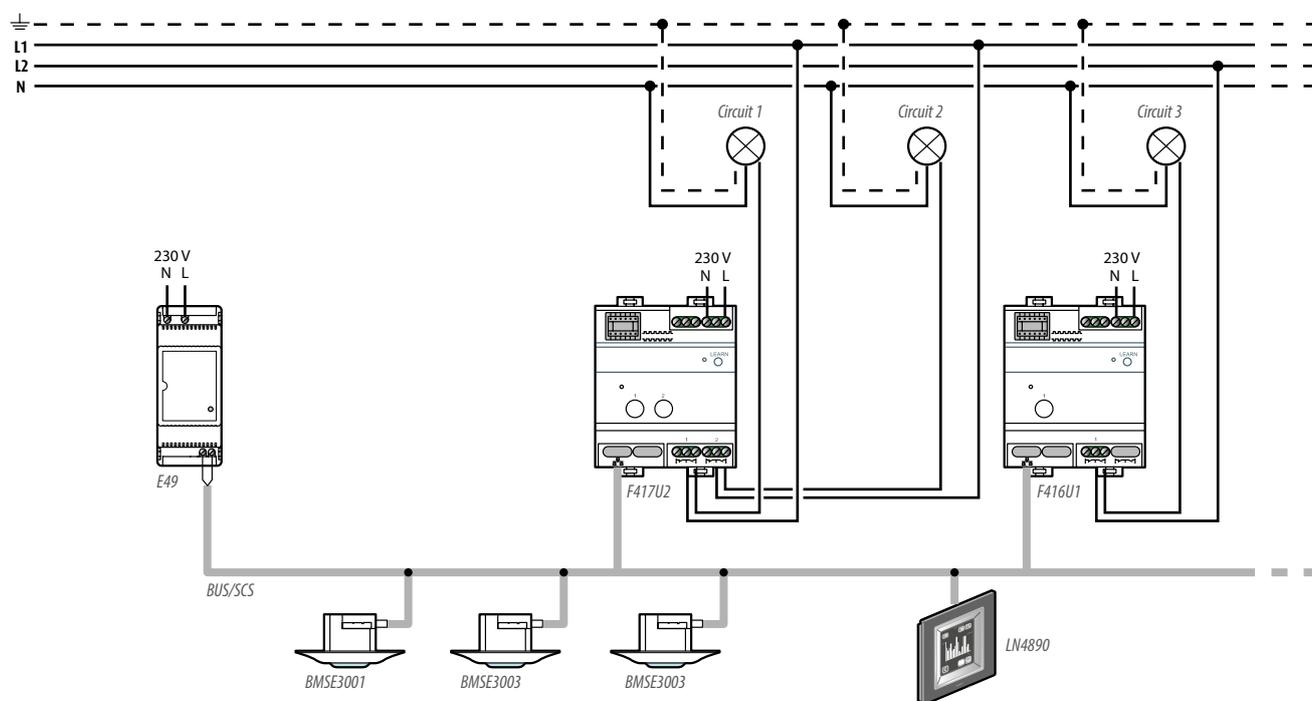


1. Install the double-technology SCS ceiling sensor item BMSE3003 in the center of the room to ensure optimal detection; install the SCS control with three modules item L4652/3; install the special SCS control item L4651M2 between the screen and the shutters.
2. Install the two-channel SCS actuators item F411U2 + the four-channel dimmer 1-10 V item BMDI1002 + the SCS power supply item E46ADCN in a cabinet.
3. Connect all the devices to one another with the SCS cable item L4669, L4669/500, L4669HF.
4. Configure the sensors, controls and controller with the MyHOME_Suite software.
5. The sensor has the following factory pre-settings: delay 15 minutes, brightness threshold 500 lux, PIR maximum sensitivity and US high sensitivity. If necessary, use the configuration remote control item BMSO4001 to change the sensor parameters.

DIAGRAM 13 LIGHTING SYSTEM WITH PRESENCE AND LIGHTING SENSORS - HALL AND RECEPTION

Each ceiling sensor, either passive infrared item BMSE3001 or double-technology item BMSE3003, controls the respective area (circuit 1, 2 and 3). During the day, lighting is automatically adjusted according to presence or movement and the contribution of natural light: the

sensors are configured to maintain 500 lux and 100 lux respectively in the reception area and on the stairs. It is also possible to activate the lighting using a touch screen item H/LN4890.



1. Install the double-technology or passive infrared SCS ceiling sensors, items BMSE3003 and BMSE3001, in the center of each of the areas to be controlled.
2. Install the SCS power supply item E46ADCN and the SCS dimmers item F417U2 and item F416U1 in the hall switch cabinet.

3. Install the SCS touch screen item LN4890 on the wall.
4. Connect all the devices to one another with the SCS cable item L4669, L4669/500, L4669HF.
5. Configure all the installed devices with the MyHOME_Suite software.
6. The sensors have the following factory pre-settings: delay 15

minutes, brightness threshold 500 lux, PIR maximum sensitivity and US high sensitivity.

If necessary, use the configuration remote control item BMSO4001 to change the sensor parameters.

CONTENTS**MyHOME – Energy management**

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CONTENTS**MyHOME – Temperature control**

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The devices

The MyHOME temperature control system consists of the following devices:

- Power supply
- Temperature control central unit
- Probes
- Actuators
- Contact interface (OPTIONAL)

Using the Driver manager item F459 it is possible to integrate systems made by other manufacturers and control their functions with MyHOME devices. For more details refer to the chapter "System integration and control" of this guide.



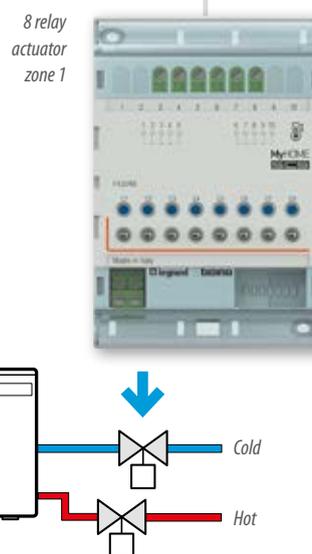
Power supply



99 zone control unit



Probe zone 1





Outdoor radio probe



Probe zone 2



Outdoor radio probe interface



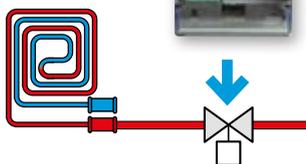
Probe zone 99



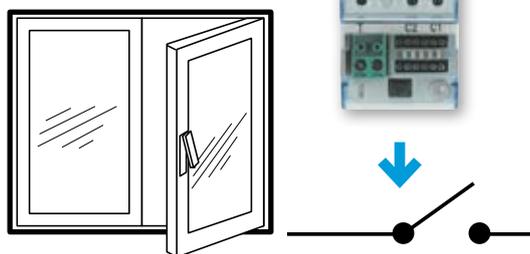
Local Display

BUS

2 relay actuator zone 2



Contact interface



Driver manager F459

SYSTEMS OF OTHER MANUFACTURERS

- MITSUBISHI ELECTRIC
- DAIKIN
- HITACHI
- SAMSUNG
-

The devices

TEMPERATURE CONTROL CENTRAL UNITS

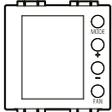
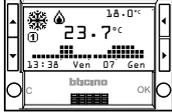
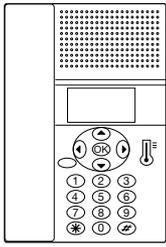
These devices ensure simple management/programming of the whole system, thanks to a guided menu, it will be possible to select the operating mode, display the temperatures of the various zones (up to 99) and change the daily and weekly programs.

PC PROGRAMMING

The central unit can be programmed using the universal software MyHOME_Suite which is also useful for configuring probes, thermo actuators and Automation and Energy Management devices.



SELECTION OF THE FUNCTIONS WHICH CAN BE MANAGED BY THE CENTRAL UNIT

POSSIBLE FUNCTIONS	1 ZONE PROBE/CENTRAL UNIT	4 ZONE CENTRAL UNIT	99 ZONE CENTRAL UNIT
	 H4691 LN4691	 HC/HS4695, L/N/NT4695, AM5875	 3550
Maximum number of zones	1	4	99
Remote control	●	●	●
Local control (Touch Screen)	● ¹⁾	●	●
Programming with MyHOME_Suite	●	●	●
Magnetic contacts management	●		●
Scenarios		●	●
Weekly, hourly profiles, etc. management	●	●	●

NOTE 1): if used without central unit it can not be controlled by Touch Screen, Web Server, scenario programmer and scenario module.

TEMPERATURE PROBE

These devices must be installed in each zone, for the room temperature measurement. They control the system setting:

- local variation of the temperature with respect to the value set in the central unit;
- the operating modes;

- FAN-COILS speed.

The catalog includes the following probes:



Thermostat with display

Device with a 4 keys to select the desired temperature and the different operating modes: both automatic and manual, as well as Eco, Comfort, Antifreeze/heat protection and OFF presets.

If the fan-coil is installed in the system it can manage the fan speed. It can also be used in mixed heating/cooling systems in the case in which the two functions are simultaneously available on the same system.

In the back it has two terminals for connecting a NC/NO contact for windows, useful to change the operating mode according to the status (open or closed) of the window.



Basic probe

Flush mounted probe for the temperature measurement between 3 - 40°C. The device has no knob for the temperature adjustment, so it is suitable for installation in public places/small businesses in the service sector.

It can be used as a slave probe it is required to control rooms with very large surfaces.



Probe with selector

Device as above, equipped with knob for adjusting the temperature of +/- 3 °C related to the set temperature and operating mode selection. Suitable for installation in residential buildings.



Probe for FAN COIL control

Probe with the same characteristics as the previous one, but with MANUAL/AUTOMATIC selection of the speed for Fan Coil and Idrorelax system.

The devices

LOCAL DISPLAY

This multifunctional device is equipped with a display can be used in a temperature control system as a probe if coupled to the basic temperature probe or to an external sensor art. 3457.

Unlike the probe with selector, it is possible to set any local temperature that will remain so until the system status is updated.



ACTUATORS

Designed for mounting in DIN switchboards these devices control the solenoid valves and the pumps

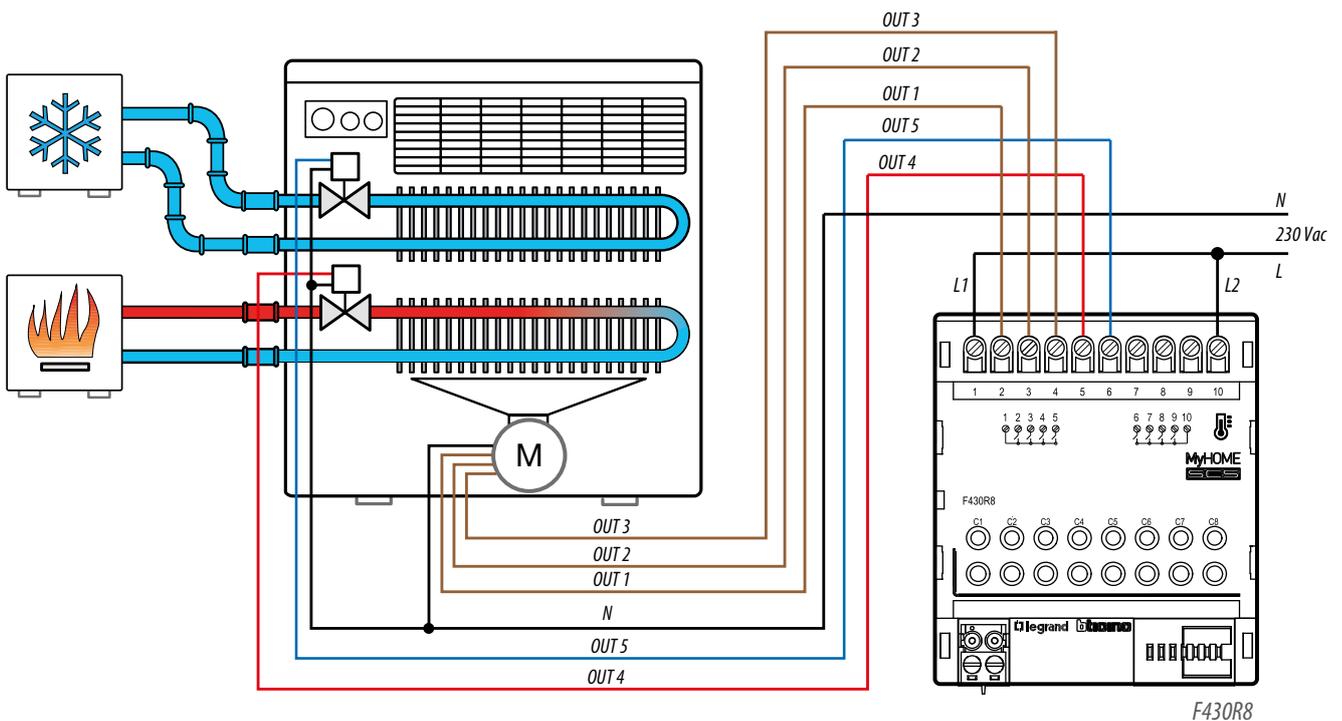
of the temperature control system. The range consists of:

■ With relay output with NO

contacts, type F430/2 (2 contacts), F430/4 (4 contacts) and F430R8 (8

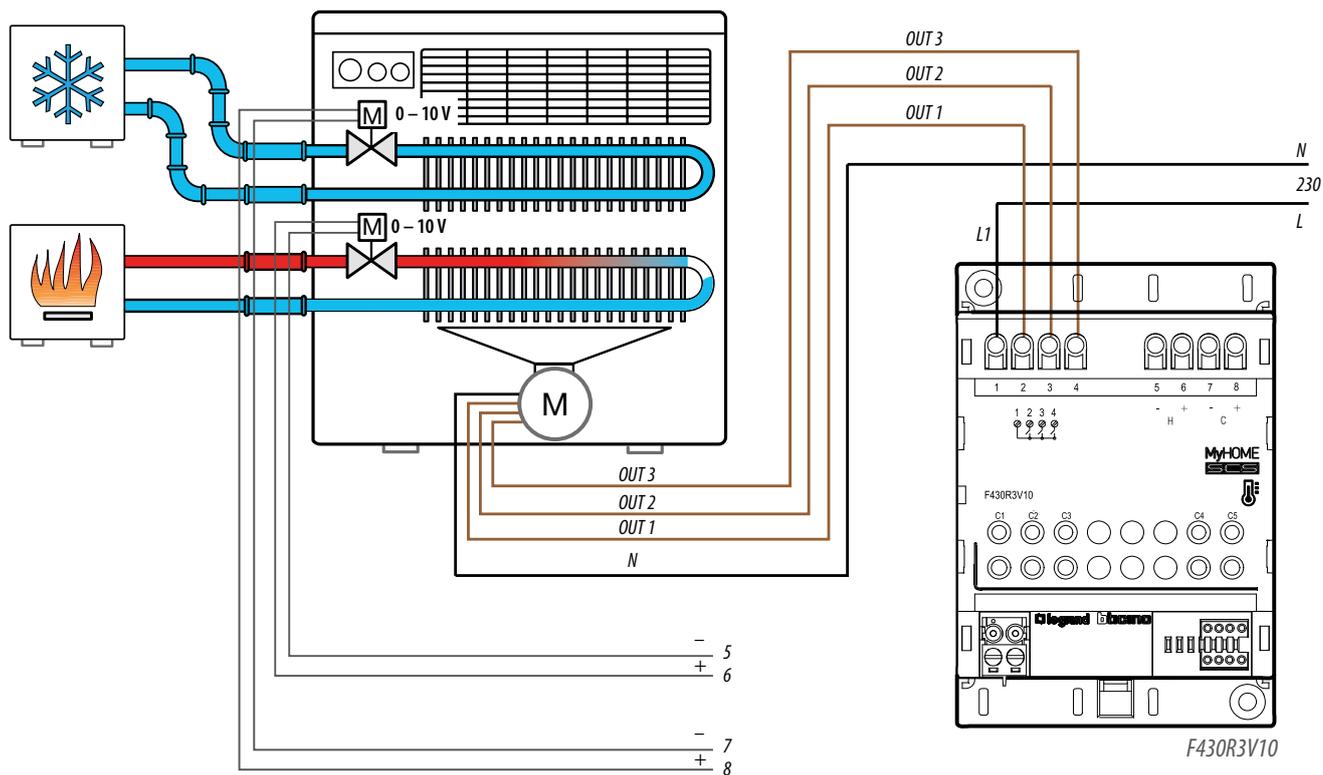
contacts) for the control of ON/OFF valves and pumps. If fan-coils are

installed in the system, it will also be possible to manage the fan speed.



Use of the actuator F430/8 for the control of a 4-pipe fan coil and 3 speeds.

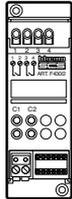
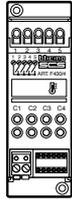
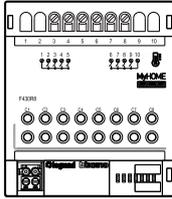
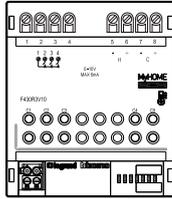
- **With voltage output 0-10V,**
 type F430R3V10 (also equipped with 3 NC contacts) and F430V10 to control proportional solenoid valves type 0-10.



Use of the actuator F430R3V10 for the control of a 4-pipe fan coil with 0-10 valves and 3 speeds.

The devices

DEVICES SELECTION DEPENDING ON THE SYSTEM TO BE CONTROLLED

		ACTUATORS				
						
		F430/2	F430/4	F430R8	F430R3V10	F430V10
VALVES	ON/OFF	●	●	●		
	OPEN/CLOSE	●	●	●		
	3 POINTS			●		
	0-10V					●
FANCOIL	2 PIPES ON/OFF		●	●		
	4 PIPES ON/OFF			●		
	2 PIPES 3 POINTS			●		
	4 PIPES 3 POINTS			●		
	2/4 PIPES 0-10V				●	
ELECTRIC HEATING	●	●	●			
CLIMAVENETA						
MIXED ON/OFF + FANCOIL						

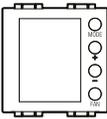
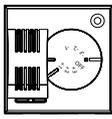
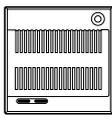
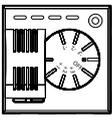
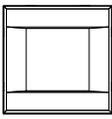
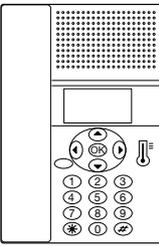
NOTE 1): It is not possible to change the speeds from the probes

NOTE 2): The loads are controlled correctly but it is more economic to use the probes without speed control

NOTE 3): For the first version of the actuators for valves 0-10 (NO Speed) 0 = off; 10 = max

NOTE 3) The probes 4691 and probes 4692,4693,4692FAN (ver6) must be configured with MyHOME_Suite 1,3,x

WARNING: Systems made with "old" loads and "new" load must only be configured using MyHOME_Suite 1,3,x.
The central unit must do the SELF-LEARNING but not the SENDING by zones.

PROBES				CENTRAL UNITS	
 <p>H4691 LN4691</p>	 <p>HC/HS4692 L/N/NT4692</p>  <p>HC/HS4693 L/N/NT4693</p>	 <p>HC/HS4692FAN L/N/NT4692FAN</p>	 <p>HC/HS4891 L/N/NT4891</p> <p>In conjunction with probe item HC/HS4693, L/N/NT4693 or with external probe item 3457</p>	 <p>3550</p>	 <p>HC/HS4695 L/N/NT4695 AM5875</p>
●	●	● ²⁾	●	●	●
●	●	● ²⁾	●	●	●
● ³⁾	● ³⁾	● ³⁾			
● ³⁾	● ³⁾	● ³⁾			
●	● ¹⁾	●	●	●	●
● ³⁾	● ^{1) 3)}	●			
● ³⁾	● ³⁾	● ³⁾			
● ³⁾	● ³⁾	● ³⁾			
● ³⁾	● ³⁾	● ³⁾			
●	●	● ²⁾	●	●	●
●	● ¹⁾	●	●	●	●

The devices

PERFECT INTEGRATION PERFECT INTEGRATION WITH THE MYHOME SYSTEM

*Example of integration between
Temperature Control and Automation*

The temperature control system can be integrated with MyHOME Automation, for the management of the temperature in the different zones of the house, using MyHOME_Screen 3.5, MyHOME_Screen 10 and Video Display.

In particular, using Touch Screen IP it is possible to manage not only the temperature in the different zones, but also those functions that up to now have always been managed by

the central unit (e.g. weekly mode, external probe scenarios mode, etc.). For further information see the User

Manual supplied as standard with Touch Screen IP.

MyHOME_Screen 10



MyHOME_Screen 3.5

*Example of integration between
Temperature Control and Automation*

The integration between MyHOME Burglar-Alarm and Temperature Control systems allows the set-up of a particularly useful function in terms of energy saving, avoiding unwanted escape of energy to the

outside, for example when the air inside the house is being changed. In practical terms, when doors or windows of a room are opened, the heating system of the temperature control zone corresponding to that room is automatically turned off. The opening or closing of doors and

windows is detected by the contact interface module of the Burglar-Alarm system, which reads the condition of the NC contact installed on the door or window, and transfers the information to the Temperature Control system for the appropriate actions.

Magnetic contact



Opening of window

Contacts interface



Temperature control central unit



Radiator off

GENERAL RULES FOR INSTALLATION

Maximum number of devices, maximum distances and absorptions

The maximum number of devices which can be connected to the BUS depend on two factors:

- maximum number of addresses: a system can manage up to 99 zone addresses. Up to nine addresses dedicated to the actuators can be managed for each zone.
- Total power consumption of devices: the sum of the absorption of all the items in total must not exceed the maximum current which can be supplied by the power supply which is 1200 mA for item E46ADCN and 600 mA for item E49.

For the calculations mentioned above, refer to the technical data listed in the technical sheets of the device.

When calculating the absorptions the availability of current as a function of the length of the BUS cable must also be considered.

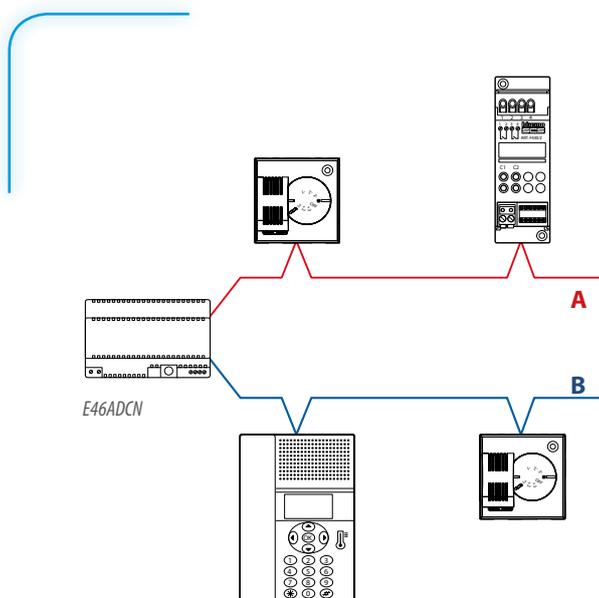
During the sizing therefore respect the following rules:

- the connection between the power supply and the furthest device must not be more than 250 m long;

- the total length of the connections must not exceed 500 m.

For the purpose of optimal distribution of the currents on the BUS line it is advised to put the power supply in intermediate position.

MAXIMUM DISTANCES OF THE BUS CABLE



With E46ADCN power supply:

A = 250 m max

B = 250 m max

A + B = 500 m

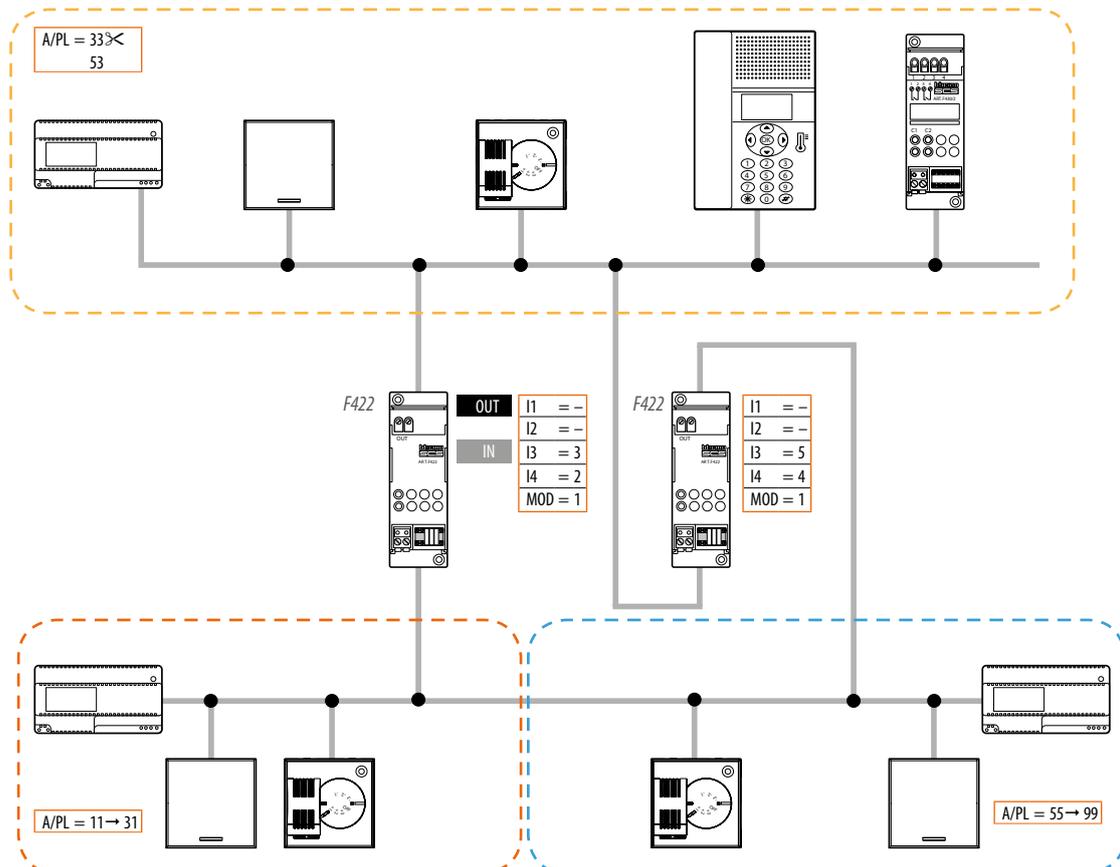
NOTE: If a UTP5 cable is used instead of a BUS L4669 cable, distances must halved.

Maximum number of devices, maximum distances and absorptions

PHYSICAL EXPANSION MODE

In large systems or systems which have current absorption greater than the limit of 1200 mA supplied by the power supply E46ADCN or 600 mA supplied by the E49 compact power supply, split the system into several sections connected to each other using the F422 interface configured in "physical expansion" mode. It is important to remember that each line must be powered by its own power supply. To produce the "physical expansion" mode interface item F422 must be configured by inserting numeric configurator 1 in the MOD position. Positions I3 and I4 of the interface must be configured as a function of the two modes of use of the interface itself as indicated below:

- If a BUS system with only temperature control devices must be extended, positions I3 and I4 of the interface must be configured with addresses I3 = 1 – 9 and I4 = 1 – 9 completely independent from the Temperature control device addresses;
- If a BUS system with Automation and temperature control devices must be extended, positions I3 and I4 must be configured as a function of the configuration of the Automation devices in the two connected systems. Referring to the illustration, supposing that for example I3=3, I4 = 2:
- on the input BUS (IN) the Automation device addresses must be between A = 1 / PL = 1 and A = 3 / PL = 1;
- on the output BUS (OUT) the addresses must be between A = 3 / PL = 3 and A = 9 / PL = 9 or the address of the next interface. It should be stressed that all the temperature control devices on the system section must be configured totally independently of the Automation device configuration. In any case no automation device must be configured with the same address (A, PL) as interface F422 (I3, I4).



Combining with other functions

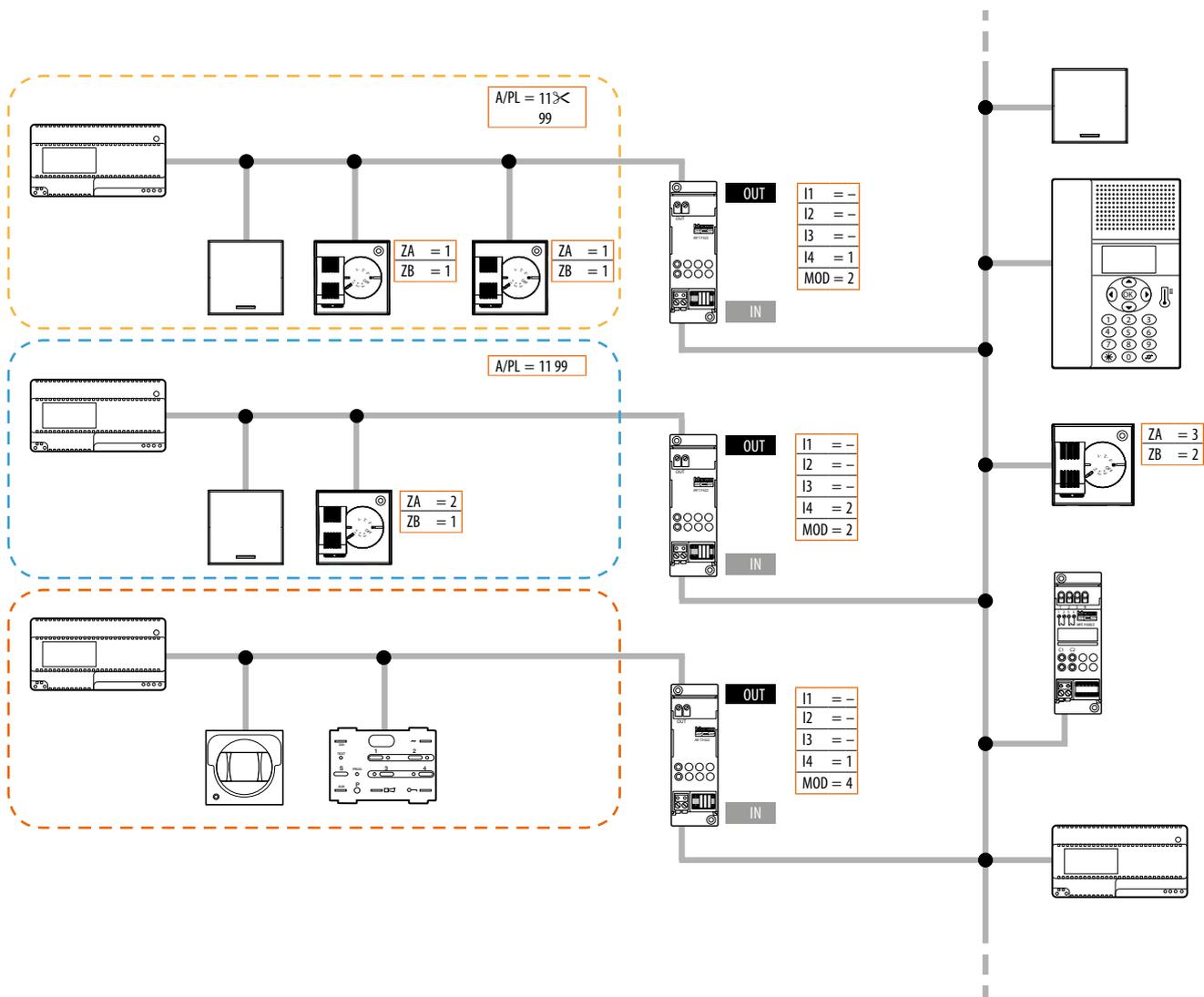
The Temperature control function devices can share the same BUS cable as other MyHOME automation and emergency management applications (gray cable). If there is already a stable cable with the automation or power management BUS the Temperature control items can be added at any point in the system, after installing a box item 503E for the control units, one or more boxes positioned at a height of 1.5 m for each temperature probe and a unit with enough room for the

DIN actuators. The above is also valid if the pre-existing MyHOME system has several Automation systems connected using interfaces item F422 configured in the "logical expansion" mode.

In the case of systems with "logical expansion" there is no constraint for the installation of temperature control devices, which can be installed at any point in the system. Therefore, for proper system sizing, it is only necessary to check the length of the connections made with the

BUS cable and the total absorption of the devices as prescribed in this document.

For systems which also have the burglar-alarm function, the Temperature control must not be installed on the same BUS as the burglar-alarm, but there must be an F422 interface between the two BUSES.



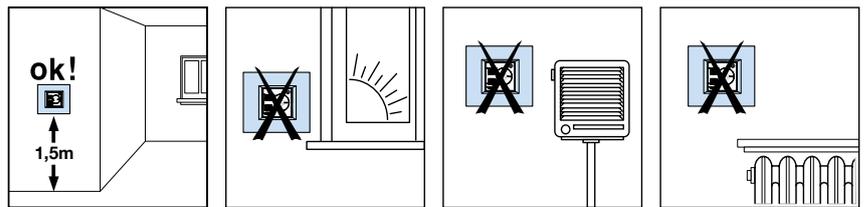
Correct mode of installation for 4 zone control unit, probes and magnetic contacts

THE 4 ZONE CONTROL UNIT AND THE PROBES

Must be installed at a height of approximately 1.5 m, away from areas that may affect the reading of the room temperature, such as nearby windows, fan-coils, or radiators. The probes may be installed both

inside standard flush-mounting, or wall-mounting boxes; Surface installation may be useful for

resolving issues with pre-existing BUS systems that cannot be expanded.



CALIBRATION OF THE 4 ZONE CENTRAL UNIT AND THE PROBES

The probes and the 4 zone central unit do not normally need calibration; however, in particular installation situations (perimeter walls, north or south facing walls, when close to heat sources, etc.), the temperature value measured may be corrected using the appropriate calibration function, which can be found in the central unit menu.

Before performing the calibration operation, ensure the following:

- Leave the probes connected and powered with the hydraulic system off for at least two hours. During this time, avoid any changes in the room temperature (e.g. by opening or closing windows, doors, etc.) and **avoid standing near them**;
- For the calibration use a **calibrated**

sample thermometer, correctly placed inside the room.

For more details on the calibration procedure, refer to the central unit installation manuals.

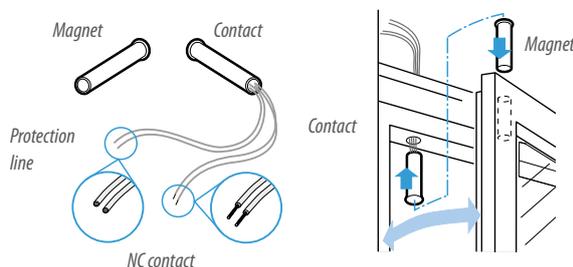
MAGNETIC CONTACTS

They are generally installed in the upper part of the window frames and in the point furthest away from the hinges. In this way small openings cause the magnet to move away from the contact reed and the contact itself consequently opens. The models in the catalog are of NC type and also have a protection line

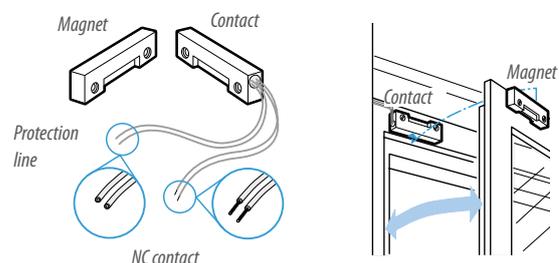
generally not used in temperature control. It is mainly useful for preventing tampering such as cutting the wires in burglar-alarm systems. If the same MyHOME system has temperature control and burglar-alarm applications the same magnetic contacts can be used for both functions at the same time.

If the contact interface is correctly configured it can support both applications. When the temperature control system is being installed the protection line should be installed and wired as well, so that the burglar-alarm can be installed as well.

FOR FLUSH-MOUNTING INSTALLATION 3510, 3510M, 3510PB

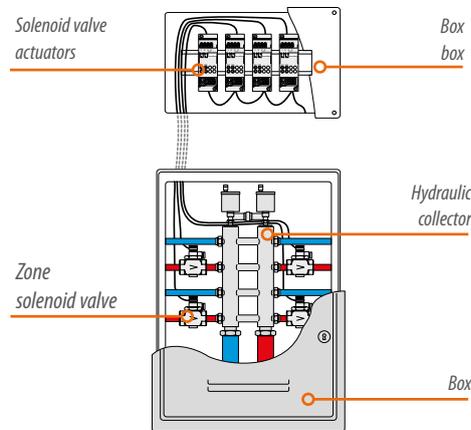


FOR VISIBLE INSTALLATION 3511



Layout of solenoid valves and actuators

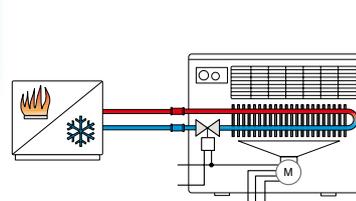
The typical installation requires the positioning of all solenoid valves on the collector, grouped inside a box in the boiler room. In this case it is recommended that also all actuators are grouped, inside a control unit, installed nearby the box itself. In multi-floor buildings, this solution may be repeated at every floor.



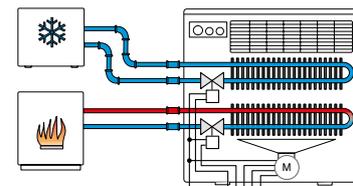
FAN-COIL SYSTEMS

In fan-coil systems the solenoid valve can be installed inside the fan-coil itself. In 2 pipe systems the solenoid valve is only one for both heating and cooling functions. In 4 pipe systems, 2 separate solenoid valves are used, one for the heating and the other for the cooling function.

Installation of the solenoid valve inside 2 pipe fan-coils

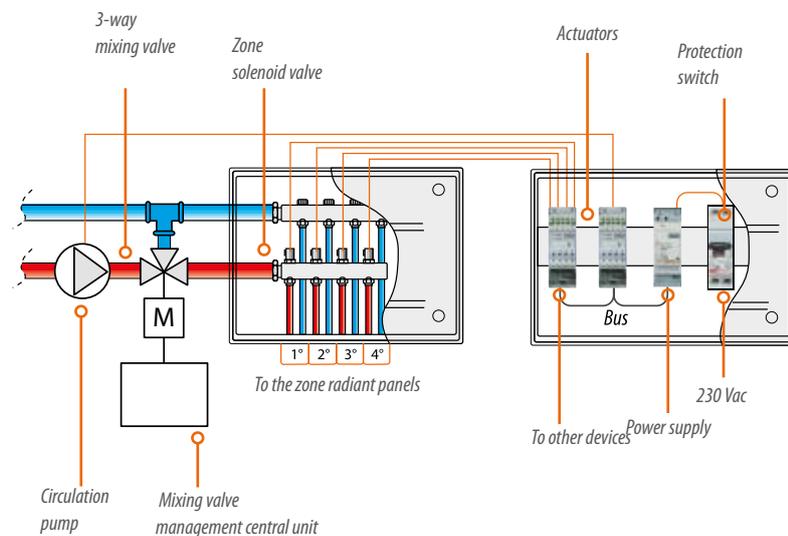


Installation of the solenoid valve inside 4 pipe fan-coils



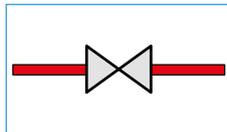
RADIANT PANEL SYSTEMS

In radiant panel systems it will be necessary to install, after the pump, a three-way mixing valve capable of mixing the water, so that the maximum temperature limit set is not exceeded. The mixing valve is managed by a central unit supplied by the manufacturer of the radiant panel system.

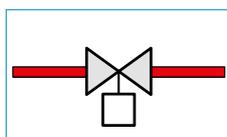


Symbol legend

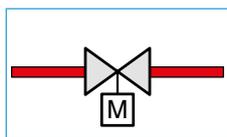
To make the reading of the diagrams shown in the following pages easier, the various symbols and their functions are summarized.



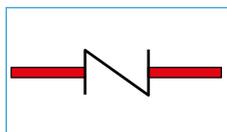
General valve symbol



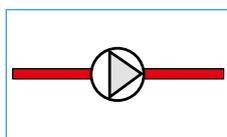
ON/OFF solenoid valve



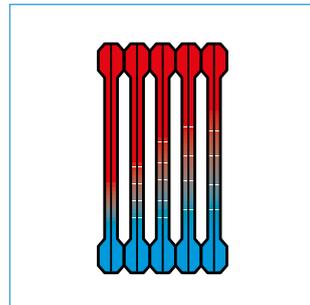
Open/close solenoid valve
0÷10V



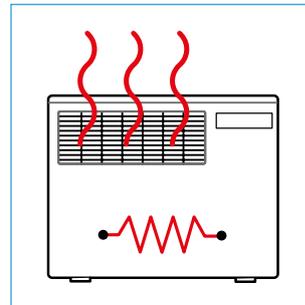
Non-return valve



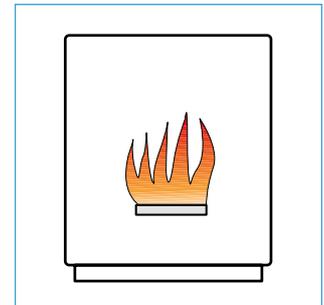
Pump



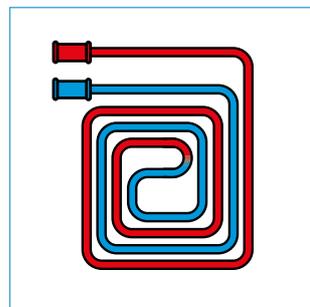
Radiators



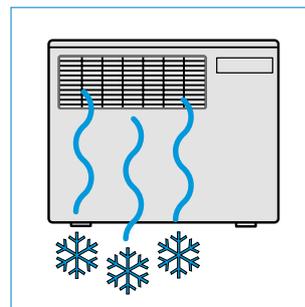
Electric radiator



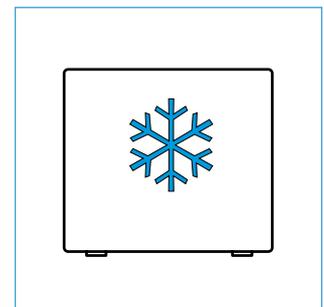
Boiler



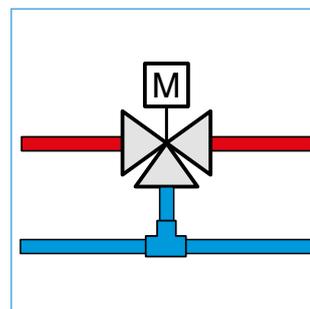
Radiant panels



Fan-coil



Chiller



Three-way mixing valve (*)

(*) NOTE: in radiant heating panel systems this valve has the function of mixing water, to ensure that the water itself, and therefore also the floor, remain below a certain temperature limit. For this reason, the mixing valve must be controlled by a control unit supplied by the radiant heating panel system supplier.

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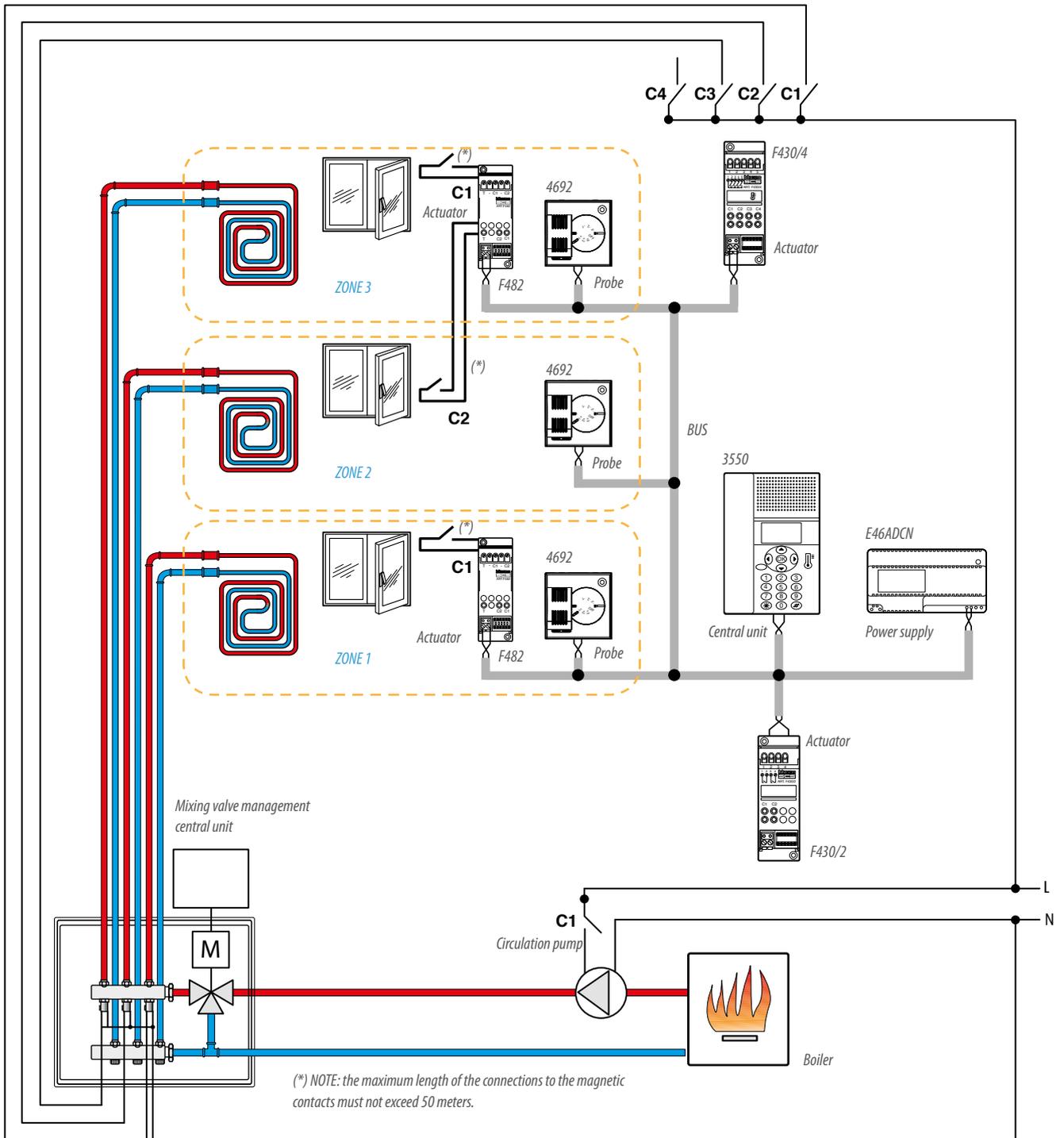
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3 zone villa

DIAGRAM 1 HEATING WITH RADIANT PANELS WITH WINDOW CONTACT MANAGEMENT



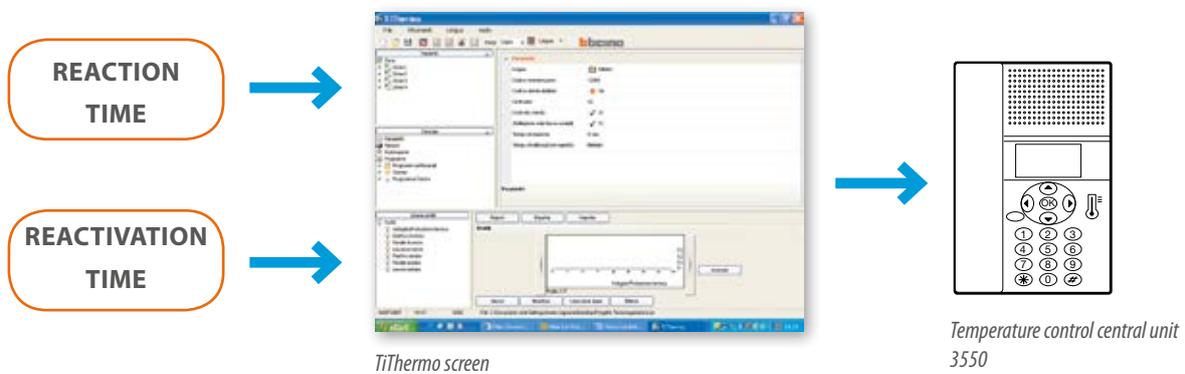
NOTE:For the radiant panels management center connection refer to the diagram No. 21.

99 ZONE CENTRAL UNIT CONFIGURATION

The 99 zone control unit item 3550 must be used to use the magnetic contact management function. The function is not in fact available on the 4 zone control unit item HC/HS/L/N/NT4695 and item AM5875. This device does not need physical

configurators but, to end the system configuration operations, it is necessary to interact with the "Configure zones" menu. As an alternative the TiThermo application can be used. For these operations refer to the manual

supplied with the products. When setting the parameters for the management of the magnetic contacts, the TiThermo application must be used. Two parameters may be set: the reaction time and the reactivation time.

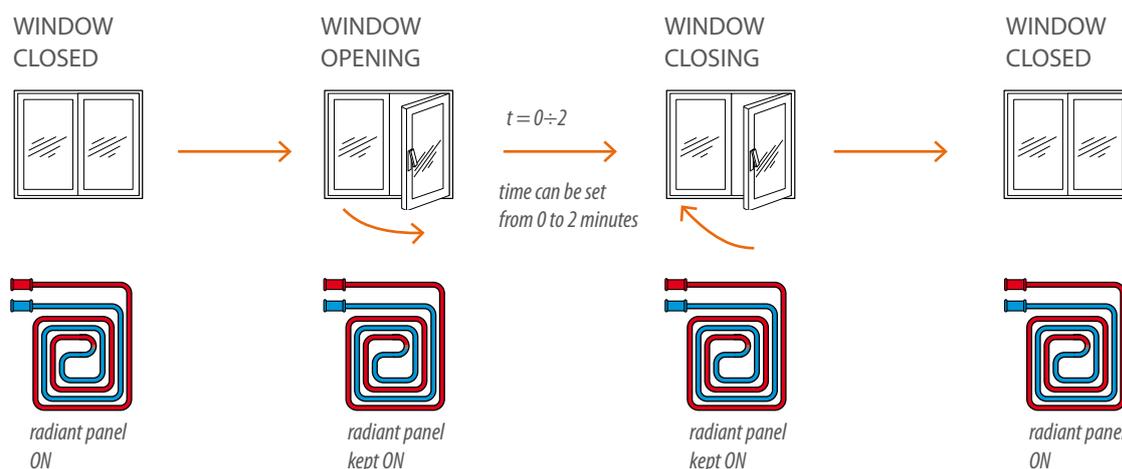


REACTION TIME

The reaction time can be set from 0 to 2 minutes and is a sort of delay to the deactivation of the temperature control zone. During this time the system completely ignores the opening of the

window frame avoiding switching the corresponding temperature control zone OFF. Setting 0 minutes deactivation is practically instant. This function is suitable for short openings of windows or doors not

needed for the changes of air, for example opening a window to close or open the shutters, or opening the entrance door to welcome a person.



3 zone villa

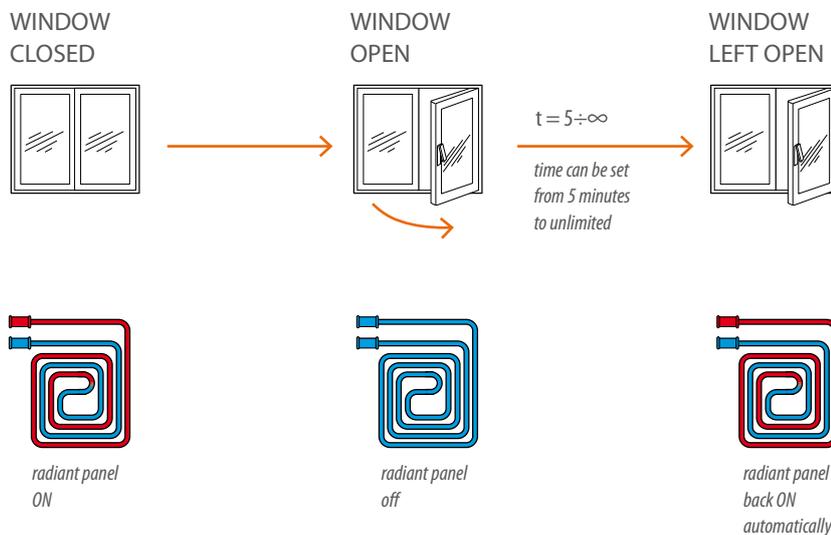
<< previous

REACTIVATION TIME

The reactivation time can be set from 5 to 55 minutes, or on unlimited. When the time set has elapsed the system reactivates the temperature control zone even if windows or

doors are still open. Even if it goes against the concept of energy saving this function is useful when the windows have been left open and the temperature set in

the room must be kept the same. When the reactivation time is set on unlimited the function is not active.

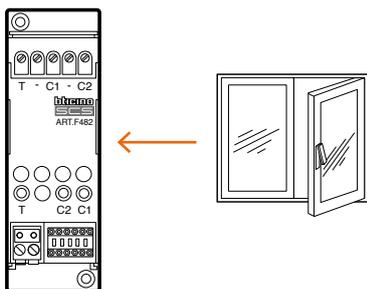


CONTACT INTERFACE CONFIGURATION

The contact interface is directly connected to the temperature control bus. It autonomously and independently manages the two C1 and C2 lines. Only the line used must be configured, and not both of them. Follow by connecting the

AUX configurator to the MOD1 and/or MOD2 housings, for the activation of the operating mode with temperature control system only. Then configure the Z1/2 and N1/2 housings, in order to assign the address 1 to 99 of the device, within

the system. The coupling between the interface contact line and the temperature control zone must be performed using the TiThermo application.



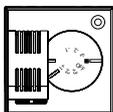
CONTACT INTERFACE OF ZONE 1 WINDOWS

[Z1]	[N1]	[MOD1]	[Z2]	[N2]	[MOD2]
0	1	AUX	-	-	-

CONTACT INTERFACE OF ZONE 2 AND 3 WINDOWS

[Z1]	[N1]	[MOD1]	[Z2]	[N2]	[MOD2]
0	2	AUX	0	3	AUX

PROBES CONFIGURATION

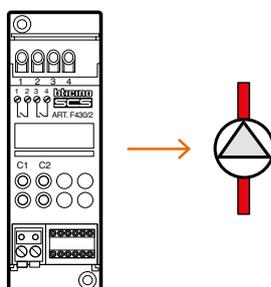
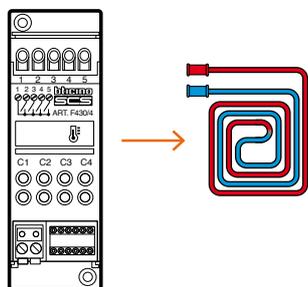


ZONE 1 PROBE		
[ZA]	[ZB]	[SLA]
0	1	-

ZONE 3 PROBE		
[ZA]	[ZB]	[SLA]
0	3	-

ZONE 2 PROBE		
[ZA]	[ZB]	[SLA]
0	2	-

ACTUATORS CONFIGURATION

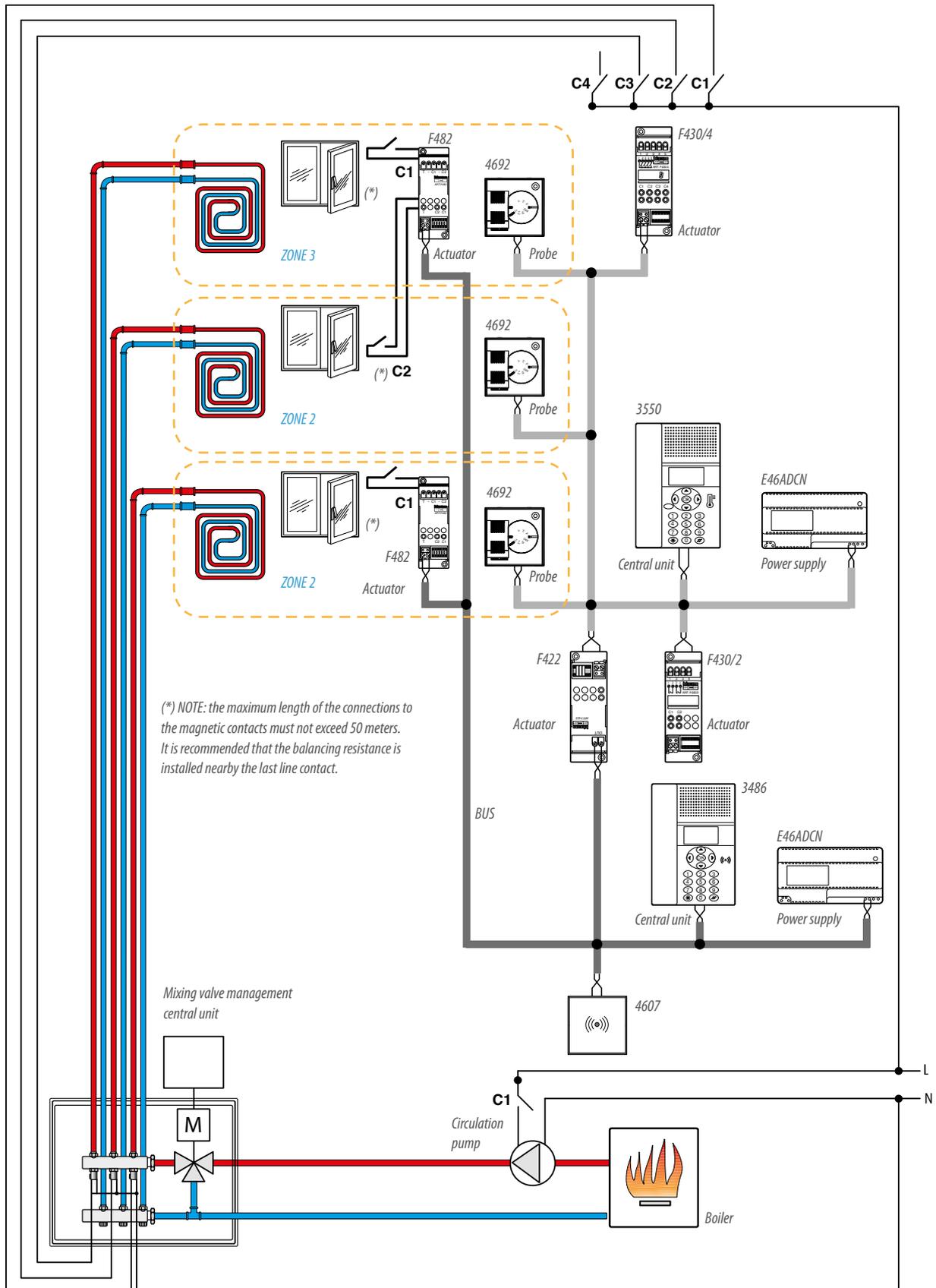


ZONE ACTUATOR					
[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	1	2	3	OFF	1

CIRCULATION PUMP ACTUATOR				
[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	OFF	-

3 zone villa

DIAGRAM 2 HEATING WITH RADIANT PANELS WITH WINDOW CONTACT MANAGEMENT



99 ZONE CENTRAL UNIT CONFIGURATION

In this case the contact interface is connected to the burglar-alarm bus only and communicates with the temperature control bus by means of interface F422. The door or window opening or closing signal is sent both to the burglar-alarm system and to the temperature control system, and is used both for safety and energy saving purposes. In order to use

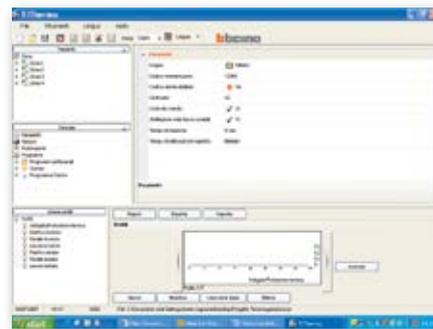
the function for the management of the magnetic contacts installed in the Burglar-Alarm system, item 3550 must be used in the 99 zone control unit temperature control system. This device does not require physical configurators. Configuration operations must be performed using the "Configuration" menu or the TiThermo application.

When setting the parameters for the management of the magnetic contacts, the TiThermo application must be used. Two parameters may be set: the reaction time and the reactivation time.

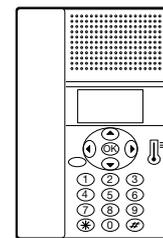
REACTION TIME



REACTIVATION TIME



TiThermo screen



Temperature control central unit 3550

NOTE:For the radiant panels management center connection refer to the diagram No. 21.

3 zone villa

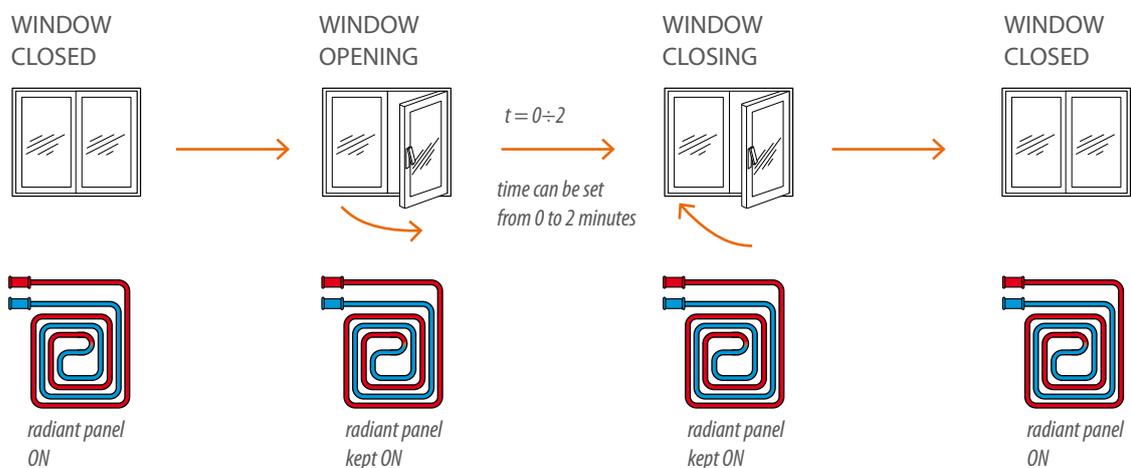
<< previous

REACTION TIME

The reaction time can be set from 0 to 2 minutes and is a sort of delay to the deactivation of the temperature control zone. During this time the system completely ignores the opening of the window

frame avoiding switching the corresponding temperature control zone OFF. Setting 0 minutes deactivation is practically instant. This function is suitable for short openings of

windows or doors not needed for the changes of air, for example opening a window to close or open the shutters, or opening the entrance door to welcome a person.

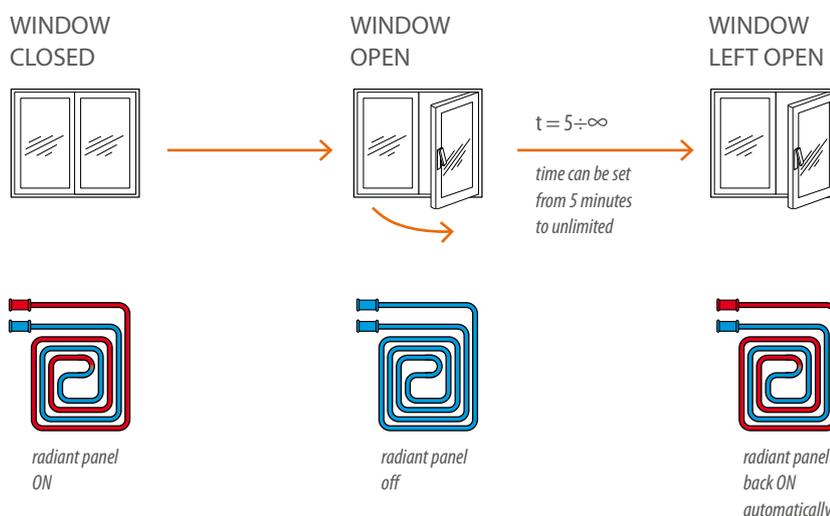


REACTIVATION TIME

The reactivation time can be set from 5 to 55 minutes, or on unlimited. When the time set has elapsed the system reactivates the temperature control zone even if windows or

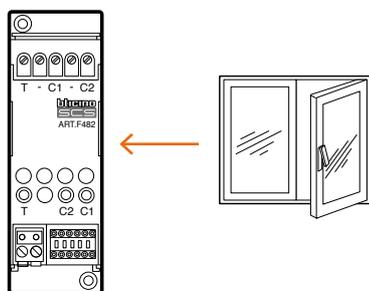
doors are still open. Even if it goes against the concept of energy saving this function is useful when the windows have been left open and the temperature set in

the room must be kept the same. When the reactivation time is set on unlimited the function is not active.



CONTACT INTERFACE CONFIGURATION

Then configure housings Z1/2 and N1/2 depending on the requirements and features of the burglar-alarm system (see the burglar-alarm technical guide). The coupling between the interface contact line and the temperature control zone must be performed using the TiThermo application.



CONTACT INTERFACE OF ZONE 1 WINDOWS

[Z1]	[N1]	[MOD1]	[Z2]	[N2]	[MOD2]
(*)	(*)	4	(*)	(*)	(*)

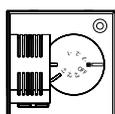
CONTACT INTERFACE OF ZONE 2 AND 3 WINDOWS

[Z1]	[N1]	[MOD1]	[Z2]	[N2]	[MOD2]
(*)	(*)	4	(*)	(*)	(*)

(*) NOTE: The involved contacts are C1 and C2. Only the housings of the lines used must be configured; configure housings MOD1 and/or MOD2 based on the type of contact and the operating mode to be used. See table.

MOD1/MOD2	TYPE OF CONTACT AND MODE
4	NC
5	Balanced
6	NC - delayed
7	NC - Balanced - delayed

PROBES CONFIGURATION



ZONE 1 PROBE

[ZA]	[ZB]	[SLA]
0	1	-

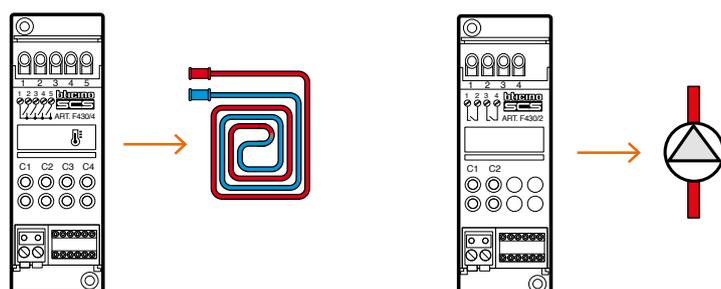
ZONE 3 PROBE

[ZA]	[ZB]	[SLA]
0	3	-

ZONE 2 PROBE

[ZA]	[ZB]	[SLA]
0	2	-

ACTUATORS CONFIGURATION



ZONE ACTUATOR

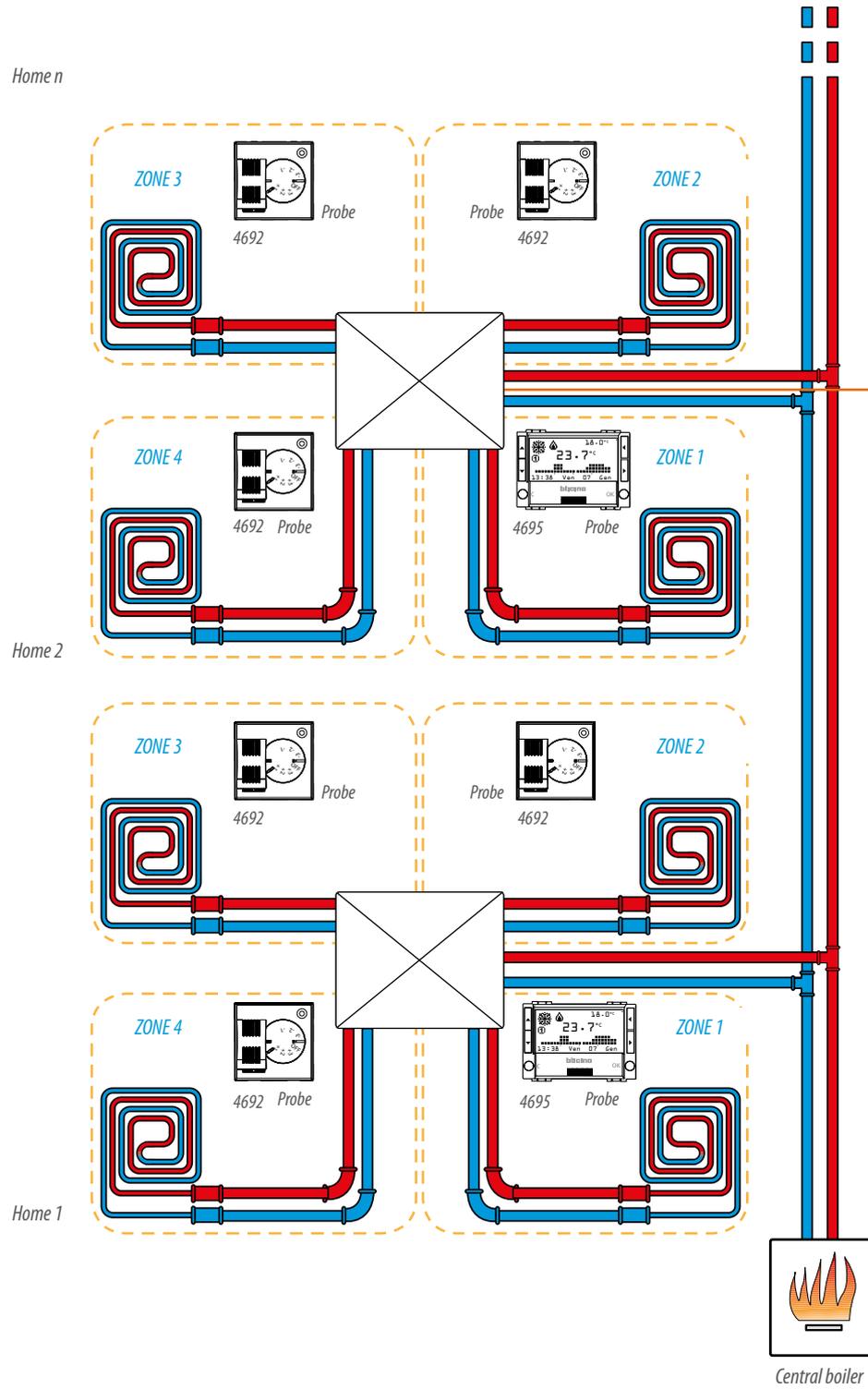
[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	1	2	3	OFF	1

CIRCULATION PUMP ACTUATOR

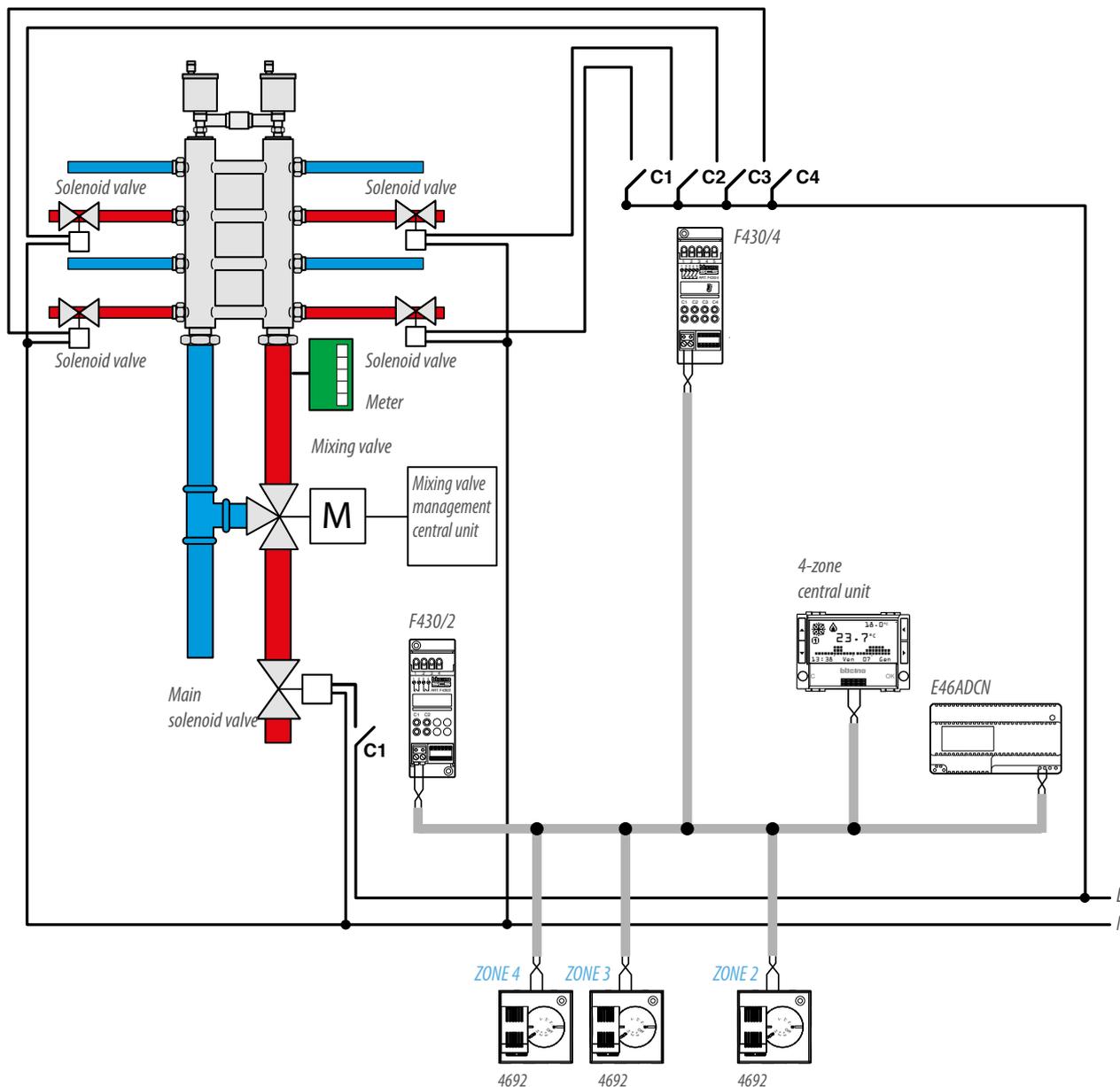
[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	OFF	-

Several homes, 4 zones

DIAGRAM 3 CENTRAL HEATING WITH RADIANT PANELS FOR SEVERAL HOMES



CONNECTION OF THE DISTRIBUTION COLLECTOR AND TEMPERATURE CONTROL BUS SYSTEM OF HOME 2



The meter is used to measure the amount of heat consumed by each home.

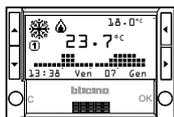
NOTE: The temperature control BUS system, the connection of the solenoid valve, and the meter, are the same for all homes.

For the radiant panels management center connection refer to the diagram No. 21.

Several homes, 4 zones

<< *previous*

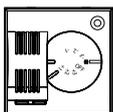
CENTRAL UNIT/PROBE CONFIGURATION



The 4 zone control unit item HD/HC/HS4695 Axolute, L/N/NT4695 LivingLight and AM5875 Måtixas well as managing the whole of the temperature control system, contains a temperature probe which must be configured physically like the other system probes. Interact with the “Configure zones” menu to end

the system configuration operations correctly. As an alternative the TiThermo Basic application dedicated to this version of control unit can be used. For these operations refer to the manual supplied with the products.

PROBES CONFIGURATION



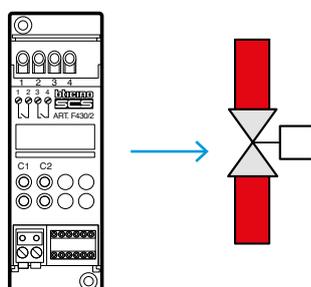
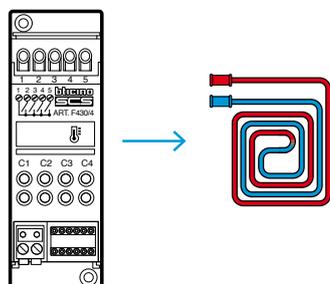
ZONE 1 CENTRAL UNIT/PROBE		
[ZA]	[ZB]	[SLA]
0	1	-

ZONE 2 PROBE		
[ZA]	[ZB]	[SLA]
0	2	-

ZONE 3 PROBE		
[ZA]	[ZB]	[SLA]
0	3	-

ZONE 4 PROBE		
[ZA]	[ZB]	[SLA]
0	4	-

ACTUATORS CONFIGURATION



ZONE ACTUATOR 1,2,3,4

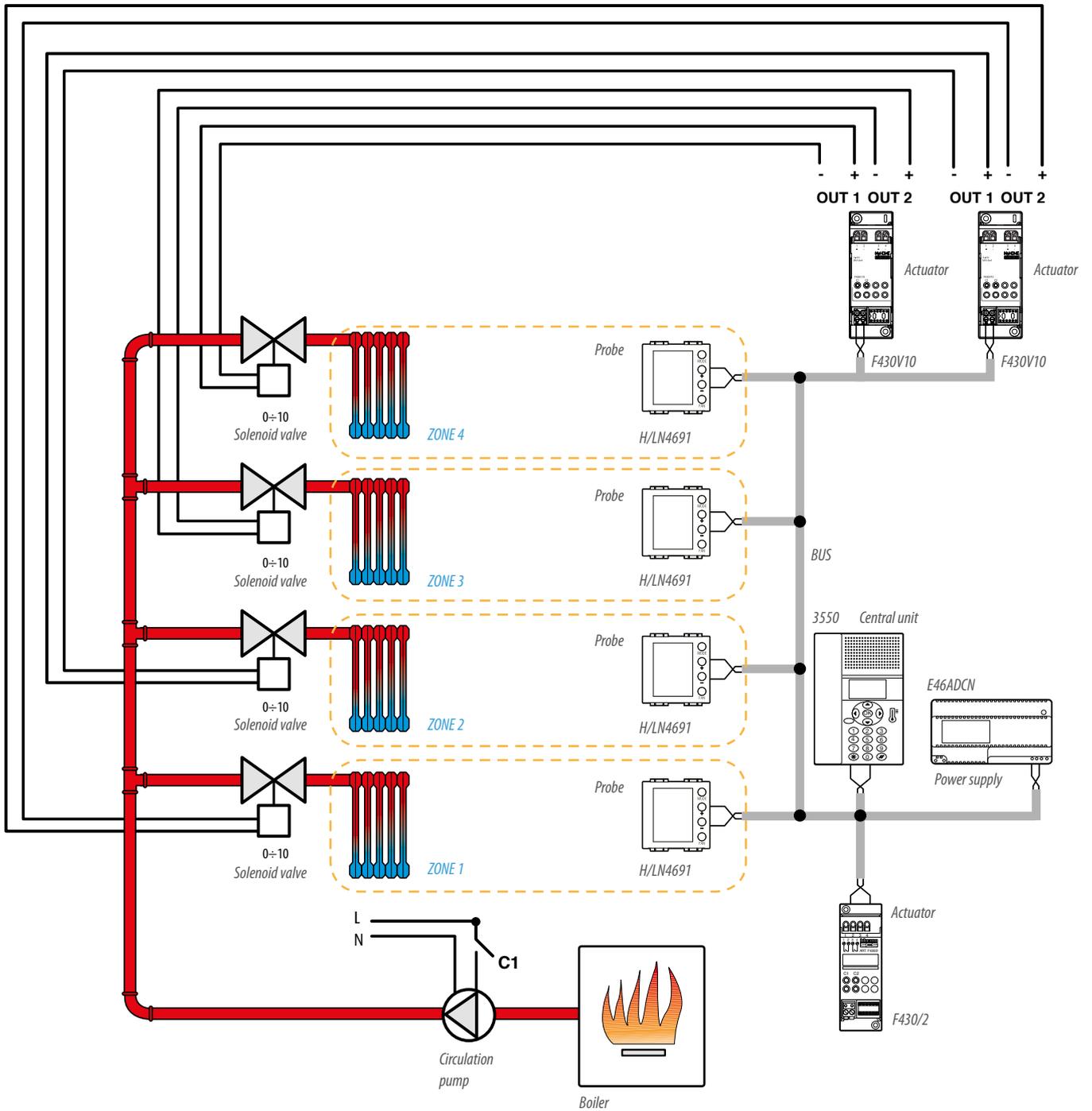
[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	2	1	4	1

MAIN SOLENOID VALVE ACTUATOR

[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	OFF	-

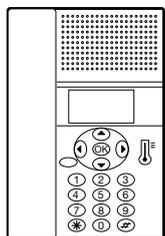
4 zone villa

DIAGRAM 4 HEATING WITH RADIATOR WITH 0÷10 V SOLENOID VALVE



NOTA: 0-10V valves are not managed in proportional mode but in ON/OFF mode; for the management of the valves in proportional mode see diagram 19.

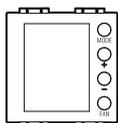
99 ZONE CENTRAL UNIT CONFIGURATION



The 99 zone control unit item 3550 does not need physical configurators but, to end the system configuration operations, interact with the "Configure zones" menu. As an alternative the TiThermo

application can be used. For these operations refer to the manual supplied with the products.

PROBES WITH DISPLAY CONFIGURATION



ZONE 1 PROBE

[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	1	0	9	9	0	0

ZONE 3 PROBE

[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	3	0	9	9	0	0

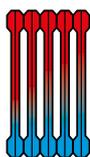
ZONE 2 PROBE

[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	2	0	9	9	0	0

ZONE 4 PROBE

[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	4	0	9	9	0	0

ACTUATORS CONFIGURATION



ZONE ACTUATOR 1 AND 2

[ZA1]	[ZB1]	[N1]	[ZA2]	[ZB2]	[N2]
0	1	1	0	2	1

ZONE ACTUATOR 3 AND 4

[ZA1]	[ZB1]	[N1]	[ZA2]	[ZB2]	[N2]
0	3	1	0	4	1

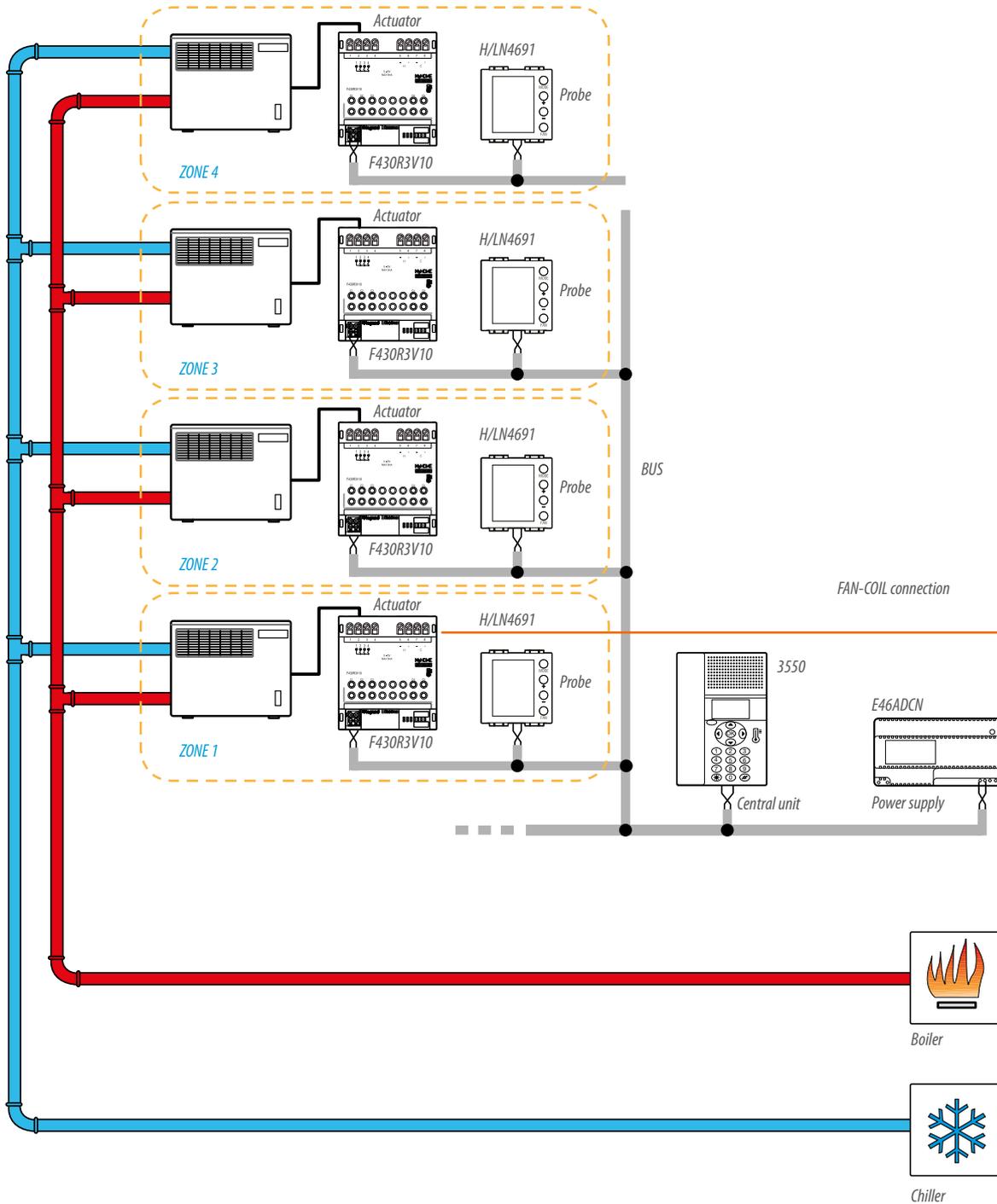


CIRCULATION PUMP ACTUATOR

[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	OFF	-

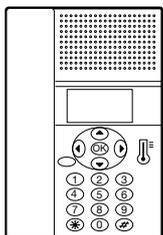
4 zone villa

DIAGRAM 5 HEATING AND COOLING WITH 4-PIPE FAN-COIL AND 0÷10V SOLENOID VALVE



NOTA: 0-10V valves are not managed in proportional mode but in ON/OFF mode; for the management of the valves in proportional mode see diagram 19.

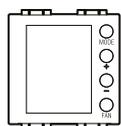
99 ZONE CENTRAL UNIT CONFIGURATION



The 99 zone control unit item 3550 does not need physical configurators but, to end the system configuration operations, interact with the "Configure zones" menu. As an alternative the TiThermo

application can be used. For these operations refer to the manual supplied with the products.

PROBES WITH DISPLAY CONFIGURATION



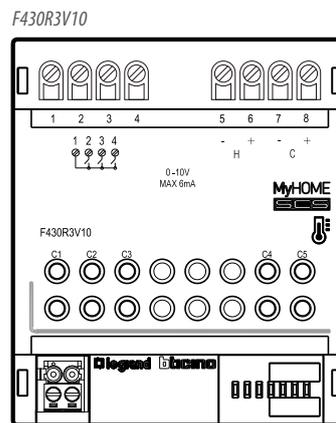
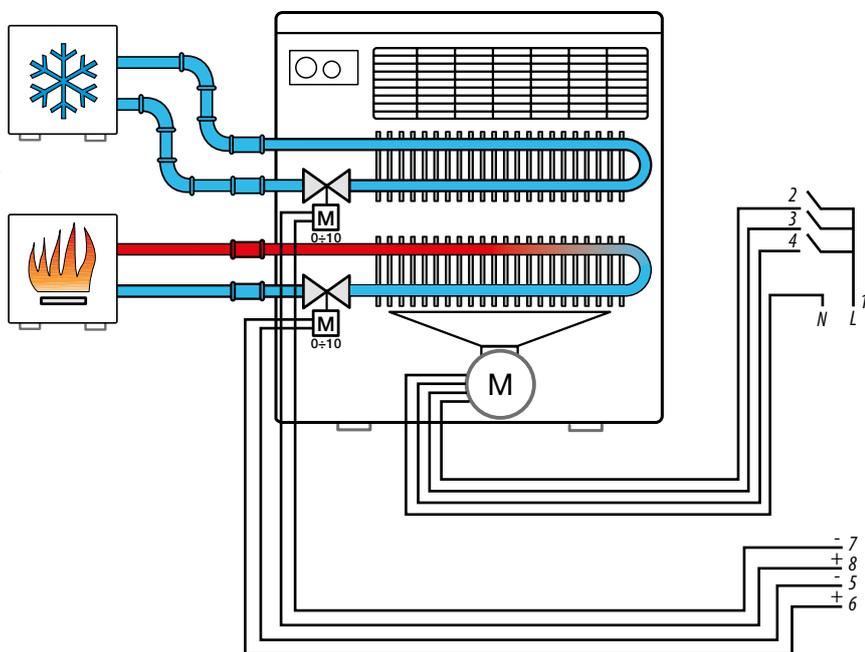
ZONE 1 PROBE						
[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	1	0	8	8	-	-

ZONE 2 PROBE						
[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	2	0	8	8	-	-

ZONE 3 PROBE						
[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	3	0	8	8	-	-

ZONE 4 PROBE						
[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	4	0	8	8	-	-

CONFIGURATION AND WIRING DIAGRAM OF THE ACTUATORS



ZONE 1 ACTUATOR			
[ZA]	[ZB]	[N]	[TYPE]
0	1	1	-

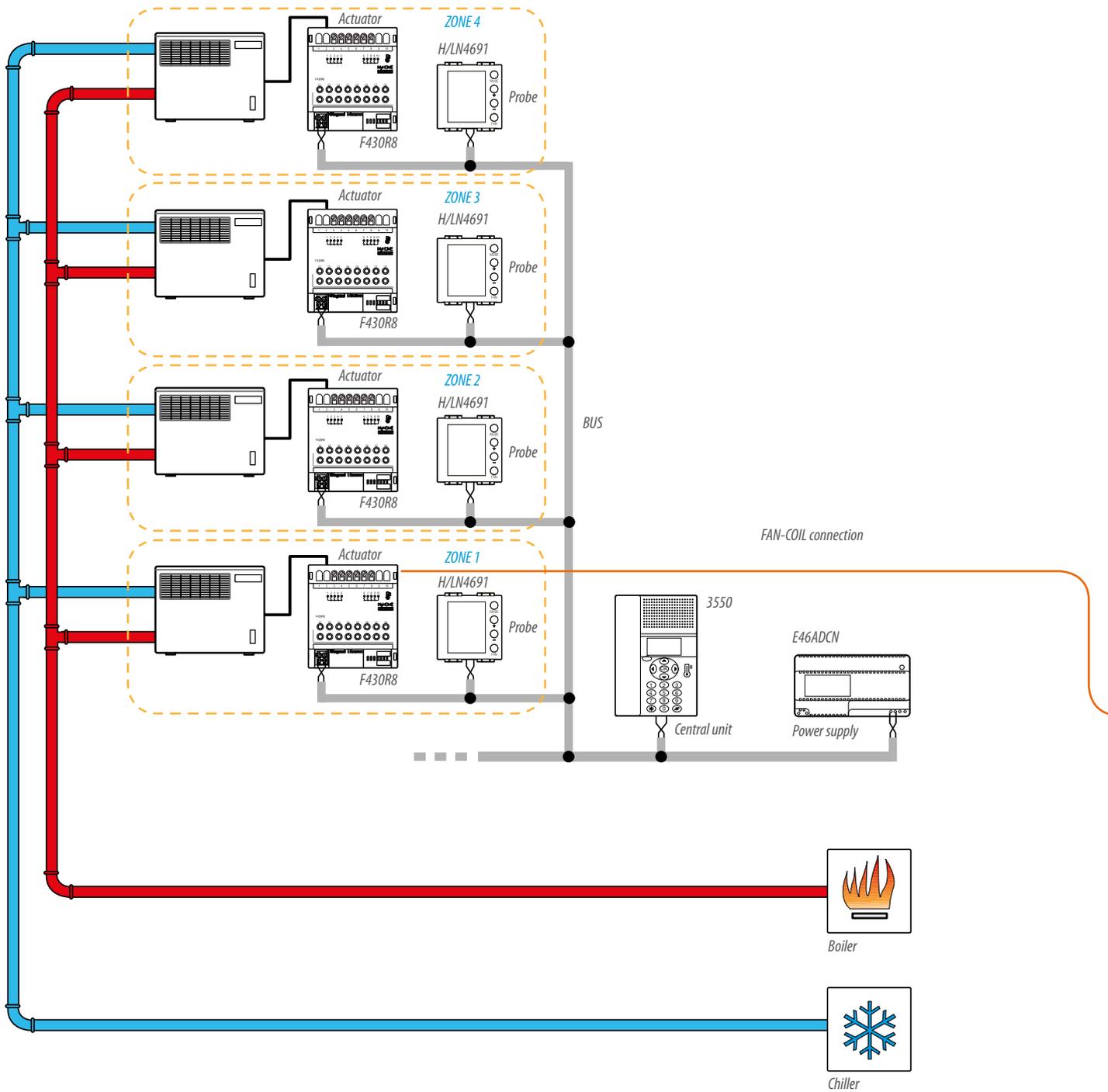
ZONE 2 ACTUATOR			
[ZA]	[ZB]	[N]	[TYPE]
0	2	1	-

ZONE 3 ACTUATOR			
[ZA]	[ZB]	[N]	[TYPE]
0	3	1	-

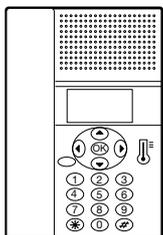
ZONE 4 ACTUATOR			
[ZA]	[ZB]	[N]	[TYPE]
0	4	1	-

4 zone villa

DIGRAM 6 HEATING AND COOLING WITH 4-PIPE FAN-COIL



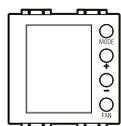
99 ZONE CENTRAL UNIT CONFIGURATION



The 99 zone control unit item 3550 does not need physical configurators but, to end the system configuration operations, interact with the "Configure zones" menu. As an alternative the TiThermo

application can be used. For these operations refer to the manual supplied with the products.

PROBES WITH DISPLAY CONFIGURATION



ZONE 1 PROBE

[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	1	0	7	7	-	-

ZONE 3 PROBE

[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	3	0	7	7	-	-

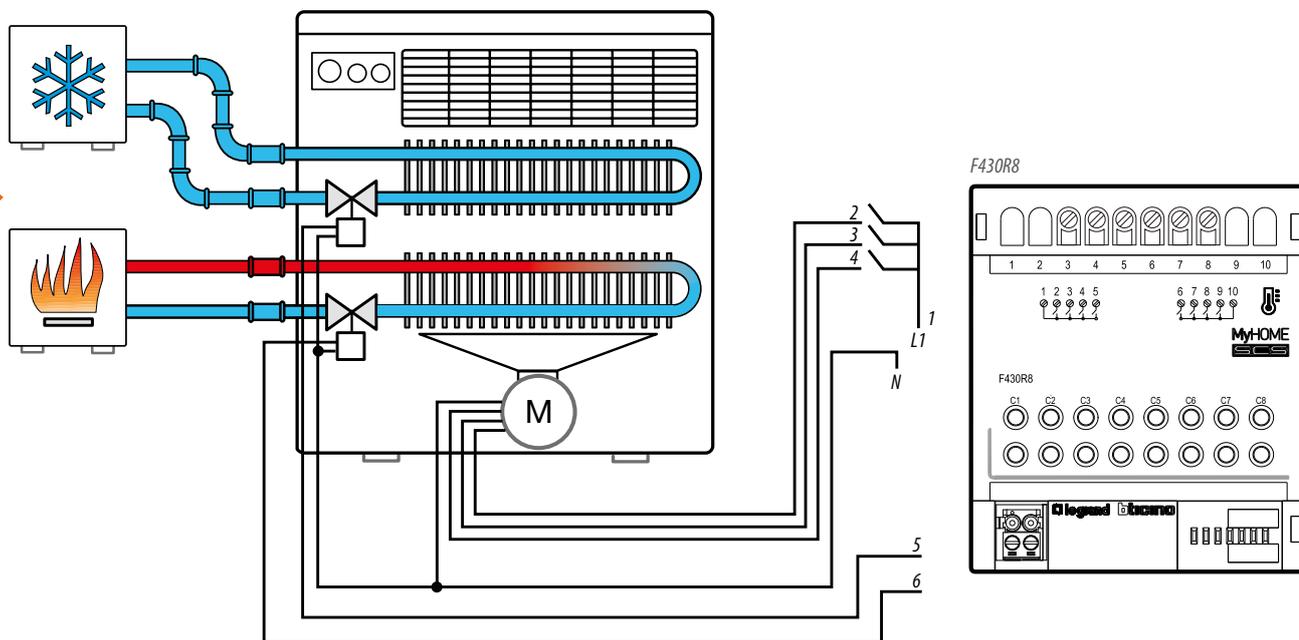
ZONE 2 PROBE

[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	2	0	7	7	-	-

ZONE 4 PROBE

[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	4	0	7	7	-	-

CONFIGURATION AND WIRING DIAGRAM OF THE ACTUATORS



ZONE 1 ACTUATOR

[ZA]	[ZB]	[N]	[TYPE]
0	1	1	-

ZONE 3 ACTUATOR

[ZA]	[ZB]	[N]	[TYPE]
0	3	1	-

ZONE 2 ACTUATOR

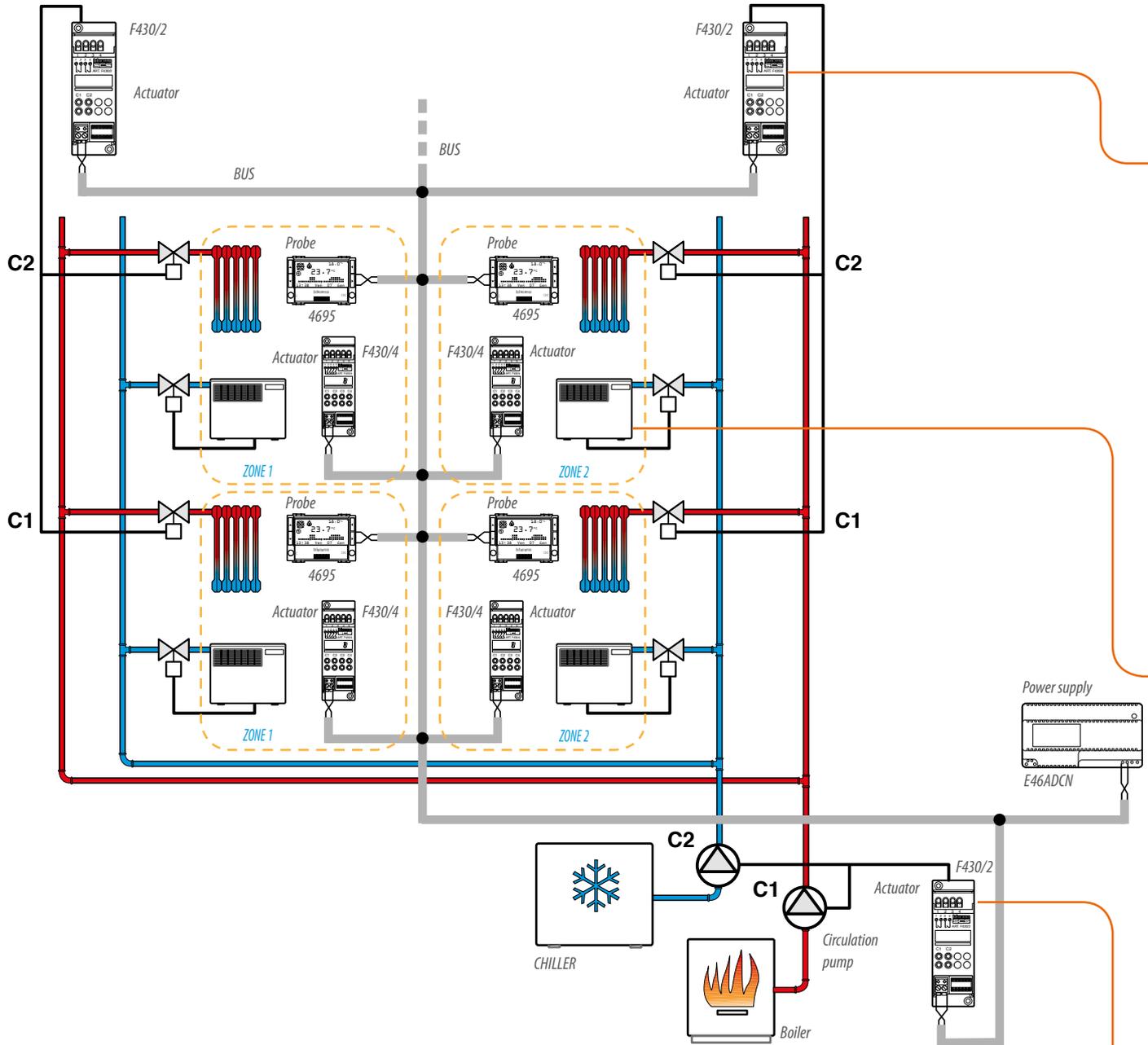
[ZA]	[ZB]	[N]	[TYPE]
0	2	1	-

ZONE 4 ACTUATOR

[ZA]	[ZB]	[N]	[TYPE]
0	4	1	-

4 zone villa

DIAGRAM 7 RADIATOR HEATING AND FAN-COIL COOLING WITH CUSTOMIZED ADJUSTMENT PROFILE

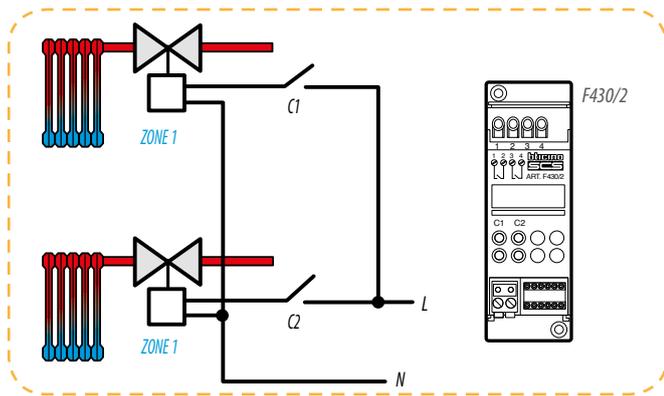


HEATING

Wiring diagram for connection of the solenoid valve to the actuator for heating. The configuration must be made correctly, maintaining the

correlation between the actuator contact and the address of the zone to be controlled. In this example, the radiators in zone 1 are controlled by

the contacts C1 and C2 configured with ZA = 1, ZBI = 1 and ZB2 = 5.

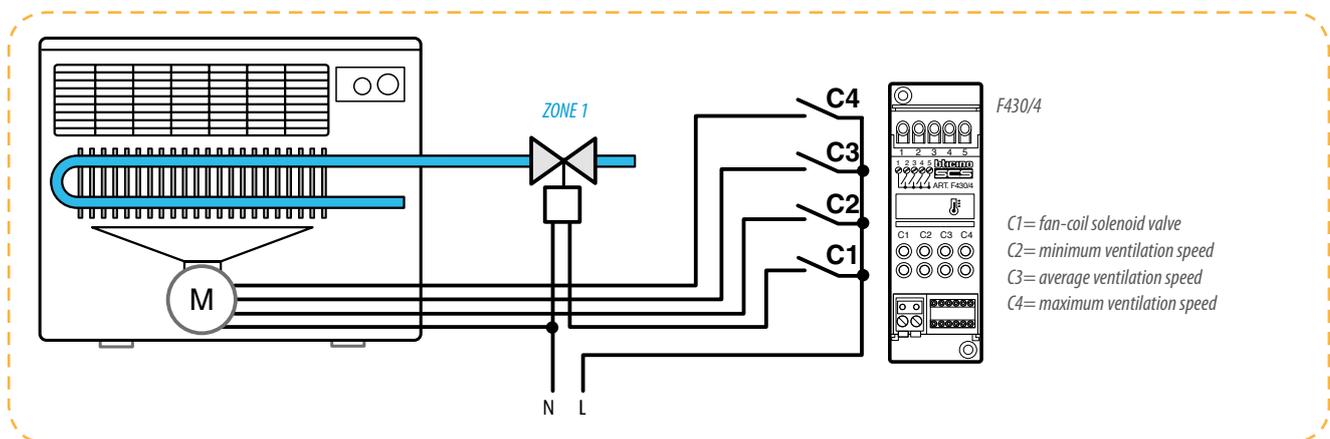


COOLING

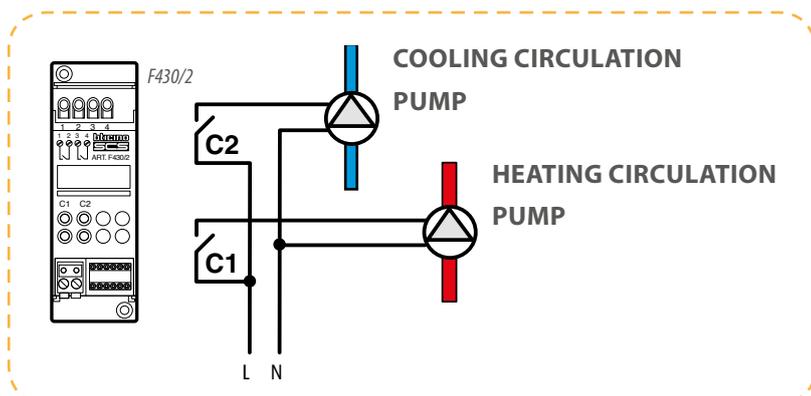
Wiring diagram for connecting the fan-coil actuator for cooling the zone 1. To control the fan-coils belonging

to zone 2, replicate the same connection, correctly configuring the actuator corresponding to the zone

as shown in the configuration tables.



CIRCULATION PUMPS



Wiring diagram for connecting the circulation pumps to the corresponding actuator. The pumps of the two systems, heating and cooling, are controlled by a single actuator.

4 zone villa

<< previous

CENTRAL UNIT/PROBE CONFIGURATION



The 4 zone control unit item HD/HC/HS/L/N/NT4695 and item AM5875 as well as managing the whole of the temperature control system, contains a temperature probe which must be configured physically like the other system probes. Interact with the “Configure zones” menu to end

the system configuration operations correctly. As an alternative the TiThermo Basic application dedicated to this version of control unit can be used. For these operations refer to the manual supplied with the products.

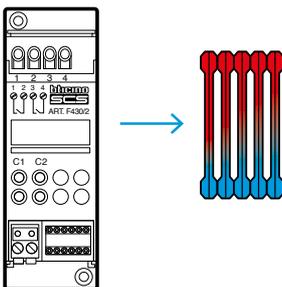
1^ ZONE 1 CENTRAL UNIT/PROBE		
[ZA]	[ZB]	[SLA]
1	1	-

1^ ZONE 2 CENTRAL UNIT/PROBE		
[ZA]	[ZB]	[SLA]
2	1	-

2^ ZONE 1 CENTRAL UNIT/PROBE		
[ZA]	[ZB]	[SLA]
1	5	-

2^ ZONE 2 CENTRAL UNIT/PROBE		
[ZA]	[ZB]	[SLA]
2	5	-

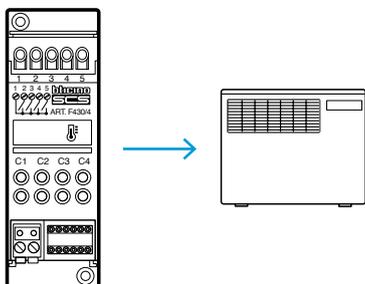
HEATING SYSTEM ACTUATOR CONFIGURATION



ZONE 1 ACTUATOR				
[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
1	1	1	5	1

ZONE 2 ACTUATOR				
[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
2	1	1	5	1

HEATING/COOLING FAN-COIL ACTUATORS CONFIGURATION



ZONE 1 COOLING ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
1	1	1	1	1	2

ZONE 2 COOLING ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
2	1	1	1	1	2

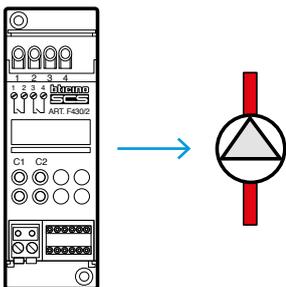
ZONE 1 COOLING ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
1	5	5	5	5	2

ZONE 2 COOLING ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
2	5	5	5	5	2

CIRCULATION PUMP ACTUATOR CONFIGURATION

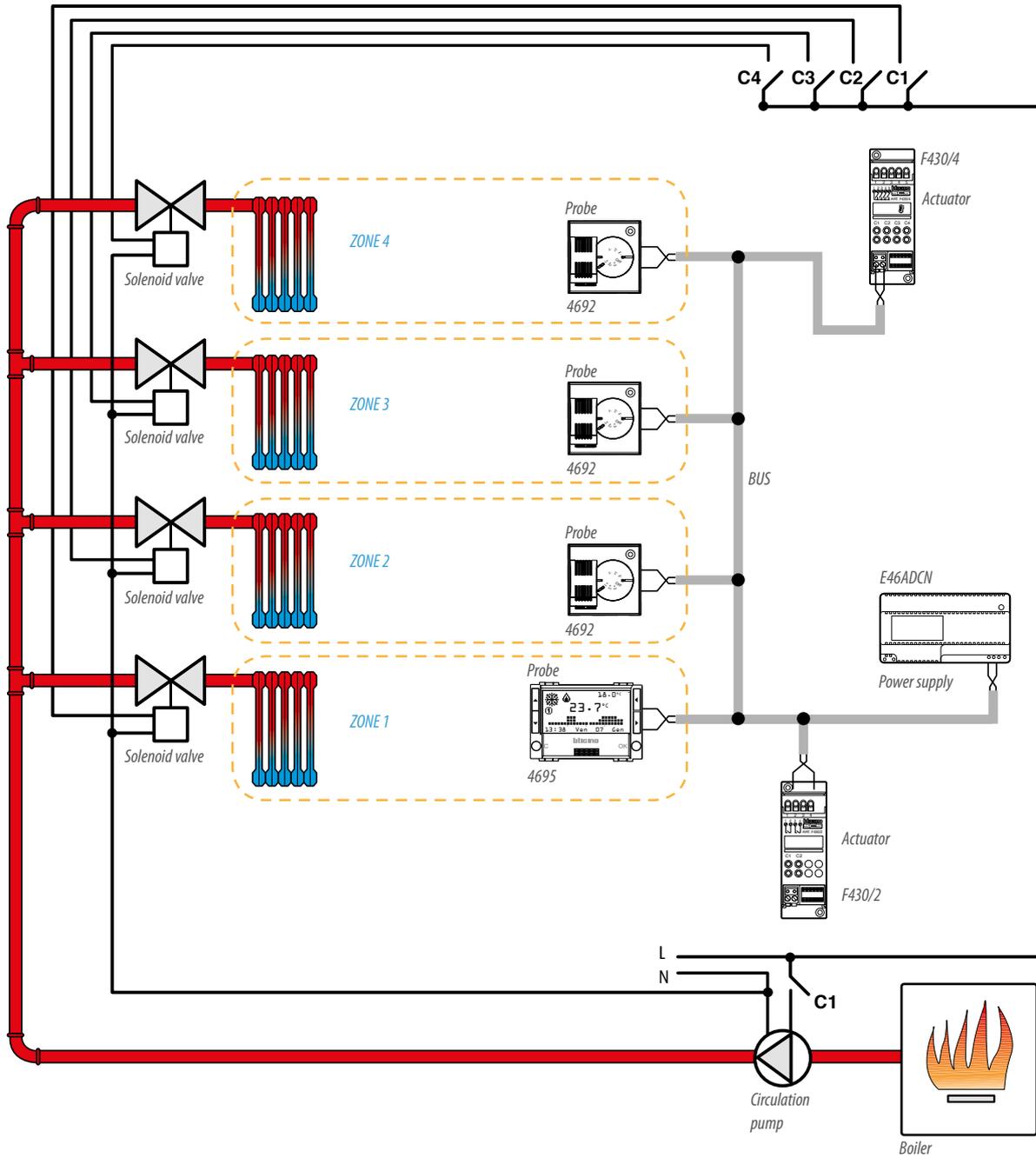


CIRCULATION PUMP ACTUATOR

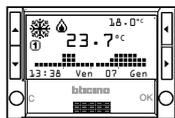
[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	0	2

4 zone villa

DIAGRAM 8 HEATING WITH RADIATORS



CENTRAL UNIT/PROBE CONFIGURATION



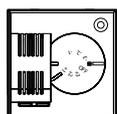
The 4 zone control unit item HD/HC/HS/L/N/NT4695 and item AM5875 as well as managing the whole of the temperature control system, contains a temperature probe which must be configured physically like the other system probes. Interact with the "Configure zones" menu to end the system configuration operations

correctly. As an alternative the TiThermo Basic application dedicated to this version of control unit can be used. For these operations refer to the manual supplied with the products.

ZONE 1 CENTRAL UNIT/PROBE

[ZA]	[ZB]	[SLA]
0	1	-

PROBES CONFIGURATION



ZONE 2 PROBE

[ZA]	[ZB]	[SLA]
0	2	-

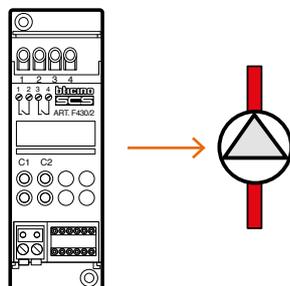
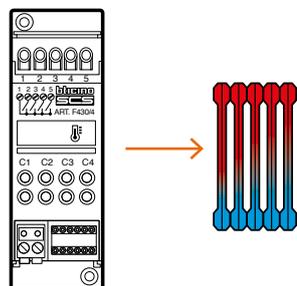
ZONE 3 PROBE

[ZA]	[ZB]	[SLA]
0	3	-

ZONE 4 PROBE

[ZA]	[ZB]	[SLA]
0	4	-

ACTUATORS CONFIGURATION



ZONE ACTUATOR

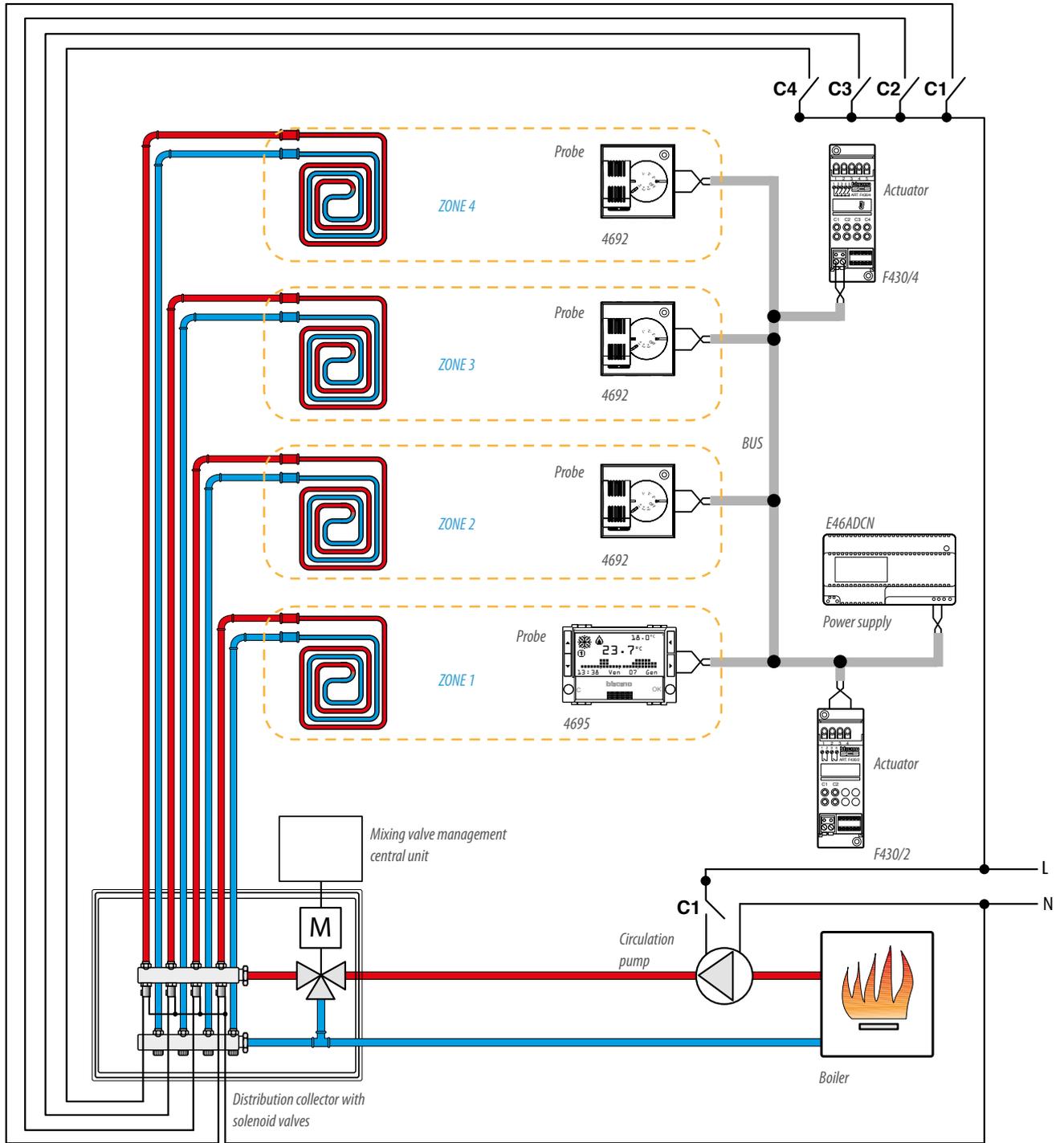
[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	1	2	3	4	1

CIRCULATION PUMP ACTUATOR

[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	OFF	-

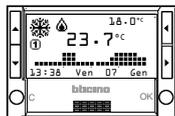
4 zone villa

DIAGRAM 9 HEATING WITH RADIANT PANELS



NOTE:For the radiant panels management center connection refer to the diagram No. 21.

CENTRAL UNIT/PROBE CONFIGURATION



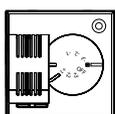
The 4 zone control unit item HD/HC/HS/L/N/NT4695 and item AM5875 as well as managing the whole of the temperature control system, contains a temperature probe which must be configured physically like the other system probes. Interact with the "Configure zones" menu to end the system configuration operations

correctly. As an alternative the TiThermo Basic application dedicated to this version of control unit can be used. For these operations refer to the manual supplied with the products.

ZONE 1 CENTRAL UNIT/PROBE

[ZA]	[ZB]	[SLA]
0	1	-

PROBES CONFIGURATION



ZONE 2 PROBE

[ZA]	[ZB]	[SLA]
0	2	-

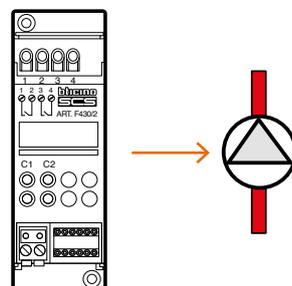
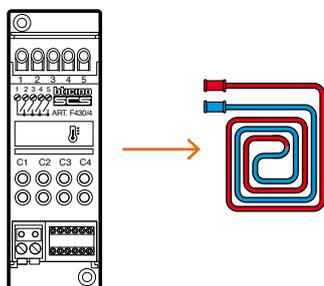
ZONE 3 PROBE

[ZA]	[ZB]	[SLA]
0	3	-

ZONE 4 PROBE

[ZA]	[ZB]	[SLA]
0	4	-

ACTUATORS CONFIGURATION



ZONE ACTUATOR

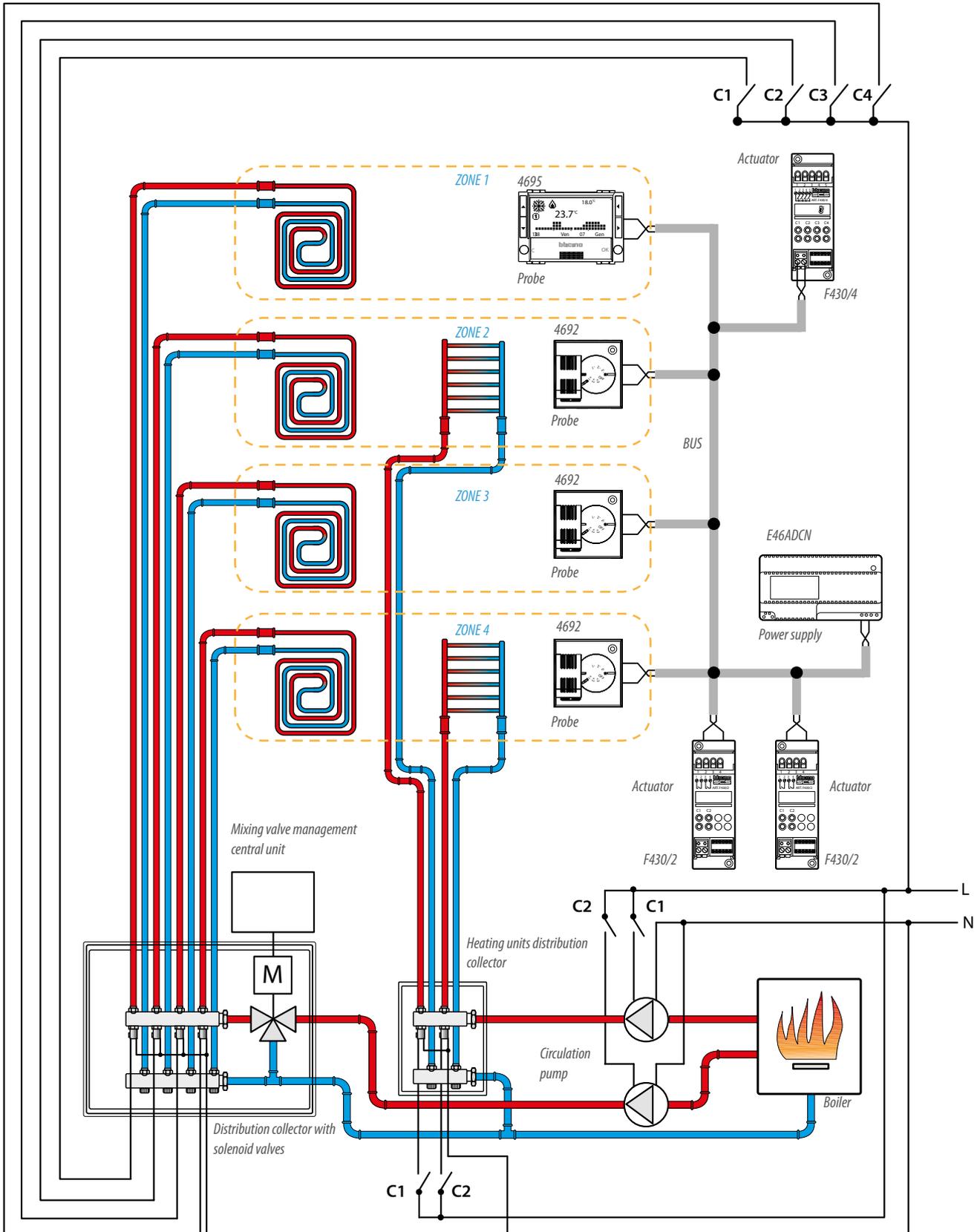
[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	1	2	3	4	1

CIRCULATION PUMP ACTUATOR

[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	OFF	-

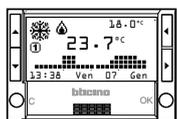
4 zone villa

DIAGRAM 10 HEATING WITH RADIANT PANELS AND HEATING UNITS



NOTE:For the radiant panels management center connection refer to the diagram No. 21.

CENTRAL UNIT/PROBE CONFIGURATION



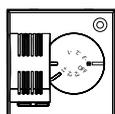
The 4 zone control unit item HD/HC/HS/L/N/NT4695 and item AM5875 as well as managing the whole of the temperature control system, contains a temperature probe which must be configured physically like the other system probes. Interact with the “Configure zones” menu to end the system configuration operations correctly. As an alternative the

TiThermo Basic application dedicated to this version of control unit can be used. For these operations refer to the manual supplied with the products.

ZONE 1 CENTRAL UNIT/PROBE

[ZA]	[ZB]	[SLA]
0	1	-

PROBES CONFIGURATION



ZONE 2 PROBE

[ZA]	[ZB]	[SLA]
0	2	-

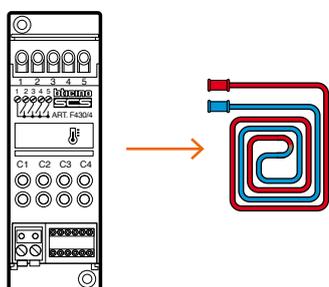
ZONE 4 PROBE

[ZA]	[ZB]	[SLA]
0	4	-

ZONE 3 PROBE

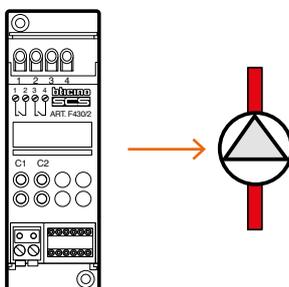
[ZA]	[ZB]	[SLA]
0	3	-

ACTUATORS CONFIGURATION



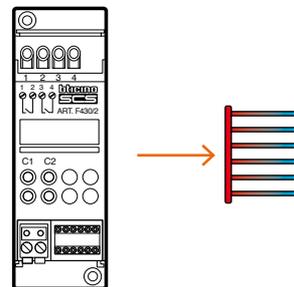
ZONE ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	1	2	3	4	1



CIRCULATION PUMP ACTUATOR

[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	0	2

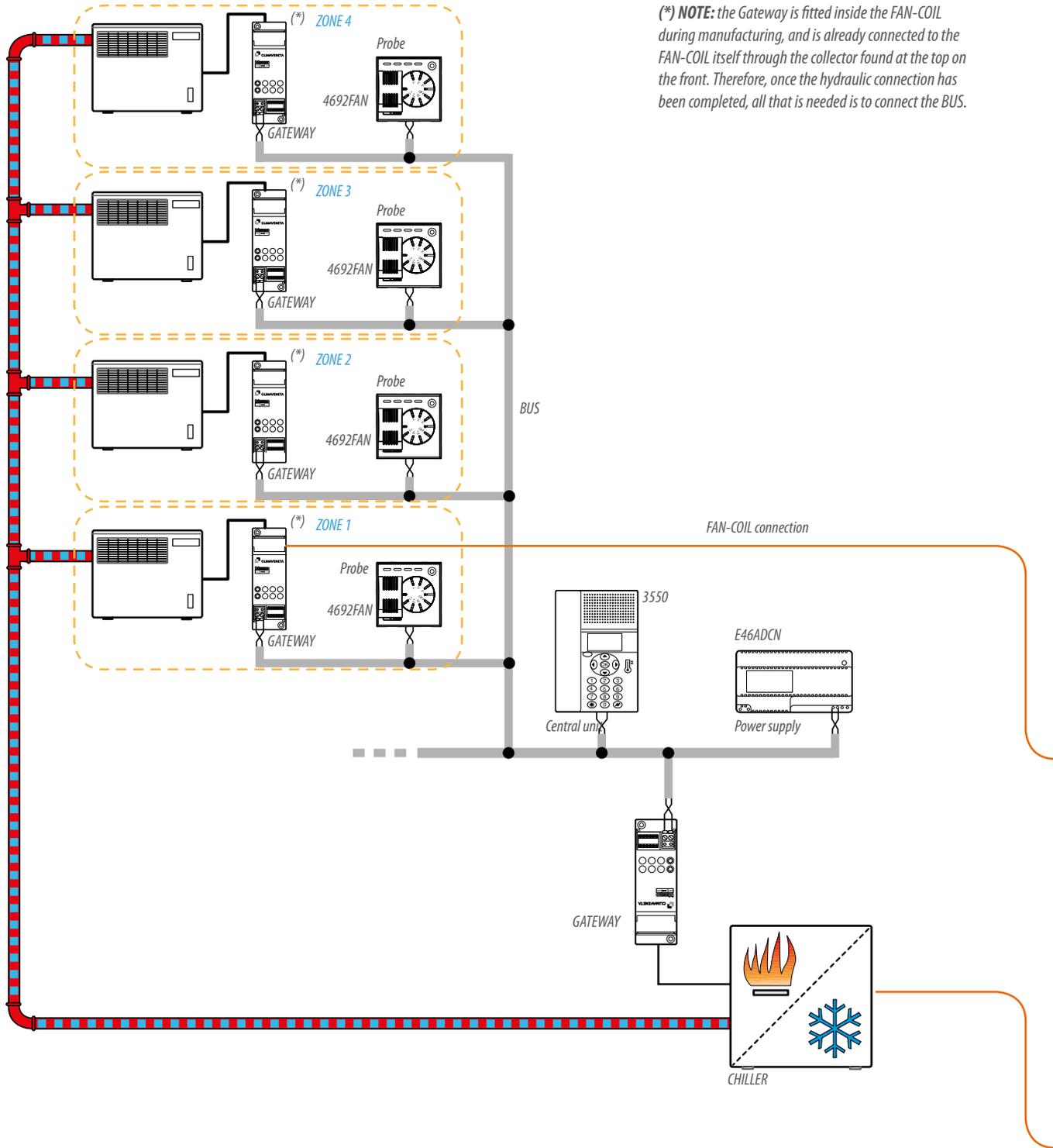


HEATING UNITS ACTUATOR

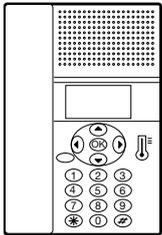
[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	2	2	4	2

4 zone villa - Climaveneta fan-coil

DIAGRAM 11 HEATING AND COOLING WITH CLIMAVENETA FAN-COIL



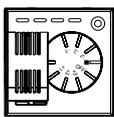
99 ZONE CENTRAL UNIT CONFIGURATION



The 99 zone control unit item 3550 does not need physical configurators but, to end the system configuration operations, interact with the "Configure zones" menu. As an alternative the TiThermo

application can be used. For these operations refer to the manual supplied with the products.

CONFIGURATION OF PROBES FOR FAN-COIL



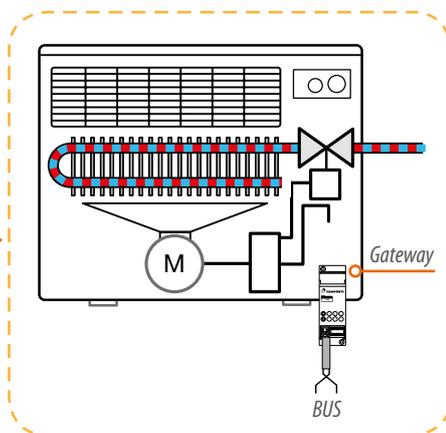
ZONE 1 PROBE		
[ZA]	[ZB]	[SLA]
0	1	-

ZONE 2 PROBE		
[ZA]	[ZB]	[SLA]
0	2	-

ZONE 3 PROBE		
[ZA]	[ZB]	[SLA]
0	3	-

ZONE 4 PROBE		
[ZA]	[ZB]	[SLA]
0	4	-

HEATING AND COOLING WITH CLIMAVENETA FAN-COIL



Electric diagram and configuration of the GATEWAY installed inside the Climaveneta fan-coil for the heating-cooling of zone 2. In order to control the fan-coils of all other zones, perform the same type of connection,

ensuring correct configuration of the actuator for the specific zone, as shown in the configuration tables.

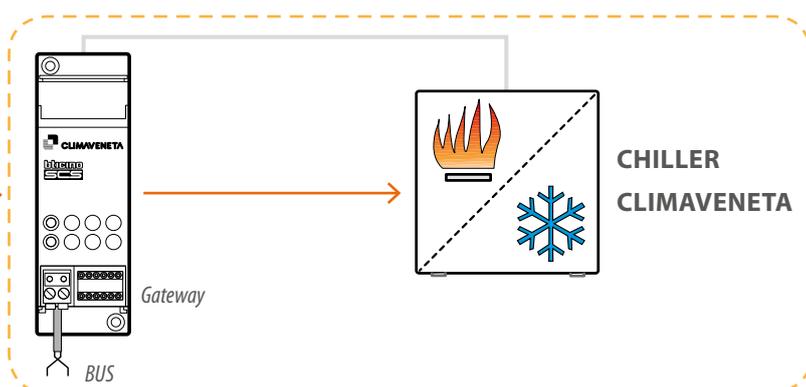
ZONE 1 GATEWAY			
[ZA]	[ZB]	[N]	[TYPE]
0	1	1	0

ZONE 2 GATEWAY			
[ZA]	[ZB]	[N]	[TYPE]
0	2	1	0

ZONE 3 GATEWAY			
[ZA]	[ZB]	[N]	[TYPE]
0	3	1	0

ZONE 2 GATEWAY			
[ZA]	[ZB]	[N]	[TYPE]
0	4	1	0

CLIMAVENETA CHILLER



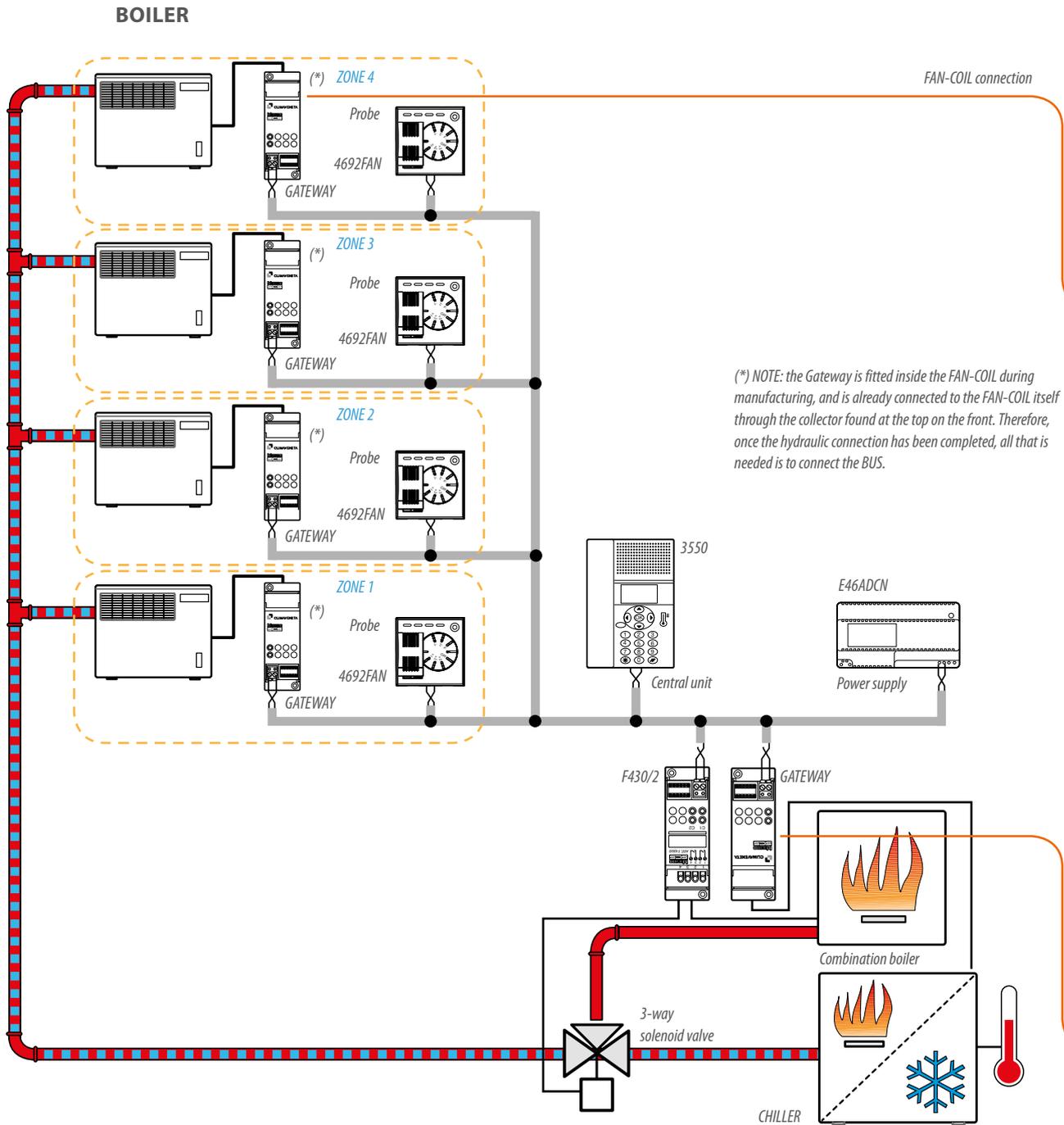
Wiring diagram and configuration of the gateway which controls the

chiller. A single chiller serves a system which can work both as heating and as cooling. The GATEWAY is connected to the CLIMAVENETA chiller through the collector found at the top on the front, and to the BUS through the draw-out connection terminal.

GATEWAY CHILLER			
[ZA]	[ZB]	[N]	[TYPE]
0	0	1	1

4 zone villa

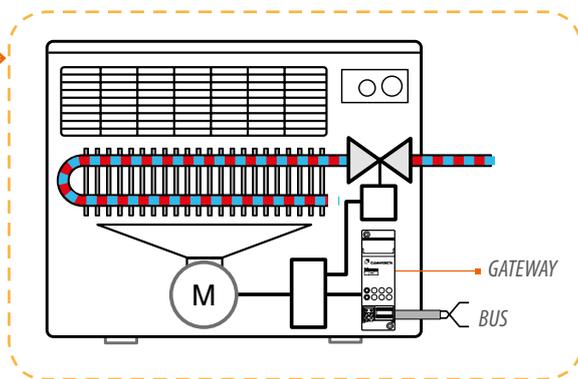
DIAGRAM 12 HEATING AND COOLING WITH CLIMAVENETA AIR CONDITIONING AND COMBINATION



HEATING AND COOLING WITH FAN-COIL CLIMAVENETA

Electric diagram and configuration of the GATEWAY installed inside the heating/cooling Climaveneta fan-coil. Correctly configures the gateway

corresponding to the zone as indicated in the configuration tables of the following pages.



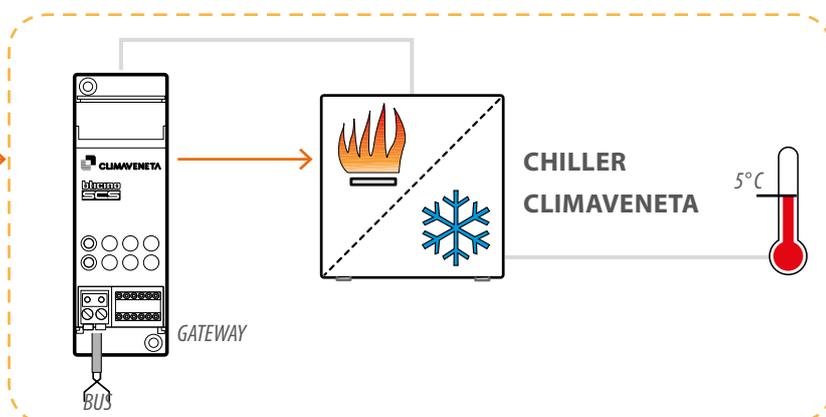
CLIMAVENETA CHILLER

Wiring diagram of the gateway which controls the chiller.

A single chiller serves a system which can work both as heating and as cooling. The attached outside temperature probe is a device normally present in a Climaveneta system of this type. There is thus no

need to install radio probe item 3455 with its interface. The temperature datum is made available to the MyHOME temperature control system by means of the gateway. The Gateway is connected to the CLIMAVENETA chiller through the collector found at the top on the

front, and to the BUS through the draw-out connection terminal.



4 zone villa

<< previous

DIAGRAM DESCRIPTION

This diagram represents an example of a heating and cooling system made with Climaveneta unit and Combination boiler.

By means of the TiThermo software the 99 zone control unit item 3550 can be programmed to use the reading of the outside temperature from the Climaveneta system to manage systems with combination boilers.

Depending on the outside temperature the control unit activates the most suitable and convenient heating system depending on the heat yield. During the spring and autumn rooms can be heated using the heat generated by the Chiller. This heat is however not sufficient in the winter when a Combination boiler, generally supplied by gas, must be used. The MyHOME temperature control system switches between the two sources of heat, using the outside temperature as parameter to discriminate between spring and autumn and winter. Actuator F430/2 manages the switching ON or OFF of the Boiler and changes the valve state, while the Gateway manages the Climaveneta Chiller.

In the example given here the Chiller continues to work as long as the outside temperature (measured by the Climaveneta outside probe) remains higher than a set threshold value; below this value the Combination boiler starts to work. The Outside Temperature (OT) under which the boiler will operate is set by

means of TiThermo: for example if 5 °C is set. When the OT is greater than 5 °C the system is managed by the Chiller.

When OT is lower than 5°C the following actions take place: Chiller OFF, Boiler ON and valve open towards the Boiler.

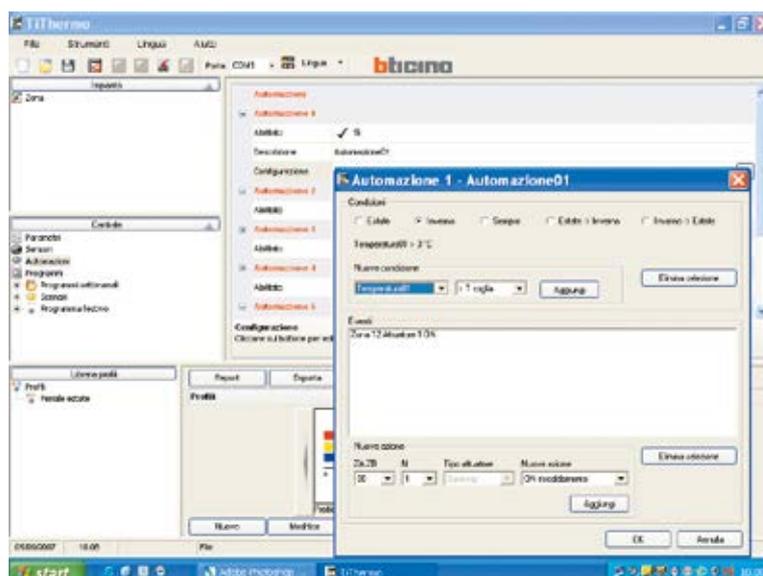
The Boiler continues to work until OT rises above a value higher than 5°C. This selection is made to avoid device state oscillation phenomena.

If for example 7°C is set as threshold value, when OT is higher than 7°C the following actions take place: Chiller ON, Boiler OFF, valve open towards the Chiller. To sum up, the Chiller continues to work until the OT drops

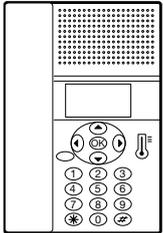
below 5°C; at this point the Boiler starts to work. It will stay on until the OT rises above 7°C, when the Chiller switches on again.

NOTE: for the TiThermo software setting details consult the documentation supplied with the product itself.

TiThermo: example of an application window, indispensable for programming and setting the temperature thresholds and the automations.



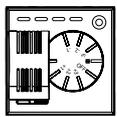
99 ZONE CENTRAL UNIT CONFIGURATION



The 99 zone control unit item 3350 must be used to manage systems with combination boiler. The function is not in fact available on the 4 zone control unit item HC/HS/L/N/NT4695 and item AM5875. This device does

not need physical configurators but, to end the system configuration operations, interact with the "Configure zones" menu and with TiThermo applications. For these operations refer to the manual supplied with the products.

PROBES CONFIGURATION



ZONE 1 PROBE

[ZA]	[ZB]	[SLA]
0	1	-

ZONE 2 PROBE

[ZA]	[ZB]	[SLA]
0	2	-

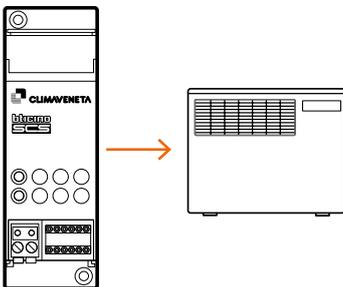
ZONE 3 PROBE

[ZA]	[ZB]	[SLA]
0	3	-

ZONE 4 PROBE

[ZA]	[ZB]	[SLA]
0	4	-

GATEWAY FAN-COIL CONFIGURATION



ZONE 1 GATEWAY

[ZA]	[ZB]	[N]	[TYPE]
0	1	1	0

ZONE 2 GATEWAY

[ZA]	[ZB]	[N]	[TYPE]
0	2	1	0

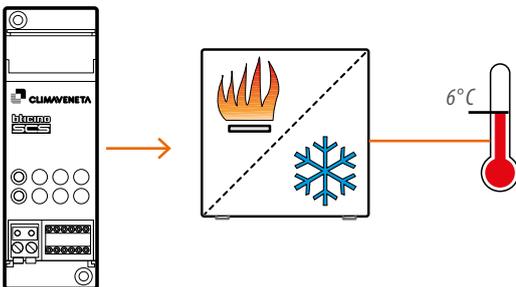
ZONE 3 GATEWAY

[ZA]	[ZB]	[N]	[TYPE]
0	3	1	0

ZONE 4 GATEWAY

[ZA]	[ZB]	[N]	[TYPE]
0	4	1	0

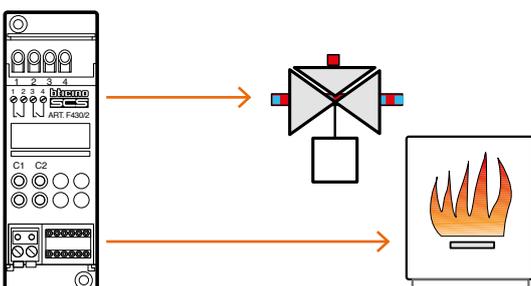
GATEWAY CHILLER CONFIGURATION



GATEWAY CHILLER

[ZA]	[ZB]	[N]	[TYPE]
0	0	1	1

BOILER AND SOLENOID VALVE ACTUATOR CONFIGURATION

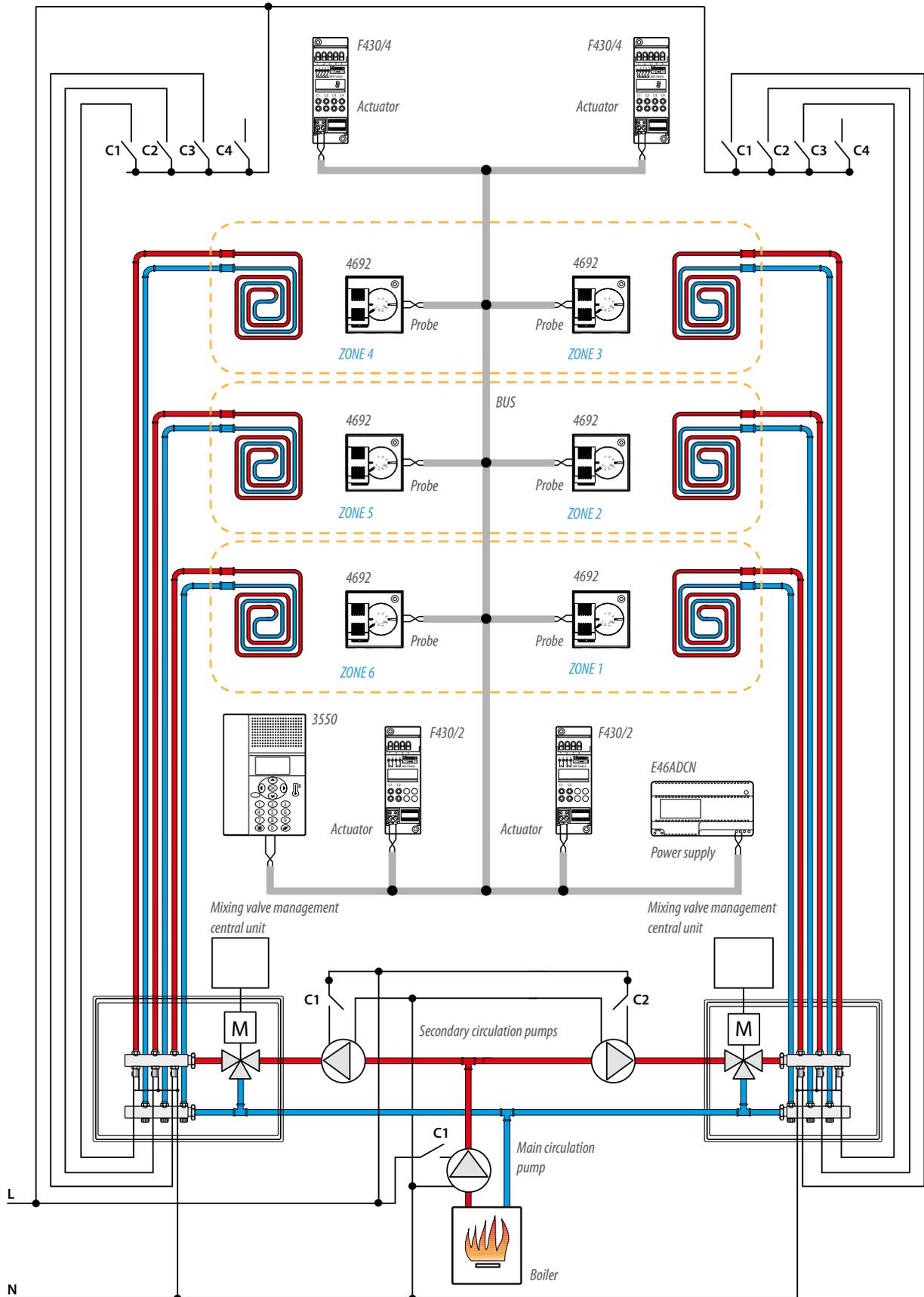


BOILER/SOLENOID VALVE ACTUATOR

[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	5	1	6	1

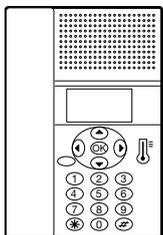
6 zone villa

DIAGRAM 13 HEATING WITH RADIANT PANELS



NOTE:For the radiant panels management center connection refer to the diagram No. 21.

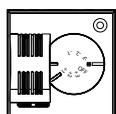
99 ZONE CENTRAL UNIT CONFIGURATION



The 99 zone control unit item 3550 does not need physical configurators but, to end the system configuration operations, interact with the “Configure zones” menu. As an alternative the TiThermo

application can be used. For these operations refer to the manual supplied with the products.

PROBES CONFIGURATION



ZONE 1 PROBE		
[ZA]	[ZB]	[SLA]
0	1	-

ZONE 2 PROBE		
[ZA]	[ZB]	[SLA]
0	2	-

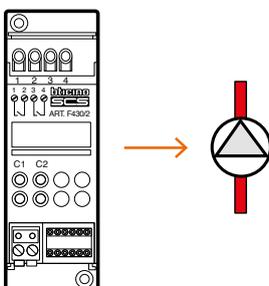
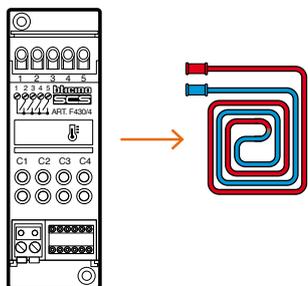
ZONE 3 PROBE		
[ZA]	[ZB]	[SLA]
0	3	-

ZONE 4 PROBE		
[ZA]	[ZB]	[SLA]
0	4	-

ZONE 5 PROBE		
[ZA]	[ZB]	[SLA]
0	5	-

ZONE 6 PROBE		
[ZA]	[ZB]	[SLA]
0	6	-

ACTUATORS CONFIGURATION



ZONE ACTUATOR 1, 2, 3					
[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	1	2	3	OFF	1

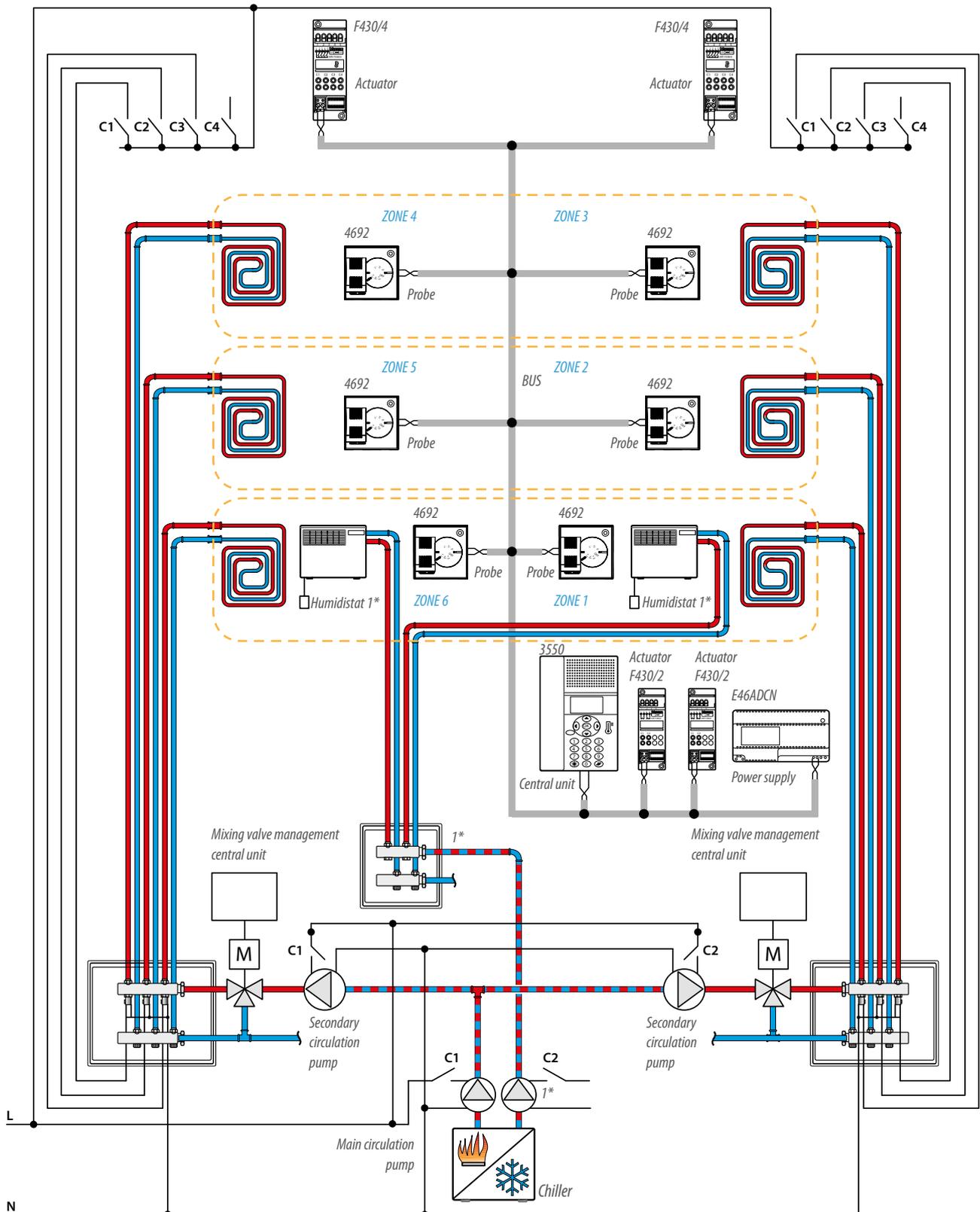
ZONE ACTUATOR 4, 5, 6					
[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	4	5	6	OFF	1

MAIN CIRCULATION PUMP ACTUATOR				
[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	OFF	-

SECONDARY CIRCULATION PUMP ACTUATOR				
[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	2	1	3	1

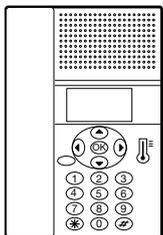
6 zone villa

DIAGRAM 14 RADIANT PANELS HEATING AND COOLING AND DEHUMIDIFIER FAN-COIL



NOTE: 1* the dehumidifier system is not managed through the MyHOME system. It is possible to centralize the management of humidity probes using the integration solution with Driver manager Item F459. For a description of the device refer to the "Functions integration and control" section. For the radiant panels management center connection refer to the diagram No. 21.

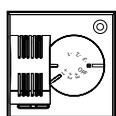
99 ZONE CENTRAL UNIT CONFIGURATION



The 99 zone control unit item 3550 does not need physical configurators but, to end the system configuration operations, interact with the “Configure zones” menu. As an alternative the TiThermo

application can be used. For these operations refer to the manual supplied with the products.

PROBES CONFIGURATION



ZONE 1 PROBE		
[ZA]	[ZB]	[SLA]
0	1	-

ZONE 2 PROBE		
[ZA]	[ZB]	[SLA]
0	2	-

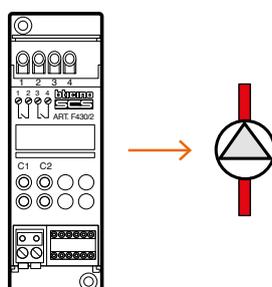
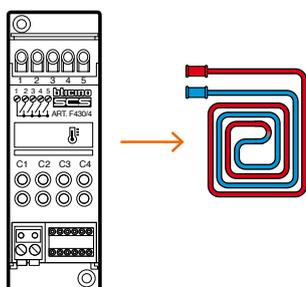
ZONE 3 PROBE		
[ZA]	[ZB]	[SLA]
0	3	-

ZONE 4 PROBE		
[ZA]	[ZB]	[SLA]
0	4	-

ZONE 5 PROBE		
[ZA]	[ZB]	[SLA]
0	5	-

ZONE 6 PROBE		
[ZA]	[ZB]	[SLA]
0	6	-

ACTUATORS CONFIGURATION



ZONE ACTUATOR 1, 2, 3					
[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	1	2	3	OFF	1

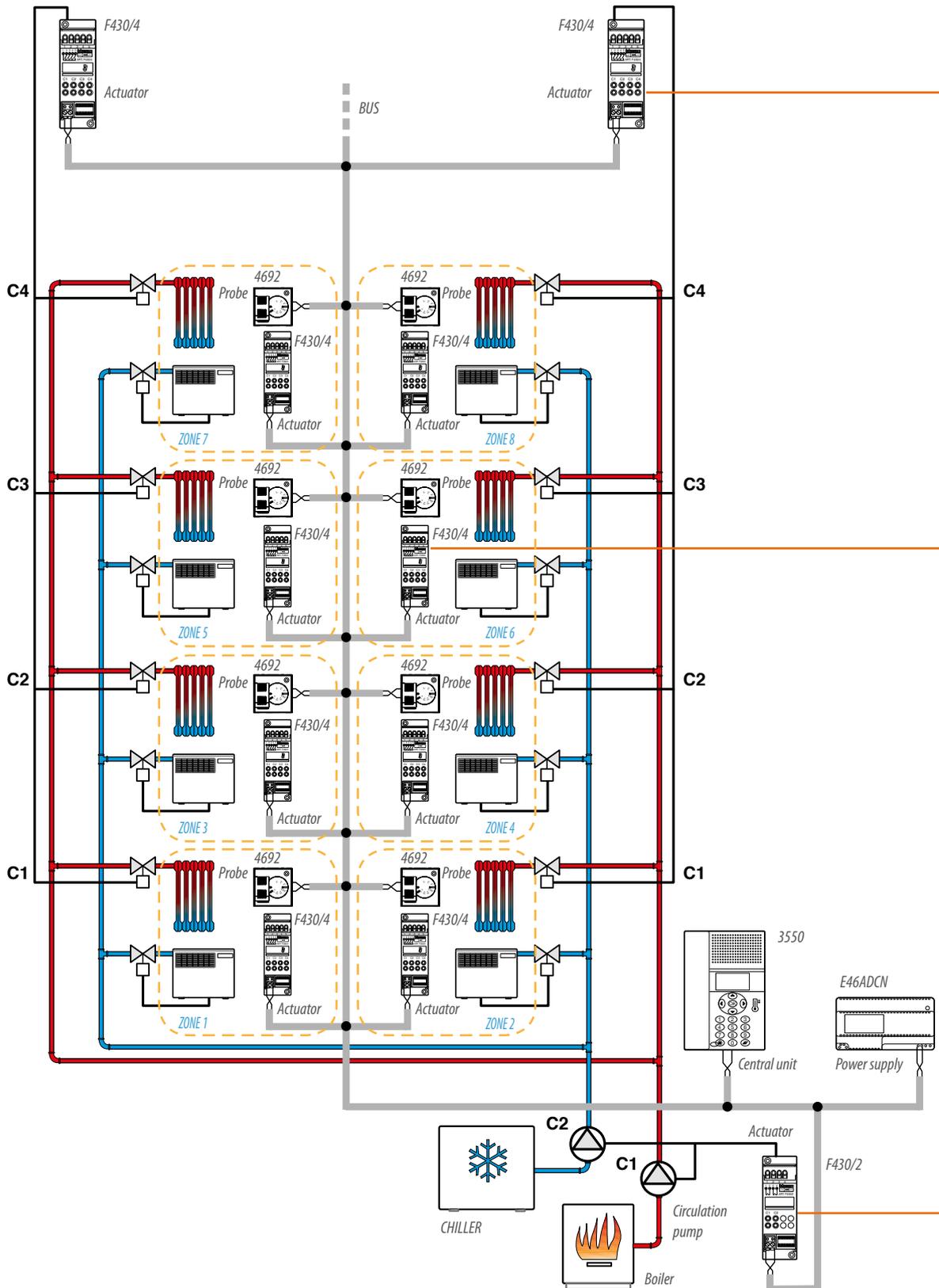
ZONE ACTUATOR 4, 5, 6					
[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	4	5	6	OFF	1

MAIN CIRCULATION PUMP ACTUATOR				
[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	OFF	-

SECONDARY CIRCULATION PUMP ACTUATOR				
[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	2	0	3

8 zone villa

DIAGRAM 15 HEATING WITH RADIATORS AND FAN-COIL COOLING

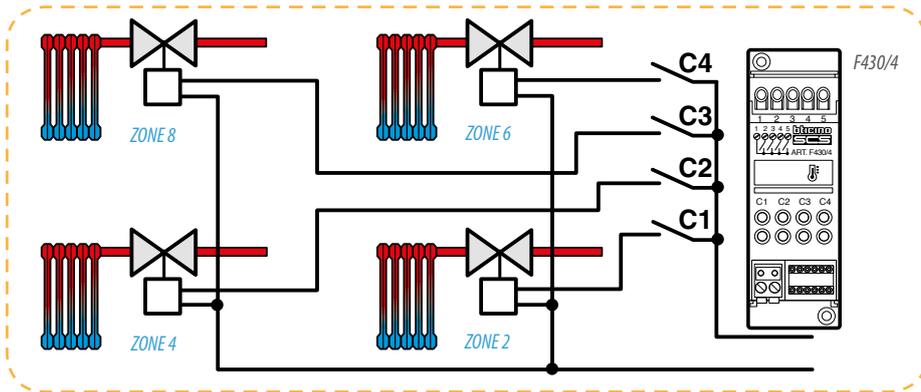


HEATING

Wiring diagram for connecting the solenoid valves of zones 2, 4, 6 and 8 to the heating actuator. To control zones 1, 3, 5 and 7 replicate the same connection between the solenoid

valves and the corresponding actuator. The configuration must be made correctly, maintaining the correlation between the actuator contact

and the address of the zone to be controlled. In the example given here, zone 2 is controlled by contact C1 configured with ZA = 0 and ZB = 2.

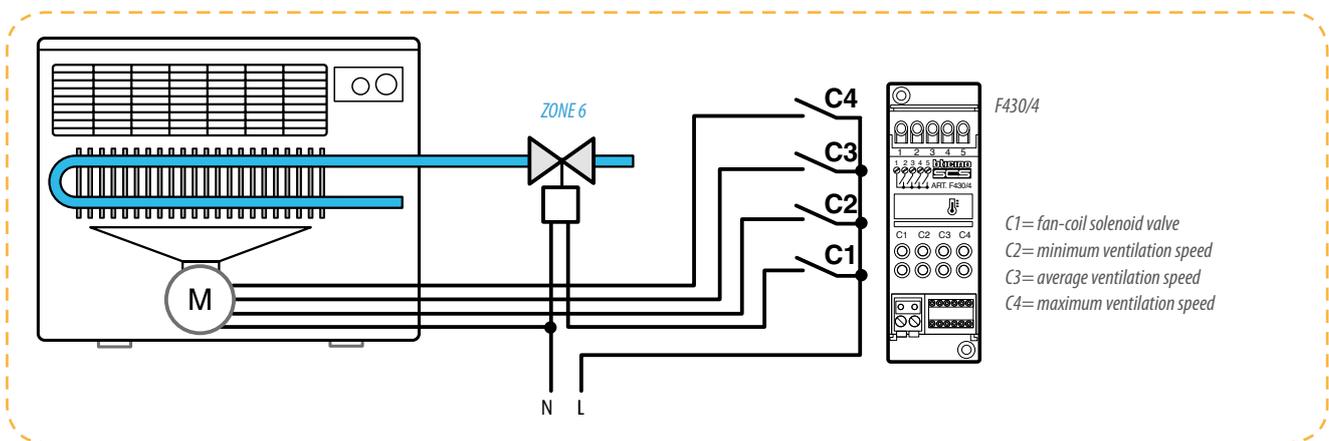


COOLING

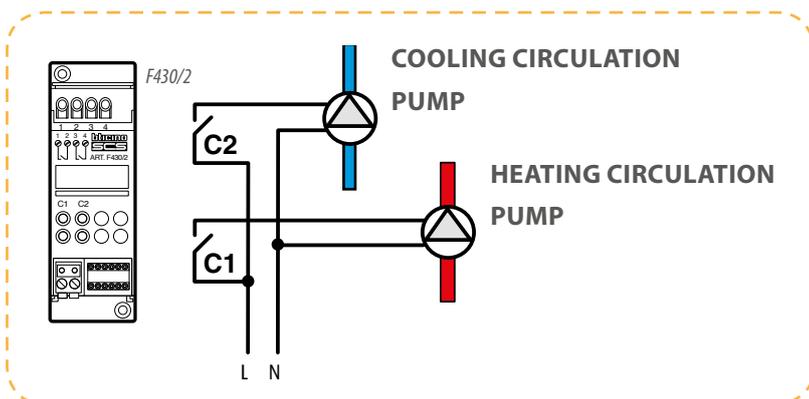
Wiring diagram for connecting the fan-coil actuator for cooling the zone 6. To control the fan-coils belonging

to zones 1, 2, 3, 4, 5, 7 and 8 replicate the same connection, correctly configuring the actuator

corresponding to the zone as indicated in the configuration tables.



CIRCULATION PUMPS

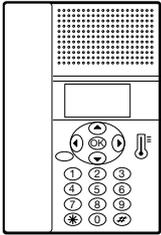


Wiring diagram for connecting the circulation pumps to the corresponding actuator. The pumps of the two systems, heating and cooling, are controlled by a single actuator.

8 zone villa

<< previous

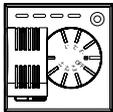
99 ZONE CENTRAL UNIT CONFIGURATION



The 99 zone control unit item 3550 does not need physical configurators but, to end the system configuration operations, interact with the “Configure zones” menu. As an alternative the TiThermo

application can be used. For these operations refer to the manual supplied with the products.

PROBES CONFIGURATION



ZONE 1 PROBE		
[ZA]	[ZB]	[SLA]
0	1	-

ZONE 2 PROBE		
[ZA]	[ZB]	[SLA]
0	2	-

ZONE 3 PROBE		
[ZA]	[ZB]	[SLA]
0	3	-

ZONE 4 PROBE		
[ZA]	[ZB]	[SLA]
0	4	-

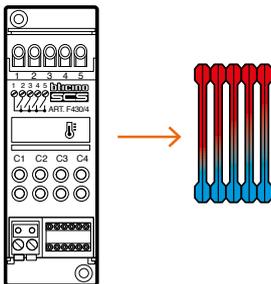
ZONE 5 PROBE		
[ZA]	[ZB]	[SLA]
0	5	-

ZONE 6 PROBE		
[ZA]	[ZB]	[SLA]
0	6	-

ZONE 7 PROBE		
[ZA]	[ZB]	[SLA]
0	7	-

ZONE 8 PROBE		
[ZA]	[ZB]	[SLA]
0	8	-

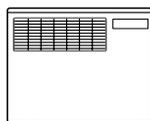
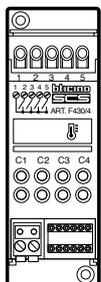
HEATING SYSTEM ACTUATOR CONFIGURATION



ZONE 1, 3, 5 AND 7 ACTUATOR					
[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	1	3	5	7	1

ZONE 2, 4, 6 AND 8 ACTUATOR					
[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	2	4	6	8	1

COOLING SYSTEM ACTUATOR CONFIGURATION



ZONE 1 COOLING ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	1	1	1	1	2

ZONE 2 COOLING ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	2	2	2	2	2

ZONE 3 COOLING ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	3	3	3	3	2

ZONE 4 COOLING ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	4	4	4	4	2

ZONE 5 COOLING ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	5	5	5	5	2

ZONE 6 COOLING ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	6	6	6	6	2

ZONE 7 COOLING ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	7	7	7	7	2

ZONE 8 COOLING ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	8	8	8	8	2

CIRCULATION PUMP ACTUATOR CONFIGURATION

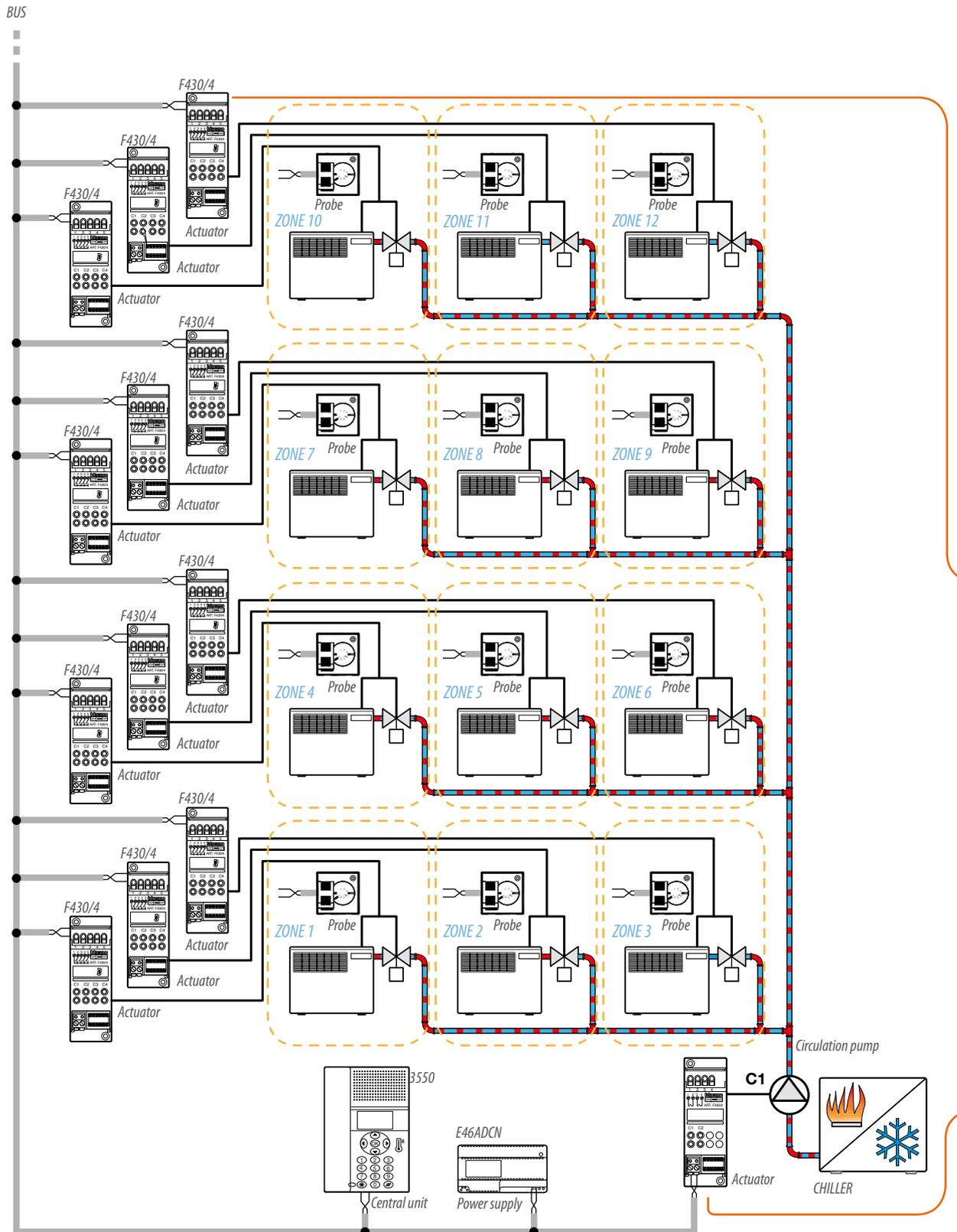


CIRCULATION PUMP ACTUATOR

[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	0	2

Service sector, 12 zones

DIAGRAM 16 2 PIPE, 3 SPEED FAN-COIL, SINGLE HEATING AND COOLING SYSTEM

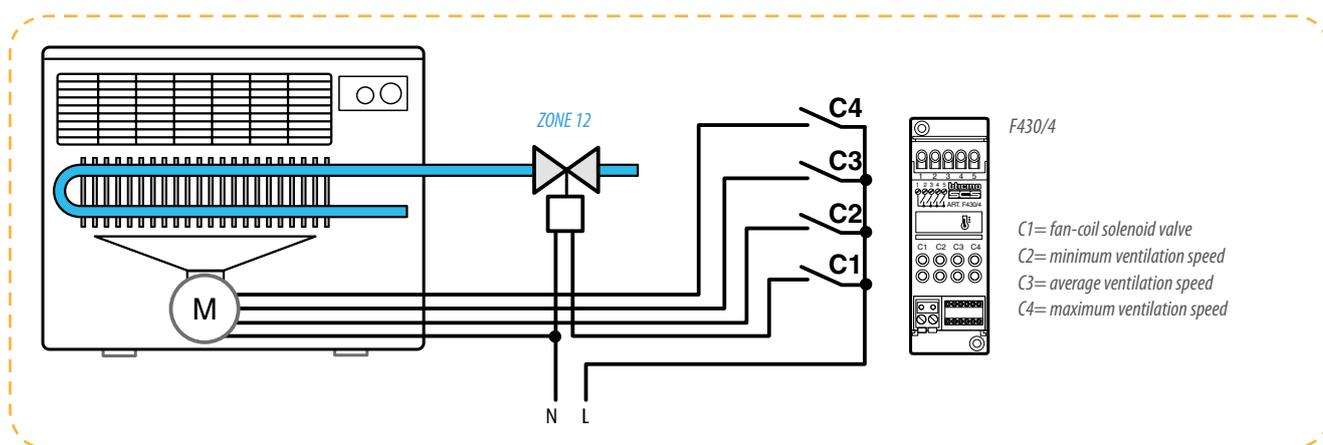


HEATING AND COOLING

Wiring diagram for connecting the fan-coil to the actuator for zone 12 heating/cooling.

To control the fan-coils belonging to all the other zones replicate the same

connection, correctly configuring the actuator corresponding to the zone as indicated in the configuration tables.

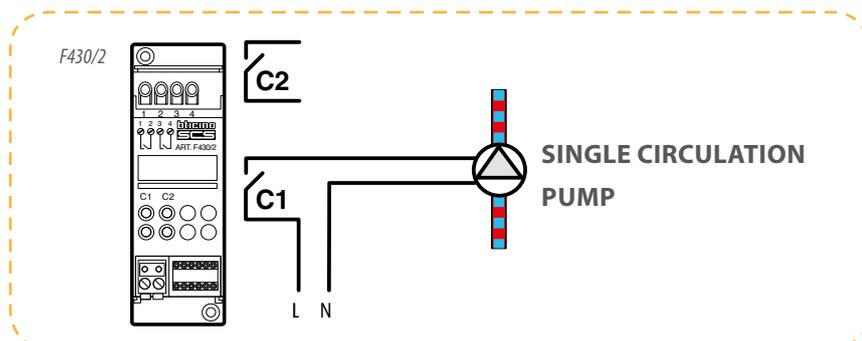


CIRCULATION PUMP

Wiring diagram for connecting the circulation pumps to the corresponding actuator.

A system which can provide both

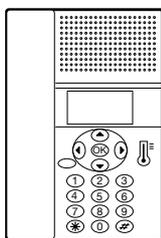
heating and cooling is controlled by a single pump.



Service sector, 12 zones

<< *previous*

CENTRAL UNIT/PROBE CONFIGURATION

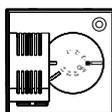


The 99 zone control unit item 3550 does not need physical configurators but, to end the system configuration operations, interact with the "Configure zones" menu.

As an alternative the TiThermo

application can be used. For these operations refer to the manual supplied with the products.

PROBES CONFIGURATION



ZONE 1 PROBE

[ZA]	[ZB]	[SLA]
0	1	-

ZONE 2 PROBE

[ZA]	[ZB]	[SLA]
0	2	-

ZONE 3 PROBE

[ZA]	[ZB]	[SLA]
0	3	-

ZONE 4 PROBE

[ZA]	[ZB]	[SLA]
0	4	-

ZONE 5 PROBE

[ZA]	[ZB]	[SLA]
0	5	-

ZONE 6 PROBE

[ZA]	[ZB]	[SLA]
0	6	-

ZONE 7 PROBE

[ZA]	[ZB]	[SLA]
0	7	-

ZONE 8 PROBE

[ZA]	[ZB]	[SLA]
0	8	-

ZONE 9 PROBE

[ZA]	[ZB]	[SLA]
0	9	-

ZONE 10 PROBE

[ZA]	[ZB]	[SLA]
1	0	-

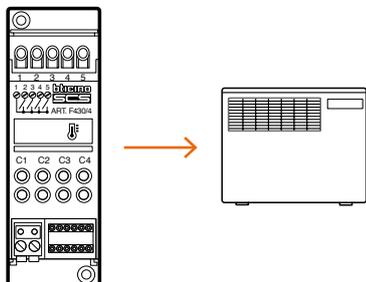
ZONE 11 PROBE

[ZA]	[ZB]	[SLA]
1	1	-

ZONE 12 PROBE

[ZA]	[ZB]	[SLA]
1	2	-

HEATING/COOLING FAN-COIL ACTUATORS CONFIGURATION



ZONE 1 ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	1	1	1	1	1

ZONE 2 ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	2	2	2	2	1

ZONE 3 ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	3	3	3	3	1

ZONE 4 ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	4	4	4	4	1

ZONE 5 ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	5	5	5	5	1

ZONE 6 ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	6	6	6	6	1

ZONE 7 ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	7	7	7	7	1

ZONE 8 ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	8	8	8	8	1

ZONE 9 ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	9	9	9	9	1

ZONE 10 ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
1	0	0	0	0	1

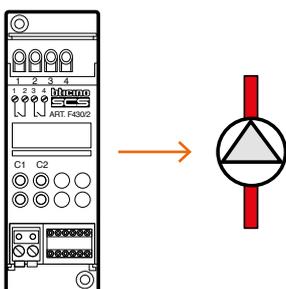
ZONE 11 ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
1	1	1	1	1	1

ZONE 12 ACTUATOR

[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
1	2	2	2	2	1

CIRCULATION PUMP ACTUATOR CONFIGURATION

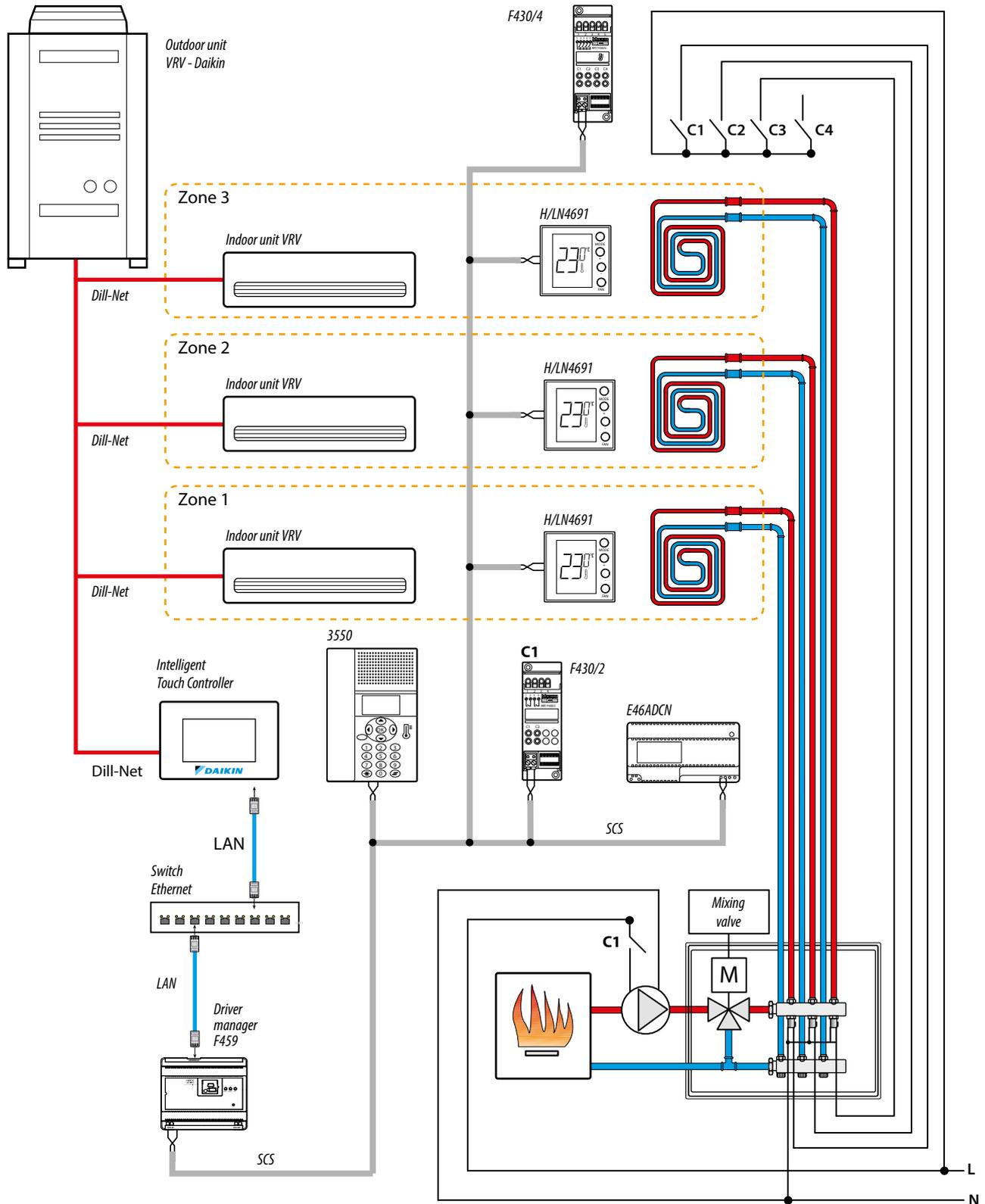


CIRCULATION PUMP ACTUATOR

[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	OFF	-

3 zone villa

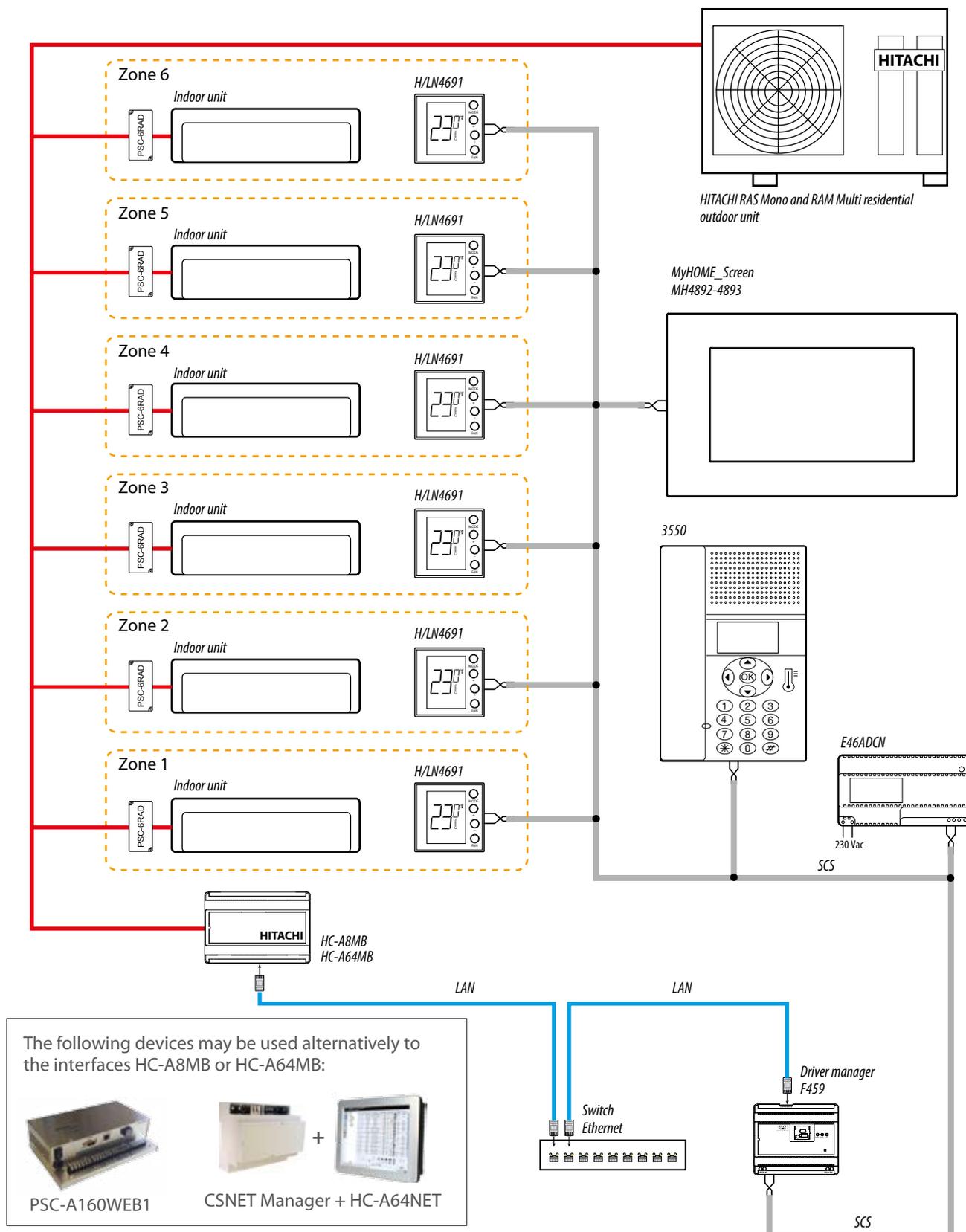
DIAGRAM 17 - TEMPERATURE CONTROL SYSTEM INTEGRATION WITH HEATING RADIANT PANEL AND COOLING SYSTEMS VRV BY DAIKIN (IP PROTOCOL)



The system is managed by the local sensors and the MyHome central unit; no local Daikin controller must be installed.

6 zone villa

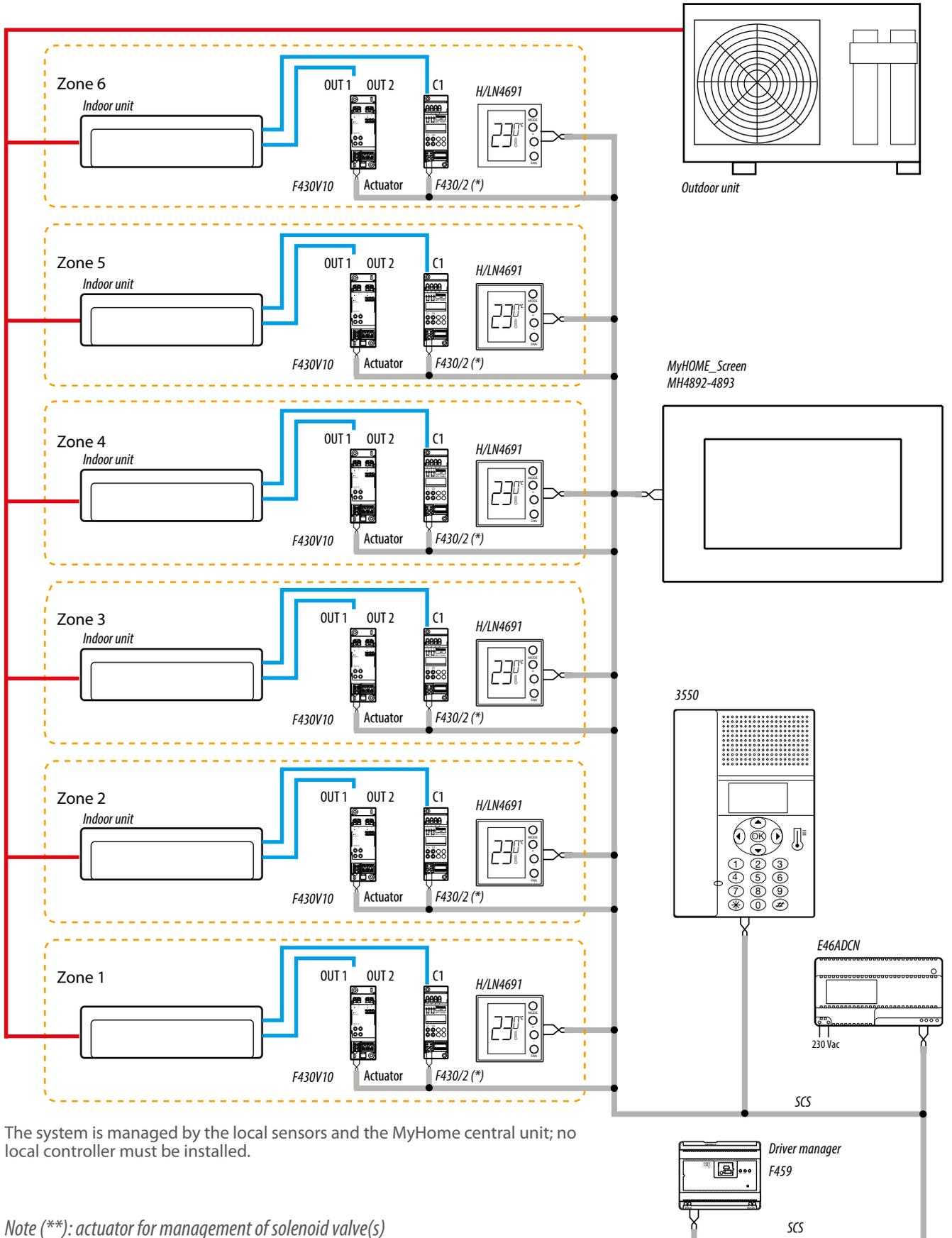
DIAGRAM 18 - TEMPERATURE CONTROL SYSTEM INTEGRATION WITH HEATING AND COOLING SYSTEMS WITH RADIANT PANELS HITACHI (MODBUS PROTOCOL)



The system is managed by the local sensors and the MyHome central unit; no local controller must be installed.

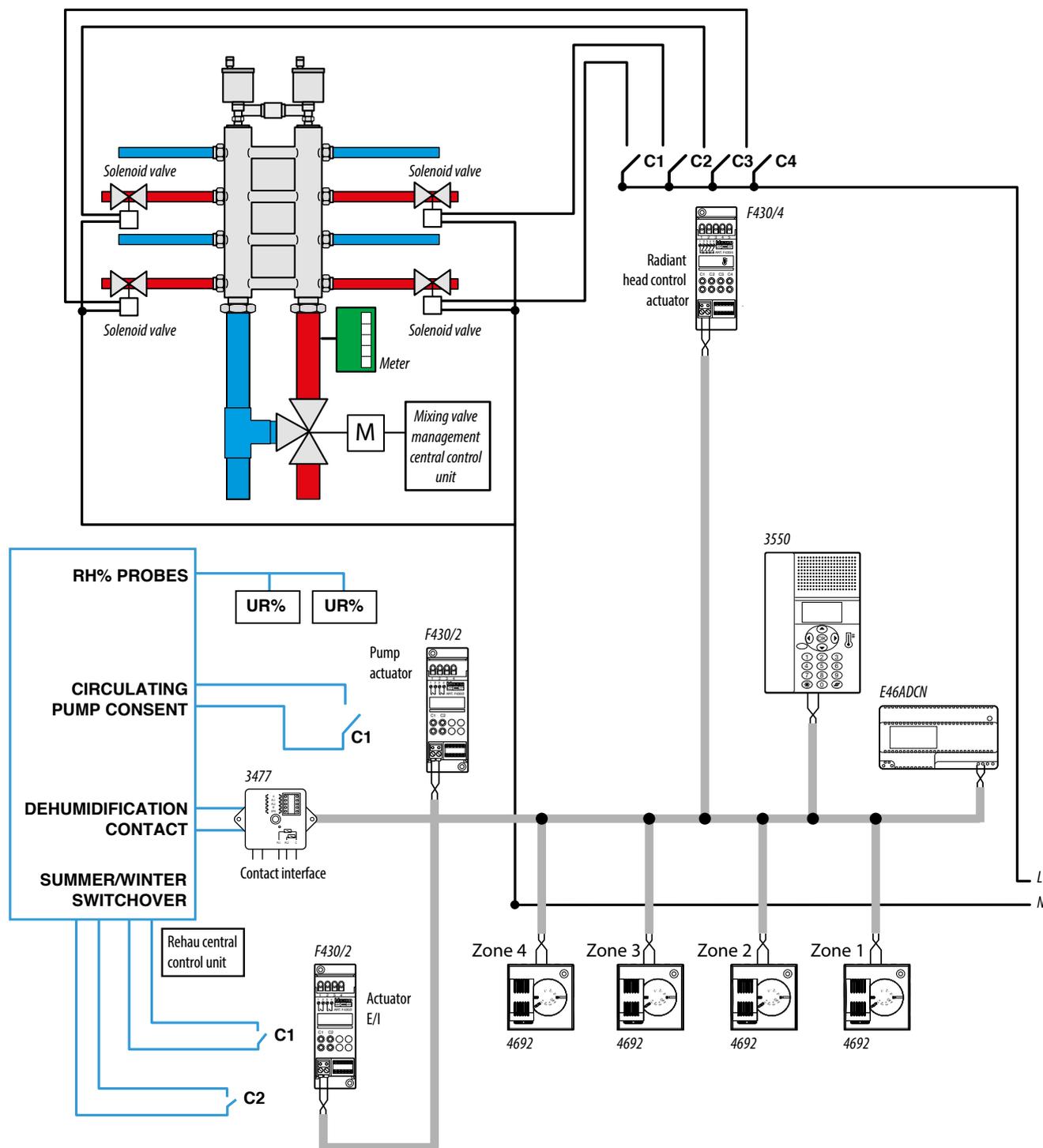
6 zone villa

DIAGRAM 19 - TEMPERATURE CONTROL SYSTEM INTEGRATION WITH FANCOIL SYSTEM WITH PROPORTIONAL CONTROL 0-10V



4 zone villa

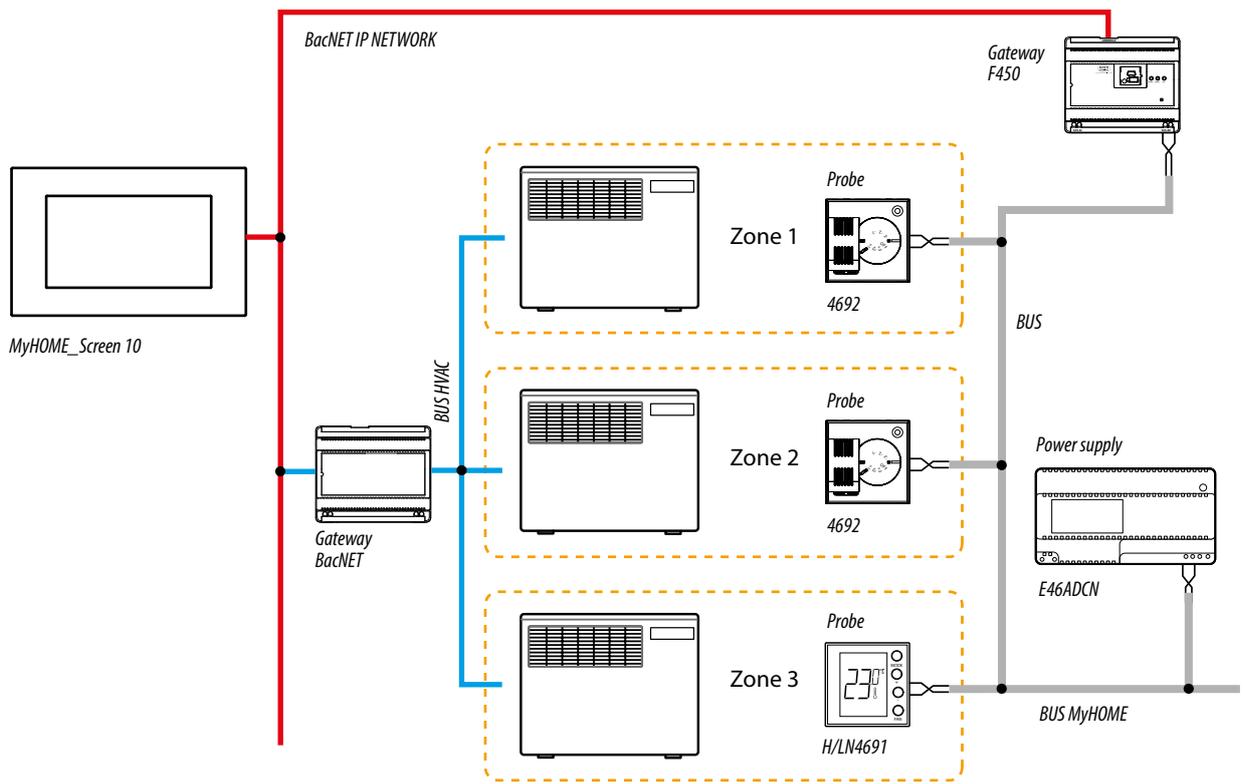
DIAGRAM 20 - TEMPERATURE CONTROL SYSTEM INTEGRATION WITH HEATING AND COOLING SYSTEMS WITH RADIANT PANELS REHAU.



NOTE: the diagram refers to the Rehaus system but is applicable (subject to verification) also to similar central units of other manufacturers. For more details contact BTicino sales force.

3 zone villa

DIAGRAM 21 - HEATING PLUS COOLING SCHEDULED BY BACNET CONTROLLER (AUTO-CHANGEOVER)



WORKING MODE:

This configuration is suitable if is demanded an individual management of the zones about the passage from heating and cooling.

The control of the temperature from touch screens is possible through dedicated Bacnet pages.
No integration in MyHOME scenario

of the temperature control.
Temperature schedule managed by Bacnet controller.

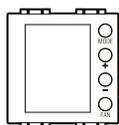
CONFIGURATION NOTES:

Probes must be configured with heating and cooling loads in

gateway mode.
Display thermostat must be configured

in stand-alone modes and with heating and cooling loads in gateway mode.

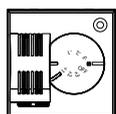
PROBES WITH DISPLAY CONFIGURATION



ZONE 1 PROBE

[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	1	0	7	1	4	4

PROBES CONFIGURATION



ZONE 2 PROBE

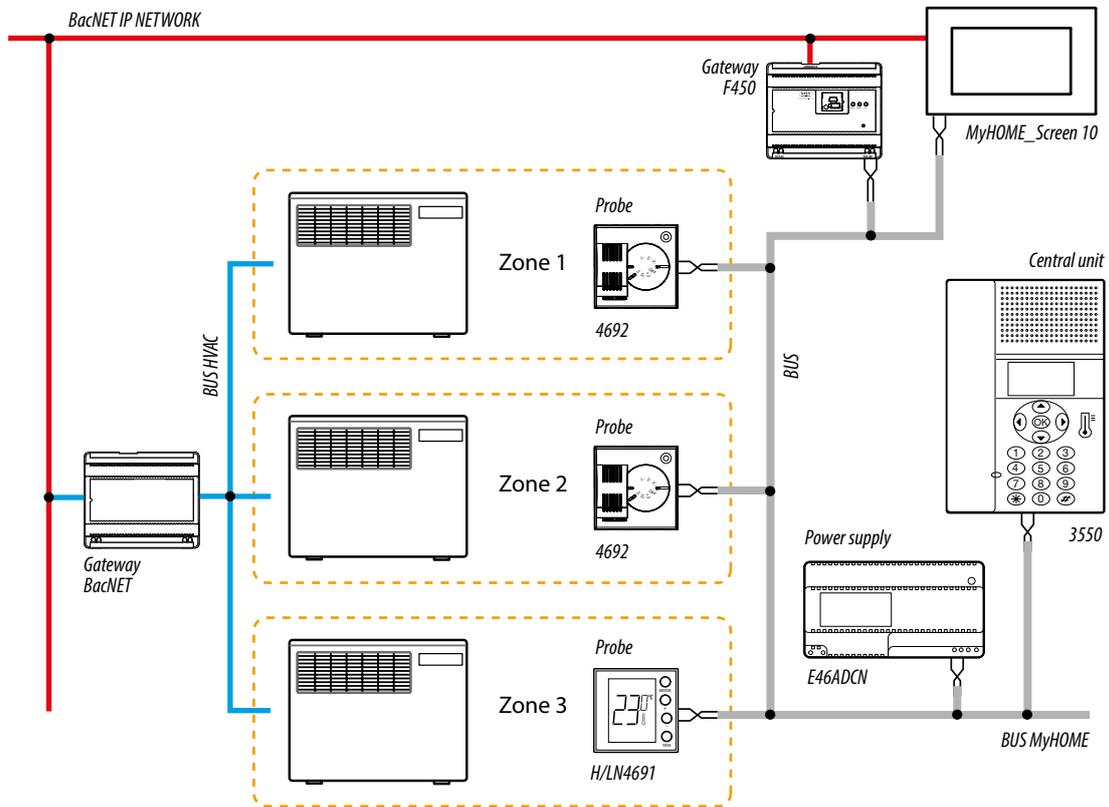
[ZA]	[ZB]	[SLA]
0	2	-

ZONE 3 PROBE

[ZA]	[ZB]	[SLA]
0	3	-

3 zone villa

DIAGRAM 22 - HEATING PLUS COOLING MANAGED BY BACNET (MYHOME CENTRAL UNIT AS A SCHEDULER)



WORKING MODE:

Heating/cooling: This configuration is suitable if is demanded an central management of the zones about the passage from heating and cooling.
 Touch screen: The control of the

temperature from touch screens is possibile thorough standard MyHOME temperature control pages or dedicated Bacnet pages.
 Scenario: full integration in MyHOME

scenario of the temprature control.
 Scheduling: Temperature schedule managed by central unit.

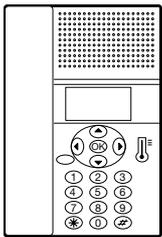
CONFIGURATION NOTES:

Probes must be configured with heating and cooling loads in

gateway mode. Display thermostat must be configured master modes

and with heating and cooling loads in gateway mode.

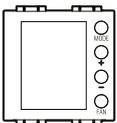
99 ZONE CENTRAL UNIT CONFIGURATION



The 99 zone control unit item 3550 does not need physical configurators but, to end the system configuration operations, interact with the "Configure zones" menu.
 As an alternative the TiThermo

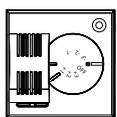
application can be used. For these operations refer to the manual supplied with the products.

PROBES WITH DISPLAY CONFIGURATION



ZONE 1 PROBE						
[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	1	0	4	4	-	-

PROBES CONFIGURATION

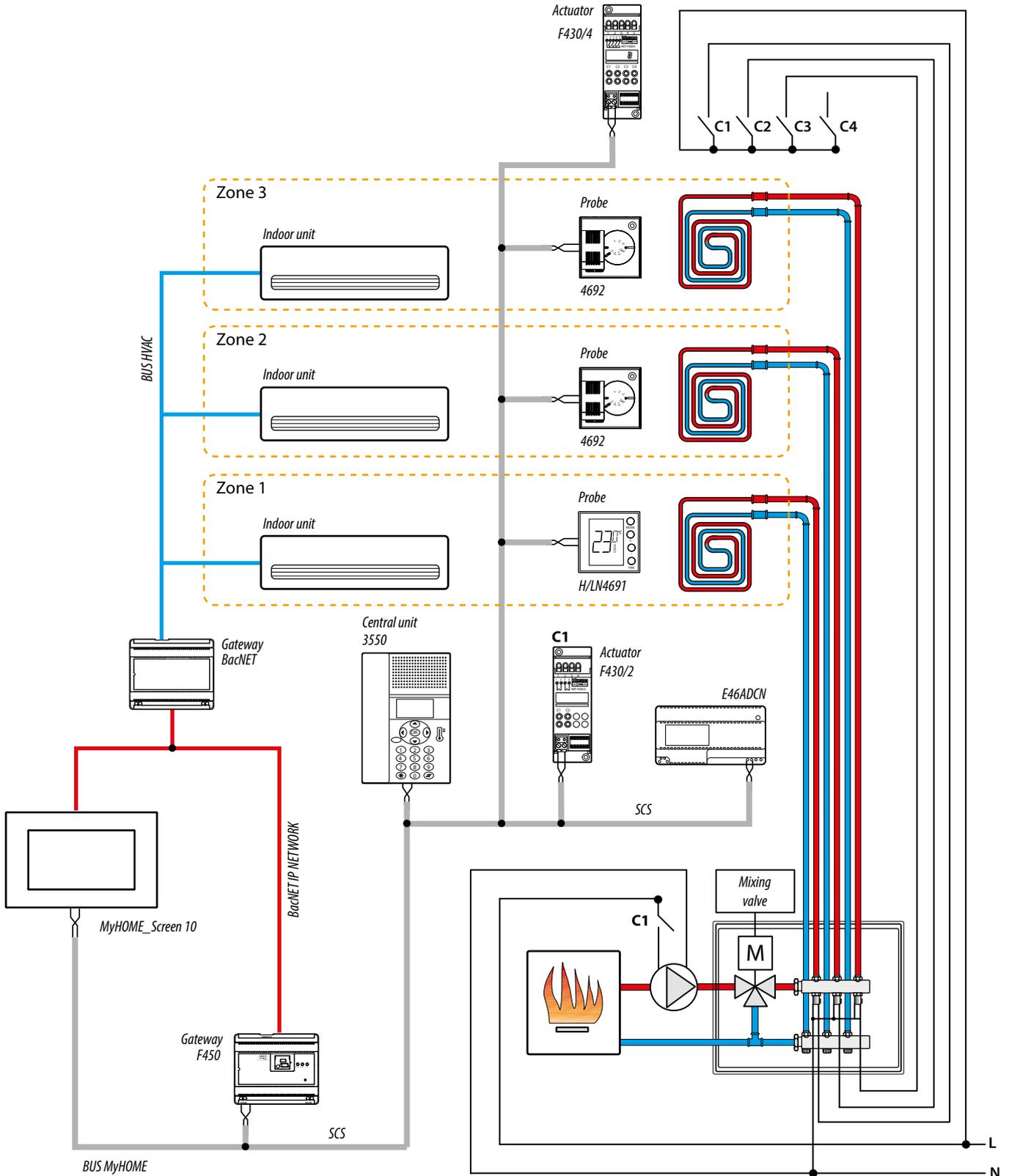


ZONE 2 PROBE		
[ZA]	[ZB]	[SLA]
0	2	-

ZONE 3 PROBE		
[ZA]	[ZB]	[SLA]
0	3	-

3 zone villa

DIAGRAM 23 - HEATING MANAGED BY MYHOME, COOLING MANAGED BY BACNET (MYHOME CENTRAL UNIT MANAGES HEATING AND COOLING PROFILES; NO AUTO-CHANGEOVER)



WORKING MODE:

Heating/cooling: This configuration is suitable if is demanded an central management of the zones about the passage from heating and cooling.
 Touch screen: The control of the

temperature from touch screens is possible through standard MyHOME temperature control pages or dedicated Bacnet pages.
 Scenario: full integration in MyHOME

scenario of the temperature control.
 Scheduling: Temperature schedule managed by central unit.

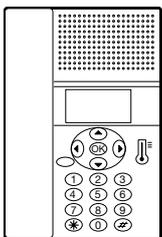
CONFIGURATION NOTES:

Probes must be configured with heating loads in standard MyHOME loads (ON-OFF, fan coil,...) and

cooling loads in gateway mode.
 Display thermostat must be configured master mode and with

heating loads in standard MyHOME loads (ON-OFF, fan coil,...) and cooling loads in gateway mode.

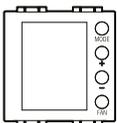
99 ZONE CENTRAL UNIT CONFIGURATION



The 99 zone control unit item 3550 does not need physical configurators but, to end the system configuration operations, interact with the "Configure zones" menu.
 As an alternative the TiThermo

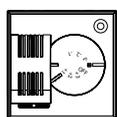
application can be used. For these operations refer to the manual supplied with the products.

PROBES WITH DISPLAY CONFIGURATION



ZONE 1 PROBE						
[ZA]	[ZB]	[TY]	[H]	[C]	[P]	[IN]
0	1	0	4	4	-	-

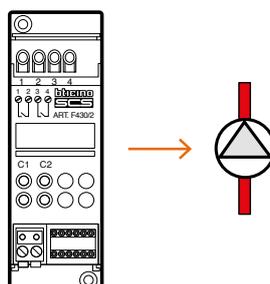
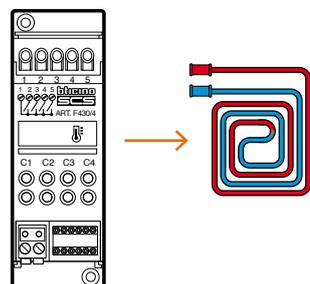
PROBES CONFIGURATION



ZONE 2 PROBE		
[ZA]	[ZB]	[SLA]
0	2	-

ZONE 3 PROBE		
[ZA]	[ZB]	[SLA]
0	3	-

ACTUATORS CONFIGURATION



ZONE ACTUATOR					
[ZA]	[ZB1]	[ZB2]	[ZB3]	[ZB4]	[N]
0	1	2	3	-	1

CIRCULATION PUMP ACTUATOR				
[ZA]	[ZB1]	[N1]	[ZB2]	[N2]
0	0	1	OFF	-

General concepts

CONFIGURATION OF THE FUNCTIONS

For the probes is necessary to define the "master" or "slave" operation.

In the physical configuration this is obtained by inserting the numeric configurators in the SLA and MOD position.

For the actuators it is necessary to set the type of load to manage (pumps, valves, etc.).

For the central units it is necessary to configure the type of system, in particular:

- a) the zones of the system and their name
- b) the functioning mode of the actuators (heating, cooling, etc.)
- c) the type of load to be controlled (solenoid valves, fan-coils, etc.)
- d) the pumps in the system
- e) the control mode of the pumps (heating, cooling, etc.)
- f) the delayed start-up of the pumps (if necessary).

CONFIGURATION PROCEDURE

It is possible to select two methods:

■ **Virtual configuration with MyHOME_Suite application,** using a PC connected to the system through web server F454 or the kit 3504. For the sensors and actuators it will be possible to configure the addresses and all the parameters that define the type of system. In the central unit only the temperatures and the user profile will be configured.

■ **Physical configuration** by connecting the configurators (item 3501/...) identified by number, letter, color or graphic. to the appropriate socket of each device. With this method the addresses and operating modes of the probes and actuators will be configured.

Instead the central unit configuration must be carried out manually using a special programming menu and the central unit keypad or using the MyHOME_Suite application. In both cases it is necessary to set all the parameters that define the type of system (actuators operating mode, type of pumps, etc.).

The Temperature control system must be appropriately configured so that it can work properly and so that each item can perform the specific function.

Two parameters are assigned with the configuration:

- system devices address;
- function carried out.

DEVICES ADDRESS

Except for the central unit, both the probes and the actuators must have assigned an address that defines the belonging zone.

In the physical configuration that is

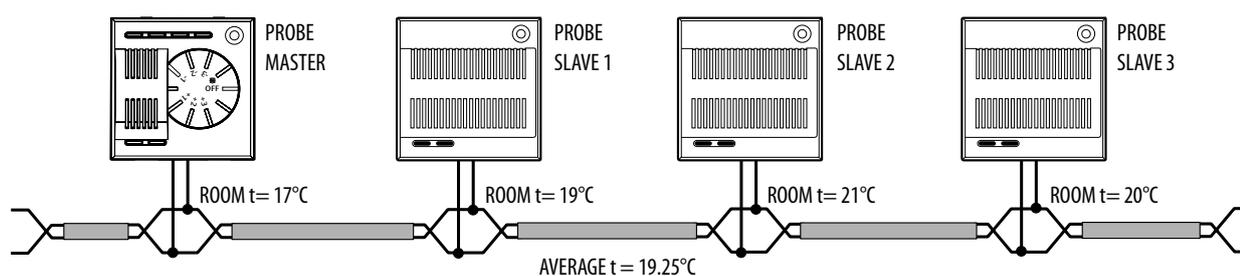
obtained by inserting the numeric configurators from 0 to 9 in the appropriate positions ZA and ZB in the back of the devices. it is possible to define up to 99 zones.

“Master” and “slave” mode

For each zone address it is possible to have a single probe or a "master" probe and one or more associated standard "slave" probes (without

adjustment knob). This particular configuration is used to measure the temperature in multiple locations of a specific zone.

To each "master" probe it is possible to associate up to 8 "slave" probes.

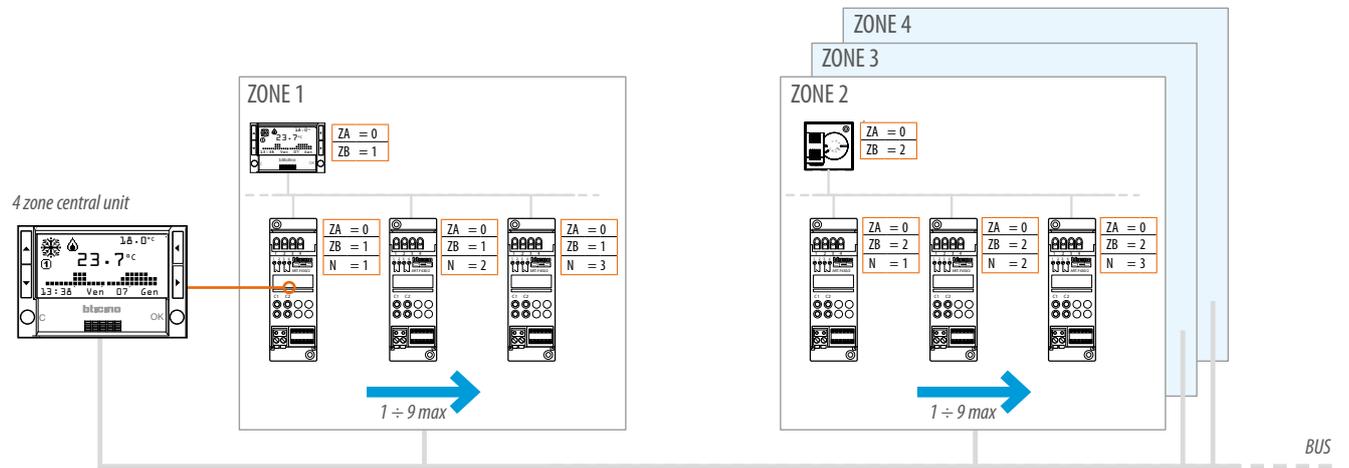


Progressive zone number N of the actuators

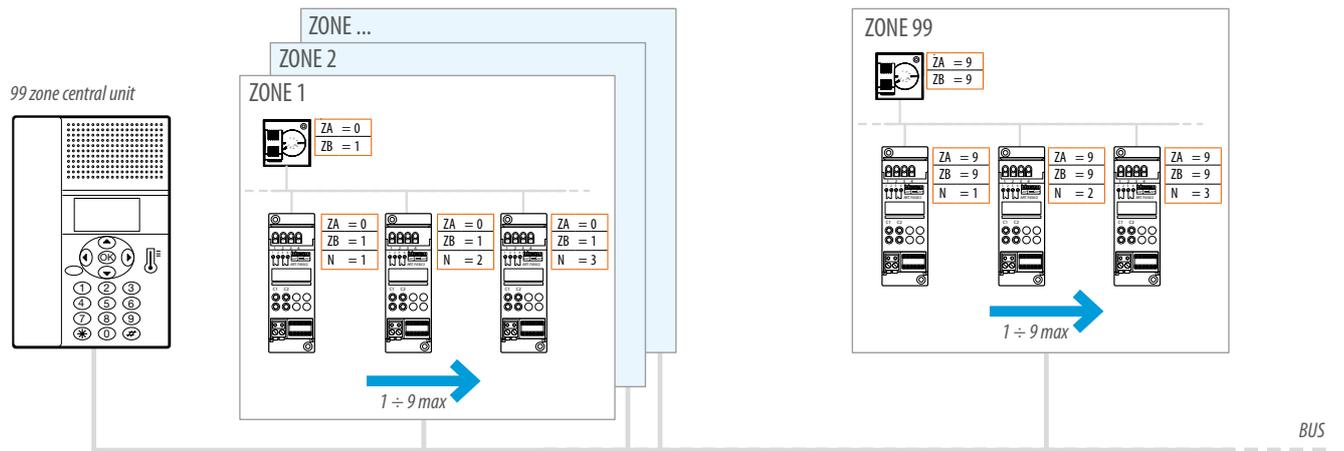
This parameter defines the number of actuators (up to 9) that can be associated with a specific zone.

General concepts

The probe which controls zone 1 is combined in the 4 zone control unit.



The temperature control function can manage up to 99 zone addresses. For each zone up to 9 addresses dedicated to the actuators can be managed.



CONTENTS

MyHOME – Energy consumption display
General features. 166

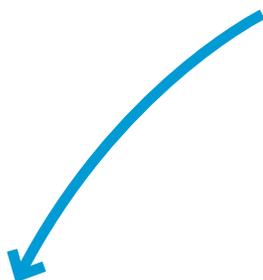
Instantaneous power, water and gas consumption data

Using MyHOME measurement devices it is possible to display on different user interfaces (e.g. Local Display, MyHOME_Screen 3.5, MyHOME_Screen 10, Basic energy display, PC, smartphone) electricity, water and gas consumption, and the data of the heating accounting system.

It is also possible to display the energy produced on site from solar thermal and photovoltaic systems. Through graphic representations and tables, the data can be easily displayed on the Touch Screen and on the pages of the Energy data

logger.

By setting a indicative rate value, it is also possible to obtain a quantitative assessment of the economic cost.



Dedicated icon on the screen of the Touch Screen





Energy selection screen



Power consumption screen (instantaneous / cumulative)



Monthly power consumption graph



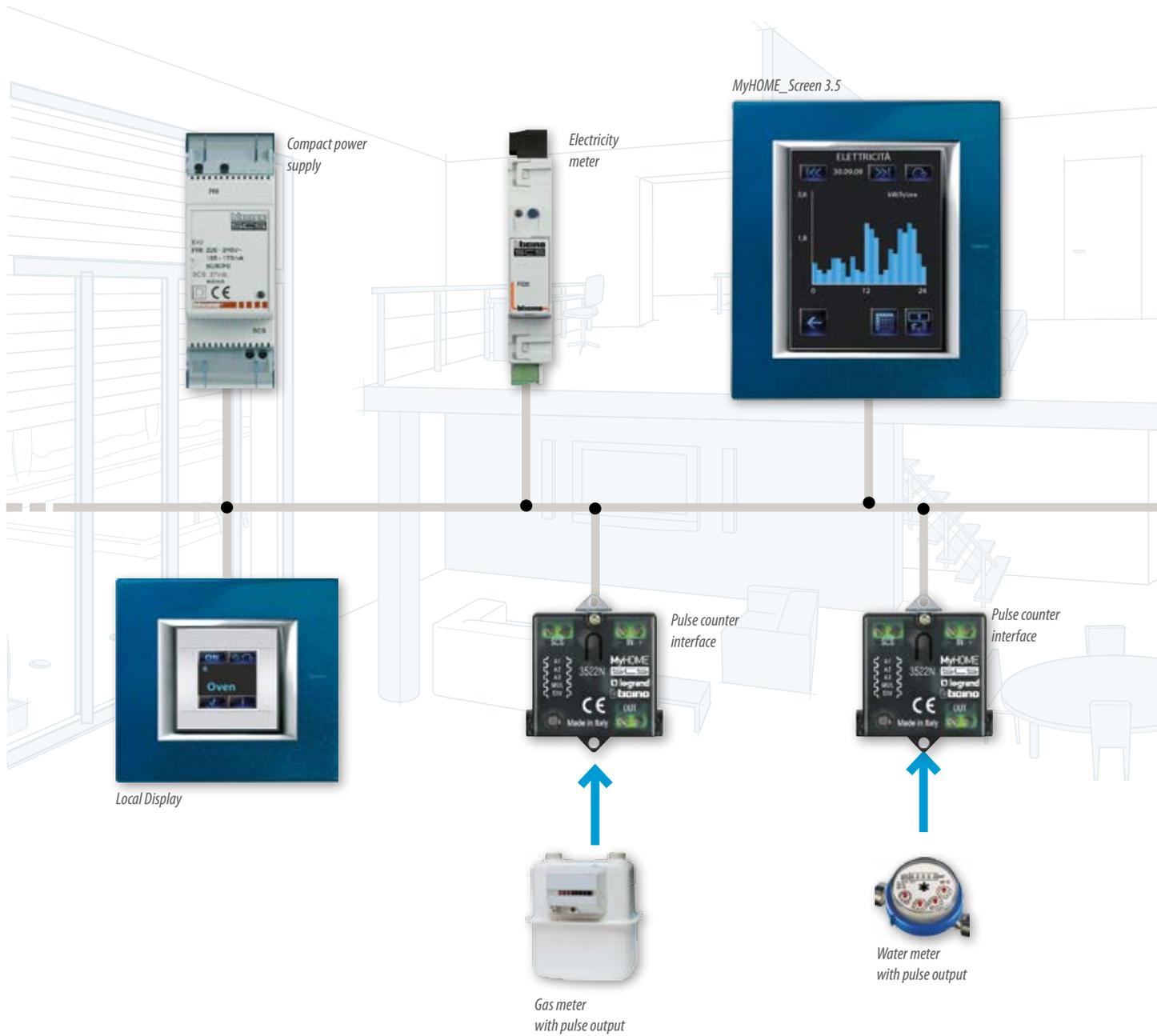
Daily power consumption graph

Displaying consumptions and the production data

The devices for the display of the consumptions can be integrated directly on the BUS of the Automation/Temperature control system, or be part of a dedicated BUS system, as shown in the diagram below. In this it is necessary to be provided with a power supply and an interface display (e.g. Local Display,

Touch Screen, Energy Data Logger, Webserver). Thanks to the use of pulse counter interfaces and BUS meters with inputs for toroids, with the MyHOME consumption display system it is possible to display on the interfaces the consumptions for electricity, gas, and water, as well as the data from

the heating accounting system. In the presence of a photovoltaic system and a solar thermal system, it is also possible to determine how much electricity is produced and how much water is heated.



Photovoltaic panel



Inverter



Electricity meter

Solar thermal panel



Hot water meter with pulse output



LAN network



Energy Data Logger



Pulse counter interface



Basic energy display

Measurement and display devices

INTERFACE

INTERFACE 3522N

The device detects, counts, and processes the information (water, gas, etc.) received from meters with pulse outputs; the data is then made available to the SCS bus, and displayed on the Touch Screens. The processing and accounting functions are:

- instantaneous consumption (calculated as the average of 2 pulses received during the time unit);
- hourly, daily, and monthly consumption (one year memory).

The device may be installed in flush mounted boxes, behind traditional type devices, or also inside distribution boards, but without taking up any DIN rail space.

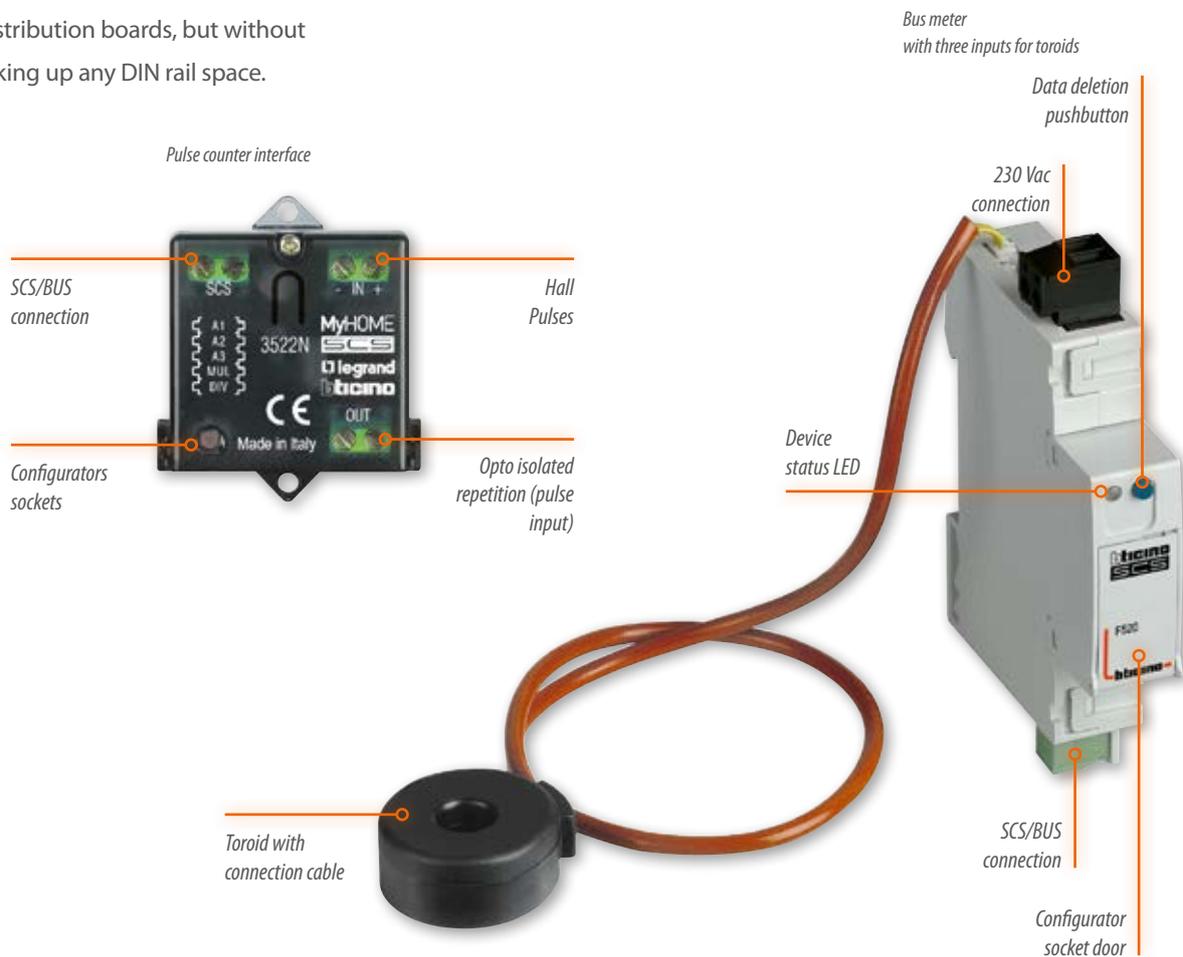
BUS METER WITH 3 INPUTS FOR TOROIDS F520

The device measures up to three separate circuits, by connecting up to three toroids to the appropriate inputs.

The data is displayed on the Touch Screens through the SCS Bus. The processing and accounting functions are:

- instantaneous consumption of 3 lines maximum;
- cumulative hourly consumptions for the last 12 months, daily consumptions for the last 2 years, monthly consumptions for the last 12 years.

The described functions are also valid to save the data coming from solar thermal and photovoltaic systems. The device is supplied with 1 toroid and corresponding connection cable (item 3523); it is suitable for installation inside distribution boards and switchboards and requires the space of 1 DIN module.



DISPLAY DEVICES

MyHOME offers several user interfaces for the display of consumption/production data:

- System interfaces: (Local Display, MyHOME_Screen 3.5 e MyHOME_Screen 10)
- Energy data logger
- Basic energy display
- Portal

Each interface is capable of meeting several needs.

Local Display



Basic energy display

The energy base display is equipped with a 1.6" display for displaying the energy consumption data (detected by the energy measuring devices) and for the control of actuators belonging to the Energy management system.

The information that can be displayed is the following:

SYSTEM INTERFACES

Local display, MyHOME_Screen 3,5 and MyHOME_Screen 10 are devices usually used to control MyHOME functions, but they can be used to display their energy consumption and control loads. The Local Display can in fact be used to display consumption and production data for several energies. IT is possible to manage up to 10 lines, displaying on each line the instantaneous, cumulative daily, monthly, and annual consumptions, including the corresponding economic values. It is also possible to operate the

controlled loads, reactivating a load disabled by the Central unit for load management, or preventively force the load.

The MyHOME_Screen 3.5 and MyHOME_Screen 10 can also be used to display consumption and production data for the last 12 years, in chart or table format (hourly, daily, or monthly representation). Through all the previous interfaces it is also possible to associate different units (m³, l, kWh, etc.) to the single line/pulse counter interface and equivalent currency (Euro, \$, £, etc.)



MyHOME_Screen 10



MyHOME_Screen 3.5

- value of instant consumption and cumulative consumption of the day / month / year;
- status of the load control system actuator and controlled power value;
- monitored line identification;
- type of measured energy (electricity, heating, cooling, water);
- general information (errors of the device, self-learning in progress, etc ..);
- management of a threshold set by the menu of the device.

Measurement and display devices

ENERGY DATA LOGGER

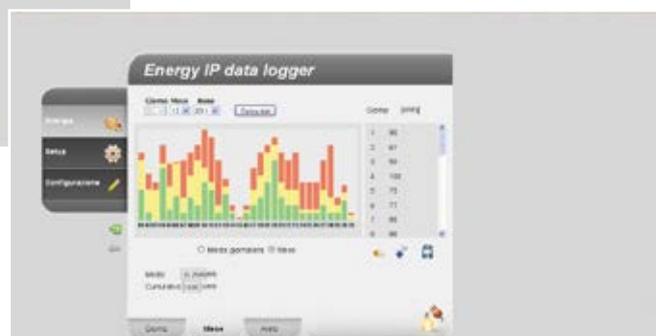
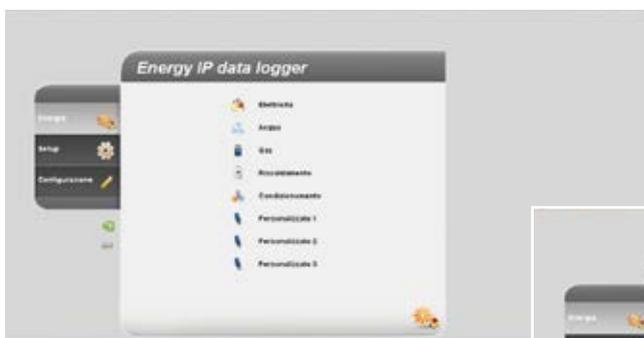
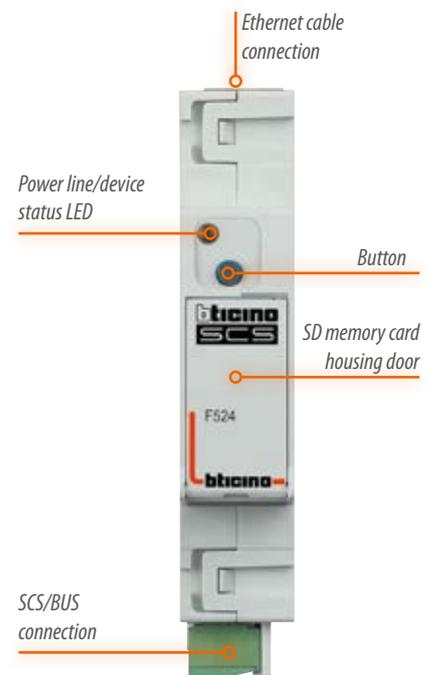
Is a device that allows to:

- Display on the PC or other device (e.g. Smartphone) consumption/ production data, recalling the web pages using an Internet Browser or by OPEN controls and APP specifications.
- Display for each individual electric line or pulse counter interface the instantaneous consumption, the daily consumption, the monthly consumption, the average daily consumption for each month, the total consumption for the last 12 years, in a chart or table format.
- Concentrate and save data of maximum 10 separate energy lines (corresponding to physical and virtual lines). The lines can be the electric power lines, by connecting F520 meters, or an F521 Central unit for load management, or lines for water, gas, or heat consumption, by connecting 3522N pulse counter interfaces.

It is also possible to view virtual lines with data corresponding to the addition or subtraction of different energy lines as well as multiplication by a configurable factor.

- Having a detailed record of the data in the electrical field: for each individual electric line, the user can download the data in an excel file every 15 minutes.
- Set several time bands for a more detailed conversion of the electric power value into an economic value (e.g. Two-hourly, three-hourly tariff...). For water and gas lines there are monetary conversion values without time bands (single one-hour tariff)
- Export the data for each line/pulse counter interface in individual excel files split by day, month, year.
- Have a simple data backup: the device features a housing for an SD memory card, on which

consumption details for each individual line are saved daily



Consumptions displaying through MyHOME_Web portal

MyHOME_Web is a virtual platform that can be used to control all the MyHOME functions relating to comfort, safety, savings, and communication in your own home.

All functions performed by the service are described in the chapter "System integration and control" of the following guide; this page shows only the functions related to the possibility to monitor the controlled loads (load management) and to display energy consumption. Using the web pages of the portal, it is in fact possible to:

- Force a load disabled by the central unit for load management, or preventive forcing, as well as to display the consumptions of the controlled load (using item F522).

- Display the consumption/production data.
- The MyHOME_Web portal is capable of saving the electric consumption data on an hourly basis and, thanks to the time bands settings, convert the energy value into economic value. For water and gas lines there are monetary conversion values without time bands. Thanks to the calculation capabilities of the portal it is possible to save and display the consumption data without any limitations in terms of time and maximum number of lines. The data saved are available for consultation as charts on web interface, inside the Energy Management section of the Portal.

- Exporting an excel file, after choosing the time period for which to obtain the data. The export file generated contains the consumption data and the corresponding economic values.





CONTENTS**MyHOME – Load control management**

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No more outages

The MyHOME load control and management system manages the maximum power used, automatically disconnecting the least important appliances in case of overload.

The system:

- Manages up to 63 loads.
- Shows on the display interfaces (e.g. Local Display, Basic energy display, Touch Screen, Webserver) the instantaneous and cumulative consumption of the controlled phase on an hourly, daily and monthly basis. Also, consumption of the controlled load can be measured thanks to the actuator with sensor.

- The priorities configured according to the customer's various needs can be disabled or re-enabled via the display interfaces.
- It allows the correct functioning of the loads to be checked on the display interfaces via the measurement of the differential current absorbed by them.
- It has devices (central control unit and actuators) with reduced space

of one DIN module. This allows optimization of spaces inside the electric panels.

- By configuring the load control system actuators in automation mode, via the display interfaces it is possible to set times for activating the loads.





Electricity consumption screen (instantaneous / cumulative)



Graph of electricity consumption in one month



Controlled loads screen



Controlled load consumption display screen (with F522)



Diagnostics icon

Consumption display icon

Load control management icon

Operation of the load control and management system

Using the external toroid, the central control unit measures the power absorbed by the connected loads and compares it with the value preselected during installation (via the configurators it is possible to select powers between 1.5 and 18 kW, with a tolerance of +/- 20%). Associated with each device to be controlled is an actuator that receives the information from the central control unit and disconnects the load from the grid in case of overload. The actuator disconnection sequence is defined during installation by means of a simple configuration operation to be carried out on the devices.

The central control unit enables the management of up to 63 priority

levels, and a number of devices depending on the available supply current.

Example: in the example shown, the oven, the microwave oven and the washing machine represent the loads controlled via actuators, whereas the refrigerator, whose operation must not be interrupted, is connected to its socket without actuator.

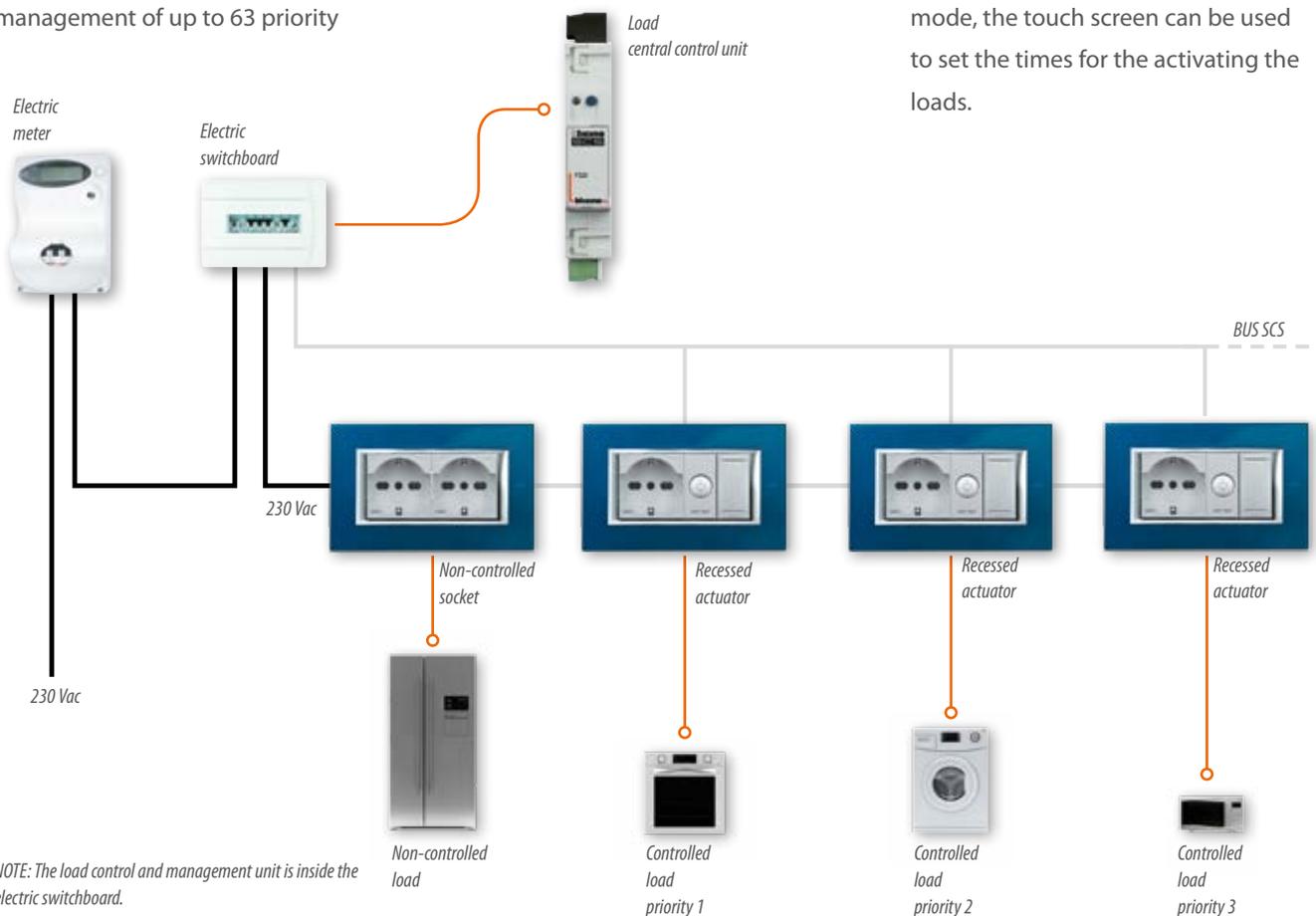
In case of overload, the first device disconnected is that deemed the less important by the user (in the example it is the oven), whose actuator has configurator no. 1.

The microwave, on the other hand, is the most important device, and the corresponding actuator has

configurator no. 3; the load is therefore disconnected after the oven and the washing machine.

The user can reactivate the disconnected device at any time, using the actuator pushbutton or the touch screen. In this case, if the overload condition still exists, the central control unit enables operation of the selected load, but disconnects the subsequent loads starting from the least important, until the overload situation is resolved.

The operating status of the loads is indicated by the actuators and the touch screens. By configuring the load control and management system actuators also in automation mode, the touch screen can be used to set the times for the activating the loads.



DISPLAY FUNCTION

The load central control unit can measure the consumption of the controlled line via the toroid supplied; the data is displayed on the touch screens MyHOME_Screen 3.5 and MyHOME_Screen10, local display, Basic energy display, and on the web pages of the web server and in the energy data logger.

The processing and metering functions regard:

- Instantaneous consumption of the controlled line;
- Cumulative consumption on an hourly, daily and monthly basis, for the last 12 months.

DIAGNOSTIC FUNCTION

Thanks to the actuator with sensor (F522) it is possible to display the consumption, and carry out diagnostics using the additional toroid (3523), of the controlled load.



Basic energy display

Controlled load diagnostic display screen



Load OK

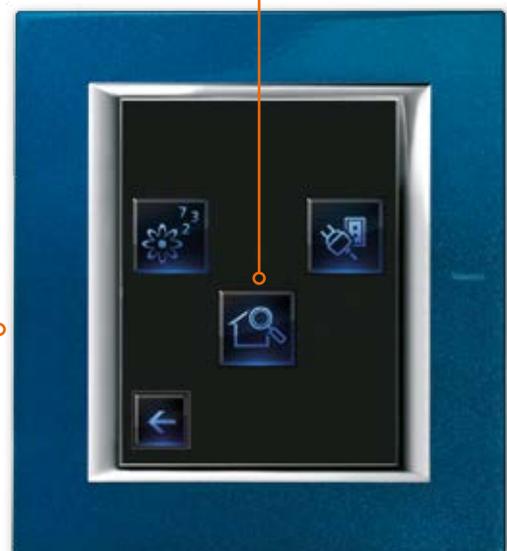


Load close to the differential gap



Load problems (e.g. device grounding problems)

Diagnostics icon



MyHOME_Screen 3.5

Device selection criteria

LOAD CENTRAL CONTROL UNIT

F521

The device can measure the power absorbed by the electrical system and control the status of the Load Management system actuators to prevent the risk of the electricity meter tripping.

The central control unit manages up to 63 appliances or electric loads per phase, measures currents and voltages, and processes the data to provide energy and power information.

The processing and metering functions are:

- Instantaneous consumption of the controlled line;
- Cumulative hourly consumptions for the last 12 months, daily consumptions for the last 2 years, monthly consumptions for the last 12 years.

The central control unit is suitable for installation in electric panels and switchboards and requires the space of 1 DIN module.

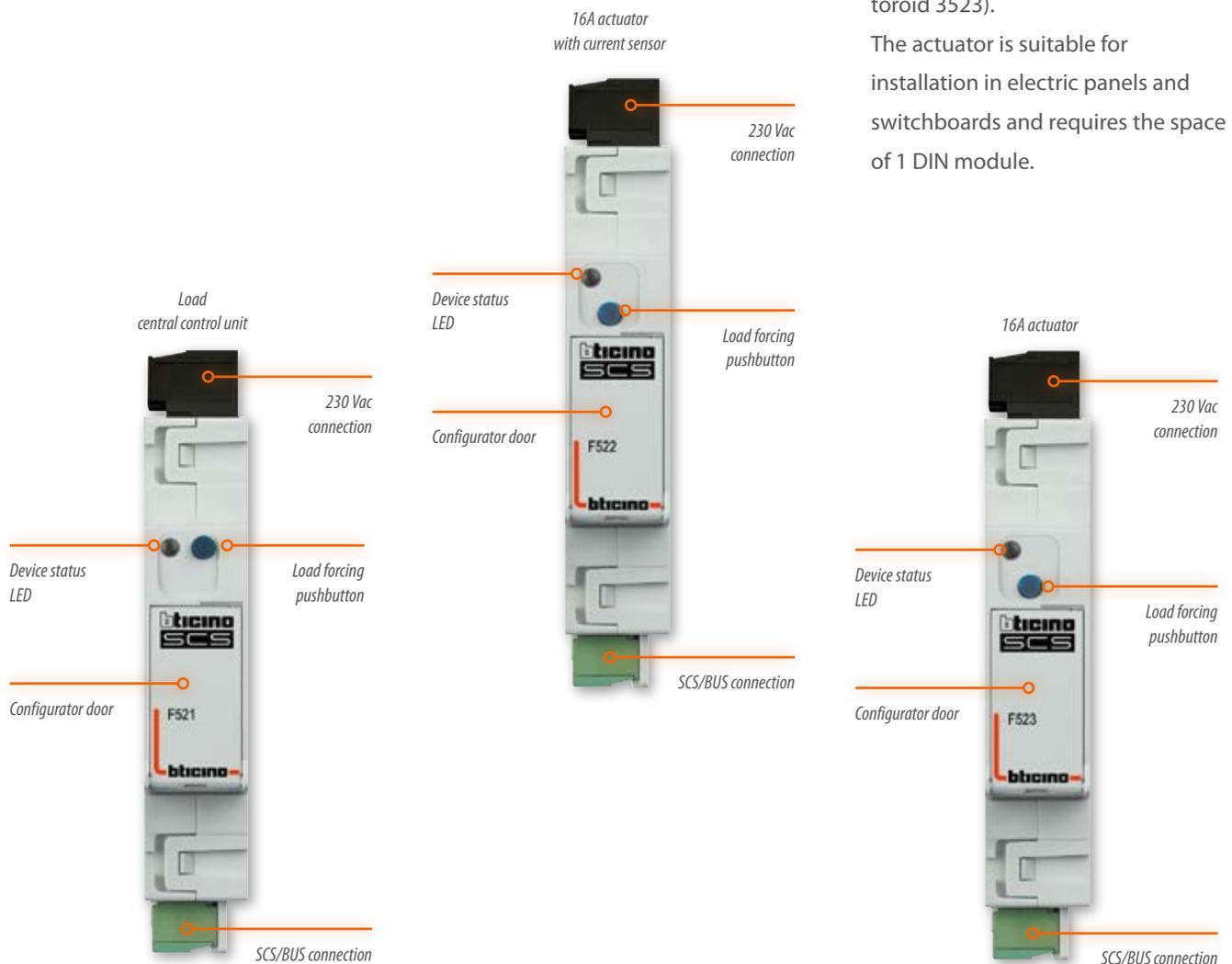
16A ACTUATOR WITH CURRENT

SENSOR F522

The device is an actuator with an integrated current sensor for measuring controlled load consumptions (instantaneous consumption and 2 independently resettable energy totalizers), and can perform energy management and automation functions.

When configured in energy management mode, the power absorbed by the load, the power and differential current can be measured (via the connection of an external toroid 3523).

The actuator is suitable for installation in electric panels and switchboards and requires the space of 1 DIN module.



16A ACTUATOR F523

The device is an actuator able to carry out energy management and automation functions. The actuator is suitable for installation in electric panels and switchboards and requires the space of 1 DIN module.

LOAD COMMAND AND CONTROL DEVICES

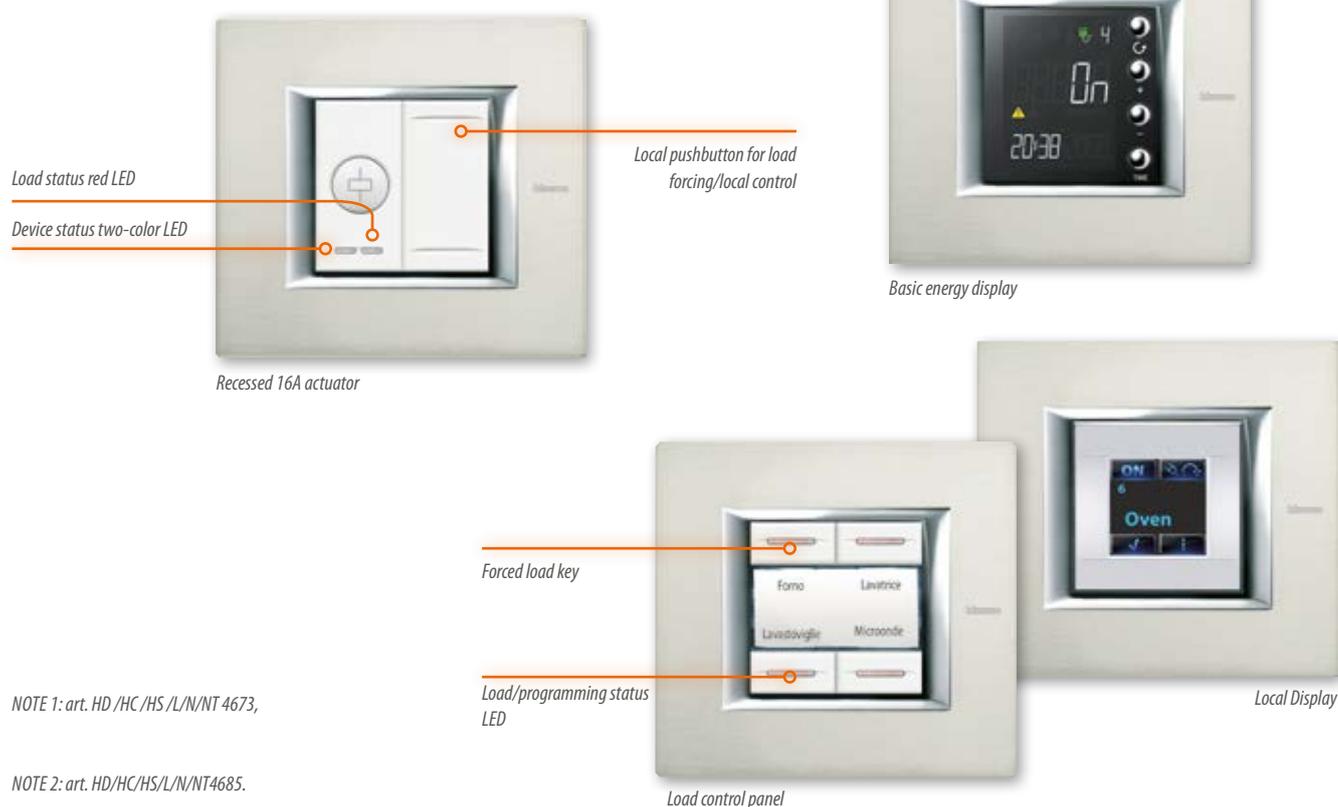
MyHOME offers a series of devices that can display the status of the loads controlled by the load central control unit F521 and force their operation independently from the central control unit itself; it is possible to:

- Force the priority of the load during normal operation; in this case the central control unit cannot deactivate the load for 4 hours.
- Reactivate a load disabled by the central control unit, the duration of forcing is 4 hours unless the key is pressed. The functions are possible via the Load control panel (1) Local Display (2) and Basic energy display (3).

RECESSED 16A ACTUATOR HD/HC/HS/L/N/NT4672N

Actuator designed to be installed in recessed supports of the Living, Light, Light Tech and Axolute series intended for automation and/or energy management functions. The device has:

- A local load forcing pushbutton;
- A two-color red/green LED for signaling the actuator status;
- A red LED for signaling relevant to disabling by the load central control unit.



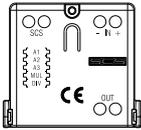
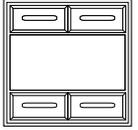
NOTE 1: art. HD /HC /HS /L/N/NT 4673,

NOTE 2: art. HD/HC/HS/L/N/NT4685.

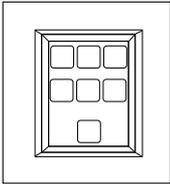
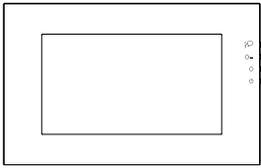
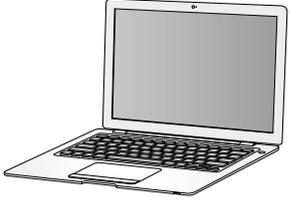
NOTE 3: art. H/LN4710

Device selection criteria

DEVICE SELECTION TABLE

AVAILABLE FUNCTIONS	DEVICES						
	Electricity meter	Load central control unit	16A actuator with current sensor	16A actuator	Recessed 16A actuator	Pulse counter interface	Load control panel
							
Display	●	●	●			●	
Load control		●	●	●	●		●
Diagnostics ¹⁾			●				

NOTE ¹⁾: In combination with optional toroid 3523

AVAILABLE FUNCTIONS	DEVICES				
	Local display and Basic energy display	MyHOME_Screen 3.5	MyHOME_Screen 10	Energy data logger	Webserver
	 <p>Basic energy display</p> <p>Local display</p>				
Display	●	●	●	●	●
Load control	●	●	●		●
Diagnostics ¹⁾		●	●		●

Maximum number of devices

PHYSICAL LIMIT

The maximum number of devices that can be connected to the BUS (load central control unit, actuators, electricity meter and pulse counter interface) depends on their total absorption and on the distance between the connection point and the power supply.

If the system uses the same cable as the Automation/Temperature control system, the calculation of the maximum number of devices must be done taking into account their general absorption. For the purpose of the above calculations, the following table gives the current absorbed by each device.

MAXIMUM NUMBER OF ACTUATORS

The Load Management central control unit can control up to 63 actuators (appliances or electric loads). If the system is only dedicated to Load Management or shares the same BUS line of the Automation/Temperature control system, the number of actuators depends on the limit of the available current.

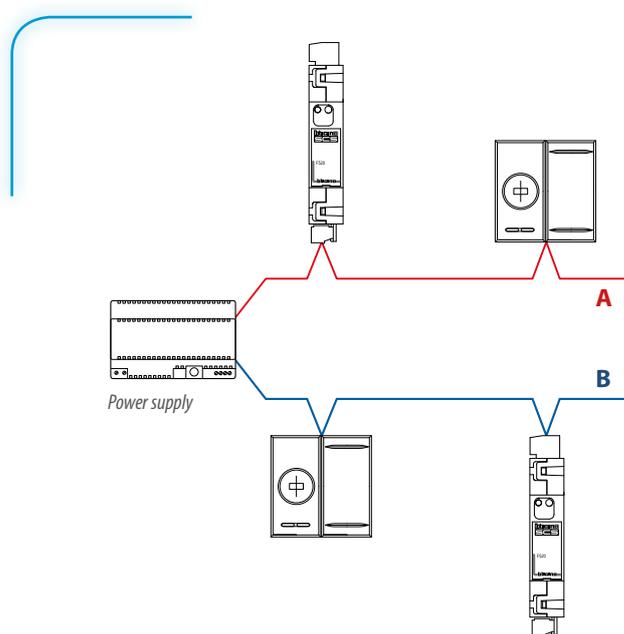
ARTICLE	DEVICE	ABSORPTION BY BUS
F521	Load central control unit	28 mA
F522	Actuator with sensor	30 mA
F523	Basic actuator	10 mA
HD/HC/HS/L/N/NT4672N	Recessed actuator	10 mA
H/HW4890 - LN4890/A AM4890	MyHOME_Screen 3.5	80 mA
H/HW4890 - LN4890/A AM4890 MH4892C - MH4893C	MyHOME_Screen 10	50 mA
F520	Electricity meter	35 mA
3522N	Pulse counter interface	7.5 mA
HD/HC/HS/L/N/NT4673	Load control panel	7 mA
HD/HC/HS/L/N/NT4891	Local Display	60 mA
F524	Energy data logger	30 mA
H/LN4710	Basic energy display	19÷35 mA (!)

NOTE 1: depending on the backlight set in the device

System sizing

BEAR IN MIND THE FOLLOWING RECOMMENDATIONS:

1. The length of the connection between the power supply and the furthest device must not exceed 250 m.
2. The total length of the BUS must not exceed 500 m (extended cable).
3. For optimum distribution of the currents on the BUS line, it is advisable to locate the power supply in an intermediate position.



A =250 m max

B =250 m max

A + B =500 m

Maximum current delivered

by the power supply:

1200 mA for art. E46ADCN and

600mA for art. E49.

NOTE: If a UTP5 cable is used instead of a BUS L4669 cable, the distances indicated must be halved.

General information

The addresses and device operation modes are assigned with configuration. These can be divided into two categories:

1. Pulse counter interface (3522N), electricity meter with three inputs for toroids (F520), Load central control unit (F521) and virtual lines configurable in the Energy data logger (F524). All these devices have an address from 1 to 127.

CONFIGURATOR SEAT	CONFIGURATORS USED
A1 is the configurator indicating the hundreds	0, 1
A2 is the configurator indicating the tens	From 0 to 9
A3 is the configurator indicating the units	From 1 to 9
A3-Ta	From 1 to 9 (a configurator must be in this seat)
A3-Tb	From 1 to 9
A3-Tc	From 1 to 9

ATTENTION The 0 configurator in A3-Tb, A3-Tc indicates that the toroid input is not used. A3 or A3Ta cannot be equal to 0. In case of the meter with several inputs F520, if only one toroid is used, that toroid must be connected to A3Ta.

Configuration examples:

For electricity meter with three inputs F520 and pulse counter interface 3522N:

	VALUE OF CONFIGURATORS	ADDRESSES
Electricity meter		Toroid connected to Ta with address 001 Toroid connected to Tb with address 002 Toroid connected to Tc with address 003
		Toroid connected to Ta with address 126 Toroid connected to Tb with address 127 No toroid connected to Tc
Pulse counter interface		Pulse counter interface address 004

ATTENTION The devices of this class must have different addresses: for example, there cannot be a pulse counter interface and a bus meter with 3 inputs having the same address. Also, two toroids cannot have the same address. If two consumption/load control devices are installed on an automation or temperature control bus, the configured addresses do not conflict with the other devices on the system: a temperature control probe configured with address 11 is not in conflict with a bus meter with 3 inputs for toroids with address 11.
 UP to 20 lines (toroids) per power supply can be managed. Example: 6 meters for 3 lines plus 1 meter for 2 lines (total 20).

General information

2. Actuators for load control:

art. F522, F523, L/N/NT/HC/HS/HD4672N

The actuators can be used as automation actuators and as energy management actuators.

The configuration in automation mode follows the rules outlined in the automation guide (see the device technical data sheets); the

configuration in energy management mode requires a progressive address from 1 to 63. These addresses are used in the appropriate touch screen

configuration software, and define the disconnection priorities for the controlled load.

Configuration examples:

For 16A actuator with sensor F522 and actuator 16A F523:

CONFIGURATOR SEAT	CONFIGURATORS USED
P1 is the configurator indicating the tens	From 0 to 6
P2 is the configurator indicating the units	From 0 to 9

	VALUE OF CONFIGURATORS	ADDRESSES
16A actuator with sensor		Address priority 01
16A actuator		Address priority 10

ATTENTION In case of consumption display/load control actuators installed on an automation or temperature control bus, and configured also in automation mode (A, PL...), the load control actuator must not have the same address as another actuator on the automation bus. Example: if actuator F411/1N A = 1 PL = 1, actuator F522 cannot be configured with PL=1.

CONSUMPTION DISPLAY CONFIGURATION

After installing the devices (Pulse counter interface 3522N, electricity meter with three inputs for toroids F520, Load central control unit F521), an address must be assigned via physical configurators (A1, A2, A3). This address will then be used in the software for the configuration of the user interfaces. (e.g. software to configure MyHOME_Screen 3.5). For more information, see the product technical data sheets.

LOAD CONTROL SYSTEM CONFIGURATION

After installing the devices and configuring the actuators, the load central control unit must acquire the actuators on the bus, and the corresponding priorities configured. For more information, see the technical data sheet of the load central control unit F521 and the technical data sheets of the actuators.

SYSTEM EXPANSIONS

The "Energy Management" system is a very flexible system allowing installation of the devices on the automation/temperature control bus, or for creating a system only for energy management, with dedicated power supply. In general, all energy management devices can be installed on each bus branch and on each expansion, provided this is allowed by the absorption calculation. The only exception is for the actuators which, if also configured in automation mode, for system expansions follow the same rules of the automation bus (see the section on automation).

DIAGRAM 1 DISPLAY OF ELECTRICITY, WATER AND GAS CONSUMPTIONS

ARTICLE	DESCRIPTION
IG	Main switch MGT + DIFF
MGT1	4A MGT switch
E49	Compact power supply
F520	Electricity meter with three inputs
3523	Toroid for reading
Touch Screen	MyHOME_Screen 3.5/ MyHOME_Screen 10
3522N	Pulse counter interface
F524	Energy data logger

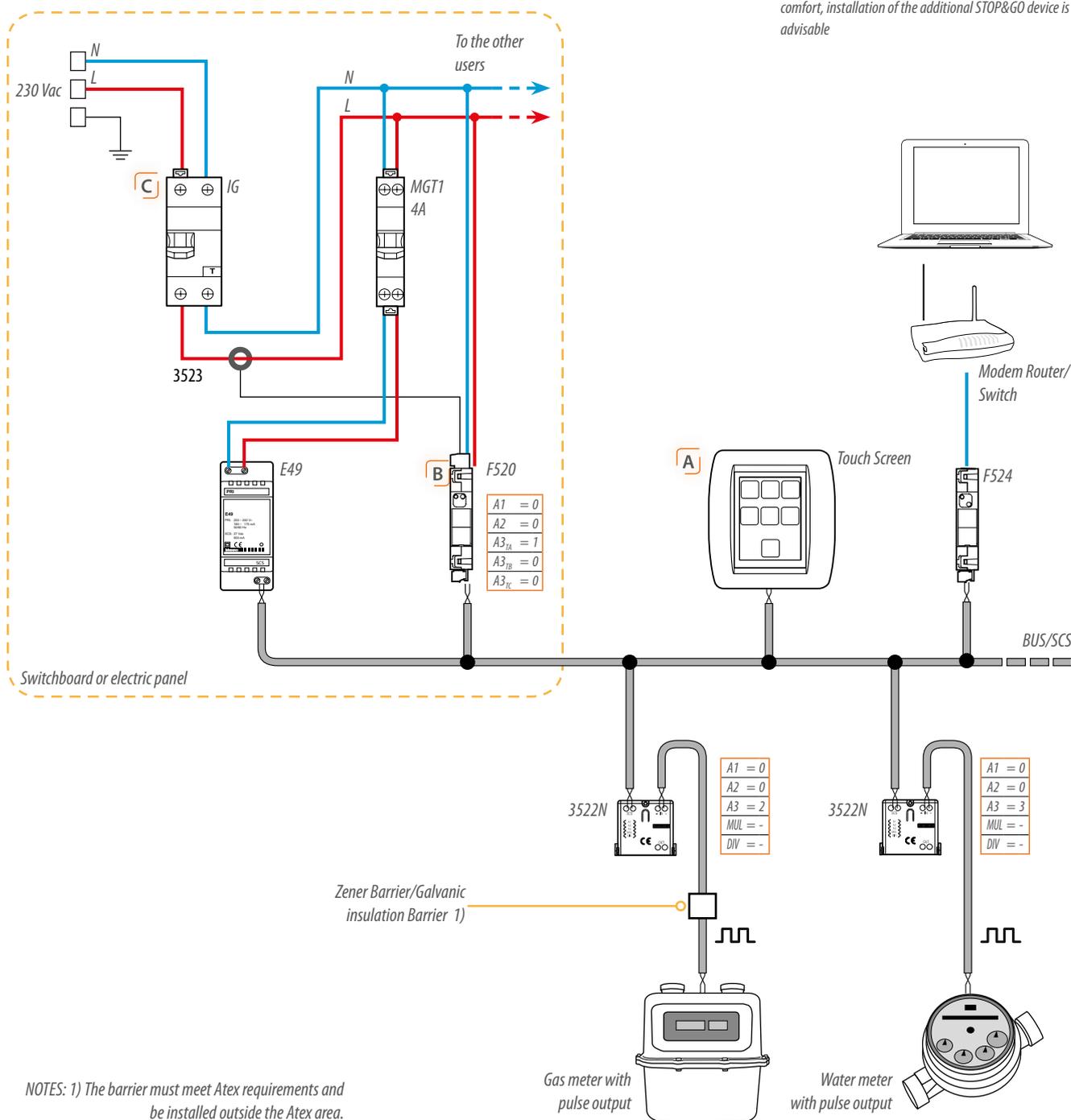
ATTENTION

A The following Touch Screens can be installed:

- H4684 AXOLUTE
- L4684 LIVING / LIGHT / LIGHT TECH
- AM5864 MÀTIX
- MyHOME_Screen 10 MH4892 - MH4893

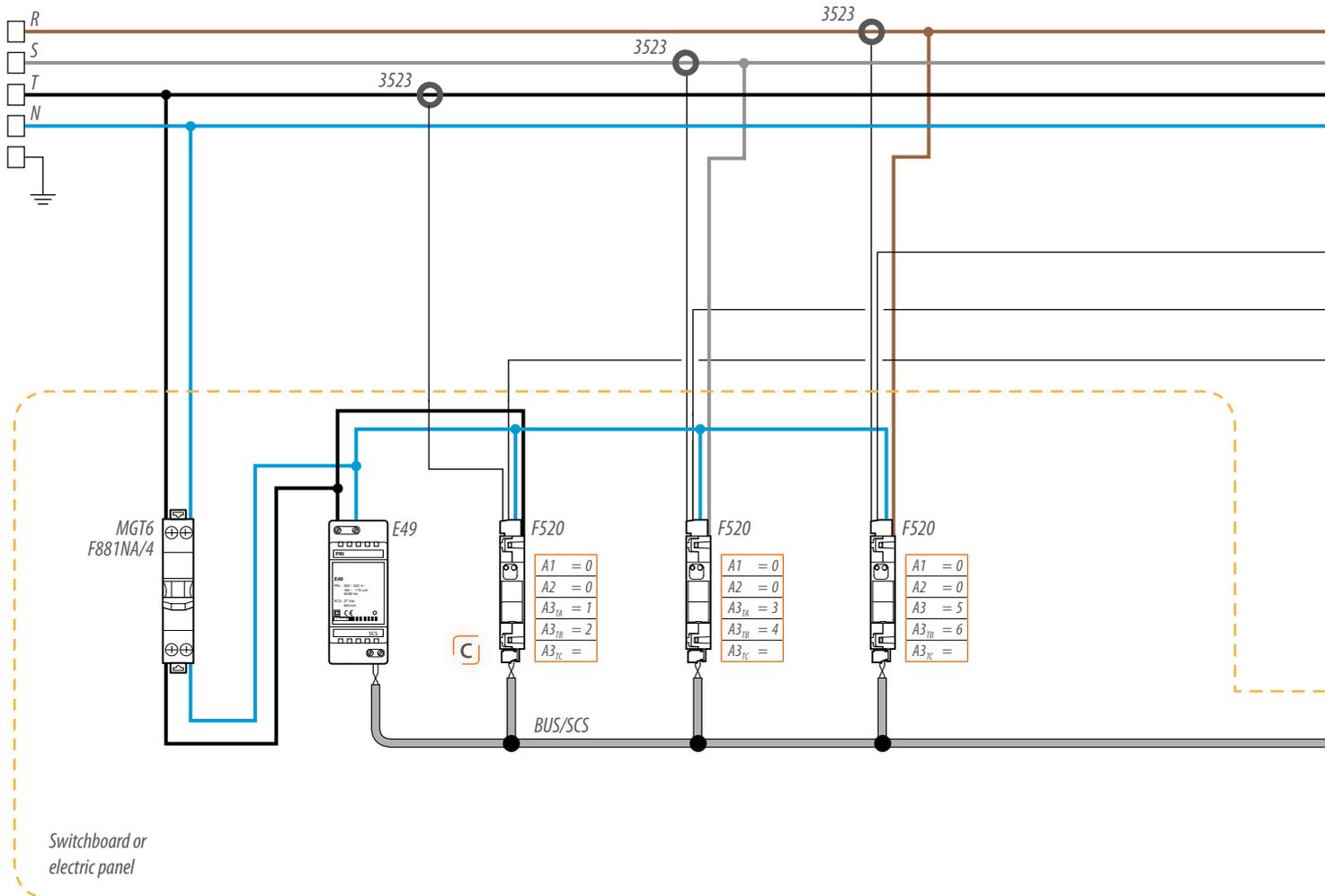
B Each F520 is supplied with one toroid 3523

C The main switch IG (MGT + DIFF) must be chosen according to general absorption. For better safety and comfort, installation of the additional STOP&GO device is advisable



NOTES: 1) The barrier must meet Atex requirements and be installed outside the Atex area.

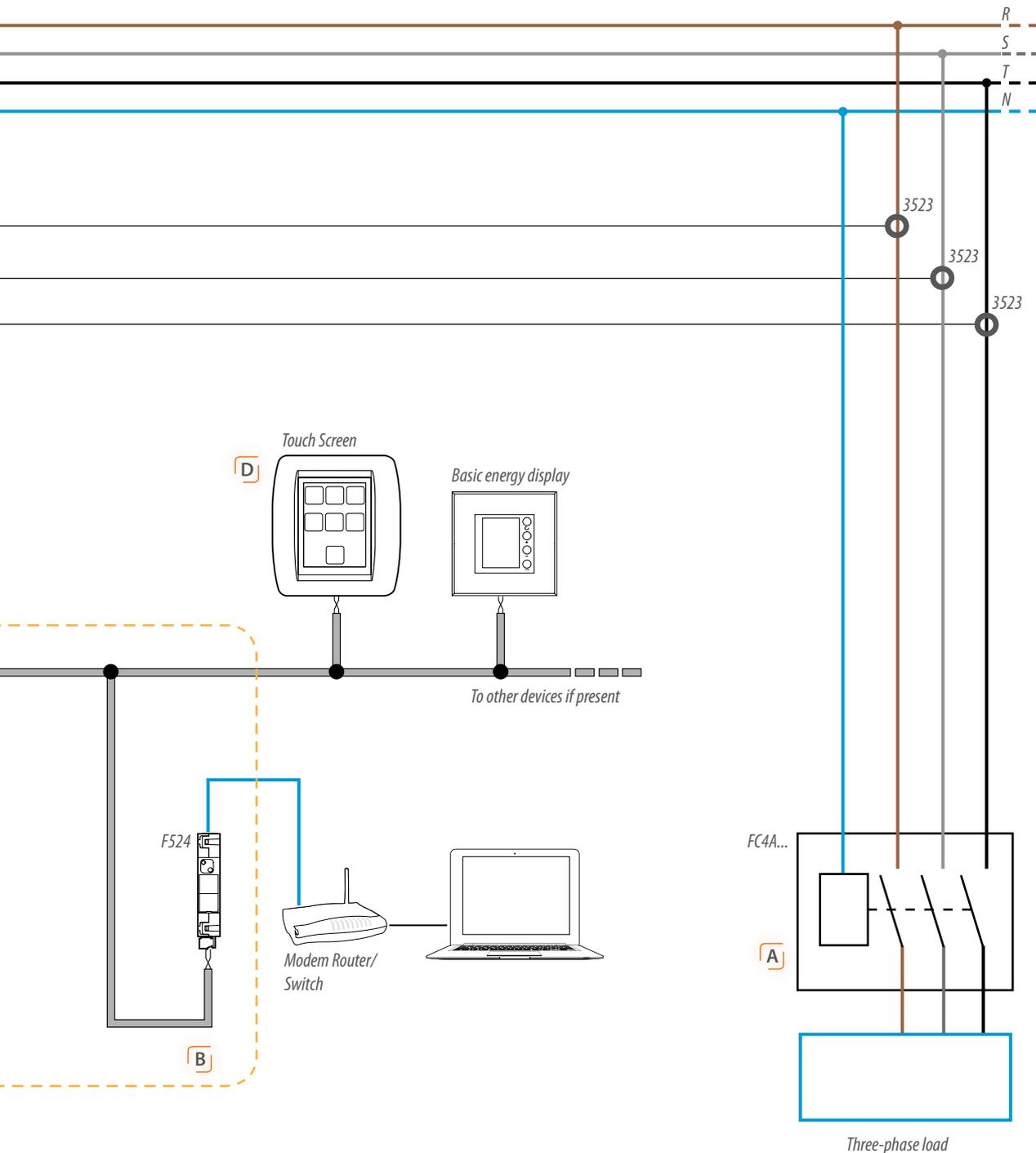
DIAGRAM 2 DISPLAY OF THREE-PHASE AND THREE-PHASE LOAD TOTAL CONSUMPTION



ATTENTION

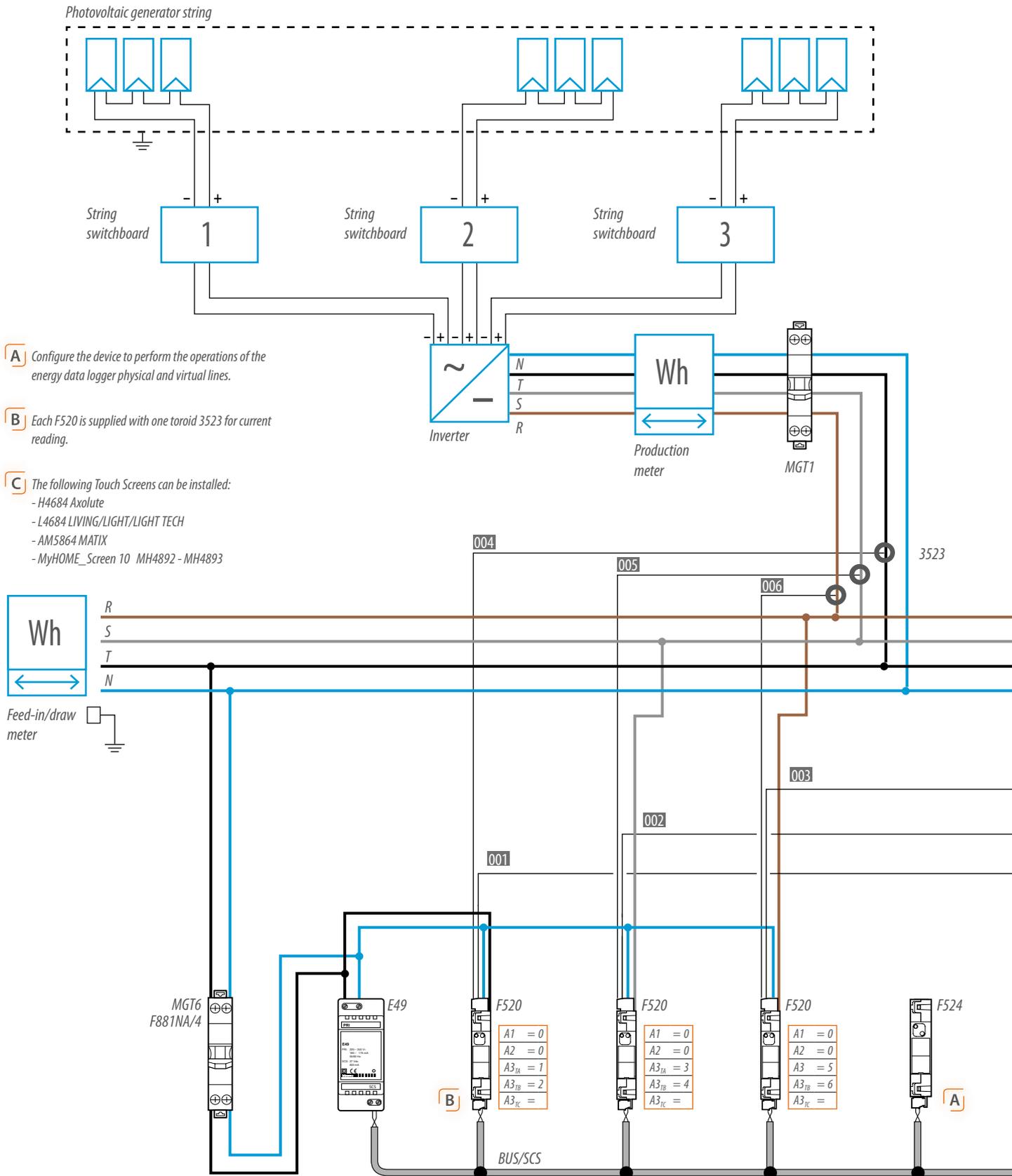
- A** The meter must be chosen according to the load.
- B** Configure the device to add together the active powers of the loads and total consumption (physical and virtual lines of the energy data logger).
- C** Each F520 is supplied with one toroid 3523 for current reading.
- D** The following Touch Screens can be installed:
 - H4684 Axolute
 - L4684 LIVING/LIGHT/LIGHT TECH
 - AM5864 MATIX
 - MyHOME_Screen 10 MH4892 - MH4893

ARTICLE	DESCRIPTION
E49	Compact power supply
F520	Electricity meter with three inputs
3523	Toroid for reading
Touch Screen	MyHOME_Screen 3.5/ MyHOME_Screen 10
H/LN4710	Basic energy display
F524	Energy data Logger
FC4A...	AC contactor



WIRING DIAGRAMS

DIAGRAM 3 DISPLAY OF BALANCE OF PHOTOVOLTAIC ENERGY PRODUCED AND ELECTRICITY CONSUMED - THREE-PHASE SYSTEM



Quantity to display	Address of measurement line (physical or virtual)	Notes
Consumption Phase 1	001	
Consumption Phase 2	002	
Consumption Phase 3	003	
Production Phase 1	004	
Production Phase 2	005	
Production Phase 3	006	
Photovoltaic panel	007	Virtual address of Data Logger obtained from the sum of lines 004+005+006.
Total electricity consumption	008	Virtual address of Data Logger obtained from the sum of lines 001+002+003.
Draw from grid	009	Virtual address of Data Logger obtained from the difference of lines 008-007.
Grid feed-in	010	Virtual address of Data Logger obtained from the difference of lines 007-008.
Self-consumption	011	Virtual address of Data Logger obtained from the difference of lines 008-009.

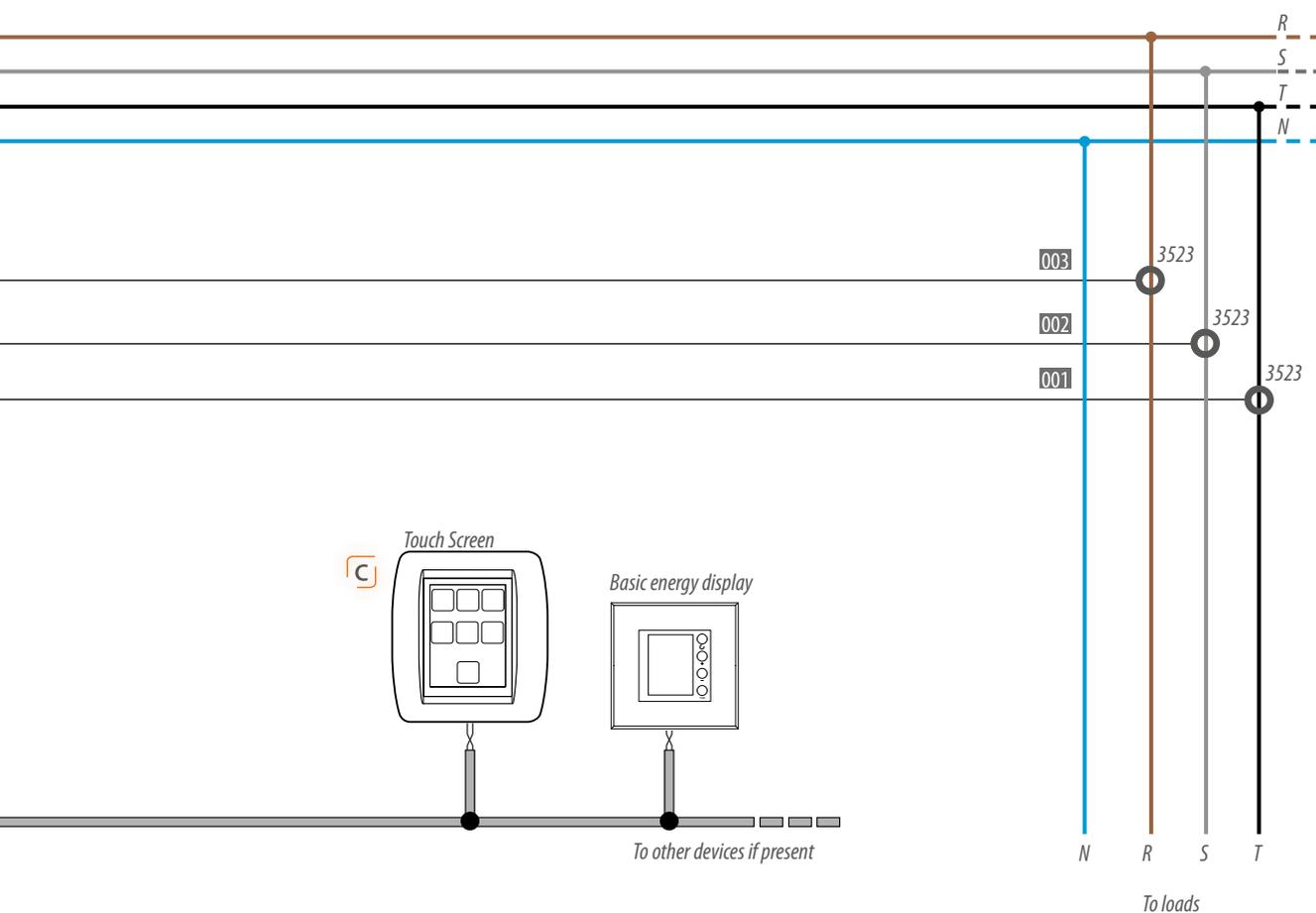
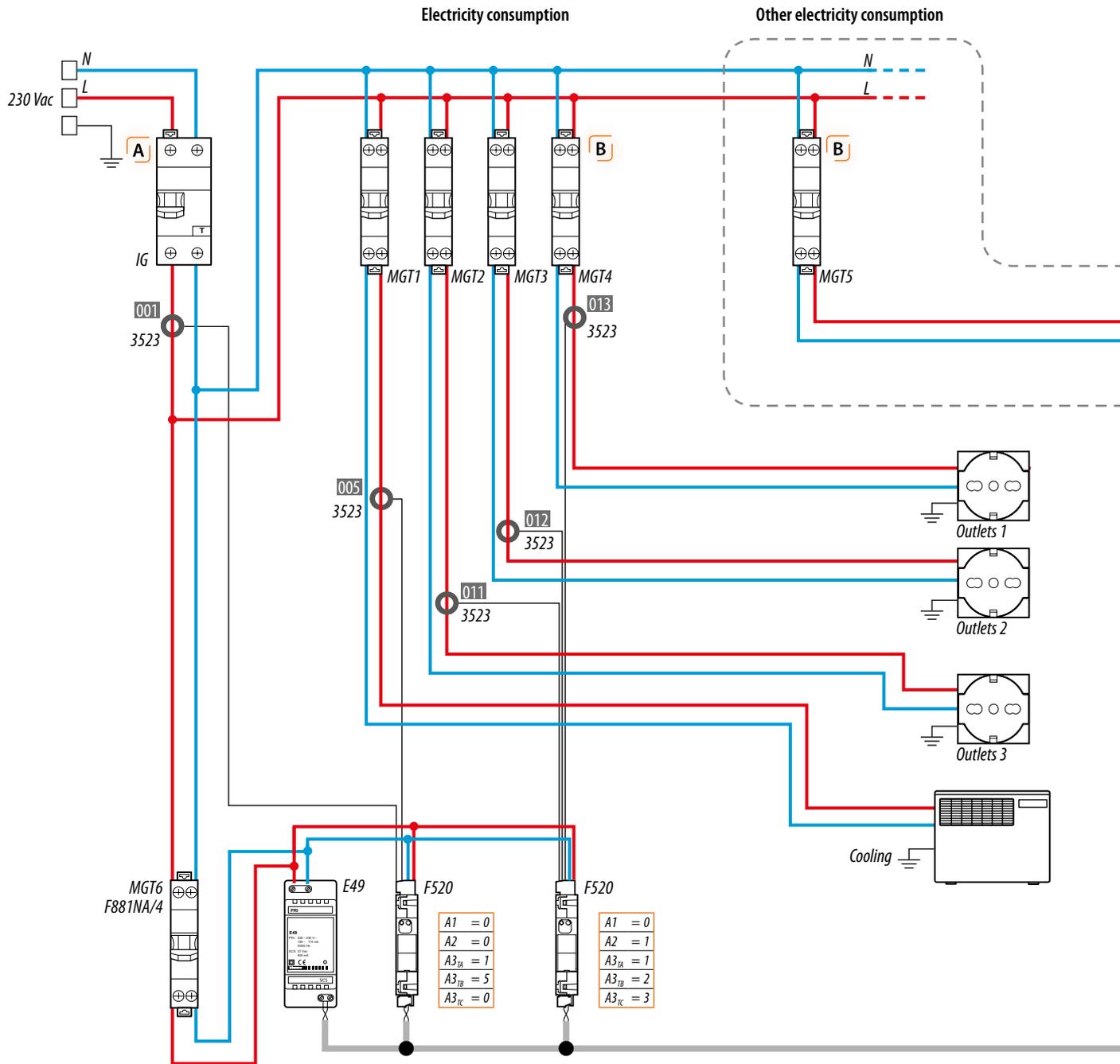
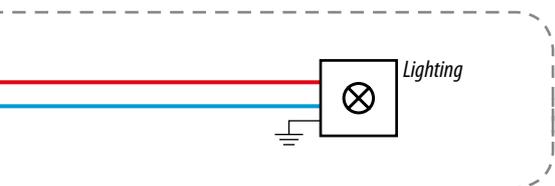


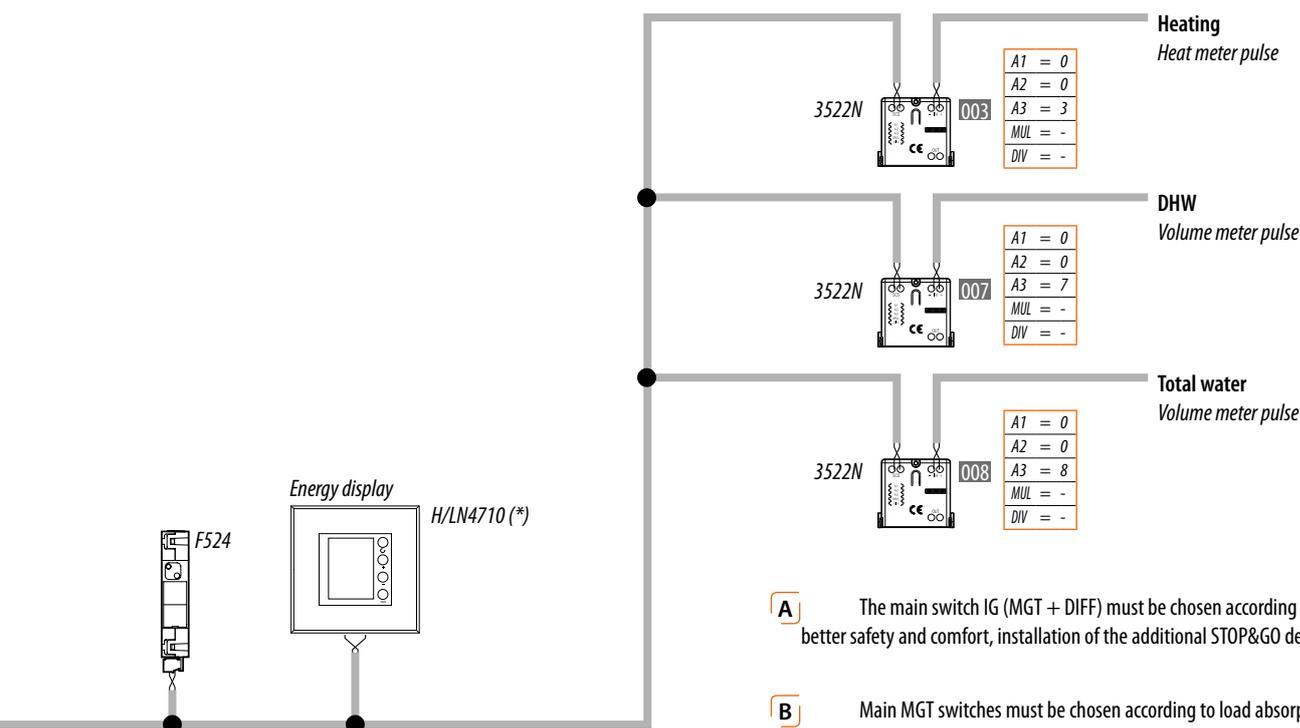
DIAGRAM 4 DISPLAY OF ELECTRICITY CONSUMPTION OF SEVERAL LINES VIA ENERGY DATA LOGGER



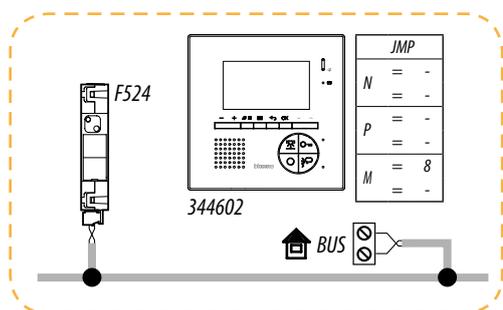
ARTICLE	DESCRIPTION
E49	Compact power supply
F520	Electricity meter with three inputs
3523	Toroid
IG	Main switch MGT + DIFF
MGT1-5	Line protection switch
3522N	Pulse counter interface
H/LN4710	Energy display
F524	Energy data logger



Non-electric consumption

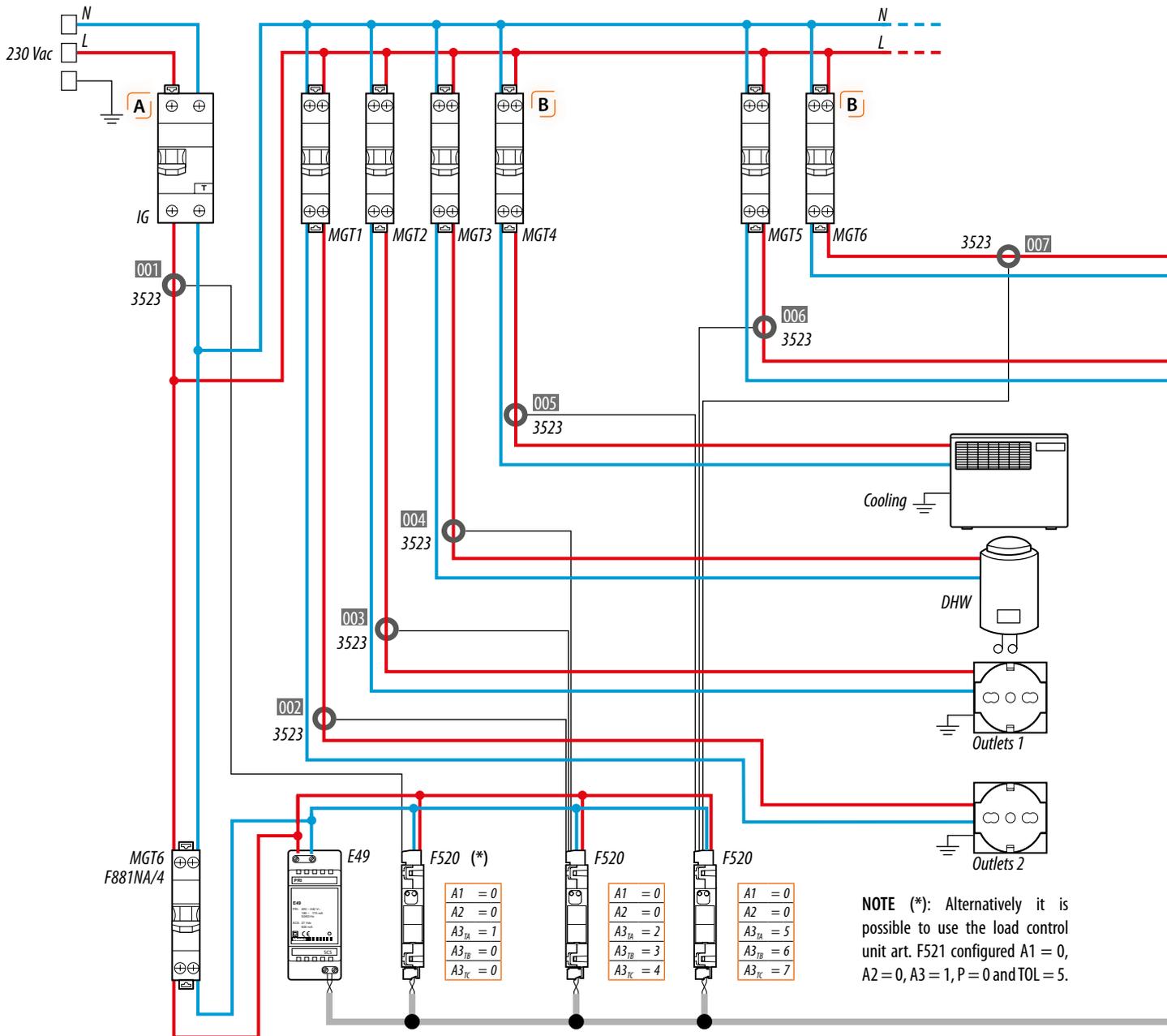


Note (*): Alternatively or in addition to the Basic energy display device it is possible to use the external station Class 100 art. 344602 configured as shown below.

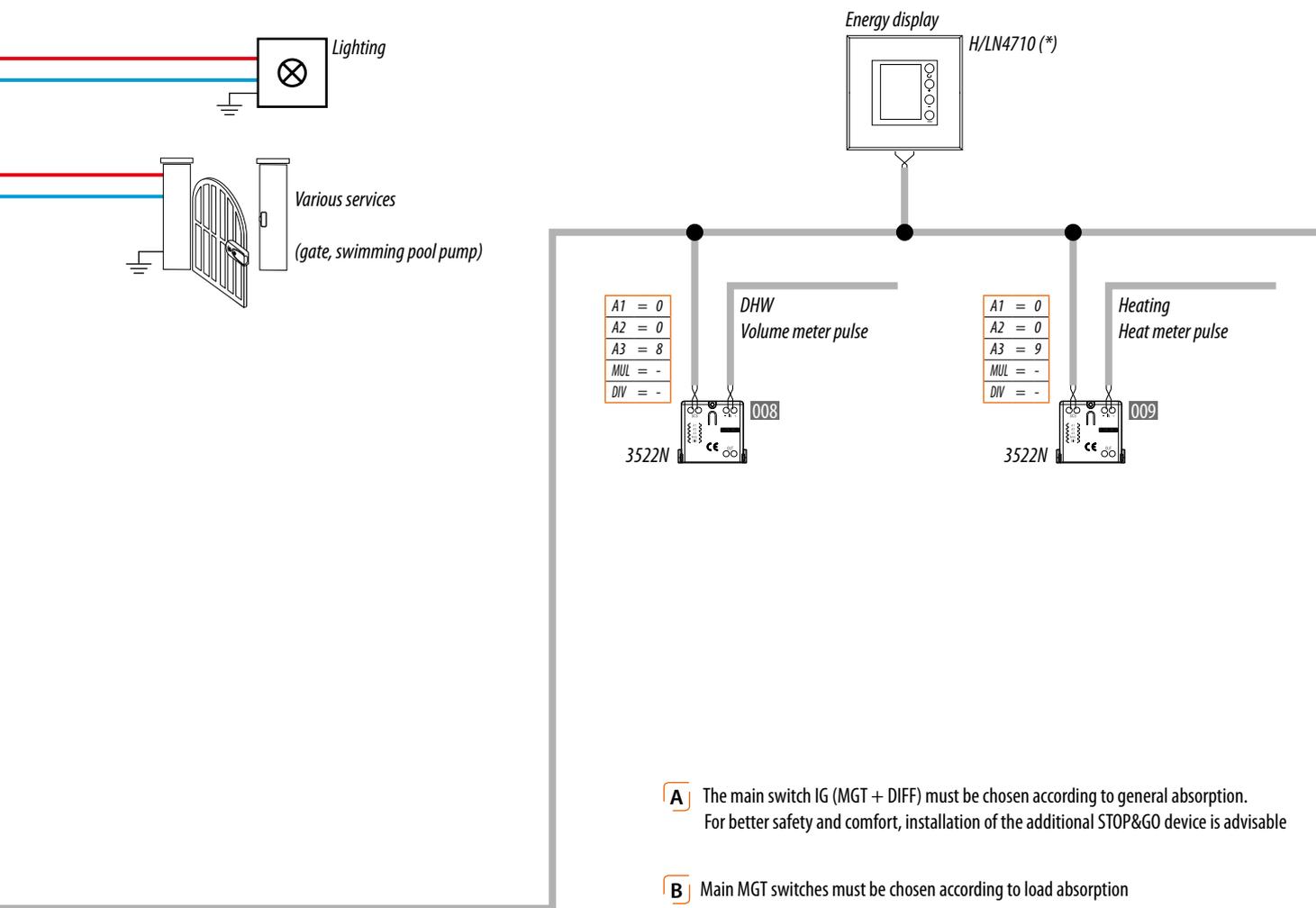


WIRING DIAGRAMS

DIAGRAM 5 DISPLAY OF SEVEN GENERIC ELECTRIC CONSUMPTIONS, ENERGY CONSUMPTION FOR WATER (FROM VOLUME COUNTER) AND HEATING (FROM HEAT METER)



ARTICLE	DESCRIPTION
E49	Compact power supply
F520	Electricity meter with three inputs
3523	Toroid
IG	Main switch MGT + DIFF
MGT1-6	Line protection switch
3522N	Pulse counter interface
H/LN4710	Energy display



Note (*): Alternatively or in addition to the Basic energy display device it is possible to use the external station Class 100 art. 344602 configured as shown below.

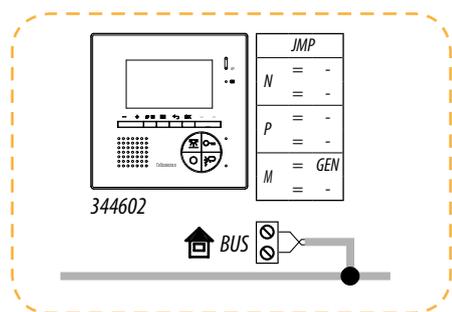


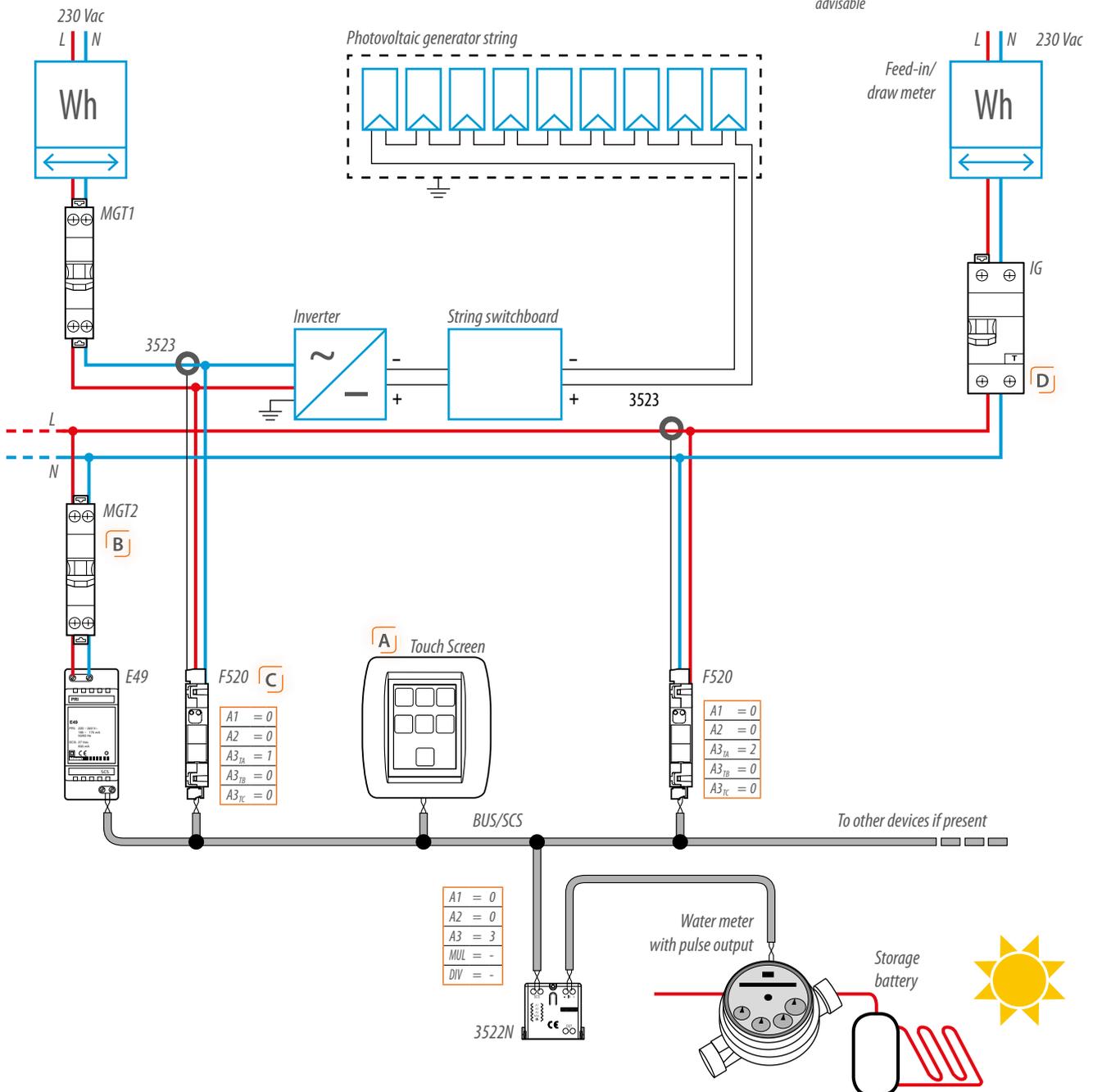
DIAGRAM 6 DISPLAY OF ENERGY PRODUCED AND CONSUMED

ARTICLE	DESCRIPTION
E49	Compact power supply
F520	Electricity meter with three inputs
3523	Toroid for reading
3522N	Pulse counter interface
Touch Screen	MyHOME_Screen 3.5/ MyHOME_Screen 10
IG	Main switch MGT + DIFF
MGT1-2	MGT protection switch

If a photovoltaic system and a thermal solar system for the production of electricity and hot water are installed, by using energy measurement devices and pulse counter interface the energy produced or the amount of heated water can be displayed on the touch screen.

ATTENTION

- A** The following Touch Screens may be installed:
 - H4684 AXOLUTE
 - L4684 LIVING / LIGHT / LIGHT TECH
 - AMS864 MATIX
 - MyHOME_Screen 10 MH4892 - MH4893
- B** General MGT switches must be chosen according to load absorption
- C** Each F520 is supplied with one toroid 3523 for current reading
- D** The main switch IG (MGT + DIFF) must be chosen according to general absorption. For better safety and comfort, installation of the additional STOP&GO device is advisable



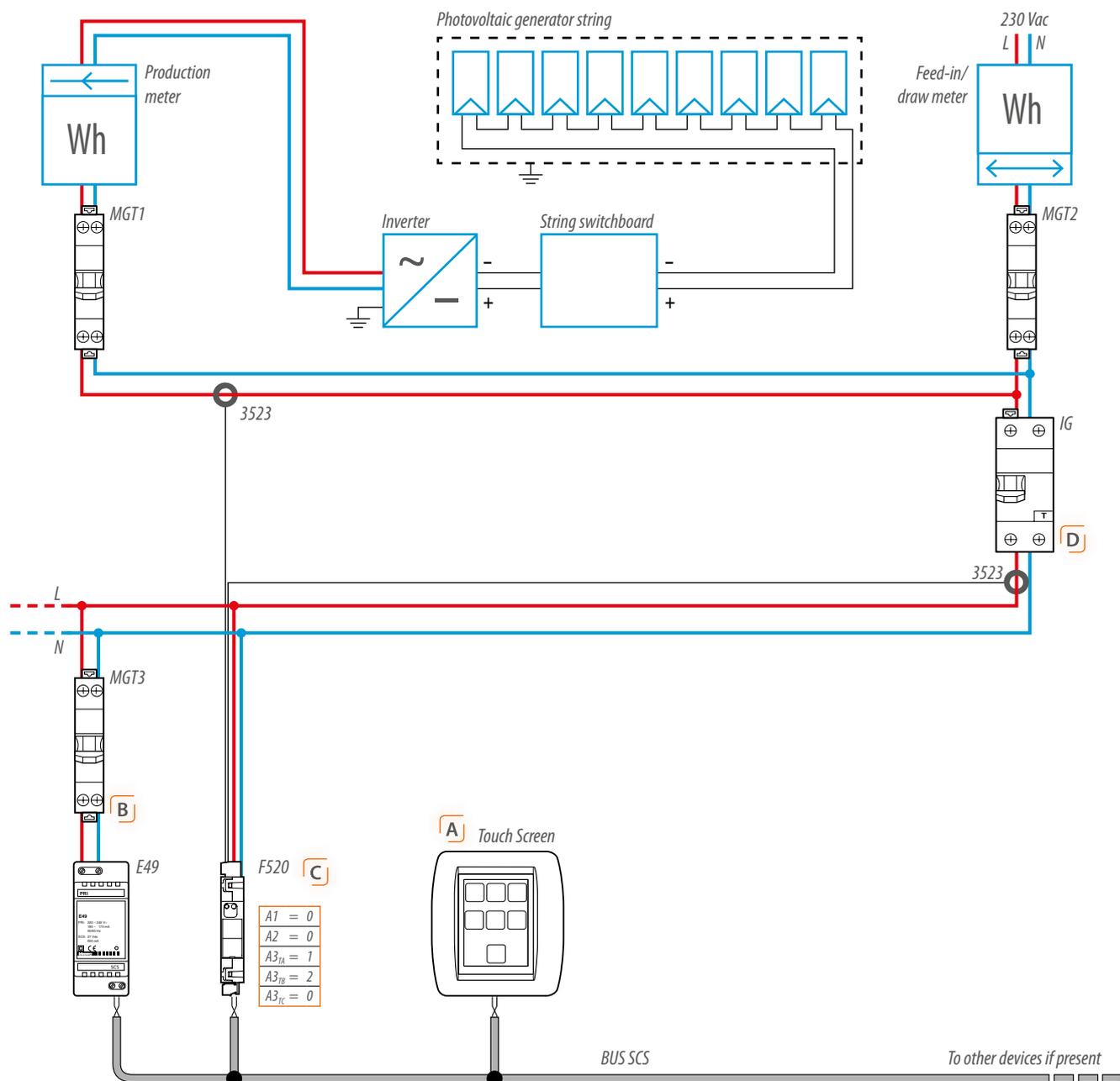
**DIAGRAM 7 DISPLAY OF ENERGY PRODUCED AND CONSUMED
IN EXCHANGE MODE ON THE SPOT**

ARTICLE	DESCRIPTION
E49	Compact power supply
F520	Electricity meter with three inputs
3523	Toroid for reading
Touch Screen	MyHOME_Screen 3.5/ MyHOME_Screen 10
IG	Main switch MGT + DIFF
MGT1-3	MGT protection switch

In a system with photovoltaic panels configured for a delivery of energy in "local exchange" mode, the bus meter with 3 toroids can be installed as shown in the figure: one toroid measures the current produced by the photovoltaic panels, and the other the home consumption. Attention: Avoid fitting the measuring toroid directly on the main bidirectional meter.

ATTENTION

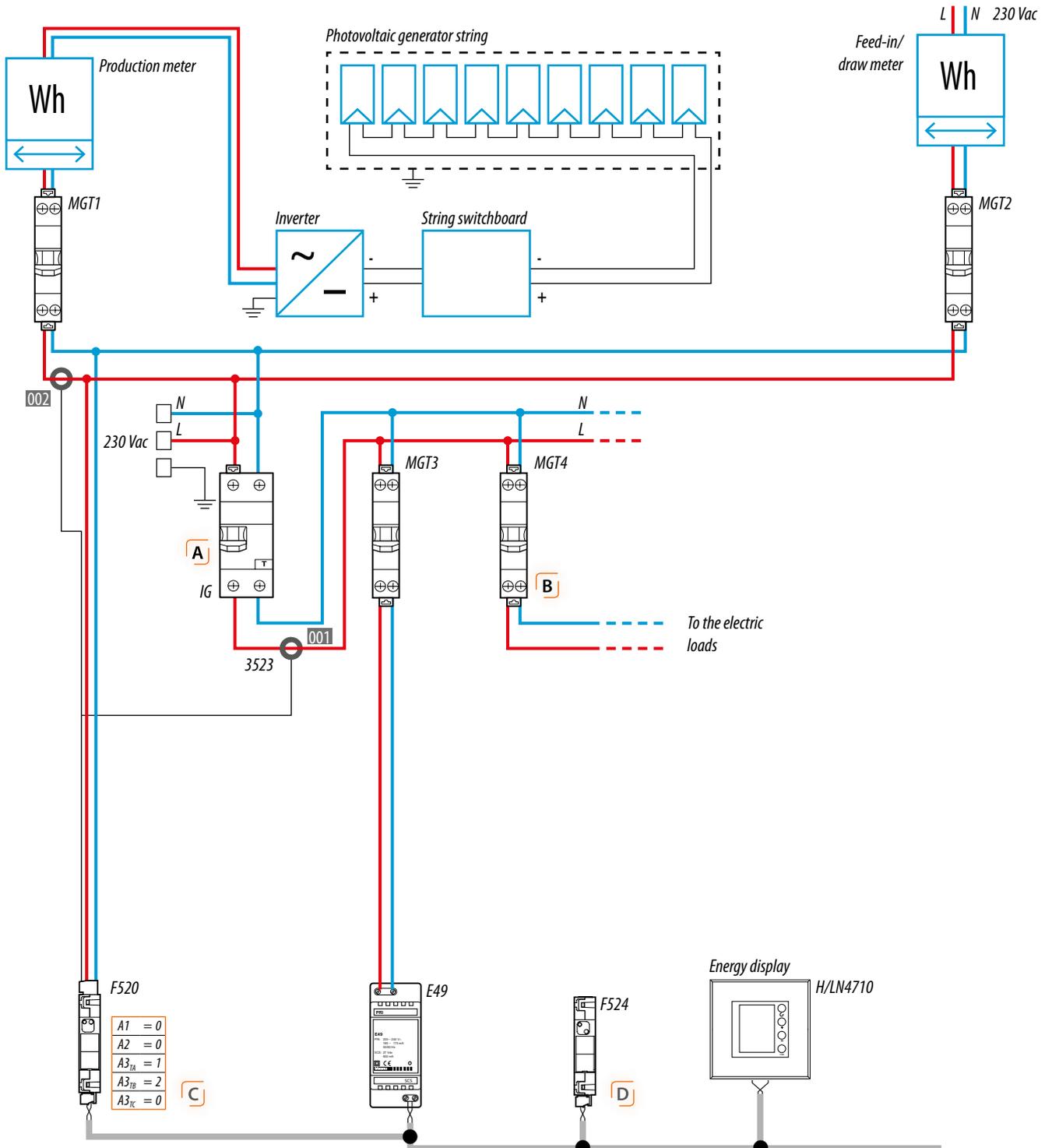
- A** The following Touch Screens can be installed:
 - H4684 AXOLUTE
 - L4684 LIVING / LIGHT / LIGHT TECH
 - AM5864 MATIX
 - MyHOME_Screen 10 MH4892 - MH4893
- B** MGT switches must be chosen according to load absorption
- C** Each F520 is supplied with one toroid 3523 for current reading
- D** The main switch IG (MGT + DIFF) must be chosen according to general absorption. For better safety and comfort, installation of the additional STOP&GO device is advisable



A1 = 0
A2 = 0
A3_{ph} = 1
A3_{tp} = 2
A3_{rc} = 0

WIRING DIAGRAMS

DIAGRAM 8 DISPLAY OF BALANCE OF PHOTOVOLTAIC ENERGY PRODUCED AND ELECTRICITY CONSUMED VIA ENERGY DATA LOGGER



Quantity to display	Address of measurement line (physical or virtual)	Notes
Total electricity consumption	001	It can be the physical address 001 of a toroid
Photovoltaic panel	002	It can be the physical address 002 of a toroid
Draw from grid	003	Virtual address of Data Logger obtained from the difference of lines 001-002.
Grid feed-in	004	Virtual address of Data Logger obtained from the difference of lines 002-001.
Self-consumption	005	Virtual address of Data Logger obtained from the difference of lines 001-003.

ARTICLE	DESCRIPTION
E49	Compact power supply
F520	Electricity meter with three inputs
3523	Toroid
IG	Main switch MGT + DIFF
MGT1-4	Line protection switch MGT + DIFF
H/LN4710	Energy display
F524	Energy data logger

A) The main switch IG (MGT + DIFF) must be chosen according to general absorption. For better safety and comfort, installation of the additional STOP&GO device is advisable

B) Main MGT switches must be selected according to load absorption

C) Each F520 is supplied with one toroid 3523 for current reading

D) Configure the device to perform the operations of the energy data logger physical and virtual lines.

WIRING DIAGRAMS

DIAGRAM 9 DISPLAY OF THERMAL POWER/HOT WATER CONSUMPTION BY INDIVIDUAL HOME

ARTICLE	DESCRIPTION
E46ADCN	Power supply
...4695	4 zone central control unit
...4692	probe with adjustment
F430/2	2 relay DIN actuator
F430/4	4 relay DIN actuator
3522N	Pulse counter interface
Touch Screen	MyHOME_Screen 3.5 / MyHOME_Screen 10

In a complex with central heating, by connecting a pulse counter interface to the pulse output of the meter of a MyHOME system, it is possible to display on the touch screens the data made available by the meter (hot water consumption, thermal power). The meter must have pulse outputs and is installed at the inlet of the distribution manifold.

! ATTENTION

A The following Touch Screens can be installed:

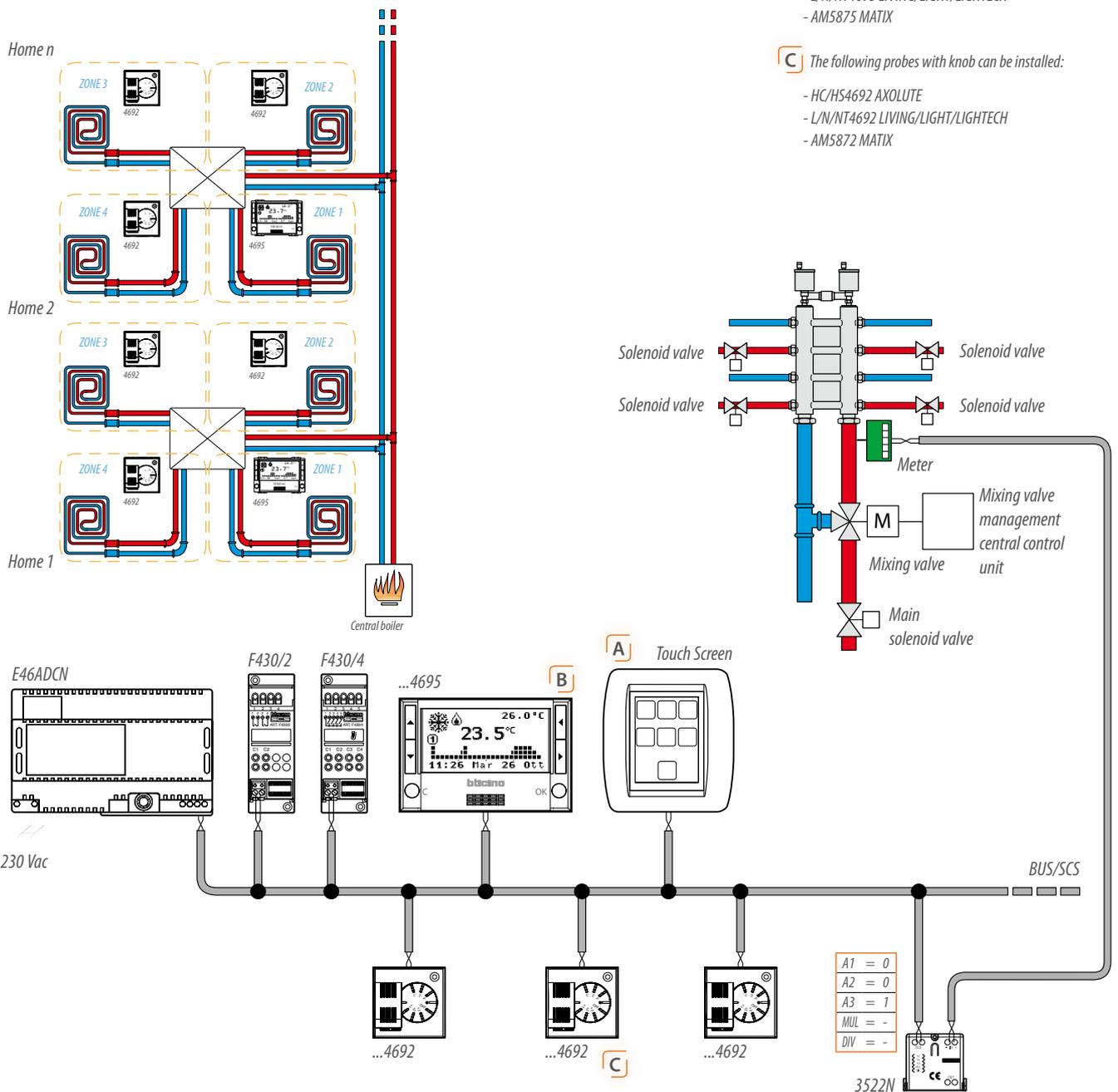
- H4684 AXOLUTE
- L4684 LIVING / LIGHT / LIGHT TECH
- AMS864 MATIX
- MyHOME_Screen 10 MH4892 - MH4893

B The following 4 zone central control units can be installed:

- HC/HS4695 AXOLUTE
- L/N/NT4695 LIVING/LIGHT/LIGHTTECH
- AMS875 MATIX

C The following probes with knob can be installed:

- HC/HS4692 AXOLUTE
- L/N/NT4692 LIVING/LIGHT/LIGHTTECH
- AMS872 MATIX



NOTE: The pulse counter interface is recommended (M=2) for measuring the thermal power.

DIAGRAM 10 LOAD CONTROL AND MANAGEMENT WITH DISPLAY OF TOTAL CONSUMPTION

ARTICLE	DESCRIPTION
E49	Compact power supply
F521	Load central control unit
F523	1 M DIN 6A basic actuator
3523	Toroid for reading
Touch Screen	MyHOME_Screen 3.5 / MyHOME_Screen 10
IG	Main switch MGT + DIFF
MGT1	4A MGT switch
...4672N	Recessed actuator
H/LN4710	Basic energy display

ATTENTION

A The following Touch Screens can be installed:

- H4684 AXOLUTE
- L4684 LIVING / LIGHT / LIGHT TECH
- AM5864 MÀTIX
- MyHOME_Screen 10 MH4892 - MH4893

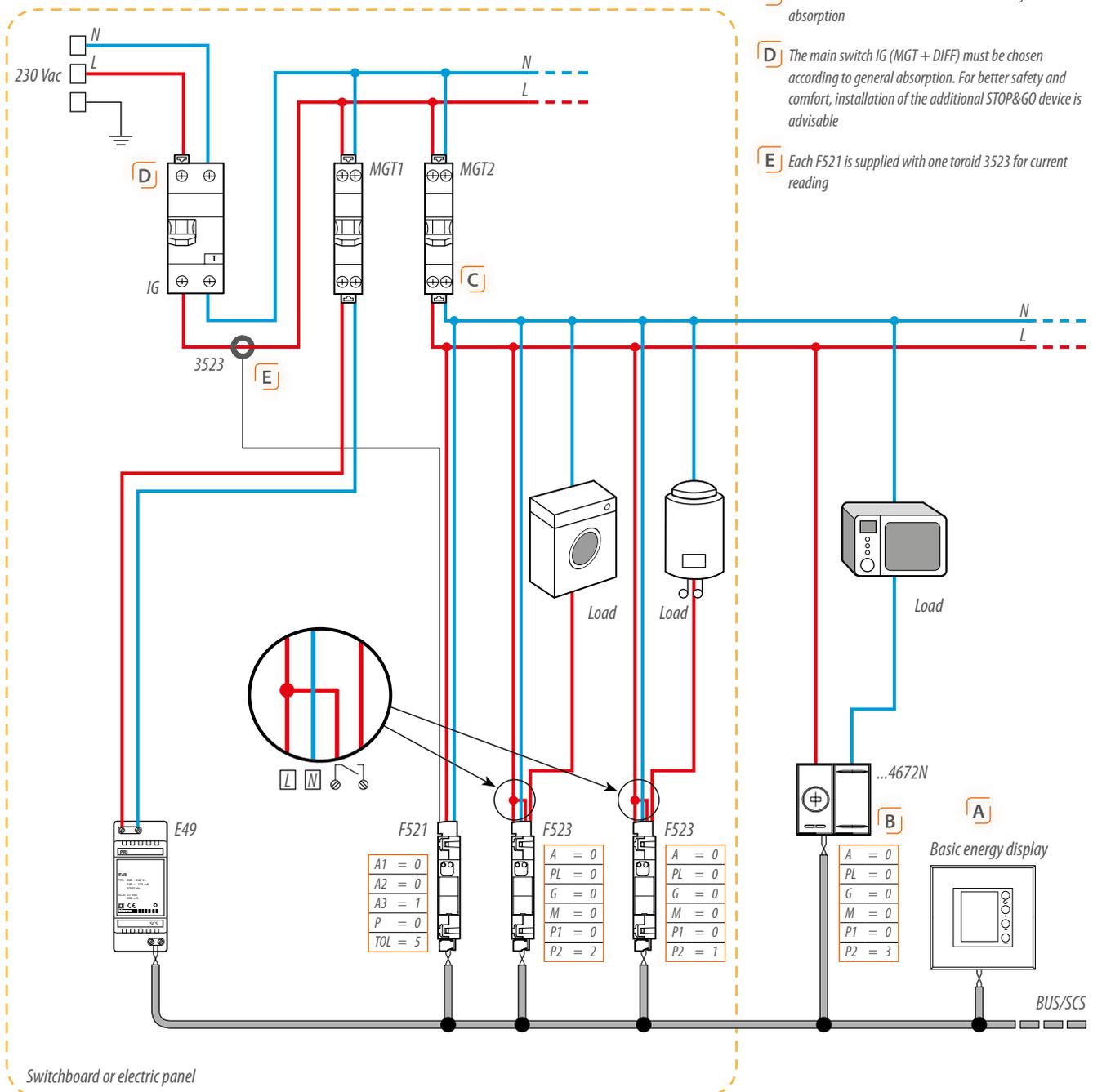
B The following 2 module recessed 16A actuators can be installed:

- HC/HS/HD4672N AXOLUTE
- L/N/NT4672N LIVING/LIGHT/LIGHTTECH

C Main MGT switches must be chosen according to load absorption

D The main switch IG (MGT + DIFF) must be chosen according to general absorption. For better safety and comfort, installation of the additional STOP&GO device is advisable

E Each F521 is supplied with one toroid 3523 for current reading



Switchboard or electric panel

DIAGRAM 11 LOAD CONTROL AND MANAGEMENT WITH DISPLAY OF TOTAL LOADS AND DIAGNOSTICS

ARTICLE	DESCRIPTION
E49	Compact power supply
F521	Load central control unit
F523	1 M DIN 16A basic actuator
F522	16A actuator with sensor
3523	Toroid for reading
Touch Screen	MyHOME_Screen 3.5 / MyHOME_Screen 10
IG	Main switch MGT + DIFF
MGT1	4A MGT switch

⚠ ATTENTION

- A** The following Touch Screens can be installed:
 - H4684 AXOLUTE
 - L4684 LIVING / LIGHT / LIGHT TECH
 - AM5864 MATIX
 - MyHOME_Screen 10 MH4892 - MH4893
- B** Main MGT switches must be chosen according to load absorption
- C** Each F521 is supplied with one toroid 3523 for current reading
- D** The main switch IG (MGT + DIFF) must be chosen according to general absorption. For better safety and comfort, installation of the additional STOP&GO device is advisable
- E** the actuator F522 with integrated current sensor can measure the consumptions of the controlled load. By connecting a toroid 3523 to the device, it is possible to measure the differential current and display the load status on the Touch screen

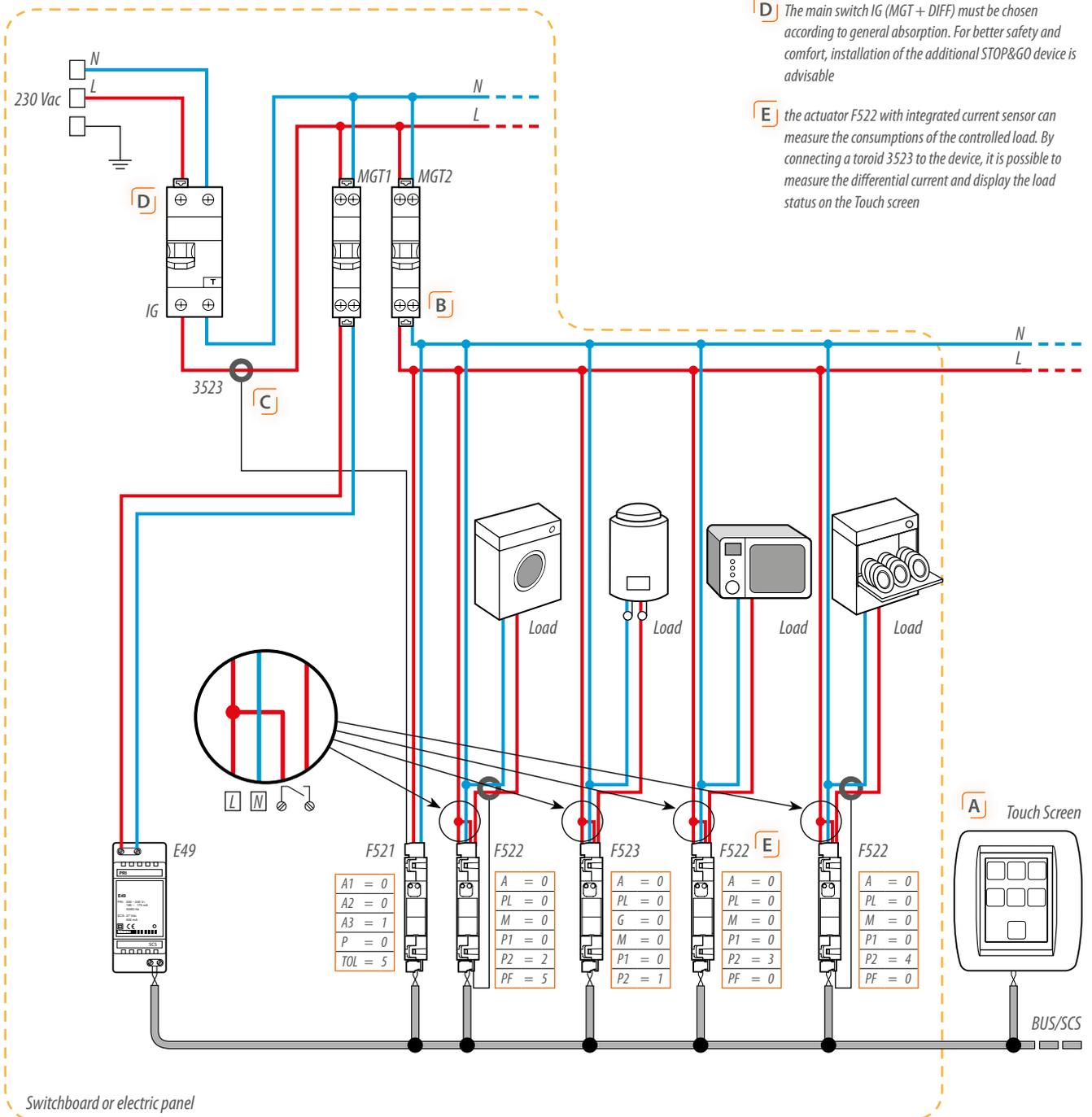
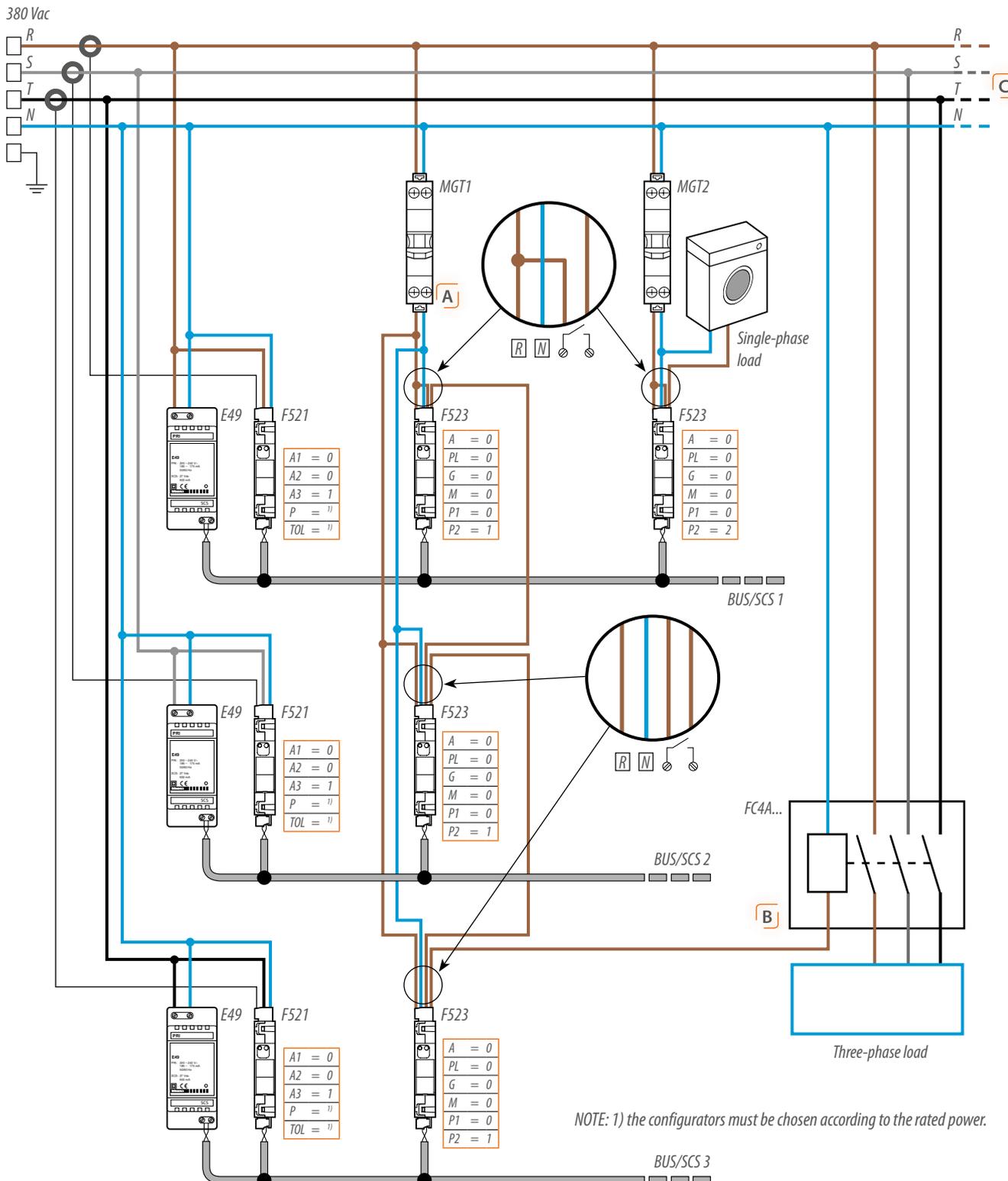


DIAGRAM 12 THREE-PHASE AND SINGLE-PHASE LOAD CONTROL MANAGEMENT

ARTICLE	DESCRIPTION
E49	Compact power supply
F521	Load central control unit
F523	1 M DIN 16A basic actuator
3523	Toroid for reading
MCB	MGT switch
FC4A...	AC contactor

ATTENTION

- A** Main MGT switches must be selected according to load absorption
- B** The contactor must be selected according to load absorption
- C** The three-phase line must be balanced



NOTE: 1) the configurators must be chosen according to the rated power.

CONTENTS**MyHOME – Functions integration and control**

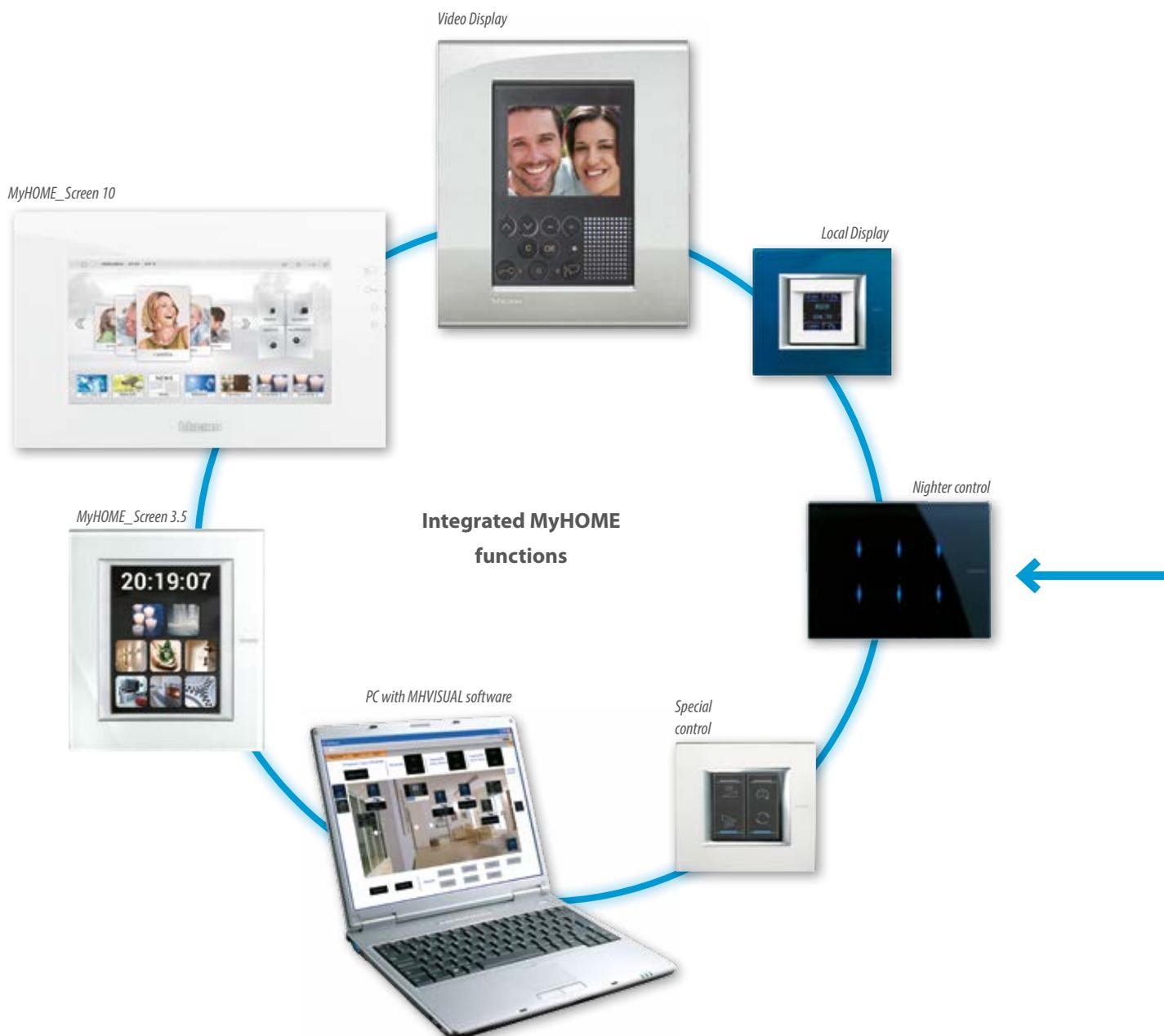
General features. 205

Wiring diagrams. 250

Functions integration:

Before describing the various ways of integrating MyHOME it is necessary to define the two possible types:

- **Integration between different MyHOME systems**, for example the lights Automation system with the Burglar alarm system or the Video door entry system with the sound system.
- **Integration between one or more MyHOME systems with BTicino and/or other manufacturers systems** based on different communication protocols; this allows for example to manage the BTicino NUVO digital audio system or HITACHI, SAMSUNG, or other conditioning systems with MyHOME.



Both solutions are implemented, depending on the systems, with or without specific interfaces and have the following advantages:

- Creation of advanced functions such as switching on of all the lights following an intrusion alarm, or automatically decrease the

volume of the background music at the arrival of a door entry call.

- It makes it possible to centrally control all the functions using centralized management devices. In this way, it will be possible to check locally all the systems installed using only one device positioned, for example, in the

corridor or in the living room. Also, when away from home, it will be possible to check and manage the MyHOME functions using a PC or a mobile device connected to the Internet.

Interfaces



SCS/DALI interface



Web server F454



Driver manager F459



Interface for Splitter management



NUVO audio system

SYSTEMS OF OTHER MANUFACTURERS

Air conditioning systems



Lighting with RGB lamps

Weather stations and sensors management

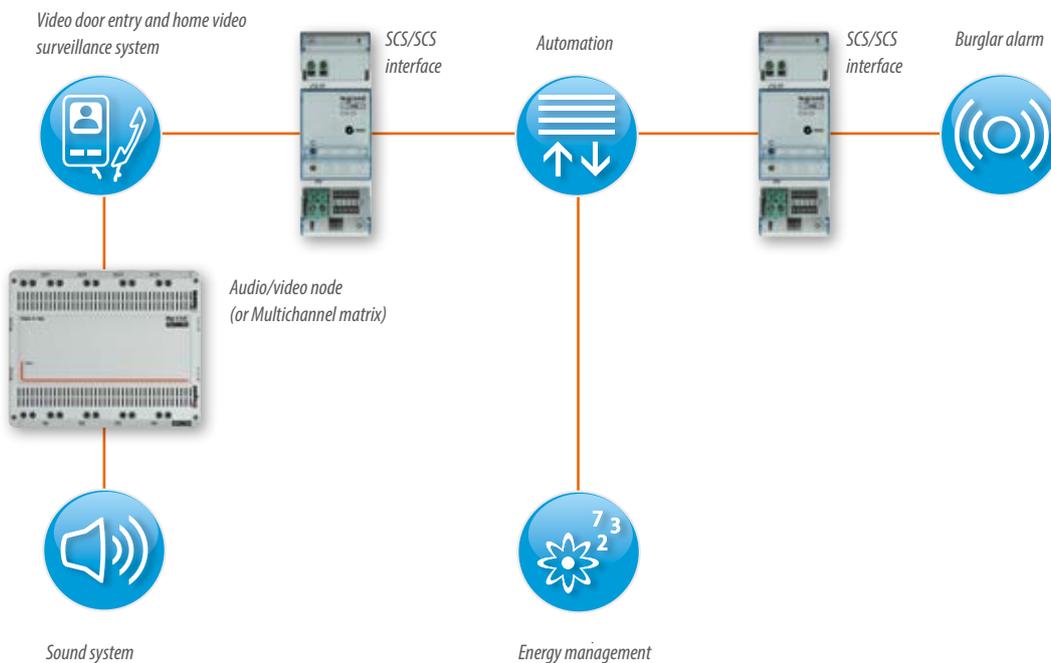


Integration between different MyHOME systems

Depending on the systems installed, the integration is automatically ensured by the use of the same BUS wiring or, if this is not possible, using integration interfaces. This is for example the case of the

burglar-alarm system and the automation system, which are provided with specific cables that can be connected to each other using a specific SCS/SCS interface item F422.

Interface F422



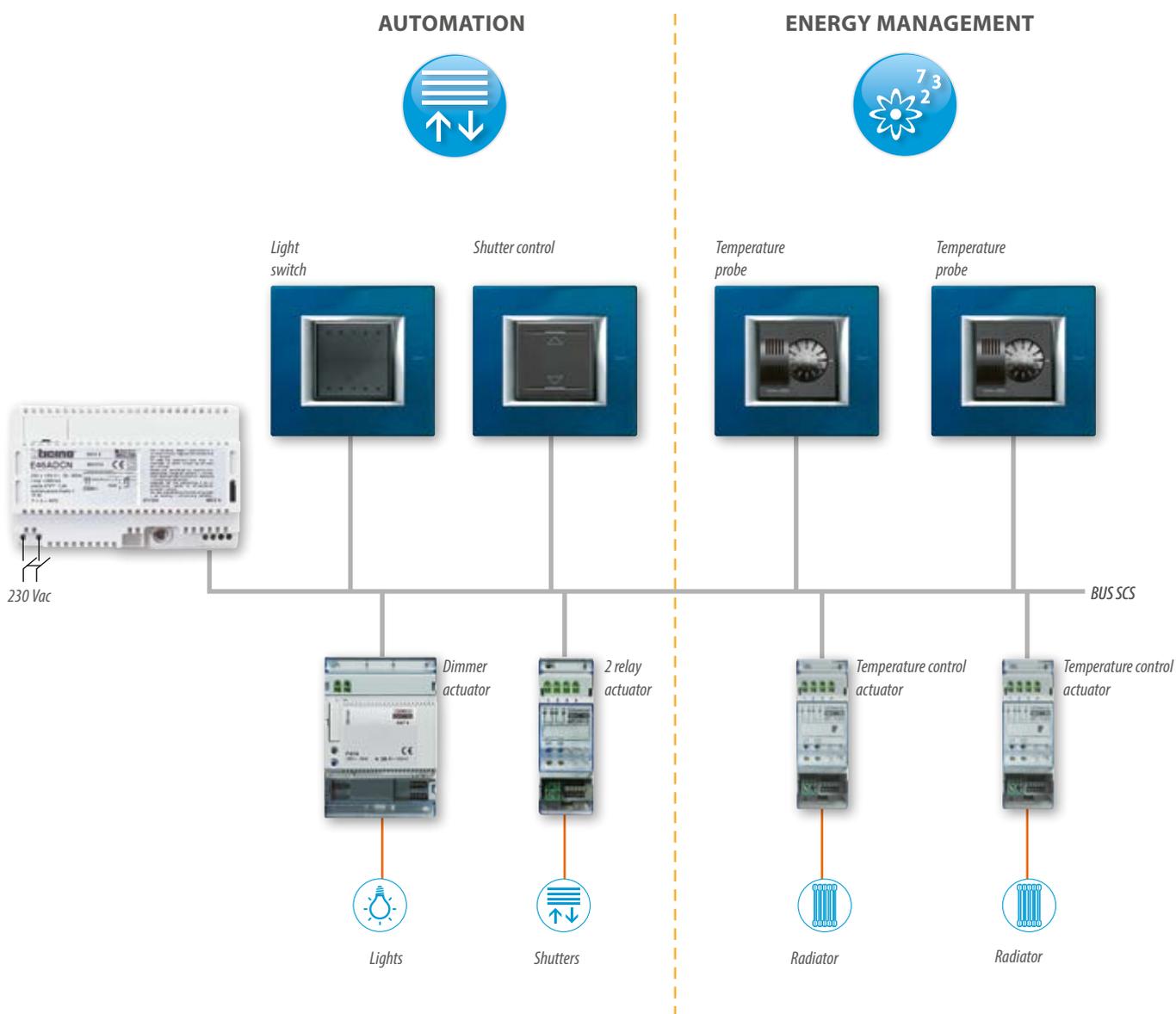
**AUTOMATION AND LOADS
MANAGEMENT, ENERGY
CONSUMPTION, TEMPERATURE
CONTROL**

The integration between these functions is achieved without the need for an interface. This is because

the devices share the same BUS cable and power supply.

To keep the two systems separate (for example to use independent

electric power supplies), these can be connected to each other using the F422 interface in “physical separation” mode: MOD = 6”.



Integration between different MyHOME systems

MOD=6 PHYSICAL SEPARATION

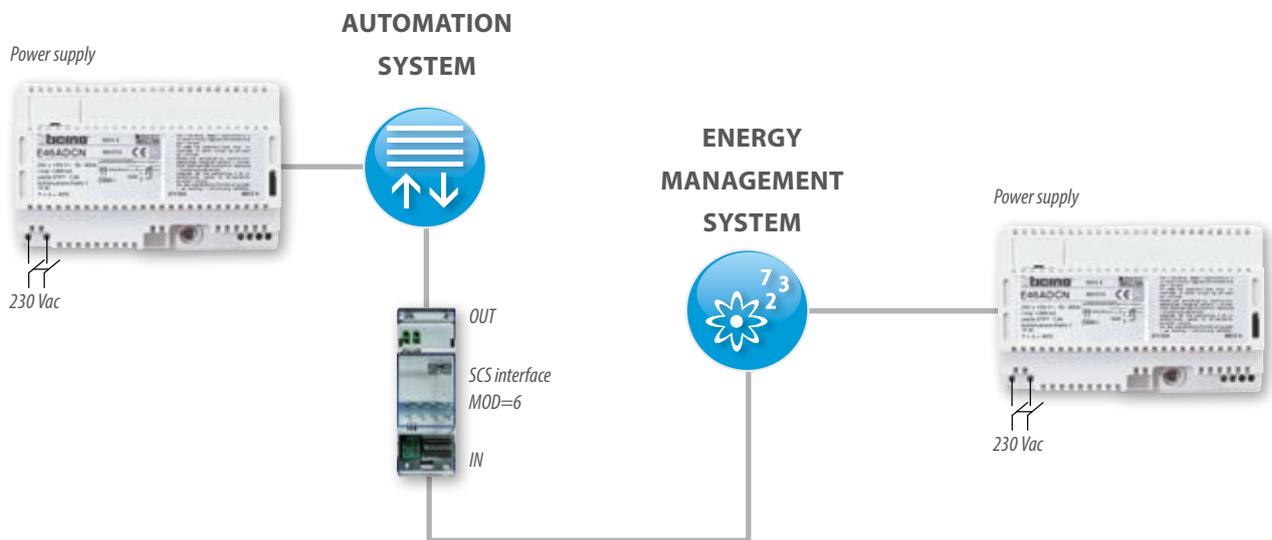
This mode brings together the features of the “physical expansion” mode, described in the “AUTOMATION” section, and the features of the “galvanic separation” mode, and can be used for systems with devices preset for virtual

configuration.

Each system can be connected both to the OUT and the IN clamp of the interface.

The F422 interface in this mode can also be used to integrate the Automation system with the energy

management system if it is required to keep the respective BUSes separate and the power supplies independent for each system.



Integration between MyHOME and systems of other manufacturers

My Home is an open system that easily integrates, without modification, with the best technologies and with systems and devices from other manufacturers. The integration is carried out with the following modalities:

A. by means of the MyHOME_Link integration platform which involves the use of the Driver Manager F459 device and the TCP / IP communication protocol;

B. by devices for integration with different communication protocols such as EIB, DALI, etc.;

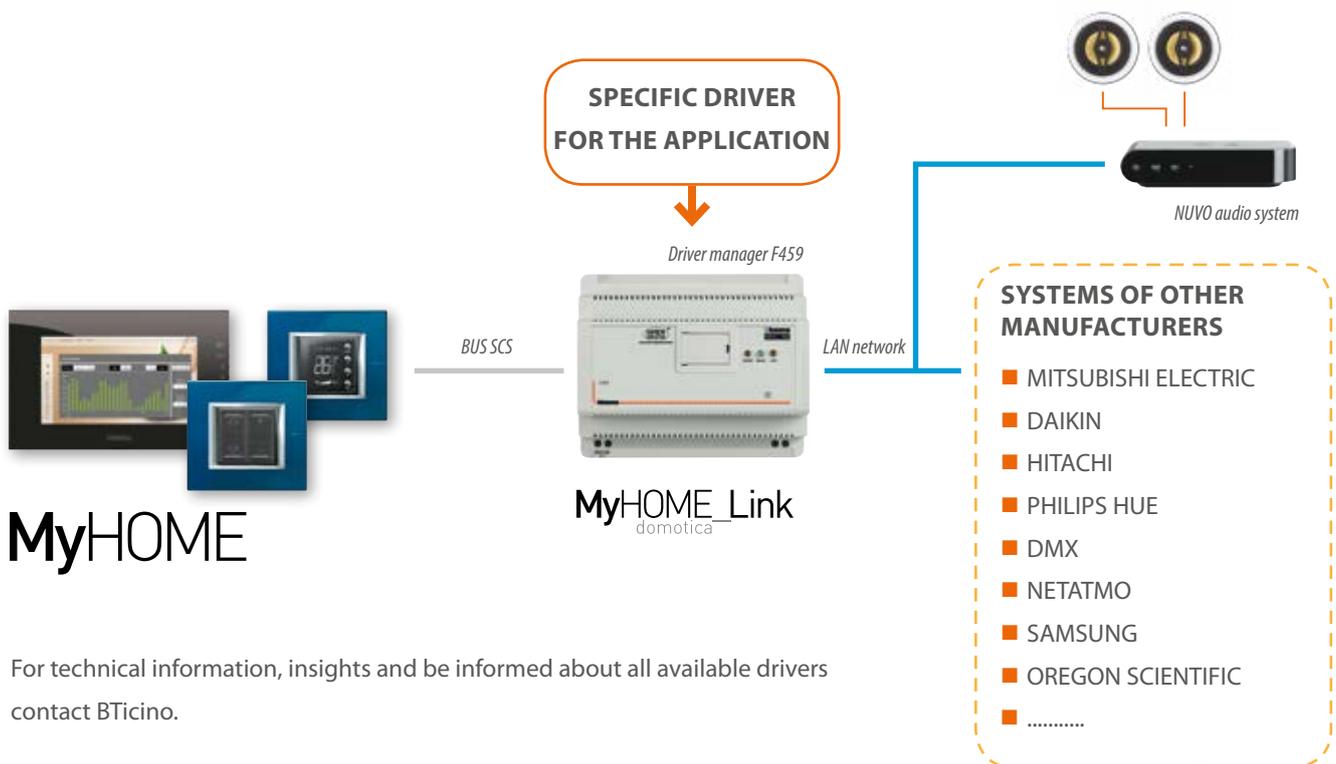
C. using the OpenWebNet communication protocol made available by BTicino.

A. INTEGRATION BY MYHOME_LINK PLATFORM

MyHOME_Link is the new integration platform that uses the driver manager device item F459 properly configured with the specific driver to manage the functions/ systems of other manufacturers. This solution allows, for example, to manage through the MyHome zone

temperature control system, VRV, VRF systems and air conditioning systems of the main manufacturers on the market or to use the light automation devices to control the LED lamps (type HUE and similar) or to control the BTicino NUVO digital audio system. The device item F459 can be

programmed with multiple drivers to manage multiple different systems integrated with MyHOME. To know about the different integration solutions visit www.professionisti.bticino.it/integrazione_myhome/.

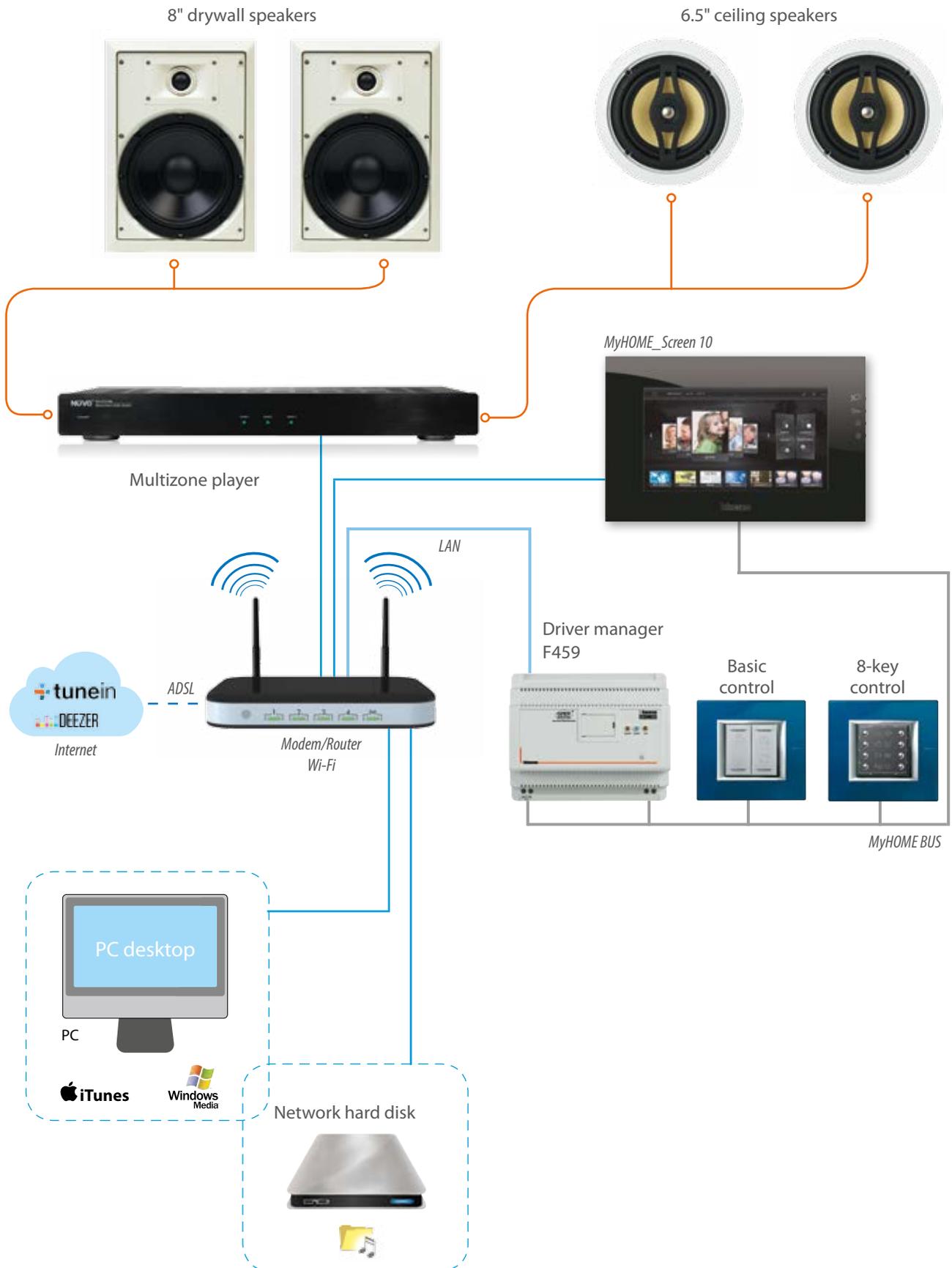


For technical information, insights and be informed about all available drivers contact BTicino.

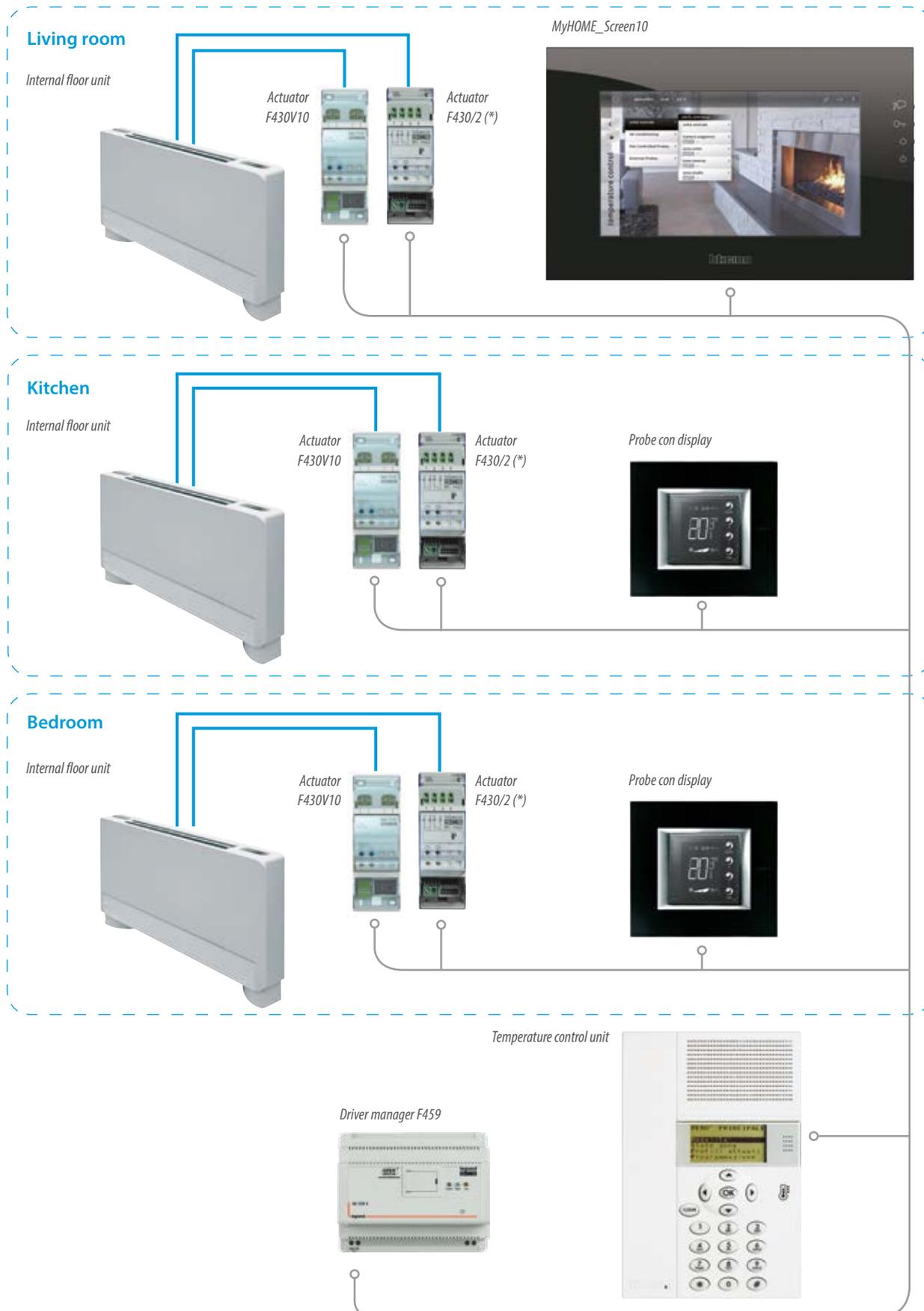
GENERAL FEATURES

Integration between MyHOME and systems of other manufacturers

EXAMPLE OF MYHOME INTEGRATION WITH THE NUVO DIGITAL AUDIO SYSTEM

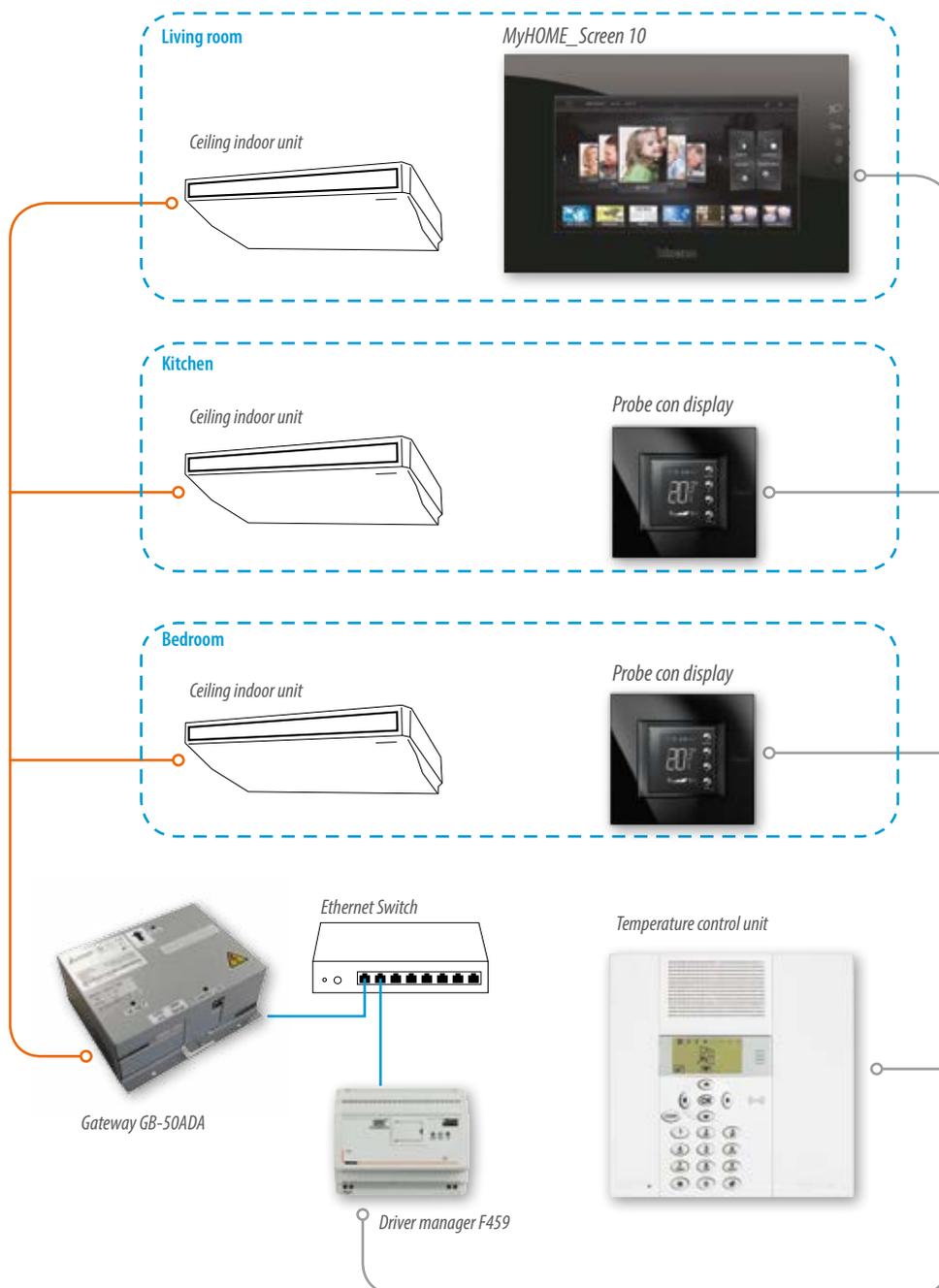


EXAMPLE OF MYHOME INTEGRATION WITH 0-10V FAN-COIL SYSTEMS

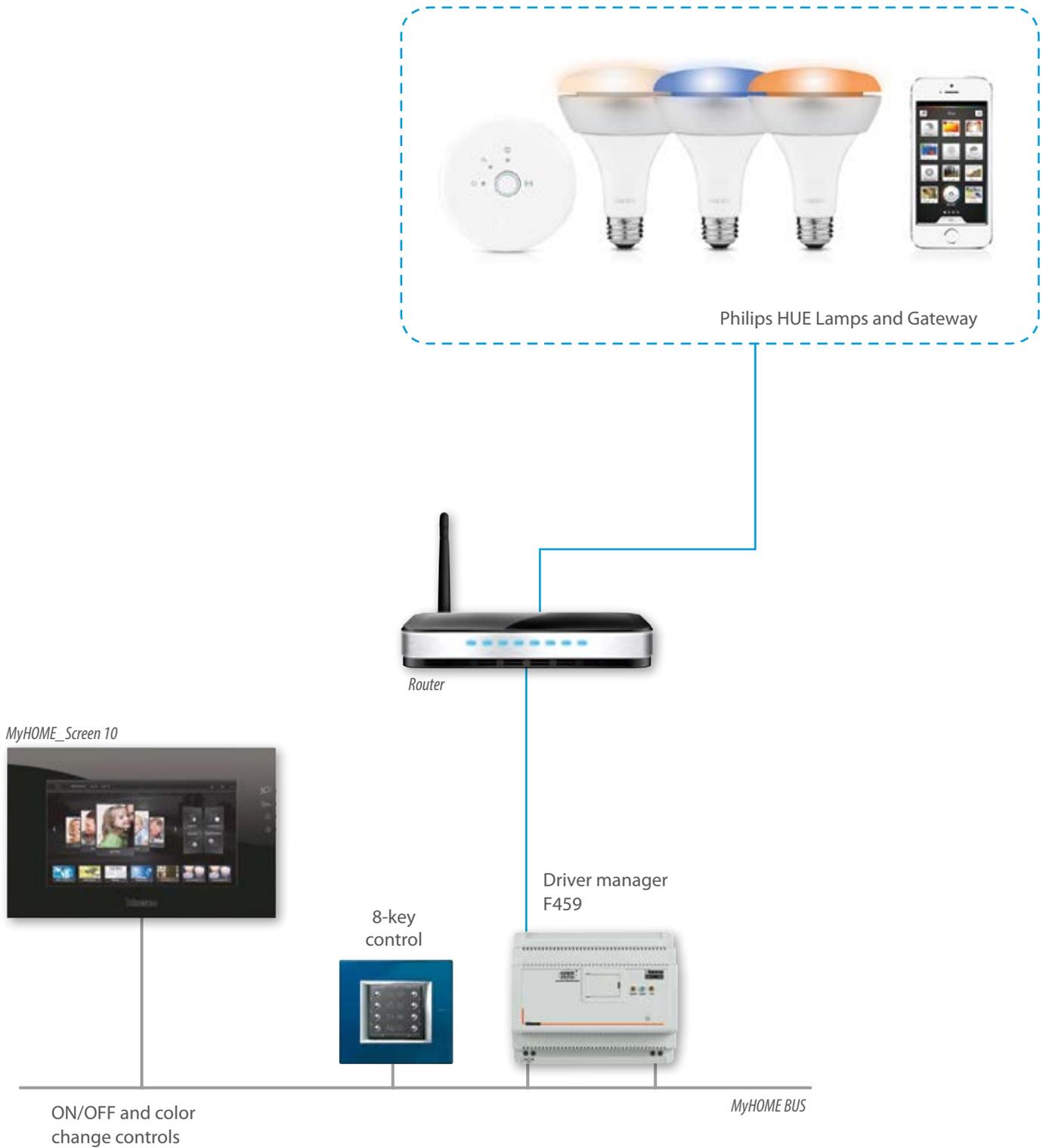


Integration between MyHOME and systems of other manufacturers

EXAMPLE OF MYHOME INTEGRATION WITH MITSUBISHI AIR CONDITIONING SYSTEM

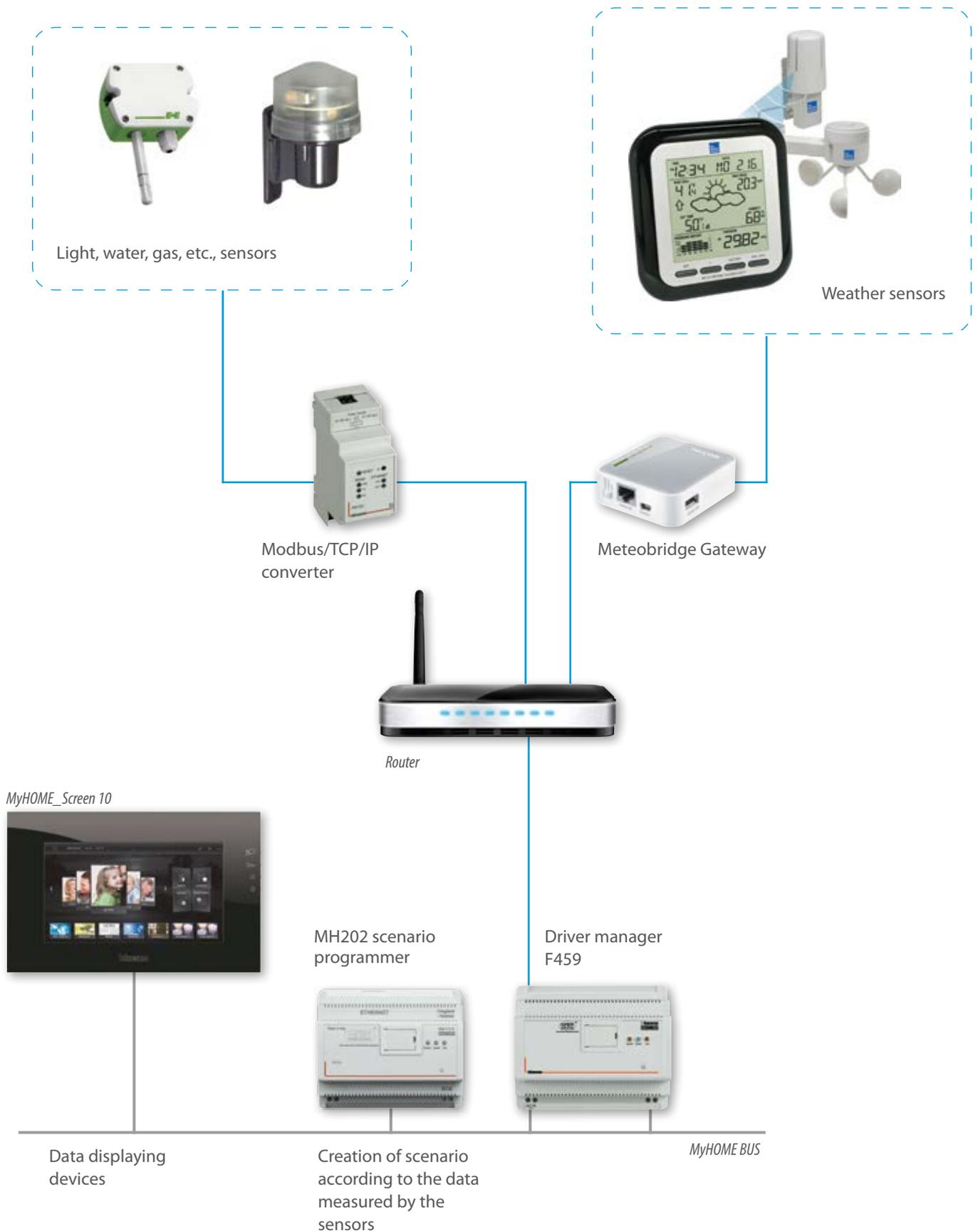


EXAMPLE OF MYHOME INTEGRATION WITH PHILIPS HUE LIGHTING SYSTEM



Integration between MyHOME and systems of other manufacturers

EXAMPLE OF MYHOME INTEGRATION WITH WEATHER SENSOR, LIGHT SENSOR, ETC.



B. INTEGRATION THROUGH DEDICATED INTERFACES.

The BTicino range includes devices for integration with the following systems and protocols:

- EIB (interface item. F426);
- DALI (interface item F429);
- Splitter control with IR interface (item 3456);
- BACnet (interface item F450).

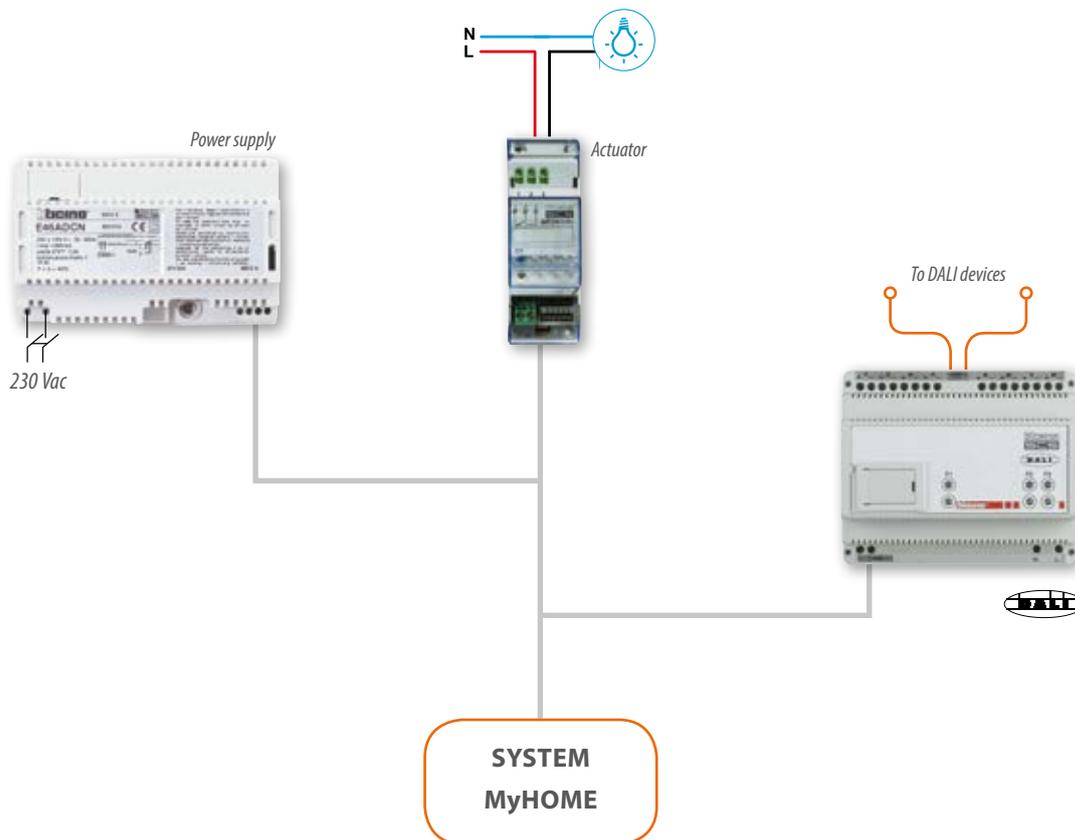


SCS/EIB interface



Interface for Splitter management

EXAMPLE OF INTEGRATION OF MYHOME WITH DALI DEVICES THROUGH DEDICATED INTERFACE



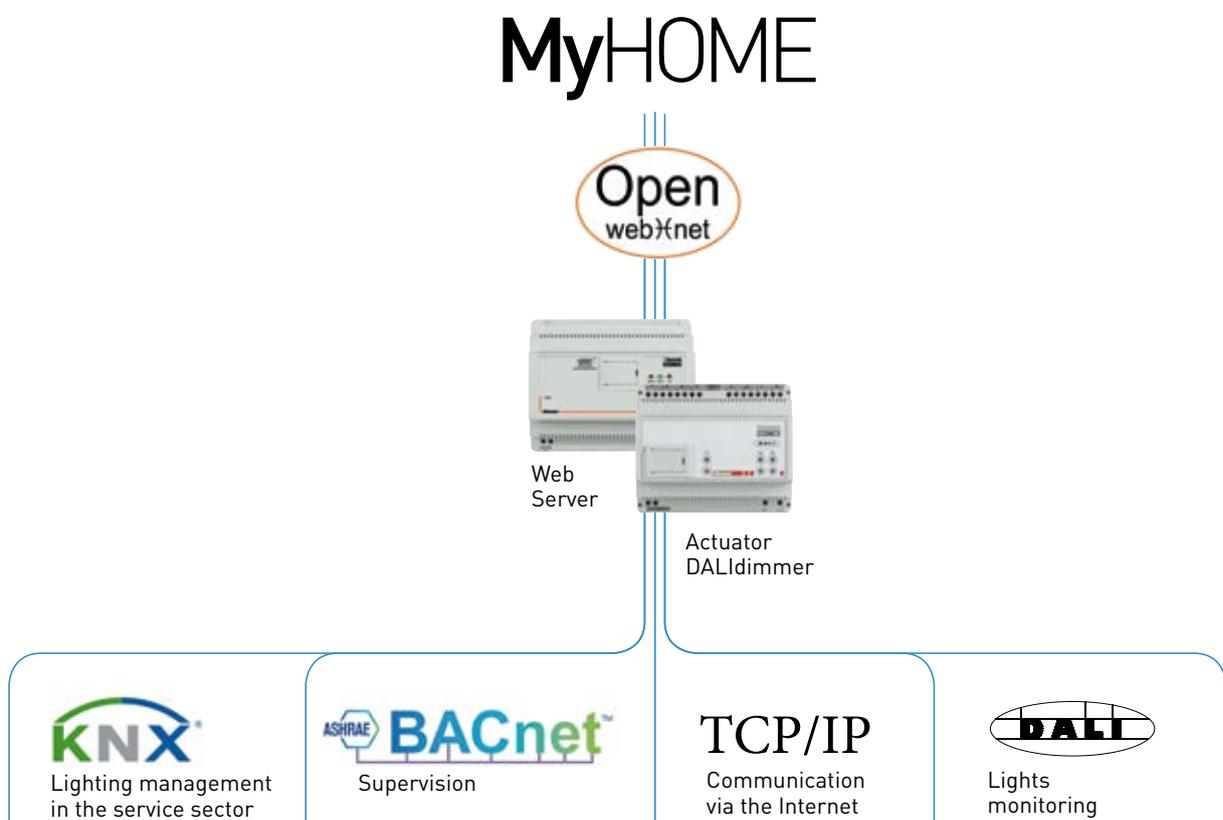
GENERAL FEATURES

Integration between MyHOME and systems of other manufacturers

C. INTEGRATION BY USE OF THE OPENWEBNET COMMUNICATION PROTOCOL

OpenWebNet is the communication protocol developed by BTicino and made available through the MyOPEN Community to integrate MyHOME with standard Konnex, BACNET, DALI and TCP/IP third party devices. The protocol has been designed to be independent from the

communication support: it is possible to control and monitor the MyHOME system through the Ethernet network, through an RS232 serial connection, through a USB connection, or through a Gateway directly connected to the system.



Some possible solutions:

- use of third party software for the control of the MyHOME functions using devices such as I-PHONE, I-PAD and Smartphone;
- integration with MyHOME of devices appropriately configured

for the management of lights and shutters by disabled people;

- customization of the MyHOME_Screen 3.5 Touch Screen icons for hotel applications, or for use in public establishments and showrooms.

MY OPEN COMMUNITY:

Created in 2006, it is a virtual community, that through the website <http://www.myopen-legrandgroup.com>, provides professionals, software developers and system integrators several services: space for uploading and downloading, development tools and applications developed, newsletters and event information.

It is also a platform capable of providing information on the MyHOME system and the development products available, including any relevant support documentation and a forum, always active and lively, that provides continuous exchange of knowledge and experiences in the Open Web Net language field.

For more information visit

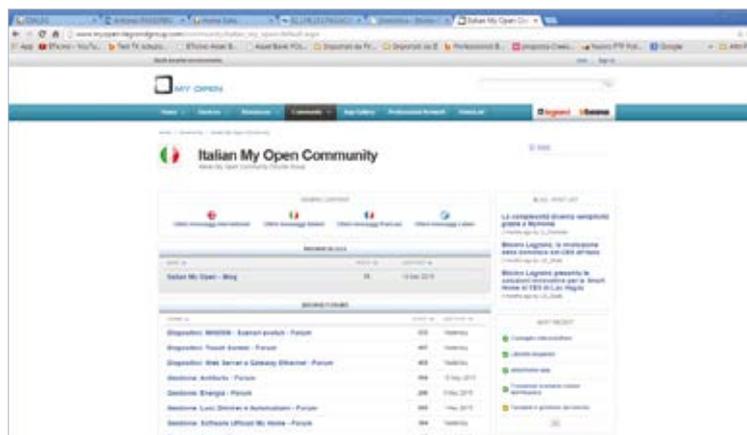
<http://www.myopen-legrandgroup.com>

TOOLS AND DEVELOPMENT

TOOLS FOR OPEN WEB NET

APPLICATIONS

For the development of applications using the Open Web Net language, BTicino has implemented the interface L4686SDK for the MyHOME system connection to the RS232 port of a PC through USB connection. Through the Hyper Terminal or Minicom program it is possible to send and receive commands or status messages with Open Web Net protocol to and from the MyHome system.



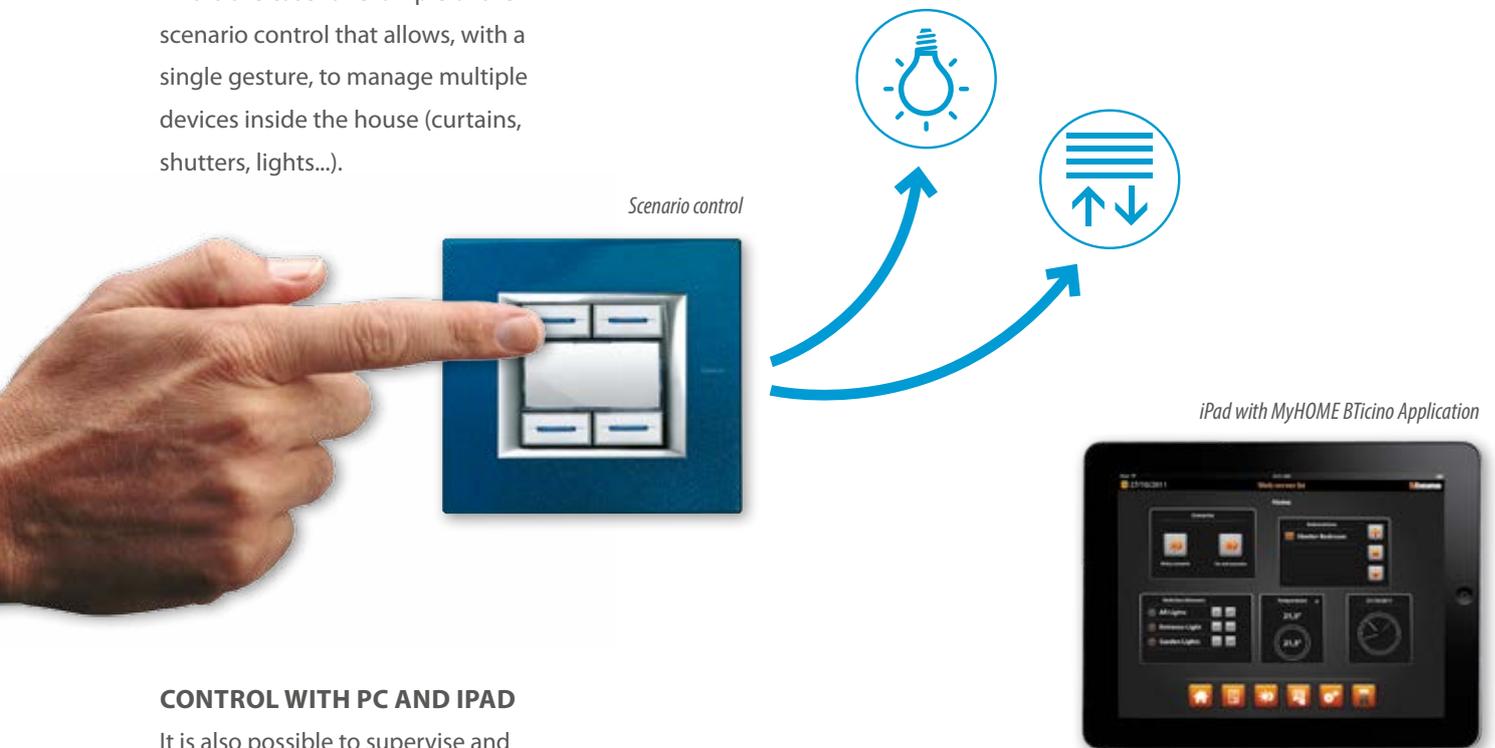
System control

The BTicino MyHOME system can monitor and control your home or office in total safety and privacy. Control can be done locally, i.e. inside

the house, or remotely, i.e. from a place other than where the MyHome equipment is installed.

LOCAL CONTROL

The system can command and control the MyHOME system, using the basic and advanced controls. This is the case for example of the scenario control that allows, with a single gesture, to manage multiple devices inside the house (curtains, shutters, lights...).



CONTROL WITH PC AND IPAD

It is also possible to supervise and control the system using a PC with MHVISUAL software installed, and an iPad with the BTicino MyHOME application.

In the MyOpen community, available at www.myopen-legrandgroup.com, it is possible to find several applications made by third parties to carry out MyHome control with various modes.



The BTicino MyHOME application is only available from the Apple Store in the following versions:

- free DEMO, with limited functionality;
- at fee, including all the MyHOME functions.

REMOTE CONTROL

The system allows to control and monitor the system remotely via the MyHOME_Web portal or through the point-to-point Internet connection. The extremely quick, private and safe system provides control of your home from anywhere, also performing the home video surveillance system and the burglar-alarm system monitoring functions (sending SMS messages or e-mails with attachments).

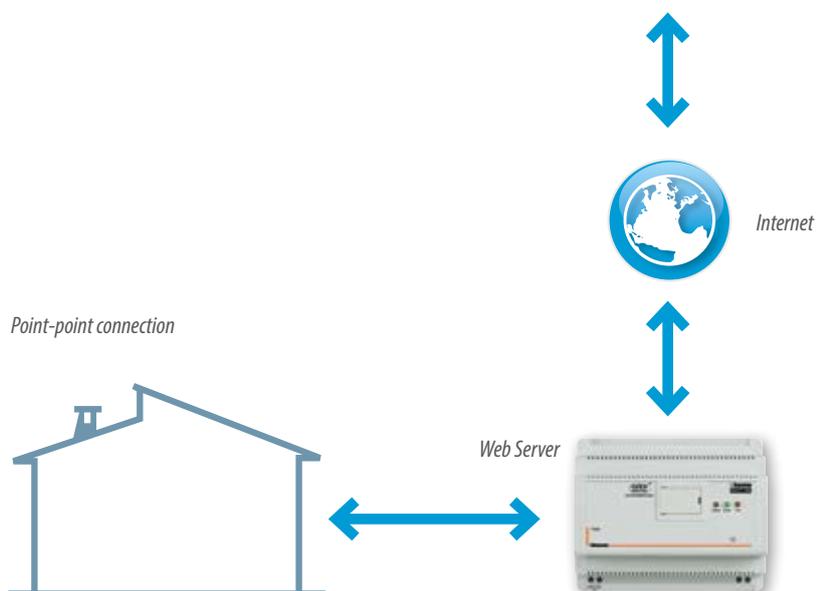
Remote connection can be achieved in two different ways:

- **MyHOME_Web portal:** virtual platform for remote management services dedicated to users who have a MyHome system equipped with BTicino devices for remote connection (web server or burglar alarm central unit with communicator). MyHOME_Web is intended both for installers and users; the installers will be able to offer their customers a remote assistance and remote system diagnostic service. Using a mobile phone or a PC with Internet connection, users will be able to remotely control all the home automation functions, like for example the activation of the cameras for the monitoring of the home, the reception of video door entry system calls when away from the home, the activation of the burglar-alarm system and the heating system.



- **Point-point connection:** the ADSL line and Internet give access to the MyHome system establishing a direct connection to a fixed IP address of the Web server in the system. The home automation

functions control is carried out through dedicated Web pages.



Local control devices

The MyHOME system can be commanded and controlled used various interfaces, from the simplest such as the basic control to the most advanced like the TOUCH SCREEN.

Just one command manages simple functions such as switching on a light and advanced functions such as scenarios (which with just one

touch let you switch ON lights, raise shutters, switch on the sound system, set the temperature etc...)

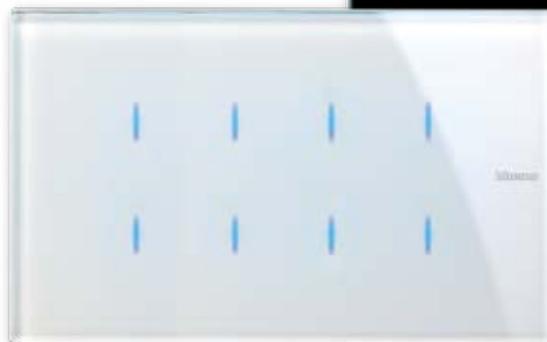
CONTROLS WITH CAPACITIVE SENSORS

Devices with buttons made of capacitive sensors.

Each zone corresponding to a key is marked in the center by a lit LED that increases in brightness when the user put his/her finger to activate the control.

It is produced in versions with 3 and 4 flush mounted modules, respectively with 6 and 8 keys.

White 4 module control



Nighter 3 module control



TOUCH CONTROLS WITH 2 OR 3 MODULES

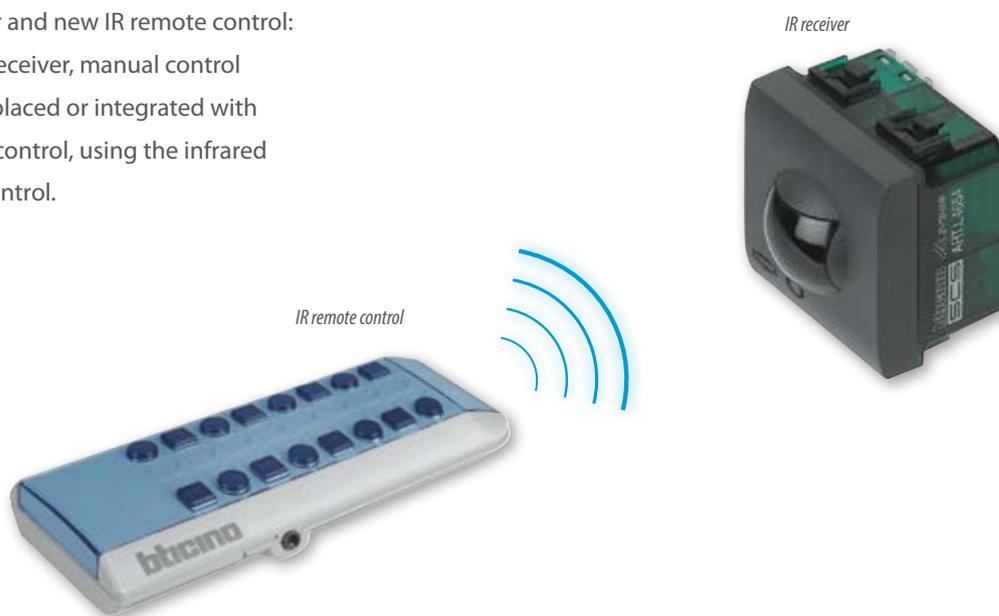
This device is able to send actuation and adjustment controls for lighting functions (ON/OFF, Dimmer, timers, etc.), sound system and video door entry functions by simply touching the control surface.

2 module Soft Touch control



INFRARED CONTROLS

IR receiver and new IR remote control:
with the receiver, manual control
can be replaced or integrated with
a remote control, using the infrared
remote control.



It is possible to associate to the
remote control pushbuttons controls
intended for 1-relay actuators for
single loads and 2-relay actuators for

double loads (rolling shutter motor
etc.), manage scenarios, as well as
sound system and video door entry
systems.

CODE PROTECTED CONTROL

When used in the Automation
system, the device created for
arming/disarming the Burglar-alarm
system can be used to manage basic
and advanced controls, which are
protected and can be activated using
a transponder badge.



Local control devices

LIGHT AND PRESENCE SENSOR

Using IR sensors of Green Switch series and sensors also present in the Lighting Management range it is possible to manage lighting in a MyHOME system depending on the presence of people and on the amount of natural light.

This provides two advantages:

- greater energy management reducing energy waste through an intelligent management of the lights, ensuring the necessary lighting levels, at the right time and in the right place. The various operating modes that can be set with the configuration enable the

user to obtain different levels of energy efficiency.

- comfort and wellbeing.

The new sensors allow increasing the level of comfort of the users, with the automatic switching on of the light when entering the room, and the preservation of the desired lighting level based on external conditions.

Light and presence sensors



Passive IR movement sensor - AUTO MODE-

LOCAL DISPLAY

TOUCH SCREEN OLED technology control device for the control of the Automation (scenario management), Temperature control, Energy consumption display, Loads management and Sound system functions of the MyHOME system.

Local display



BASIC ENERGY DISPLAY

Device for displaying produced or consumed energy data and for controlling and displaying the status of the electrical loads managed by the loads control system.

Basic energy display



MyHOME_Screen 3.5



MyHOME_Screen 3.5

This is a room control for all the MyHOME functions. It is possible for example to switch the lights on and off, lower or rise the shutters, control garden watering, adjust the temperature in the various rooms, etc., and to automatically activate scenarios based on logic or time conditions. The display shows a "home page", inside which the applications that can be managed are graphically represented. Touch the icon for the application to be managed (e.g. Lighting) to display a page with the included and customized icons for the light points. Again, with a simple touch on the icon chosen, the lamp or lamps associated with it will switch on or off.

MyHOME_Screen 10

Thanks to the 10" capacitive Touch Screen, a simple touch of the simple and intuitive icons with your fingers is enough to manage the electric system, the video door entry system, the multimedia functions (photos, audio, video), and the Internet connection.

VIDEO DISPLAY AND VIDEO STATION

Thanks to simple and integrated management of all functions: MyHOME home automation, Nuvo audio system, video door entry system, video surveillance, at your fingertips.



CUSTOMIZATION

Users can customize their own profiles directly on the display, easily navigate through the rooms, manage and control the home.



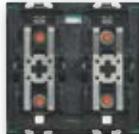
EASY TO ADAPT DESIGN

A design that fits your taste and your style, and a new ergonomic design available in two colors, black and white. All to provide you with a unique experience thanks to the ease of installation on the wall.



Local control devices

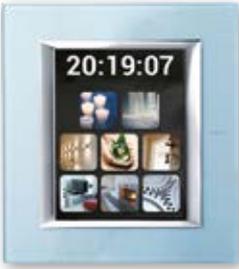
TABLE FOR THE SELECTION OF DEVICES BASED ON CONTROLLED FUNCTIONS

		BASIC CONTROL	SPECIAL CONTROL	GREEN SWITCH CONTROL	GREEN SWITCH CONTROL	REMOTE CONTROL
FUNCTIONS PERFORMED		 H4652/2 L4652/2 AM5832/2 H4652/3 L4652/3 AM5832/3	 H4651M2 L4651M2 AM5831M2	 HD4653M2/3 HC4653/2/3 HS4653/2/3	 H/LN4652	 3529 HD4654 HC4654 HS4654 L/N/NT4654N 88232
LIGHTING	Cyclical ON/OFF	●	●	●		●
	ON/OFF control with light intensity adjustment	●	●	●	●	●
	General room and group controls	●	●	●		●
	Timed controls	●	●	●		●
AUTOMATION	Shutter control UP/DOWN in normal mode UP/DOWN in safe mode General room and group controls	●	●			●
SCENARIO MANAGEMENT	Recalling of scenarios saved in the F420 scenario module		●	●	●	●
	Activation of scenarios saved in the MH200N scenario programmer (CEN configurator)	●	●	●	●	●
TEMPERATURE CONTROL	Temperature display and zone management					
ENERGY SAVING	Consumption control and display					
	Anti black-out load management					
MULTIMEDIA FUNCTIONS	Display of network multimedia contents (IP Radio and Media Server)					

LIGHT AND MOVEMENT/ PRESENCE SENSOR	BADGE-HOLDER POCKET	TRANSPONDER READER	CAPACITIVE NIGHTER AND WHICE CONTROL	SCENARIO CONTROL
 HC/HD/HS4658 HC/HD/HS4659 L/N/NT4658 L/N/NT4659 BMSE3001 BMSE3003 048834	 H4648 H4649 LN4648 LN4649	 HD4607 HC4607 HS4607 L/N/NT4607	 HD4657M3/4 HC4657M3/4 HS4657M3/4	 HD4680 HC4680 HS4680 L4680 N4680 NT4680
●			●	
●				
		●		
	●	●	●	●
●	●		●	●

Local control devices

TABLE FOR THE SELECTION OF DEVICES BASED ON CONTROLLED FUNCTIONS

		LOCAL DISPLAY	MyHOME_Screen 3.5	MyHOME_Screen 10
FUNCTIONS PERFORMED		 HD4891 HC4891 HS4891 L4891 N4891 NT4891	 H4890 LN4890 HW4890 LN4890A	 MH4892 MH4893 MH4892C MH4892C
LIGHTING	Cyclical ON/OFF		●	●
	ON/OFF control with light intensity adjustment		●	●
	General room and group controls		●	●
	Timed controls		●	●
AUTOMATION	Shutter control UP/DOWN in normal mode UP/DOWN in safe mode General room and group controls		●	●
SCENARIO MANAGEMENT	Recalling of scenarios saved in the F420 scenario module	●	●	●
	Activation of scenarios saved in the MH200N scenario programmer (CEN configurator)		●	●
TEMPERATURE CONTROL	Temperature display and zone management	●	●	●
ENERGY SAVING	Consumption control and display		●	●
	Anti black-out load management		●	●
MULTIMEDIA FUNCTIONS	Display of network multimedia contents (IP Radio and Media Server)		●	●

VIDEO HANDSETS



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Local control devices

SCENARIO MANAGEMENT SYSTEMS

The control devices described in the preceding pages can be configured to activate, for example with the push of a button, several users simultaneously.

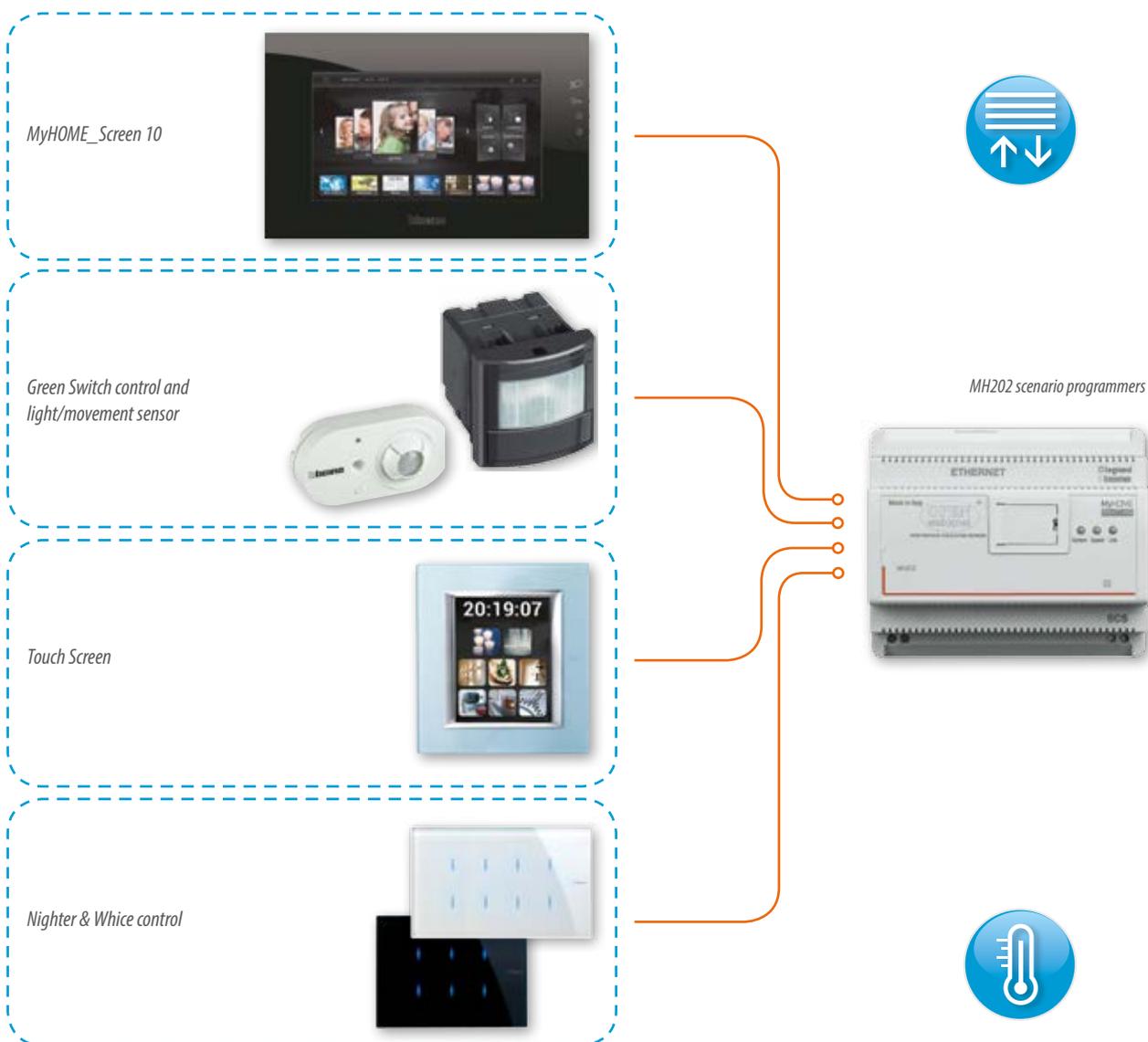
This feature, called "scenario" is carried out in conjunction with the use of special devices capable of saving or programming all individual

activations which constitute the environmental situation of comfort and/or of energy saving to replicate. A scenario example is switching on some lights to a certain intensity level, and positioning some shutters for watching the television or reading a book, following the lifestyle of the user.

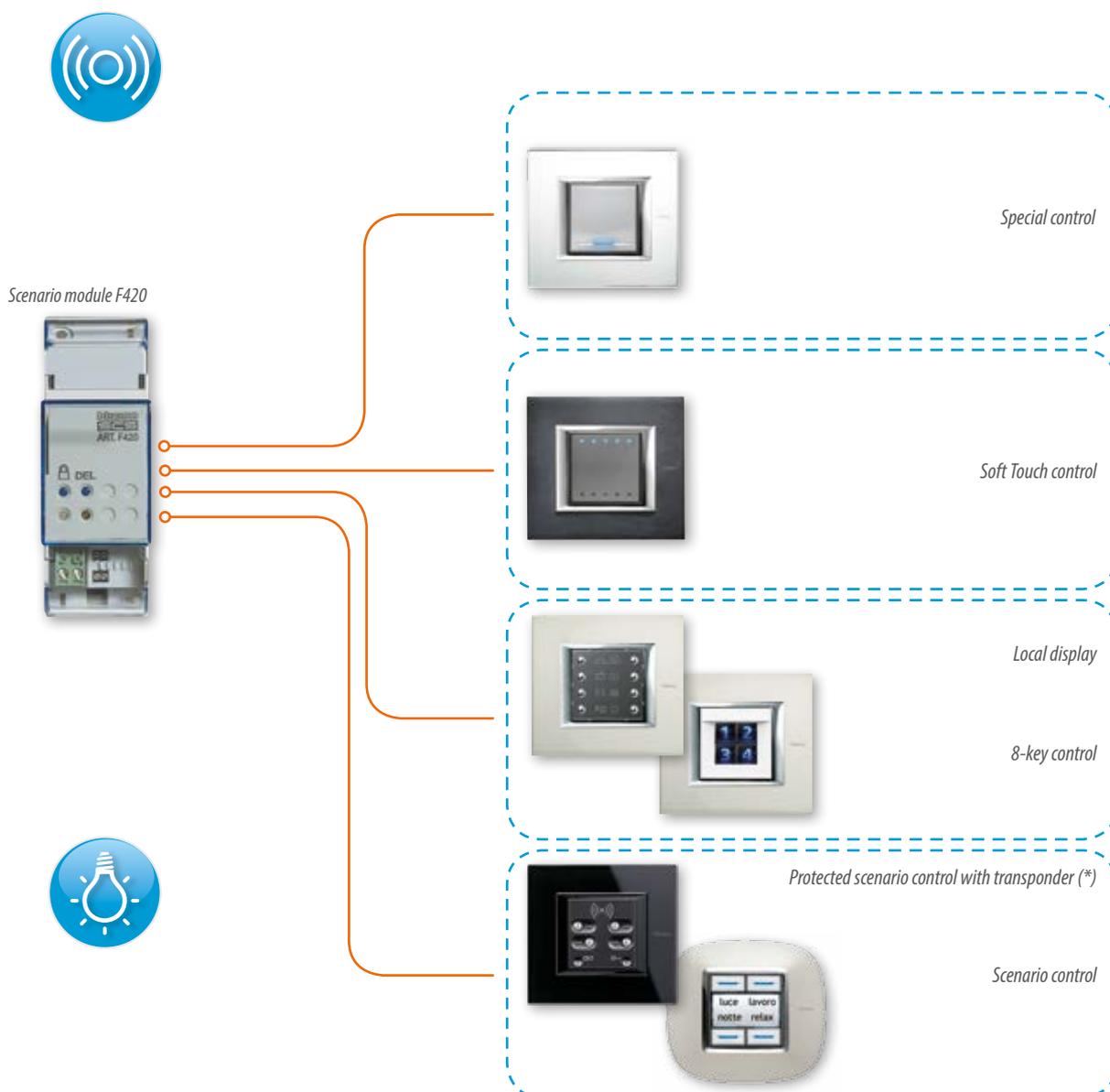
The devices mentioned are the

following:

- Scenario module F420 with two DIN modules for saving up to 16 scenarios.
- MH202 scenario programmer for the creation and management of advanced scenarios, also linked to time events, system status, and more.



In addition to the lights and shutter features, both devices can manage sound system, temperature control and video entry system applications. The scenario programmer item MH202 is able to manage even Burglar-alarm functions.



Local control devices

MH202 SCENARIO PROGRAMMER

The device performs the scenarios programmed via software as a result of the following main events of activation, deactivation, lock or unlock:

- Pressure of a control pushbutton (configured in CEN mode);
- Switching on and off of a light (with the exception of dimmer light points);
- Automatic operation activation (shutter movement);
- An event managed using one of the nine auxiliary channels;
- An certain hour or date;

- An event of the burglar-alarm system;
- A condition occurring on the Temperature control system;
- An entrance panel call or the status of a camera of the video door entry system;
- An event of the sound system.

For additional activation events refer to the documentation of the device.

Following these events, MH200N can control the MyHOME system applications.

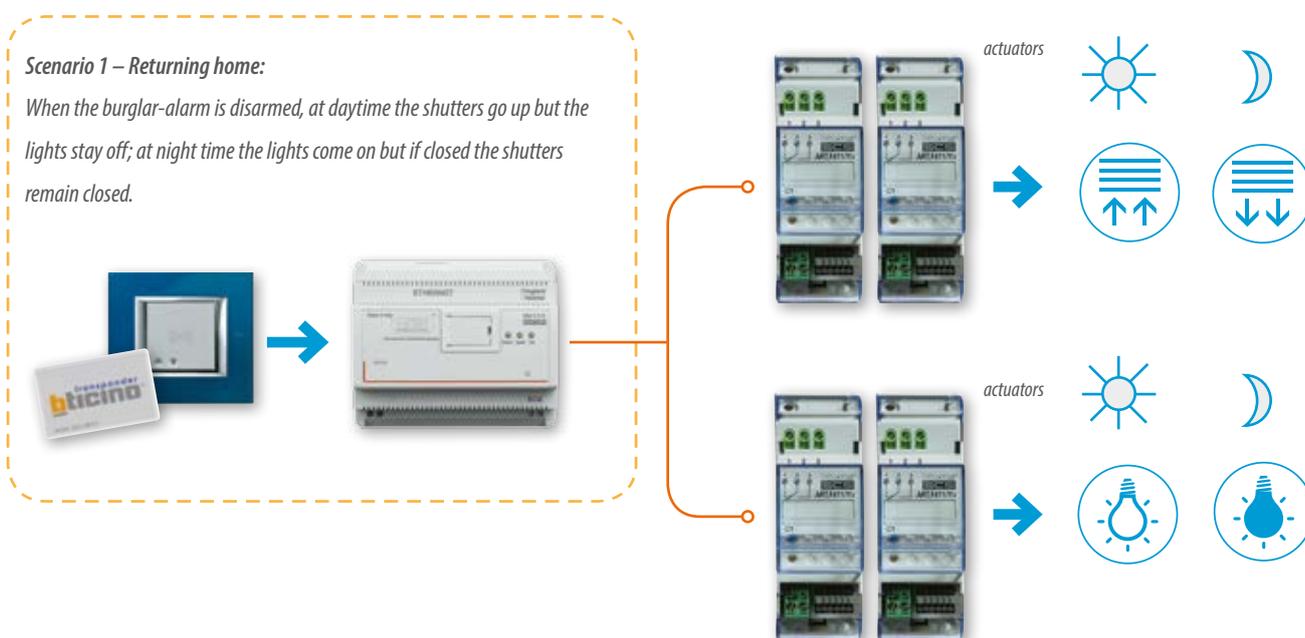
The execution of a conditioned scenario combined with a set time

and date enables, for example, to simulate a presence inside the home by automatically activating the shutters or the lights at certain preset times, when no one is in fact at home.

A control pushbutton of the automation system can be programmed so that when it is pressed all currently active scenarios are interrupted (Panic button).

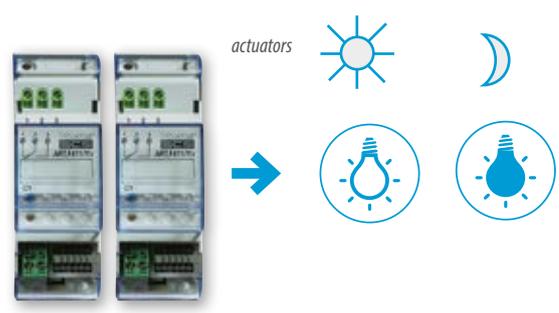
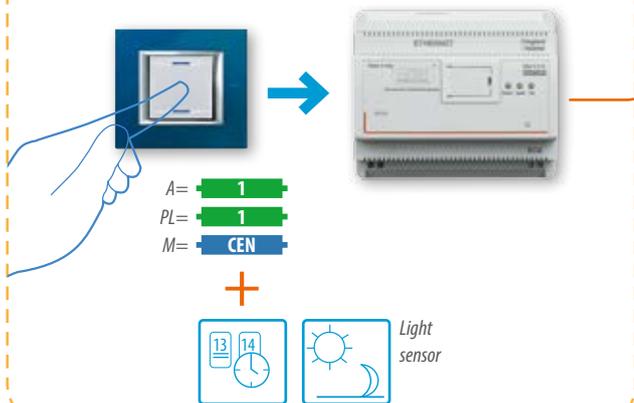
EXAMPLES OF SCENARIOS

Below are some examples of scenarios that can be set using the MH202 device.



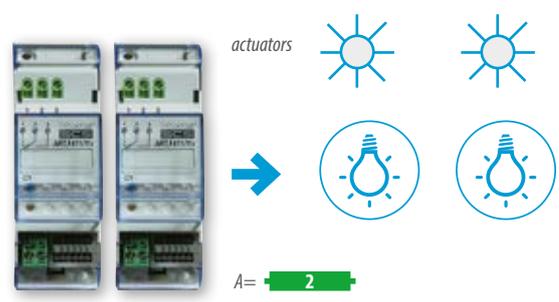
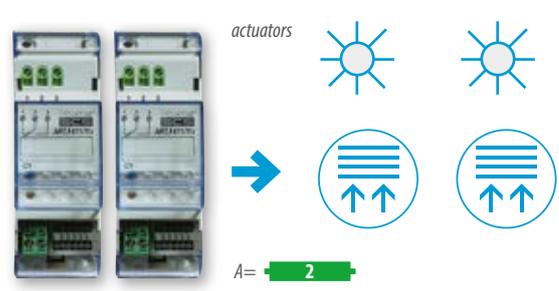
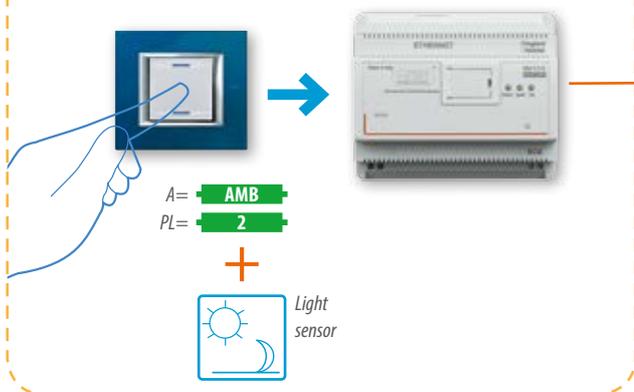
Scenario 2 - Garden lights:

Following the activation of the control device, every evening at 20.00 o'clock, or when the light sensor detects that outside is dark, all the lights of the garden come on automatically.



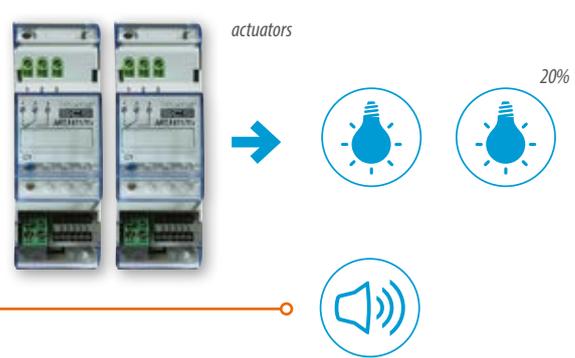
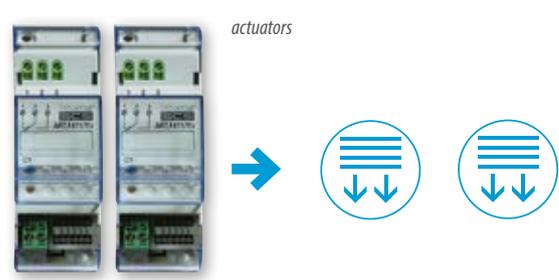
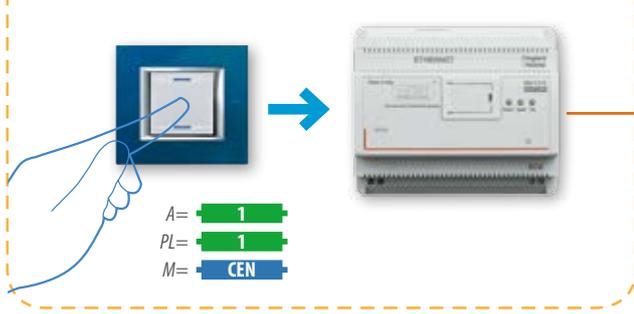
Scenario 3 - Energy saving:

Following a room control (A=2) for the opening of the shutters, if the light sensor detects that it is daytime, the scenario automatically turns off all the lights of that room.



Scenario 4 - Relax:

The control device can be used to lower the shutters, adjust the dimmer lights at 20%, and activate the sound system in the desired room.



Remote control devices

MyHOME offers the possibility of controlling all the integrated functions of the house using a PC, a Smartphone, a fixed line telephone, or a mobile phone.

The main condition to make the remote control possible is the presence in the home of a Web server F454 that act as a Gateway connecting the MyHOME system with Internet network.

The control is performed using any browser program to access the particular WEB pages saved in the WEB server, where the functions to be

managed are represented by simple and intuitive icons.

Thanks to the BUS of the MyHOME system the WEB server is connected to all the functions installed inside the home. Connection to the outside is, as already indicated, though the Internet.

MyHOME_Web PORTAL

In addition to the control made by direct connection using the telephone or the Internet, with the Gateway Access devices of the home there is the possibility of remotely controlling all the MyHOME functions using the MyHOME_Web portal access.

In this case, by using a PC connected to the Internet, it will be possible to interact with a virtual platform, which exchanges with the MyHOME system all the information on the status of the home automation functions of the house.

NOTE: Web Servers, scenario programmers are flexible devices purposely designed to enable remote control of the various MyHOME functions using the above modes.

For limited control needs it is possible to use the GSM telephone activator item F462 managed only by GSM controls.

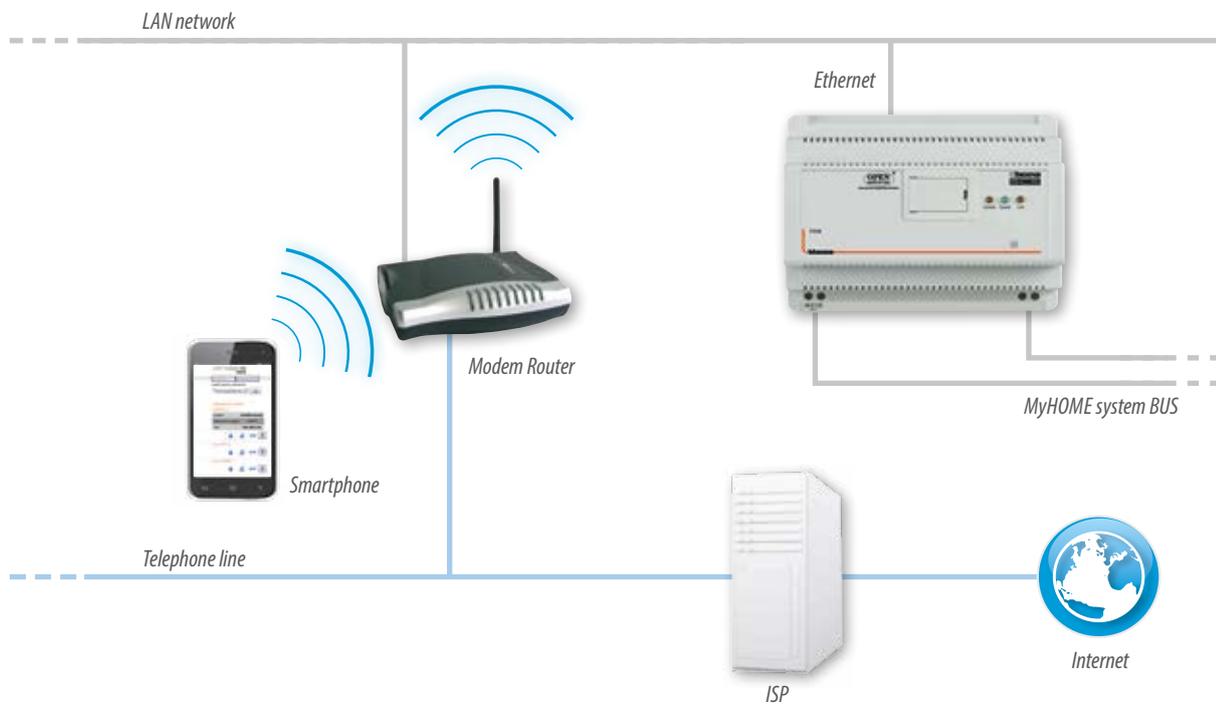
F454



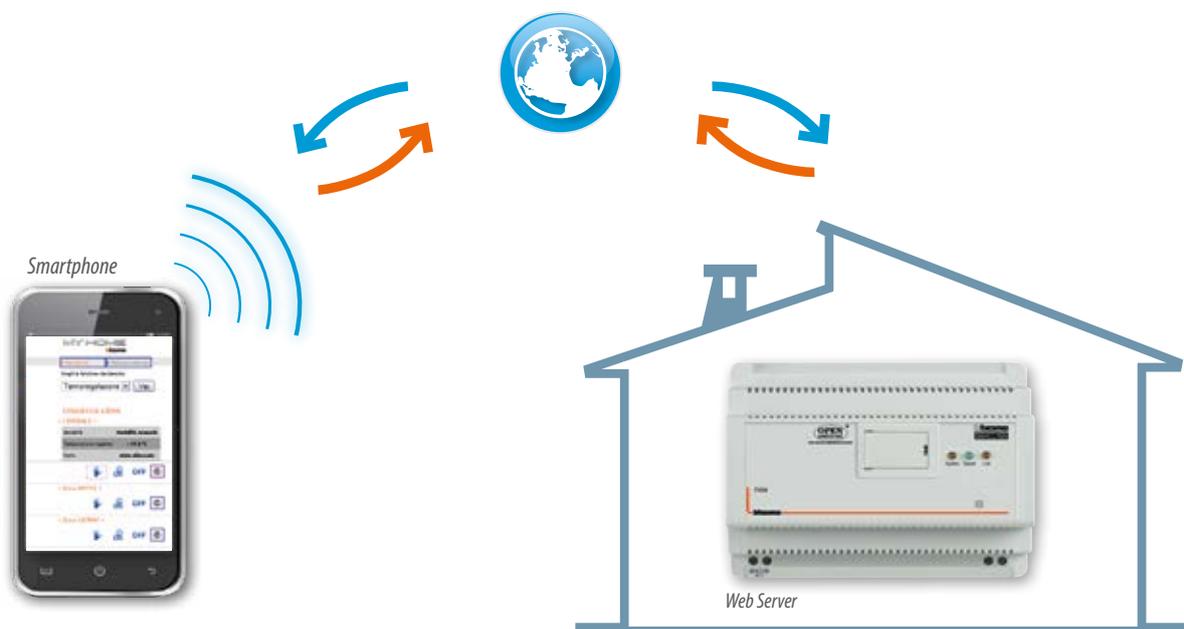
F462



EXAMPLE OF CONNECTION TO THE F454 WEB SERVER USING A WI-FI CONNECTION



EXAMPLE OF CONNECTION TO THE F454 WEB SERVER USING A SMARTPHONE WITH INTERNET CONNECTION AND GPRS CONNECTION



Remote control devices

WEB SERVER AUDIO/VIDEO F454

The Web server allows to manage the MyHome home automation system through a PC, laptop, tablet or Touch screen, and also through mobile devices with a browser capable of displaying web pages.

The home management can be performed either locally, by accessing the device via the local LAN, and remotely by the Web server after connection to the Internet via modem. The possible functions are the following:

- Supervision and control of the Automation, Energy management and Temperature control systems;
- Supervision of the burglar-alarm system by receiving the status

messages ("system in alarm status" or "no alarm notification"). It is also possible to receive an e-mail message, with images attached, in your mailbox, for the notification of burglar-alarm system events;

- Supervision of the electric system, with the reception of messages in case of tripping of the Stop&Go device.

In addition, it is possible to perform the following operations:

- Real time audio and video connection to the cameras of the video door entry system.

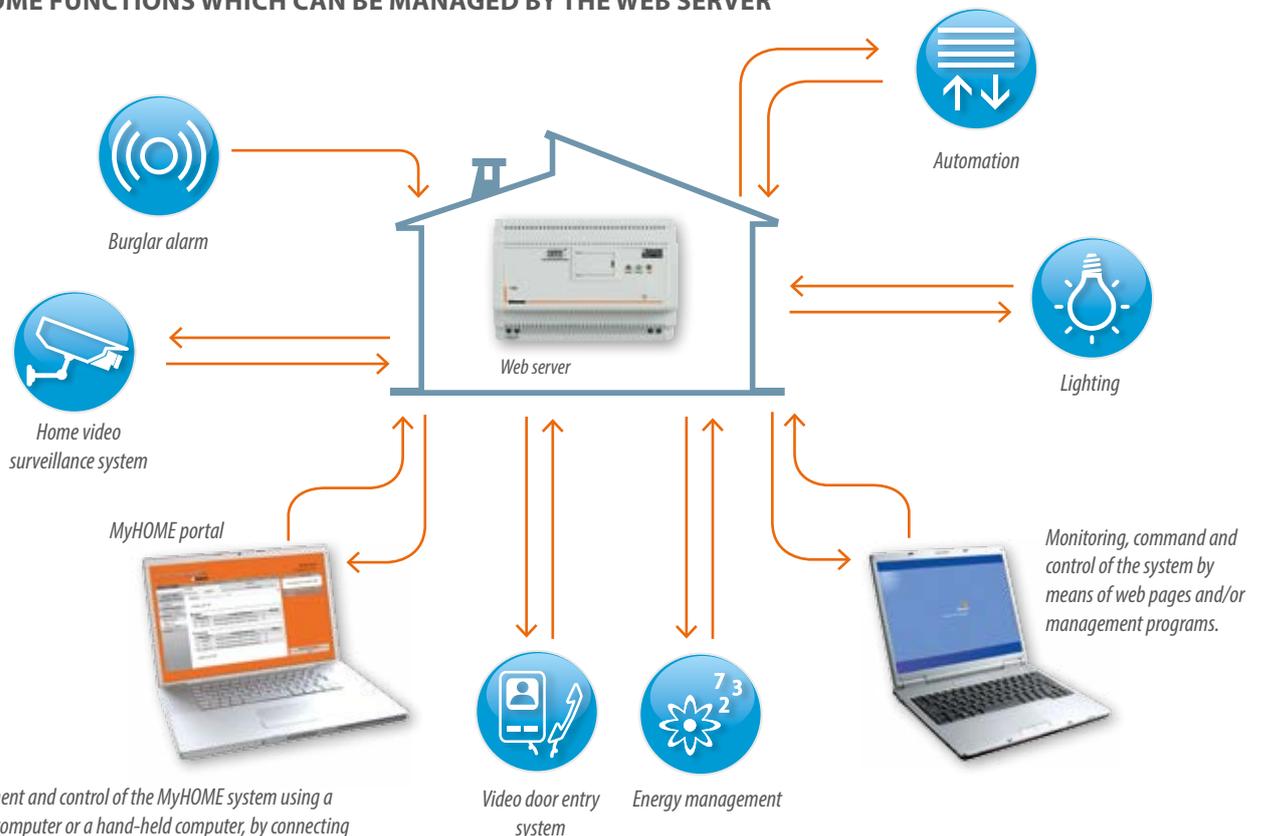
In particular, it is possible to:

- View the images broadcasted by the selected camera (with the possibility of adjusting the image,

the framing and the zoom settings of the image using the PC);

- Listen to the audio recorded by the microphone of the selected camera (remote noise monitoring);
- Broadcast the own voice through the loudspeaker associated to the selected camera (real time audio communication using the personal computer);
- Listen and view the messages recorded using the "Video door entry system answering machine function". The audio messages and the images may also be forwarded by e-mail to an address.

MyHOME FUNCTIONS WHICH CAN BE MANAGED BY THE WEB SERVER



Management and control of the MyHOME system using a personal computer or a hand-held computer, by connecting to the MyHOME portal through a fixed-line or mobile phone, following a customizable voice menu.

With the activation of the MyHOME_Web service, it is possible to remotely manage the home, using a PC or a hand-held PC with Internet, fixed line telephone or mobile phone connection.

The Web Server can also be used as a Gateway for the virtual configuration of the MyHOME devices.

The Web Server can only connect one user with the MyHome system; this is fundamental to guarantee the confidentiality, the coherence and the univocity of the operations performed.

The controls, defined during the programming of the Web server using the device software programs supplied, are password protected to prevent unwanted access.

Two types of users can access the Web pages:

- Administrator
- User.

As well as having the same level of access as the user, the administrator can also access the CONFIGURATION function and define certain Web Server parameters, such as the number of pictures to be saved in the video door entry answering machine, the e-mail address to which alarm signals and/or messages in the answering machine, login and password for access to the pages as user, date, time and time zone and display language of the WEB pages. In case of control using the MyHOME_Web service, access is through the MyHOME portal via double identification.

Example of control pages for the F454 Web Server



NOTE: The privacy of the information exchanged and of the pictures displayed is also guaranteed by the SSL 128 bit protocol.

Remote control devices

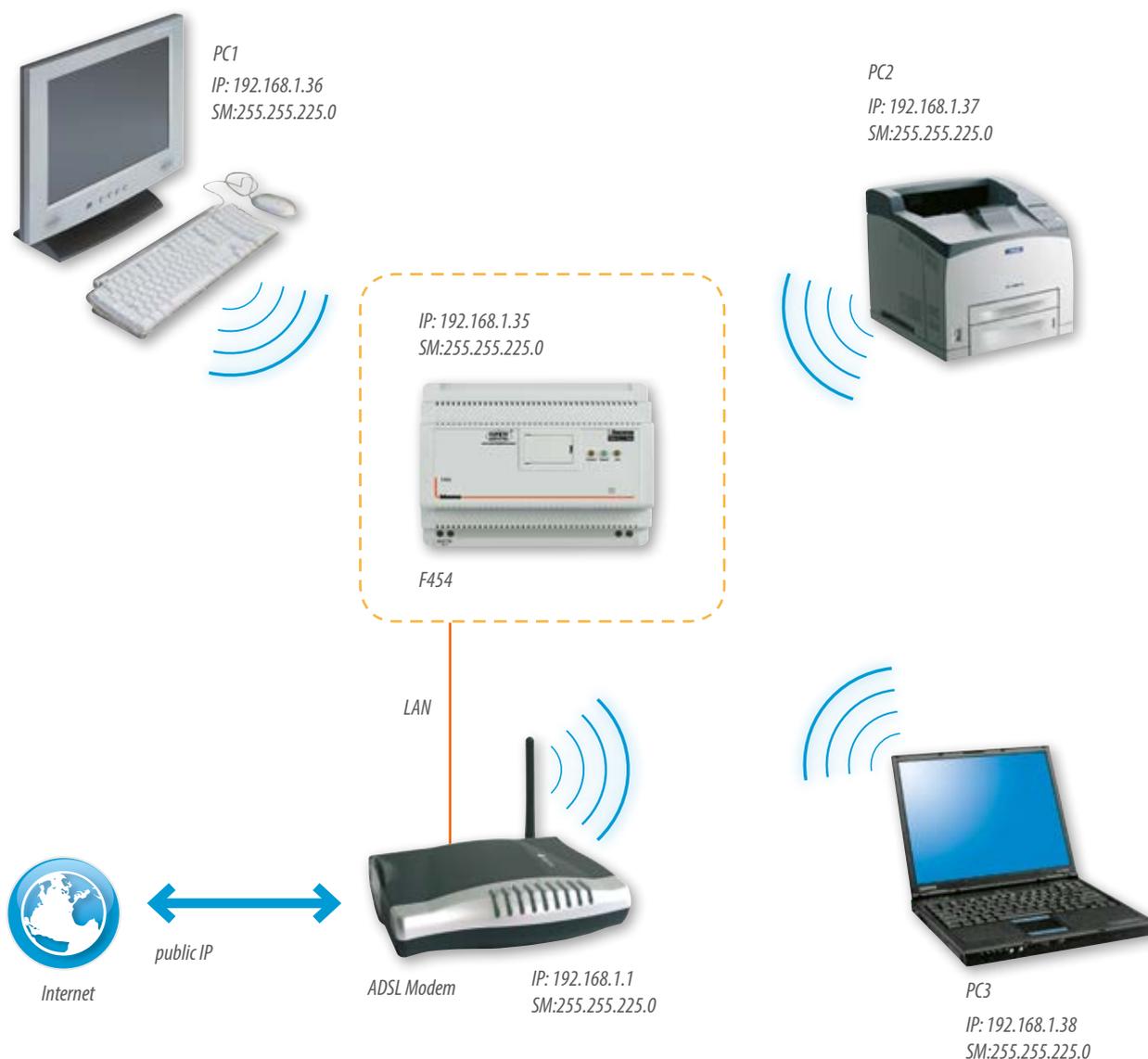
WEB SERVER FOR CONNECTION TO THE INTERNET NETWORK

To connect the MyHOME system to the Internet and use the MyHOME_Web Portal, in addition to the F454 Web Server, appropriately configured, an ADSL modem and an ADSL line are required (with fixed or dynamic IP).

If the ADSL modem is not equipped with "wireless" function, or it is required to extend the radio signal in multi-floor houses which are not equipped with LAN wired network, it is possible to use a "repeater" device. This device must be wired with a LAN

cable to the Wi-Fi Router modem used to connect to the Internet and properly configured.

For optimum use, we recommend to allow for one "repeater" for each floor.



GSM TELEPHONE ACTIVATOR

F462

It can be used to enable and disable the user loads remotely, using simple SMS telephone messages.

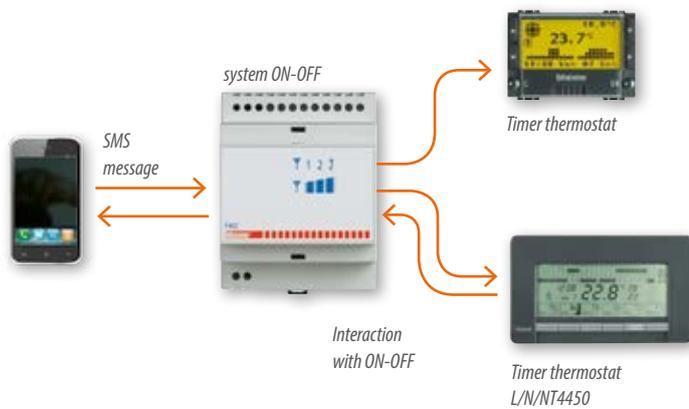
The device is set up to have 2 alarm contacts. When the status of one of the contacts changes the device sends an alarm SMS to the saved number.

The device can be interfaced with the BTicino timer thermostats to switch the system ON or OFF remotely. Using the L/N/NT4450 timer thermostat one can also interrogate the system status remotely and set it to a particular temperature.

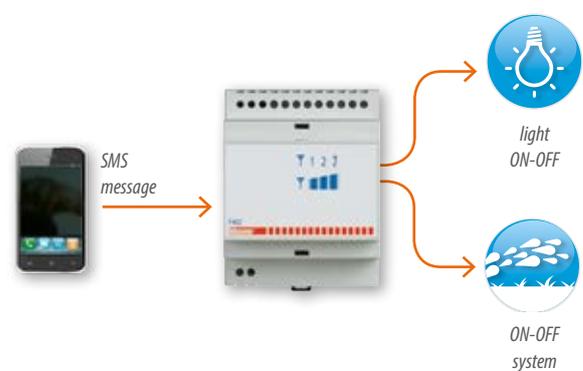
GSM telephone activator



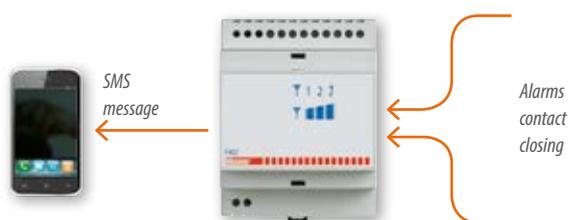
USE WITH TIMER THERMOSTAT



USE FOR LOADS ON/OFF



ALARM NOTIFICATION USE



Remote control devices

TABLE FOR THE SELECTION OF DEVICES BASED ON CONTROLLED FUNCTIONS

	ADSL	GSM
FUNCTIONS PERFORMED	 F454	 F462
Automation - ON/OFF lighting - Shutter UP/DOWN	●	Control of single electric loads
Burglar alarm	●	●
Energy management	●	
Video monitoring system max 96 cameras (connecting the F454 to a 2 wire digital video door entry system) Display the pictures in black and white and color	●	
Temperature control	●	Switching on and off remotely
Sending e-mail messages following intrusions and technical alarm	●	●
Sending an SMS following specific events, request for current status, alarms	● Only with MyHOME portal	
Sending voice calls in case of intrusion and technical alarm		●
Sending e-mail with attachment in case of intrusion and technical alarm	●	●
Video door entry system answering machine: saving and sending the message and pictures recorded by the entrance panel by e-mail	●	
Forwarding of mail following Stop&Go events	●	

MyHOME_Web

MyHOME_Web is a virtual platform created by BTicino to offer innovative services to all Customers that have a MY HOME system equipped with BTicino devices for remote connection.

The platform is mainly divided in two distinct areas:

■ **Installer area:** intended for the My Home installers which can register their own systems. Following customer's request, it is also possible to activate the Remote Assistance service, which gives the possibility of remotely monitoring the home of the customer, and receive real time notifications in case of faults.

■ **Customer area:** solely intended for customers interested in the remote management of their system. This service, active since 2003, enables remote control of all the home automation functions of the MyHOME system, making available exclusive services that are only possible through the web portal (danger notifications, web scenarios, etc.).



CONNECTION SAFETY AND PROTECTION

In developing the MyHOME_Web portal, BTicino has paid special attention to ensuring **high levels of protection** of the data transferred through the network **from unwanted access**.

The most stringent protection criteria have therefore been implemented, like:

- The use of the special https protocol, which makes any information being transferred through the line unreadable at the origin;
- The use of the 128 bit SSL (Secure Socket Layer) protocol, **certified by the VeriSign Certification Authority**.

These solutions **provide high levels of:**

- **Confidentiality:** protection of data from unauthorized access;
- **Integrity:** safeguard of the accuracy and completeness of the information;
- **Accessibility:** guarantee that both data and information will be available when required.

In recognition of the high safety level offered by the connection with the MyHOME_Web portal, **BTicino obtained the ISO27001 "Information technology - Security management systems" certification.**



MyHOME_Web - Installer Area

Installers access their own dedicated area in the Installer Portal section - MyHOME section, using the personal access keys (login and password). Here they will find the following services:

- System registration;
- Filing of the device configuration files and documents generated by the YouProject design software, and by the programming software programs;
- Filing of any activities performed on the system through the web;
- Enabling of the system remote management function for the customer.
- Menu management and list of regular maintenance activities for the single system.

DOCUMENTS THAT CAN BE FILED

- XML file generated by YouProject
- Web Server configuration file
- Advanced products configuration files.



System management web page details



Installers that have been appointed by the Customer to provide a Remote assistance service, will be able to ensure a highly professional remote assistance service, consisting in the following functions:

- Forwarding of diagnostic commands to ensure correct operation of certain system devices, such as:
 - Scenario central unit and actuators of the Automation system;
 - Burglar-alarm central unit;
 - Temperature control central unit;
 - Web Server.
- Reception of fault notifications in case of:
 - Faulty or exhausted battery;
 - Device or zone in intrusion or tampering alarm status;
 - Device in panic alarm status;
 - Loss of communication between the Burglar-alarm central unit or the Web Server, and the Portal;
 - Temperature control system fault.

ACCESS TO THE PORTAL USING MOBILE DEVICES

In addition to using the browser, the installer can also interact using mobile devices (mobile phones and smartphones) to display the following information:

- Customer data;
- Customer contract and credit situation;
- Events from remotely controlled systems.



NOTE: For more information or to request the activation of the Installer Area contact the Call Center, toll-free number 800.837.035 (Monday to Friday from 8.30 a.m. to 07.00 p.m. and Saturday from 8.30 a.m. to 12.30 p.m.)

MyHOME_Web - Customer Area

Customers can check all the MyHOME comfort, functions for their own homes. For example, they can switch the heating on, activate certain scenarios, monitor and store on file the consumptions of the home and much more.

They can be informed at any time on

the status of the home, and receive prompt notification in case of gas or water leaks, or burglary attempts.

It is possible to check and use the following functions:

- Comfort
- Energy Management and Load Control

- Energy Management and Consumption Display

In order to use the MyHOME_Web service, an ADSL modem/router must be installed in the system connected to Web Server art. F454.

EXCLUSIVE ADVANCED FUNCTIONS PERFORMED WITH MyHOME_Web

In addition to the remote control of the home automation functions, the user can also define and use a range of exclusive and advanced functions that are specifically useful for ensuring a customized use of the service (see following table).

SERVICE COST

With the on-line procedure Customers purchase one BTicino credit, of limited duration and renewable, which they can use to manage their system remotely, and which amount varies depending on the applications to control.

FUNCTIONS	DESCRIPTION
WEB scenarios	Irrespective of the presence of scenario management devices inside the home, it is possible to define web scenarios that can also be enabled by sending SMS messages, or based on events.
Planning	Creation of action sequences that activate automatically at certain times or during certain days, and repeat following a plan.
Notifications and actions	Definition of the actions performed by MyHOME_Web and of the type of notifications forwarded following a system event (SMS notifications, e-mail, etc.).
Multiple users (houses)	Customization of the portal for access to several systems (several homes)
Multiple users (users)	Customization of the procedure for accessing the portal depending on the user type.
Interface customization	Creation of customized navigation menus, based on the needs of the user and the management device used (web browser, hand-held PC, etc.)
Event log	Display of the list of the events occurred within the system

MyHOME_Web - Customer Area

Page for the display of the electric consumption



Page for the display of the images recorded by the camera



ACCESS MODE USING MOBILE DEVICES

In addition to web access, possible using a PC with web browser connected to the Internet, the customer can communicate with the Portal using other channels taking advantage of mobility, such as mobile phones and smartphones. The functions that can be performed with each mode of connection are the following:

Access using SMS messages

It is possible to activate a scenario through SMS messages. The creation of the scenarios and the association to the SMS message is performed during the Customer Area customization stage. By sending SMS messages it is also possible to know the status of the devices.

Smartphone access

Through an APP dedicated to iOS and Android devices, it is possible to manage all functions of the MyHOME_Web portal directly from your Smartphone. The native application, if properly configured, allows to receive PUSH notifications to know the system status in real time. The application is free to download from Apple Store and Google Play; to use it simply enter your credentials (username and password).



System layout for the use of the MyHOME_Web services

CONTROL DEVICES

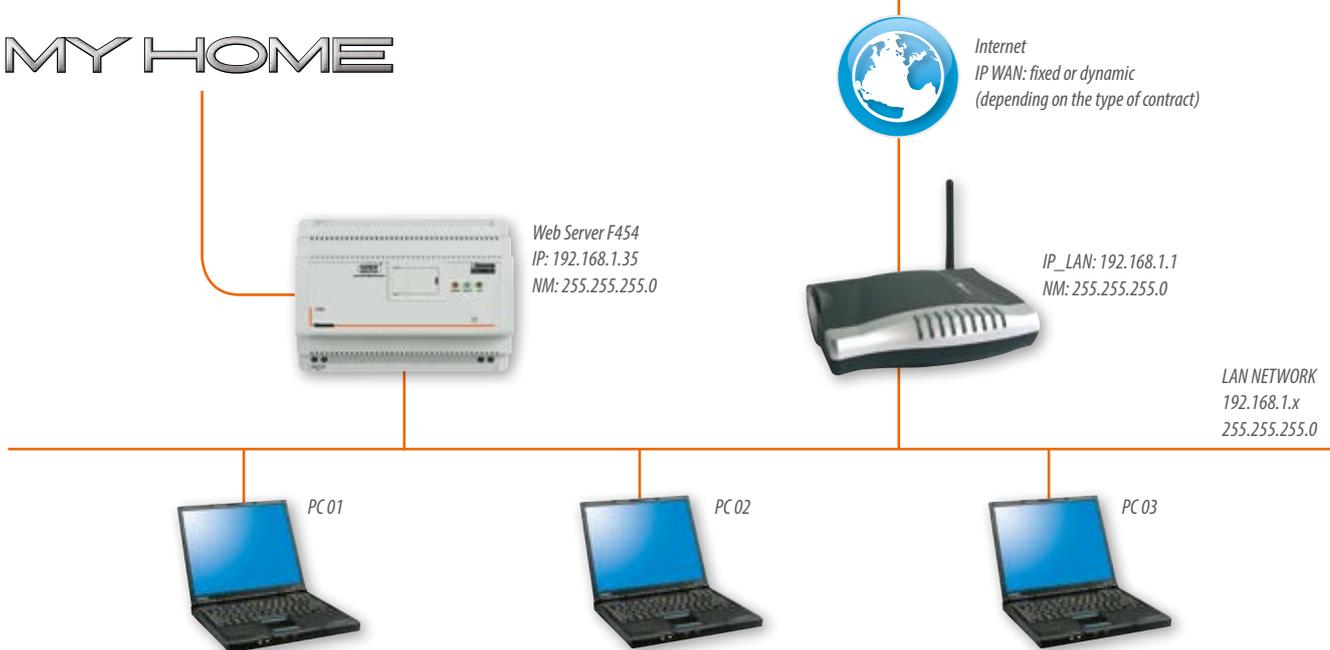
In order to use the MyHOME_Web services, it will be necessary to install a F454 Web Server connected to the MyHOME system.

With the F454 Web Server it is possible to establish real time communication at any time, using the MyHOME system of the home. A necessary condition for ensuring the above is the availability of an ADSL line with dynamic or static IP, and the use of an ADSL modem router, appropriately configured using the parameters for connection to the LAN network and the Portal.

Note ()*: item 3486, 3485, 3485STD



MY HOME



MyHOME_Web – Creation and configuration of the Customer Area

PREREQUISITES

A fundamental requirement for the creation of the customer area is the availability of the XML configuration file of the system, generated by the project and configuration program YouProject or by the MyHOME_WebConfig tool.

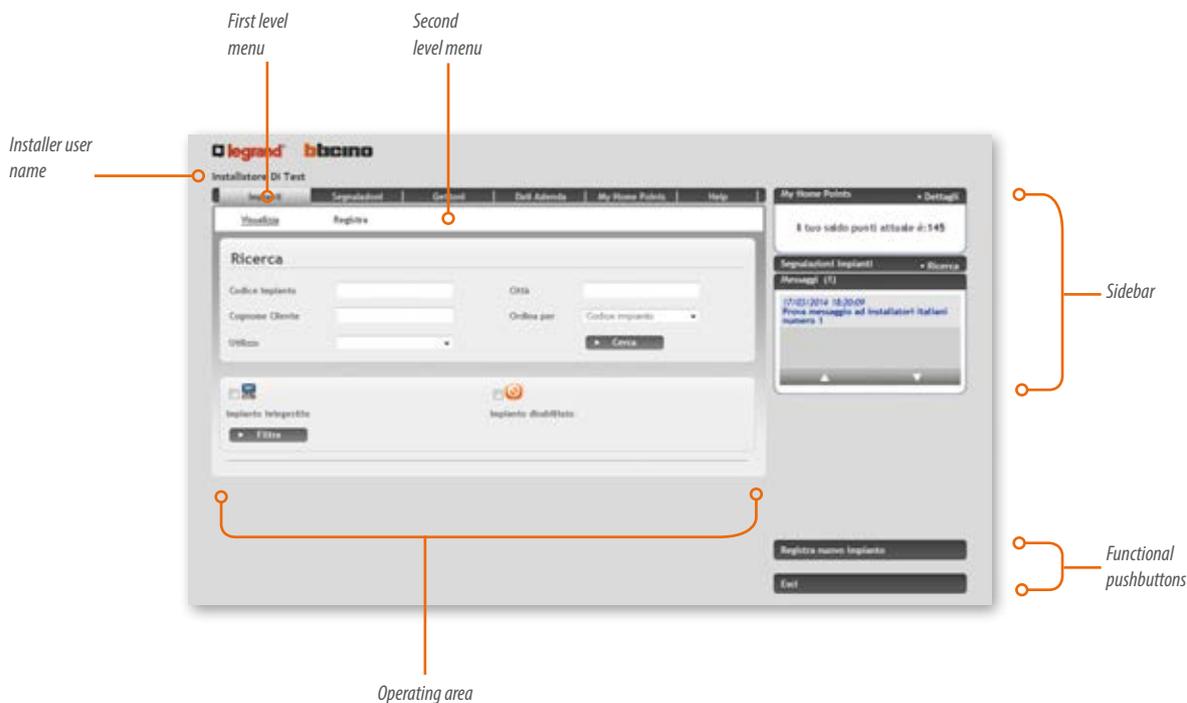
For the creation of a Customer area, it will be necessary for the installer to have a personal “Installer Area” enabled inside the MyHOME_Web portal. For details on the procedure refer to the “User Manual Installers Area” which can be downloaded by

the specific link on the home page of the Installer Area. The procedure can also be performed by a Technical After Sale Service (CAT).

OPERATION FLOW

The operations to follow for the configuration and activation of the Customer area consist of two stages:

- Operations to be performed using the Internet in the “Installer Area”;
- Operation for the configuration of the control devices in the MyHOME system.



MyHOME_Web - Creation of the Customer Area: operations to be performed in the Installer Area

1. System registration;
2. Loading of the XML file for the configuration of the system in the System documents area;
3. Entering of the parameters of the control devices (web server) in the "Devices" section, as explained below:

3.1 The use of the Web Server shall be specified by entering the following parameters:

- OPEN password;
- Type of connection: DYNAMIC IP ADSL, STATIC IP ADSL or WAC (Web Server Active Connection);
- "Internal IP" address associated to the control device;
- Number of the port used for sending the controls;
- Number of the port used for receiving;
- Password for camera images.

4. Saving of the page for the creation of the GATEWAY ID data;
5. Enabling of the REMOTE MANAGEMENT function in the "Available functions" section.

The Customer will receive an email containing the link necessary for the on-line acceptance of the contract.

6. Configuration, if required, of the Energy Management devices installed in the system, by entering the corresponding parameters in the specific sections.

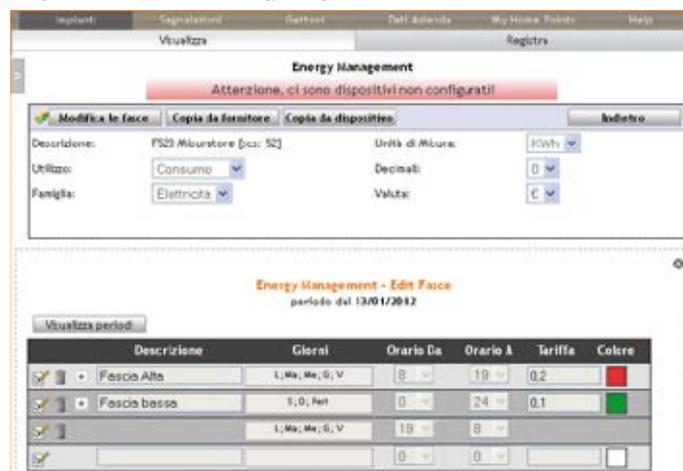
Configuration of the TCP/IP CHANNEL



Configuration of the DTMF PSTN CHANNEL



Configuration of the parameters for Energy Management devices



Note: For the detailed list of the parameters to configure, refer to the documentation available from the www.myhome-bticino.it website

GENERAL FEATURES

MyHOME_Web - Creation of the customer area: operations to be performed on the control devices

WEB SERVER F454

Configure the device using the MyHOME_Suite program, entering the following data:

ETHERNET PAGE

The IP Address, Subnet Mask and Router IP fields are already filled. In this page it will be necessary to enter the router IP as primary DNS (normally 192.168.1.1), and the DNS supplied by the ADSL Internet provider as the secondary DNS. Also specify the type of address (fixed or DHCP), and set the UPnP IGD function.

MyHOME PORTAL PAGE

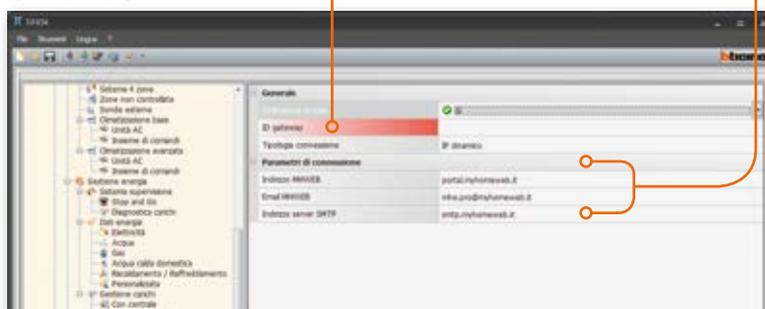
In this page perform the following operations:

1. Enable portal access.
2. In the GATEWAY ID field enter the GATEWAY ID code generated automatically during the configuration of the control device.
3. Select the type of connection:
 - Fixed IP: In case of fixed IP ADSL subscription (normally in case of business customers);
 - Dynamic Ip: In case of dynamic IP ADSL subscription (the most common one);
 - "Web Server Active Connection" (W.A.C.) in case of private networks, where the system cannot be directly reached by the Internet (e.g.: Fastweb), or of non-configurable router.
4. Check the default connection parameters:
 - MyHOME_Web address: portal.myhomeweb.it
 - MHWEB email: mhe.pro@myhomeweb.it
 - SMTP Server address: smtp.myhomeweb.it

Ethernet page



MyHome portal page



Authentication page



AUTHENTICATION PAGE

Check that the OPEN password entered in the portal when creating the system registration is aligned with the password entered into the webserver.

MODEM ROUTER

In addition to the settings for the connection to the ADSL line and for the LAN NETWORK of the home, this device must also be correctly natted following the table shown on the manual which can be downloaded from the home page of the Installers Area.

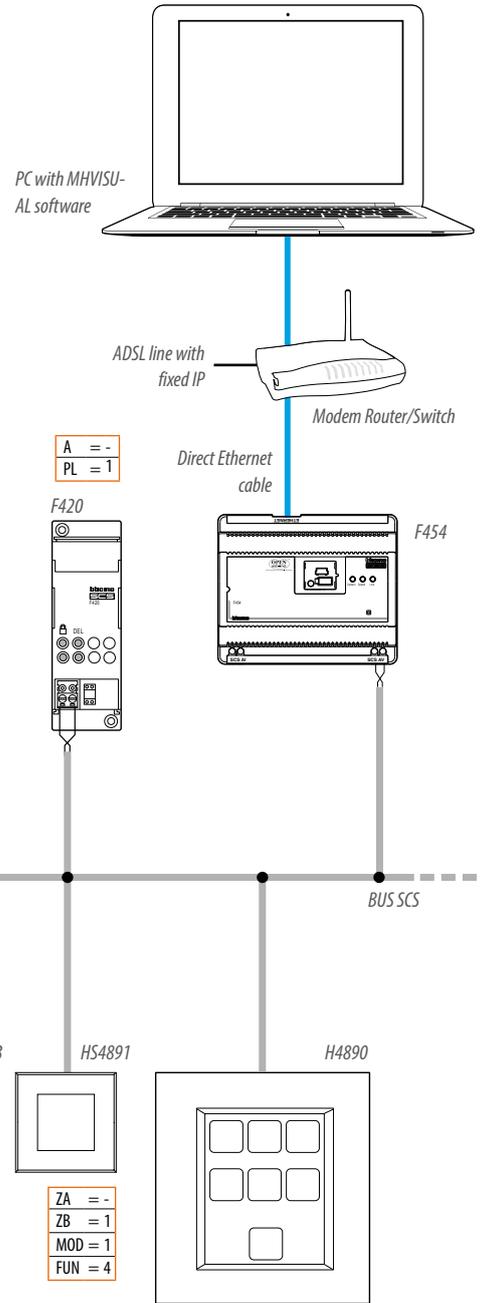


**AUTOMATION SYSTEM INTEGRATION
WITH THE TEMPERATURE CONTROL SYSTEM AND FUNCTIONS REMOTE CONTROL**

The system includes a Local Display and a Touch Screen.

- the Local Display is configured for the management of the temperature control and is associated to the sensor (ZA = 0, ZB = 1)

- the Touch Screen is configured using the software and is capable of managing all the functions present, and the scenarios saved in the scenario module.



ITEM	DESCRIPTION	QUANTITY
F420	Scenario module	1
E46ADCN	Power supply	1
F430/2	DIN Actuator	1
F415	Dimmer	1
F411U1	1 relay DIN actuator	1
F411U2	2 relays DIN actuator	1
H4652/2	Control	3
HS4891	Local Display	1
H4890	MyHOME_Screen	1
H4693	Temperature control probe	1
H4695	Temperature control central unit	1
F454	Web Server	1



MyHOME Catalogue



MyHOME

FEATURES OF THE RANGE

Thanks to the MyHOME technology, it is possible to design electrical systems with new and more advanced performance in terms of comfort, safety, energy saving, audio/video communication and local and remote control.

MyHOME is based on the use of the digital BUS technology applicable in any residential, small service and similar context. The system is expandable in every moment and it can be integrated with systems and devices of different manufacturers and with different communication protocols.

- Lights and rolling shutter automation
- Burglar alarm
- Temperature control
- Sound system
- Consumption and load control displaying
- Local and remote control
- Video door entry system
- Structured cabling system for the home sector



ELIOT is the name of the dedicated BTicino program to the connected objects (Internet of Things) that identifies all those products or systems which, thanks to the possibility to connect to the Internet, add value in terms of functionality, information, interactions with the environment and use.



INTEGRATION AND CONTROL



N4891



AM4890



MH4892C

Item	LOCAL DISPLAY
	1.2" OLED Touch Screen for the simultaneous management of max 4 functions: Sound System, Temperature control, Consumption display, Load management, Scenarios - 2 modules
<input type="checkbox"/> HD4891 <input type="checkbox"/> HC4891 <input checked="" type="checkbox"/> HS4891 <input type="checkbox"/> N4891 <input type="checkbox"/> NT4891 <input checked="" type="checkbox"/> L4891	 Axolute  Livinglight

Item	IP TOUCH SCREEN ADAPTER
<input type="radio"/> 3496	 Accessory to be used with TOUCH SCREEN - for audio content playback from the PC, server or audio content over IP (e.g. radio) using the speakers present in the Sound System - installed on the back of the TOUCH SCREEN

	MHVISUAL SOFTWARE
<input type="radio"/> MHVISUAL	Supervision software for the functions of Lighting, Automation, Burglar alarm, Temperature control, Sound System, Scenarios, Energy Management and CCTV systems

	TOUCH SCREEN
	3.5" color Touch Screen for the management of the following functions: Automation, Lighting, Burglar alarm, Temperature control, Sound System, Scenarios, Load management and Consumption display. Front USB connector for configuration. Device prearranged for programming with Open Web Net protocol language.
<input type="radio"/> H4890 <input type="radio"/> LN4890 <input type="radio"/> LN4890A <input type="radio"/> AM4890	 Axolute Supplied with installation support with Air Axolute cover plates  Livinglight installable with LIVINGLIGHT AIR cover plates -  Mätix

	MYHOME_SCREEN 10
<input type="checkbox"/> MH4893C <input checked="" type="checkbox"/> MH4892C	 Touch Screen with 10" capacitive LCD screen 1280x800: - management of MyHOME, NUVO and Video door entry system functions - navigation by rooms - management of multimedia content via USB, SD Card, LAN or IP network - management of customized profiles - possibility of customizing background images wall mounted installation with 506E flush mounted box. Available in white and in black. No need for additional surround plate



The MyHOME system can also be controlled by iPad devices thanks to BTicino MyHOME, the official BTicino application which can be downloaded from iTunes, in the "Free" version as well

 : devices with Open Web Net communication protocol for the development of integration applications

INTEGRATION AND CONTROL



F422



F429



3486



F454
MH202

Item		SCS-SCS INTERFACE
○ F422		Interface between systems based on SCS BUS dedicated to functions different to each other - 2 shallow DIN modules

		INTERFACE FOR DIFFERENT SYSTEMS
○ F426		SCS/EIB interface - to control EIB systems from MyHOME systems - 2 DIN modules

		SCS/DALI INTERFACE
○ F429		Dimmer DALI, 8 independent outputs with maximum load 16 ballast at 230 Va.c., button for load direct control - 6 DIN modules

		OPEN-BACNET INTERFACE
○ F450		Interface for control via TouchScreen of the Bacnet devices like Fancoil, AC, ATU, VAV units, underfloor heating - 6 DIN modules

		DRIVER MANAGER
○ F459		Integration platform to third-party systems - 6 DIN modules

To check the feasibility of specific integrations and to apply for the necessary license for using the Driver manager contact the specialists of the "BTicino Systems Integration Service toll free number 800.837035.

		SCENARIO MODULE
○ F420		Device to store 16 scenarios for Automation, Sound System, Temperature control and Video Door Entry applications - 2 DIN modules

		SCENARIO PROGRAMMER
○ MH202		Device for the execution of scenarios programmed with MYHOME_Suite software. The scenario can be combined with times, dates, manual activations, events managed on AUX channels or generated in Automation, Temperature Control and Burglar Alarm systems - 6 DIN modules.

Item		CENTRAL UNIT WITH TELEPHONE COMMUNICATOR
○ 3485STD		Standard burglar alarm central unit with system self-learning function and viewing of the configuration on the display. Controlled using the transponder and keypad. Management of up to 72 zones, up to 8 areas and possibility to define up to 16 scenarios of use. Equipped with PSTN telephone communicator for sending the alarms and two local contacts. Programmable using the TiSecurityStandard application. Wall installation with metallic bracket supplied as standard. Battery powered, using battery item 3506, supplied as standard.

○ 3486		Central unit with system self-learning function and viewing of the configuration on the display. Controlled using the IR remote control, transponder and keypad. Management of up to 72 zones, up to 8 areas and possibility to define up to 16 scenarios of use. Equipped with PSTN telephone communicator and integrated GSM for sending the alarms. Programmable using the TiSecurity GSM application. Wall mounting with metal bracket supplied as standard or flush-mounted in MULTIBOX boxes. Battery powered, using battery item 3507/6, not supplied.
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		WEB SERVER AUDIO/VIDEO
○ F454		Audio/Video Web Server for remote control of the system through web pages or MyHOME PORTAL AND RELATIVE APP. The device can operate as a gateway for using the MHVisual and MyHOME_Suite software - 6 DIN modules.

		GSM TELEPHONE ACTUATOR
○ F462		GSM telephone actuator for 2 loads activation/deactivation via SMS. It allows to interact with the programmable BTicino chronothermostats item L/N/NT4450 and to manage 2 alarm inputs - 4 DIN modules

		SWITCH
○ F551		Switch 10/100 Mbs - 5 ports for the distribution of 1 LAN line in 4 lines. Possibility to add more switches to have more lines - Power supply by power supply device item F552 - 4 DIN modules.

 : devices with Open Web Net communication protocol for the development of integration applications

LIGHTS AND SHUTTERS AUTOMATION



H4651M2



H4652



L4652/2

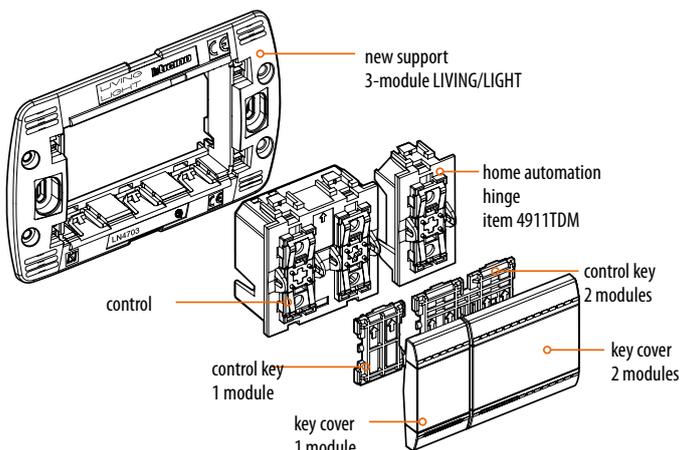


AM5832/3

Item	CONTROL FOR SPECIAL FUNCTIONS	
	Special control - it allows to drive an actuator performing all the standard functions of a control and some special functions: activation of 4 scenarios saved in the item F420 module, timings, activation of an actuator installed on a different bus from the control, selection of the fixed adjustment level and the dimmer softstart and soft-stop speed, sound system, door lock operation control, call to the floor control, switching ON staircase lights and management of auxiliary channels. To be completed with 1 or 2-module key covers with one or two functions - 2 modules	
<input type="radio"/> H4651M2 <input type="radio"/> L4651M2 <input type="radio"/> AM5831M2		Axolute Livinglight Matic
	Control with 8 KEYS for light management, shutters automation, sound system and scenario control - SCS-BUS connection - dimensions: 2 modules	
<input type="radio"/> H4652 <input type="radio"/> LN4652		Axolute Livinglight
	A5 sheets to customize the control symbols of items H4652 and LN4652. The sheets can be customized using the tool in the MyHOME_Suite configuration software.	
<input type="radio"/> 3541 <input type="radio"/> 3542	black device	

Item	CONTROLS FOR SINGLE AND DOUBLE LOADS	
	Control which can drive a single actuator for single loads or for double loads or two actuators for single or double loads independent to each other - to be completed with 1 two-module key cover for controls with one or two functions or 2 one-module key covers with one or two functions - 2 modules	
<input type="radio"/> H4652/2 <input type="radio"/> L4652/2 <input type="radio"/> AM5832/2		Axolute Livinglight Matic
	Control which can drive three actuators for single loads or for double loads independent to each other - to be completed with 3 one-module key cover for controls with one or two functions - 3 modules	
<input type="radio"/> H4652/3 <input type="radio"/> L4652/3 <input type="radio"/> AM5832/3		Axolute Livinglight Matic
	SHUTTERS MANAGEMENT CONTROL	
	2 module flush mounted control with reduced thickness equipped with 3 button. In addition to the monostable and bistable UP/DOWN functions the device prepares the shutters in a stored position (PRESET)	
<input type="radio"/> H4660M2 <input type="radio"/> LN4660M2 <input type="radio"/> AM5860M2		Axolute Livinglight Matic
	designed to operate only with advanced actuators H4661M2 and F401 specific for the management of shutters.	
	designed to operate only with advanced actuators LN4661M2 and F401 specific for the management of shutters.	
	designed to operate only with advanced actuators AM5860M2 and F401 specific for the management of shutters	
	HOME AUTOMATION HINGE	
<input type="radio"/> 4911TDM		Livinglight accessory to install the 2-module key cover on devices installed in 503E boxes

NOTE ON THE USE OF THE HOME HINGE ITEM 4911TDM



LIGHTS AND SHUTTERS AUTOMATION



HD4657M3



HS4657M3



HD4653M2



NT4607



L4680



AM5787/4

Item

DIGITAL GLASS CONTROLS

Axolute

MyHOME control for the control of single loads or load groups (e.g. lights and shutters), sound system, basic audio door entry functions (e.g. gate opening). The configuration can be completed in two separate ways: physical (connecting the physical configurators to their sockets), or virtual (the control can be configured remotely). It is fitted with capacitive touch keys that can be identified using adjustable intensity LEDs.

WHITE GLASS

<input type="checkbox"/> HD4657M3		6 key control – 3 module size
<input type="checkbox"/> HD4657M4		8 key control – 4 module size

WHICE

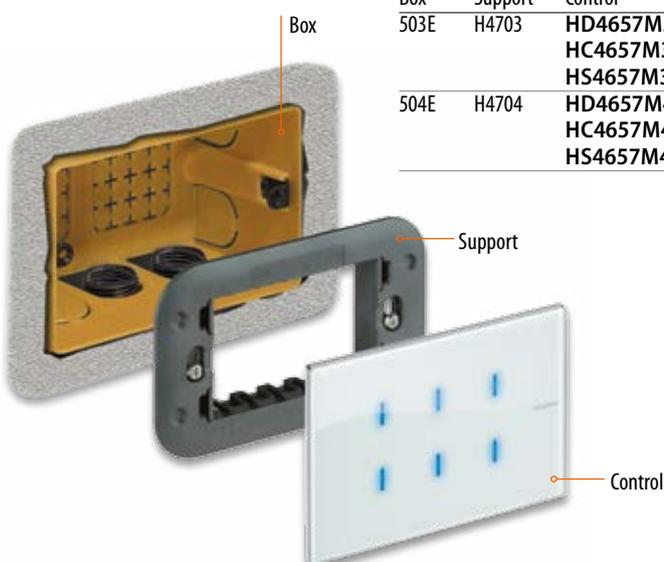
<input checked="" type="checkbox"/> HC4657M3		6 key control – 3 module size
<input checked="" type="checkbox"/> HC4657M4		8 key control – 4 module size

NIGHTER

<input checked="" type="checkbox"/> HS4657M3		6 key control – 3 module size
<input checked="" type="checkbox"/> HS4657M4		8 key control – 4 module size

NOTE: for white glass controls, contact your local BTicino commercial representative for availability.

DIGITAL GLASS CONTROL INSTALLATION



Box	Support	Control
503E	H4703	HD4657M3 HC4657M3 HS4657M3
504E	H4704	HD4657M4 HC4657M4 HS4657M4

Item

SOFT TOUCH CONTROL

Touch control for the implementation and/or adjustment of a single actuator or a single scenario stored in the scenario module item F420, adjustable led intensity

<input type="checkbox"/> HD4653M2		Axolute 2 modules
<input checked="" type="checkbox"/> HC4653/2		
<input checked="" type="checkbox"/> HS4653/2		
<input type="checkbox"/> HD4653M3		Axolute 3 modules
<input checked="" type="checkbox"/> HC4653/3		
<input checked="" type="checkbox"/> HS4653/3		

SCENARIO CONTROL

Customizable scenarios command to control 4 independent Automation, Temperature Control or Sound System "environmental conditions" stored in the F420 scenario module - 2 modules

<input type="checkbox"/> HD4680		Axolute
<input checked="" type="checkbox"/> HC4680		
<input checked="" type="checkbox"/> HS4680		
<input type="checkbox"/> N4680		Livinglight
<input checked="" type="checkbox"/> NT4680		
<input checked="" type="checkbox"/> L4680		

SCENARIO MODULE

<input type="checkbox"/> F420		Device to store 16 scenarios for Automation, Sound System, Temperature control and Video Door Entry applications - 2 DIN modules
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CODE PROTECTED CONTROL

Device that is used to store up to 30 transponders (badges) for the implementation of protected controls - 2 modules

<input type="checkbox"/> HD4607		Axolute
<input checked="" type="checkbox"/> HC4607		
<input checked="" type="checkbox"/> HS4607		
<input type="checkbox"/> N4607		Livinglight
<input checked="" type="checkbox"/> NT4607		
<input checked="" type="checkbox"/> L4607		
<input type="checkbox"/> AM5787		Màtix
		Scenarios control protected with transponder - it is used to store up to 30 transponders (badges) for controlling 4 protected scenarios - 2 modules

<input type="checkbox"/> HD4607Z4		Axolute
<input checked="" type="checkbox"/> HC4607/4		
<input checked="" type="checkbox"/> HS4607/4		
<input type="checkbox"/> N4607/4		Livinglight
<input checked="" type="checkbox"/> NT4607/4		
<input checked="" type="checkbox"/> L4607/4		
<input type="checkbox"/> AM5787/4		Màtix

LIGHTS AND SHUTTERS AUTOMATION



Item	TRANSPONDER	
<input type="radio"/> 3530S		Portable badge - when it is moved close to the transponder reader, it activates it allowing the signal generated on the BUS to be transferred - no need for batteries for power supply - automatically coded through the transponder reader
<input type="radio"/> 3540		As above - key-ring

Warning: only controls with production batch 03W18 or higher can read items 3530S (slim badge) and 3540 (key-rings). The older readers only work with item 3530 (badge).

CONTACT INTERFACE		
<input type="radio"/> 3477		Basic module command interface with 2 independent contacts for the control of 2 actuators for single-function loads or for the control of 1 actuator for double function loads (shutters) - it accepts two traditional input switches or traditional pushbuttons with NO and NC contact or a traditional switch or interlocked buttons
<input type="radio"/> F428		As above - 2 DIN modules

MEMORY MODULE		
<input type="radio"/> F425		Module to store the actuators status - to restore the lights automation system in case of power failure - 2 shallow DIN modules

ACTIVE INFRARED RECEIVERS		
Receiver for remote control through remote control device 3529 - up to 16 activations or scenarios stored in the scenario module F420 and scenario programmer MH202- 2 modules		

<input type="checkbox"/> HD4654 <input type="checkbox"/> HC4654 <input checked="" type="checkbox"/> HS4654		Axolute
<input type="checkbox"/> N4654N <input type="checkbox"/> NT4654N <input checked="" type="checkbox"/> L4654N		Livinglight
<input type="checkbox"/> AM5834		Mätix

IR REMOTE CONTROL		
<input type="radio"/> 3529		Device for receivers control (up to 16 in the same environment) - 16 directly selectable channels - power supply by battery type (AAA) 2 x 1.5 V.

Item	KIT - SHUTTER AUTOMATION	
<input type="radio"/> MHKIT1013	Solution for shutters automation. It is used to control 5 shutters or motorized curtains, or mixed solutions of shutters and curtains, with individual controls and general control. The kit is composed of: <ul style="list-style-type: none"> • 1 power supply item E49 • 1 rolling shutter control item LN4660M2 • 5 rolling shutter actuators item LN4661M2 • key covers with UP/DOWN and STOP symbols • various configurators. It can be expanded with other equal actuators and integrated with other MyHOME functions. LIVINGLIGHT design (White, Tech, Anthracite finishing elements)	

KIT - LIGHT AND SHUTTER AUTOMATION		
<input type="radio"/> MHKIT1114	Solution for controlling 6 shutters or 6 lights and 3 shutters or 12 light points with overall controls and individual controls. Possibility to store the shutter position. The kit is composed of: <ul style="list-style-type: none"> • 1 power supply item E49 • 1 shutters control item L4652/2 • 6 rolling shutter actuators item LN4671M2 • various configurators. To be completed with LIVINGLIGHT key covers. Expandable with other MyHOME devices sharing the BUS cable item L4669. 	

Note: The package does not include the following items, to be purchased separately:
 - cable (twisted pair with sheath) item L4669 sold in coils of 100 meters;
 - flush mounted or wall mounted boxes, and finishing cover plates of LIVINGLIGHT series.

RADIO INTERFACES FOR EXTENSION BUS SYSTEM		
SCS / ZigBee interface for the integration of radio control devices into the MyHome system. Power supply 27 Vd.c. from BUS - 2 flush mounted modules.		

<input type="checkbox"/> HD4578 <input type="checkbox"/> HC4578 <input checked="" type="checkbox"/> HS4578		Axolute
<input type="checkbox"/> N4578N <input type="checkbox"/> NT4578N <input checked="" type="checkbox"/> L4578N		Livinglight

LIGHTS AND SHUTTERS AUTOMATION



HD4658



L4658N



AM5659



BMSE3001



BMSE3003



0 488 34

Item

GREEN SWITCH AND PIR SENSOR

Green Switch: dual technology presence sensor, passive infrared and ultrasound (PIR + US), suitable for the presence detection in the work areas (offices, meeting rooms). Equipped with manual on/off switch. Mode of operation (automatic or manual), delay time (from 5s to 59min) and brightness threshold (from 20 to 1275 lux) settable by means of advanced/basic configuration remote control (BMSO4001/BMSO4003), physical or virtual configuration. 2 modules

- HD4658
- HC4658
- HS4658
- N4658N
- NT4658N
- L4658N
- AM5658



Axolute

Livinglight

Màtix

Green Switch: passive infrared motion sensor (PIR), suitable for motion detection in traffic areas (hallways, bathrooms, utility rooms). Mode of operation (automatic or manual), delay time (from 5s to 59min) and brightness threshold (from 20 to 1275 lux) settable by means of advanced/basic configuration remote control (BMSO4001/BMSO4003), physical or virtual configuration. 2 modules

- HD4659
- HC4659
- HS4659
- N4659N
- NT4659N
- L4659N
- AM5659



Axolute

Livinglight

Màtix

Management of lighting level depending on the presence of people and the level of natural light: this means maximum visual comfort for the users, and a big contribution to energy savings. In the service sector, savings up to 55% are possible.

UP TO 55%
SAVINGS
in compliance with EN15193 standard

Item

LIGHTING/MOEMENT SENSORS

BMSE3001



SCS passive infrared sensor suitable for movement and lighting level detection, flush mounted in the ceiling with springs or flush-mounted box, surface installation by surface installation box item 048875, degree of protection IP20, connection with terminals and RJ45, 8 m diameter coverage area (50 square meters) and 2.5 m installation height, maximum installation height of 6 m, power supply 27 V d.c. by Bus, absorption 12 mA, adjustment using basic/advanced remote control (BMSO4003 and BMSO4001) or through configuration software, of the lighting level from 5 lux to 1275 lux, of the delay time from 30 s to 255 h and of the main operating parameters, equipped with a button for the Push&Learn procedure

BMSE3003



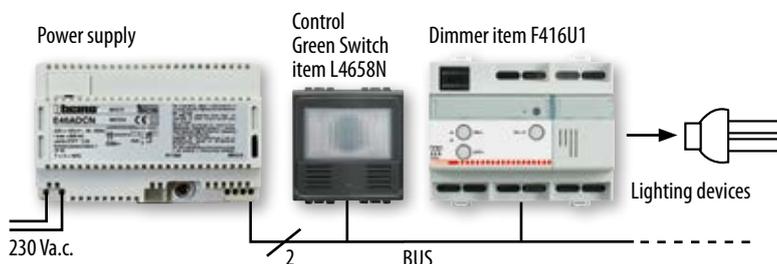
SCS dual technology sensor: passive infrared and ultrasound, suitable for presence and lighting level detection flush mounted in the ceiling with springs or flush-mounted box, surface installation by surface installation box item 048875, degree of protection IP20, connection with terminals and RJ45, 8 m diameter infrared coverage area (50 square meters) for 2.5 m installation height, 11 m diameter infrared coverage area (95 square meters) and 2.5 m installation height, maximum installation height of 6 m, power supply 27 V d.c. by Bus, absorption 17 mA, adjustment using basic/advanced remote control (BMSO4003 and BMSO4001) or through configuration software, of the lighting level from 5 lux to 1275 lux, of the delay time from 30 s to 255 h and of the main operating parameters, equipped with a button for the Push&Learn procedure

048834



Passive Infrared IP55 movement sensor (PIR), suitable for movement detection in outdoor or indoor traffic areas (hallways, cellars, Corcelli box). Coverage area: 140° x 15m at 2.5m height. Mode of operation (automatic or manual), delay time (from 5s to 59min) and brightness threshold (from 20 to 1275 lux) settable by means of advanced/basic configuration remote control (BMSO4001/BMSO4003), physical or virtual configuration. Installation on wall or angle through a special accessory item 048971

DIAGRAM OF USE OF THE GREEN SWITCH ITEM L/N/NT4658N



ECO MODE

Manual load switching on and automatic switching off by the dimmer/actuator, based on the detection of movement and the lighting level detected by the switch, item L4658N. The function of the switch is mainly to activate the automatism of the dimmer/actuator: on first pressure the sensor compares the desired light level with the actual light level inside the room, and decides if the lights must be switched on or not. A second pressure of the control, if desired, will force the switching on or off of the automatism set by the dimmer/actuator.

LIGHTS AND SHUTTERS AUTOMATION


BMSO4001

BMSO4003

H4671M2

LN4671M2

AM5851M2

Item	CONFIGURATION REMOTE CONTROL
○ BMSO4001	Advanced Configuration remote control equipped with infrared transmitter and receiver, it is used to adjust the main operating parameters of: Switch Sensor, Green Switch and SCS compatible sensors. Equipped with visual display for the acquisition of the parameters set on the sensors and their modification, batteries charging through mini USB port
○ BMSO4003	Basic configuration remote control equipped with infrared transmitter and receiver, it is used to adjust the main operating parameters of: Switch Sensor, Green Switch and SCS compatible sensors. It allows editing the parameters only to preset values, batteries recharging not available

	INSTALLATION ACCESSORIES
○ 048875	Box for surface ceiling installation, compatible with the sensors: BMSE3001 and BMSE3003, degree of protection IP20, dimensions Ø 100 x 50 mm
○ 048971	Accessory for angle installation, compatible with the sensor 048834, degree of protection IP42, dimensions (h x w x d) 115 x 75 x 40 mm

Item		ACTUATORS AND FLUSH MOUNTED ACTUATORS/ DIMMERS
○ H4671M2		Axolute
○ LN4671M2		Livinglight
○ AM5851M2		Mätix
		Actuator/control with 2 independent relays - for single, double or mixed loads: 2 A resistive, 2 A incandescent lamps, 500 W for motor reducers, 2 A cosφ 0.5 for ferromagnetic transformers and 70 W fluorescent lamps - relay logic interlock through configuration. The device can be configured also to manage a remote actuator - 2 modules
○ H4671/1		Axolute
○ L4671/1		Livinglight
○ AM5851/1		Mätix
		1 relay actuator with control-key - for single loads: 6 A resistive or incandescent lamps, 2 A cosφ 0.5 for ferromagnetic transformers and 150 W fluorescent lamps - to be completed with 2-module key covers for single or double function - 2 modules

FEATURES OF LIGHTING/MOVEMENT SENSORS

SCS SENSORS	048834	BMSE3001	BMSE3003
INSTALLATION	wall	ceiling flush-mounted	
TYPE OF OPERATION	AUTO/ECO/WALKTHROUGH	AUTO/ECO/WALKTHROUGH	
SENSOR TECHNOLOGY	PIR	PIR	PIR+US
POWER SUPPLY	27 V d.c. from Bus	27 V d.c. from Bus	
DEGREE OF PROTECTION	IP55	IP20	
COVERAGE AREA AT 2.5 m	15 m x 6 m	Ø 8 m	Ø 11 m
COVERING ANGLES (v/h)	45°/140°	90°/360°	
LIGHTING LEVEL	5 lux - 1275 lux	5 lux - 1275 lux	
SWITCH OFF DELAY	5 s - 59 min - 59 h	30 s - 255 h - 59 min - 59 sec	
FACTORY SETTINGS	300 lux - 15 minutes	300 lux - 15 minutes	
TYPE OF CONNECTION	SCS terminal	RJ45 connector	

Management of lighting level depending on the presence of people and the level of natural light: this means maximum visual comfort for the users, and a big contribution to energy savings. In the service sector, savings up to 55% are possible.



LIGHTS AND SHUTTERS AUTOMATION


H4678

L4678

3475

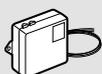
F401

Item **ACTUATORS AND FLUSH MOUNTED ACTUATORS/DIMMERS**
Dimmer actuator for incandescent lamps and ferromagnetic transformers - 60 - 300 VA 230 Va.c. - to be completed with 2-module key cover for single or double function - 2 modules

 H4678

 L4678


Axolute
Livinglight

 3475


BASIC MODULE ACTUATORS

1 relay actuator - for single loads: 2 A resistive or incandescent lamps and 2 A $\cos \varphi 0.5$ for ferromagnetic transformers - suitable for installation in ceiling light cups or in flush mounted boxes behind the control devices.

 3476

1 relay actuator - for single loads: 2 A resistive or incandescent lamps, 2 A $\cos \varphi 0.5$ for ferromagnetic transformers - accepts as input a traditional pushbutton with NO contact

Item **ACTUATORS FOR SHUTTER MANAGEMENT**
Flush mounted 2 module actuator with 2 internal relays and 4 buttons. In addition to the monostable and bistable UP/DOWN functions the actuator prepares the shutters in a stored position (PRESET)

 H4661M2

 LN4661M2

 AM5861M2

 F401


Axolute
to match with the control devices H4660M2
Livinglight

to match with the control devices LN4660M2

Màtix
to match with the control devices AM5860M2

as above - with 3 pushbuttons for local control - 2 DIN modules

CONTROLLABLE LOADS (230 Va.c. 50/60 Hz)

Actuators	Type						
	Incandescent and halogen lamps energy saving	LED lamps	Linear fluorescent lamps ¹⁾	Compact fluorescent lamps	Electronic transformers ³⁾	Ferromagnetic transformers ^{2) 3)}	Motor reducers for shutters ⁴⁾
H/L4671M2 AM5851M2	2 A 460 W	70 W Max. 2 lamps	0.3 A 70 W	70 W Max. 2 lamps	0.3 A 70 W	2 A $\cos \varphi 0.5$ 460 VA	2 A 460 W
H/L4671/1 AM5851/1	6 A 1380 W	150 W Max. 3 lamps	0.65 A 150 W	150 W Max. 3 lamps	0.65 A 150 W	2 A $\cos \varphi 0.5$ 460 VA	- -
H/L4678	0.25 - 1.30 A 60 - 300 W	- -	- -	- -	- -	0.25 - 1.30 A 60 - 300 VA	- -
3475 3476	2 A 460 W	40 W Max 1 lamp	- -	40 W Max 1 lamp	- -	2 A $\cos \varphi 0.5$ 460 VA	- -
H/L4661M2 AM5861M2 F401	-	-	-	-	-	-	2 A 250 Va.c.

Notes:

1) Power factor corrected fluorescent lamps, energy saving lamps, discharge lamps.

2) In order to calculate the actual power of the load connected to the actuator, it will be necessary to take into account the transformer performance. For example, when connecting a dimmer to a 100 VA ferromagnetic transformer with 0.8 performance, the actual load power will be 125 VA.

3) The transformer must be loaded at its rated power, or in any case never below 90% of its rated power. It will be preferable to use a single transformer, rather than several transformers in parallel. For example, it will be preferable to use one single 250 VA transformer with 5 x 50 W spotlights connected, rather than using 5 x 50 VA transformers in parallel, with one 50 W spotlight each.

4) The symbol shown on the actuators refers to the shutter motor reducers.

LIGHTS AND SHUTTERS AUTOMATION



F411U1 F411U2 F411/4 F411/1NC



BMSW1002 BMSW1003

Item	ACTUATORS FOR CENTRALIZATIONS	
○ F411U1		Two-way 1 relay actuator - for single loads: 16 A resistive, 10 A incandescent lamps, 4 A $\cos\phi 0.5$ for ferromagnetic transformers and 4 A for fluorescent lamps - equipped with zero crossing technology - 2 DIN modules
○ F411U2		Actuator with 2 independent relays - for single and double loads: 10 A resistive and 6 A incandescent lamps, 500 W for motor reducers, 2 A $\cos\phi 0.5$ for ferromagnetic transformers and 250 W fluorescent lamps - relay logic interlock through configuration - equipped with zero crossing technology - 2 DIN modules
○ F411/4		Actuator with 4 independent relays - for single, double or mixed loads: 2 A resistive, 2 A incandescent lamps, 500 W for motor reducers, 2 A $\cos\phi 0.5$ for ferromagnetic transformers and 70 W fluorescent lamps - relay logic interlock through configuration - 2 DIN modules
○ F411/1NC		Actuator with 1 NC two-way relay for single loads 16A resistive, 10A for incandescent lamps and 4A for fluorescent lamps. When the device is powered on, it is always with closed contact (ON status) and it is open with an OFF command. In this way in case of voltage lack from the BUS, the device will remain in the ON status, keeping the load ON - 2 DIN modules

Item	ACTUATORS FOR CENTRALIZATIONS	
○ BMSW1002		ON/OFF actuator, 2 independent outputs with maximum 16 A at 230 Va.c., connection to terminal RJ45, degree of protection IP20, power supply 100/240 Va.c. 50/60 Hz power supply, buttons for the load direct control - zero-crossing function - 4 DIN modules
○ BMSW1003		ON/OFF actuator, 4 independent outputs with maximum 16 A at 230 Va.c., connection to terminal RJ45, degree of protection IP20, power supply 100/240 Va.c. 50/60 Hz power supply, buttons for the load direct control - zero-crossing function - 6 DIN modules
○ BMSW1005		ON/OFF actuator, "Zero Crossing" technology, 8 independent maximum load outputs 16 A at 230 V a.c., terminal connection, degree of protection IP20, power supply 100/240 V a.c. 50/60 Hz power supply, buttons for the load direct control - 10 DIN modules

CONTROLLABLE LOADS (250 Va.c. 50/60 Hz)

Actuators	Type						
F411U1	10 A 2300 W	500 W Max. 10 lamps	4 A 920 W	500 W Max. 10 lamps	4 A 920 W	4 A $\cos\phi 0.5$ 920 VA	-
F411U2	10 A 1380 W	250 W Max. 4 lamps	4 A 230 W	250 W Max. 4 lamps	4 A 230 W	4 A $\cos\phi 0.5$ 460 VA	2 A 460 W
F411/4	2 A 460 W	70 W Max. 2 lamps	0.3 A 70 W	70 W Max. 2 lamps	0.3 A 70 W	2 A $\cos\phi 0.5$ 460 VA	2 A 460 W
F411/1NC	10 A 2300 W	500 W Max. 10 lamps	4 A 920 W	500 W Max. 10 lamps	4 A 920 W	4 A $\cos\phi 0.5$ 920 VA	-
BMSW1002	16 A 3680 W	2.1 A 500 VA	10 X (2 X 36 W) 4.3 A	1150 W 5 A	16 A 3680 W	16 A 3680 W	-
BMSW1003	16 A 3680 W	2.1 A 500 VA	10 X (2 X 36 W) 4.3 A	1150 W 5 A	16 A 3680 W	16 A 3680 W	-
BMSW1005	16 A 3680 W	2.1 A 500 VA	4.3 A 10X2X36W	5 A 1150 VA	16 A 3680 W	16 A 3680 W	-

Notes:

- 1) Power factor corrected fluorescent lamps, energy saving lamps, discharge lamps.
- 2) In order to calculate the actual power of the load connected to the actuator, it will be necessary to take into account the transformer performance. For example, when connecting a dimmer to a 100 VA ferromagnetic transformer with 0.8 performance, the actual load power will be 125 VA.
- 3) The transformer must be loaded at its rated power, or in any case never below 90% of its rated power. It will be preferable to use a single transformer, rather than several transformers in parallel. For example, it will be preferable to use one single 250 VA transformer with 5 x 50 W spotlights connected, rather than using 5 x 50 VA transformers in parallel, with one 50 W spotlight each.
- 4) The symbol shown on the actuators refers to the shutter motor reducers.

LIGHTS AND SHUTTERS AUTOMATION



F413N



BMDI1001



F414



F429



F416U1



F417U2



F418U2

Item	DIMMERS FOR CENTRALIZATIONS	
○ BMDI1001		Dimmer 1/10V, 1 maximum output load 4.3 A at 230 Va.c., connection to terminal RJ45, degree of protection IP20, 6 DIN modules, power supply 100/240 Va.c. 50/60 Hz, direct load control pushbutton - 6 modules
○ BMDI1002		Dimmer 1/10V, "Zero Crossing" technology, 4 maximum load outputs 4.3 A at 230 V a.c., terminal connection, degree of protection IP20, 100/240 V a.c. 50/60 Hz power supply, buttons for the load direct control - 10 DIN modules
○ F413N		1 output Dimmer for powering of fluorescent lamps or LED sources with 1÷10 V input for single loads up to 2.5 A at 230 Va.c. - screw connection - 27 Vd.c. power supply - absorption 30 mA - connecting up to 10 ballasts (terminals 1-2) - provided with button for load direct control - DIN rail mounting version 2 modules
○ F414		1 output Dimmer for powering incandescent and halogen lamps with ferromagnetic transformer - 27 Vd.c. power supply - absorption 9 mA - provided with button for load direct control - DIN rail mounting version - 4 modules
○ F429		DALI dimmer with 8 independent outputs for connecting up to 16 DALI ballasts each output - power supply 230 Va.c. 50/60 Hz; 110 - 240 Vd.c. - absorption 5 mA - provided with button for load direct control - DIN rail mounting version - 6 modules

Item	MULTILOAD DIMMER FOR CENTRALIZATIONS	
○ F416U1		Multiloading dimmer, 1 output with maximum load 4.3 A at 230 Va.c., connection to terminal RJ45, degree of protection IP20, power supply 100/240 Va.c. 50/60 Hz, direct load control pushbutton - 6 DIN modules
○ F417U2		Multi-load Dimmer, 2 maximum output load 1.7 A at 230 Va.c., connection to terminal RJ45, degree of protection IP20, 100/240 Va.c. 50/60 Hz power supply, button for the load direct control - 6 DIN modules
○ F418		Dimmer for dimmable LED management, dimmable CFL compact fluorescent lamps, energy-saving halogen lamps and 110-230 V electronic transformers. 27 Vd.c. power supply, absorption 10 mA - version for fastening on DIN rail - 4 modules
○ F418U2		Two-channel dimmer for the management of LEDs, dimmable lamps, dimmable CFL compact fluorescent lamps, halogen energy saving lamps and 110-230V electronic transformers. Possibility of parallelization of the two channels to increase the maximum power which can be managed. 27 Vd.c. power supply, absorption 18 mA - version for fastening on DIN rail - 4 modules

CONTROLLABLE LOADS (230 Va.c. 50/60 HZ)

Actuators	Type						
BMDI1001	4.3 A 1000 VA	-	4.3 A 1000 VA	4.3 A 1000 VA	-	-	-
BMDI1002	Dimmer for ballast - four 4.3 A outputs - 4x 1000VA@ 230 Vac - 4x500VA@ 230 Vac						
F413N	-	-	2 A 460 W ⁵⁾ Max. 10 ballast type T5, T8, compact or driver for LED	-	-	-	-
F414	0.25 - 4.3 A 60 - 1000 VA	-	-	-	-	0.25 - 4.3 A 60 - 1000 VA	-
F416U1	4.3 A 40 - 1000 W	-	-	-	4.3 A 40 - 1000 W	4.3 A 40 - 1000 W	-
F417U2	1.7 A 40 - 400 W	-	-	-	1.7 A 40 - 400 W	1.7 A 40 - 400 W	-
F418	1÷300 W	1÷300 VA	-	1÷300 VA	1÷300 VA	-	-
F418U2	2x300 W	2x300 VA	-	2x300 VA	2x300 VA	2x300 VA	-
F429	SCS/DALI dimmer interface - 8 x16 ballast						

Notes:

1) Power factor corrected fluorescent lamps, energy saving lamps, discharge lamps. 2) In order to calculate the actual power of the load connected to the actuator, it will be necessary to take into account the transformer performance. For example, when connecting a dimmer to a 100 VA ferromagnetic transformer with 0.8 performance, the actual load power will be 125 VA. 3) The transformer must be loaded at its rated power, or in any case never below 90% of its rated power. It will be preferable to use a single transformer, rather than several transformers in parallel. For example, it will be preferable to use one single 250 VA transformer with 5 x 50 W spotlights connected, rather than using 5 x 50 VA transformers in parallel, with one 50 W spotlight each. 4) The symbol shown on the actuators refers to the shutter motor reducers. 5) Only compatible with lamps with 1/10V Ballast.

TEMPERATURE CONTROL



HD4695



L4695



AM5875



3550



HS4693



N4693



H4691



HC4692FAN



HC4692



N4692



AM5872

Item **4 ZONE CENTRAL UNIT**

Central unit for the management of a temperature control system with a maximum of 4 zones - the package also includes the TiThermo Basic software for programming from PC - 3 modules

- HD4695
- HC4695
- HS4695
- N4695
- NT4695
- L4695
- AM5875



Axolute

Livinglight

Màtix

99 ZONE CENTRAL UNIT

3550 Central unit for the management of a temperature control system with a maximum of 99 zones - the package also includes the TiThermo software for programming from PC - wall mounting or in MULTIBOX containers



BATTERY

3507/6 6V 0.5 Ah battery for temperature control central unit



THERMOSTAT

Flush mounted thermostat with backlit display. It is used to control the temperature of a single zone, both in the presence and absence of a temperature control unit. It is equipped with a temperature probe and an input for the connection of a contact line (e.g. window contact). It allows the management of different types of systems and the fan speed adjustment if fan coils are used. Possibility of automatic operation (summer/winter) with compatible systems. Connection to a SCS bus - 2 DIN modules

- H4691
- LN4691



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Item **PROBES**

Probe for controlling the room temperature for heating and cooling systems - temperature measuring range 3-40°C - 2 modules

- HD4693
- HC4693
- HS4693
- N4693
- NT4693
- L4693



Axolute

Livinglight

KNOB SENSORS

Room temperature control sensor for heating and cooling systems. Equipped with knob for the variation of $\pm 3^{\circ}\text{C}$ above the temperature set in the central unit and for the selection of the OFF and antifreeze mode - 2 modules

- HD4692
- HC4692
- HS4692
- N4692
- NT4692
- L4692
- AM5872



Axolute

Livinglight

Màtix

FAN COIL KNOB SENSORS

Room temperature control sensor for heating and cooling systems. Equipped with knob for the variation of $\pm 3^{\circ}\text{C}$ above the temperature set in the central unit and for the selection of the OFF and antifreeze mode with of manual/automatic speed selection for fan-coil and Idrorelax system - 2 modules

- HD4692FAN
- HC4692FAN
- HS4692FAN
- N4692FAN
- NT4692FAN
- L4692FAN



Axolute

Livinglight

WIRELESS TEMPERATURE SENSOR

3455 Wireless probe for outdoor temperature measurement - power supply by solar cells or 3.6 V Lithium battery LS14250/1/2 - IP65 wall container. Use with dedicated wireless receiving interface item HC/HD/HS4577 (**Axolute**) or item L/N/NT4577 (**Livinglight**)



TEMPERATURE CONTROL - ENERGY MANAGEMENT



HC4577



L4577



HC4891



N4891



3456



3523



3522N



LN4710

Item **WIRELESS RECEIVING INTERFACES FOR PROBE**

Wireless receiving interface for wireless temperature probe 3455 - 27 Vd.c. power supply from the BUS - 2 modules

- HD4577
- HC4577
- HS4577
- N4577
- NT4577
- L4577



Axolute

Livinglight

LOCAL DISPLAY

1.2" OLED Touch Screen for the simultaneous management of max 4 functions: Sound System, Temperature control, Consumption display, Load management, Scenarios - 2 modules

- HD4891
- HC4891
- HS4891
- N4891
- NT4891
- L4891



Axolute

Livinglight

EXTERNAL SENSOR

- 3457



Local Display external sensor

ACTUATORS

- F430/2



Actuator with 2 independent relays - for single and double loads: 6 A resistive, 2A motorized valves and pumps - logic relay interlock through configuration - 2 DIN modules

- F430/4

Actuator with 4 independent relays - for single, double or mixed loads: 4 A resistive, 1A motorized valves, pumps and fan-coil - relays logic interlock through configuration - 2 DIN modules

- F430R8



Actuator with 8 independent relays for controlling on-off valves, motorized valves (open-close and with three points), pumps and 2 and 4 tube fan coils - 4A resistive, 1A motorized valves, pumps and fan coils - connection on SCS bus - 4 DIN modules

- F430R3V10

Actuator with 3 independent relays and two 0-10 Volt outputs for coils fan control 2 and 4 tubes with 0-10 Volt proportional valves - 4A resistive, 1A fan coils - connection on SCS bus, 4 DIN modules

- F430V10



Actuator with 2 independent 0-10 Volt outputs for the control of proportional valves 0-10 Volt - connection on SCS bus - 2 DIN modules

Item **CONTACT INTERFACE MODULE**

- 3480



Electromagnetic contact interface module for doors or windows to turn off the zone involved - basic container

- F482



As above - 2 DIN module enclosure

NOTE: for magnetic contacts see the Burglar Alarm section.

SPLITTER MANAGEMENT INTERFACE

- 3456



Interface with IR emitter for air conditioning units to learn and reproduce the IR signal of remote controls for air conditioners. Controllable by MyHOME_Screen 3.5" and 10". Basic mechanism, to facilitate installation behind the air conditioning unit. IR cable length 2 m, 27 V bus power supply.

CONSUMPTION DISPLAY

Energy Display. Device with 1.6" display for showing the power supply consumption (detected by the devices items F520, F521, 3522N) and for controlling the actuators belonging to the energy management system item F522 and item F523 - 2 modules

- H4710



Axolute

- LN4710

Livinglight

- F520



Device for the measurement of electric power up to maximum 3 lines connecting 3 toroids in the dedicated inputs. The data detected and processed is visible on MyHOME_Screen 3.5" and 10". DIN rail mounting version - 1 module. The device is supplied with 1 toroid.

- 3523



Additional toroid for electric power measurement item F520 and for actuator with sensor item F522 for the differential current measurement. Cable length 400 mm

- 3522N



Pulse counter interface for the collection of data from the meters (water, gas, etc.) with pulse output. The values measured can be displayed on all the MyHOME user interfaces (Energy display, Local display, MyHOME_Screen 3.5" and 10"). Basic module version, for hidden installation. Power supply from 27 V BUS.

ENERGY MANAGEMENT


MHKIT4015

N4672N

HS4673

L4673

F521

F522

F523

F524

3508BUS

Item	LOAD CONTROL MANAGEMENT
○ MHKIT4015	<p>This kit can be used to manage the maximum power to be used, and automatically disconnect the least important appliances in case of overload (according to the priority set). It can be easily expanded and integrated with other My HOME functions. The kit is composed of:</p> <ul style="list-style-type: none"> • 1 power supply item E49 • 1 loads control central unit item F521 • 1 16A actuator with measuring sensor item F522 • 2 actuators item. F523 • 1 energy display item LN4710 • various configurators.

Item	LOAD CONTROL MANAGEMENT
○ F521	 <p>Central unit for the load control system actuators management and control to prevent the risk of disconnection from the electricity provider. The center unit handles up to a maximum of 63 loads, a contract power from 1.5 to 18 kW and tolerance up to +/-20%. It includes a bus meter for the controlled line. DIN rail mounting version - 1 module. The device is supplied with 1 toroid.</p>
○ F522	<p>Actuator with integrated current sensor for the controlled load consumption measurement. 1 relay - 10 A for incandescent lamps and 4A for fluorescent lamps or ferromagnetic transformers and 500 W for LED lamps and compact fluorescent lamps - bistable relay with zero crossing for the automation and/or load control management functions. DIN rail mounting version - 1 module. Differential current control made possible by connecting an additional toroid, item 3523</p>
○ F523	<p>1 relay actuator - for incandescent lamps, 4A for fluorescent lamps or ferromagnetic transformers and 500 W for LED lamps and compact fluorescent lamps - Bistable relay with zero crossing for the Automation and/or Load control management functions. DIN rail mounting version - 1 module.</p>

Item	LOAD CONTROL MANAGEMENT
<input type="checkbox"/> HD4672N <input checked="" type="checkbox"/> HC4672N <input checked="" type="checkbox"/> HS4672N <input type="checkbox"/> N4672N <input checked="" type="checkbox"/> NT4672N <input checked="" type="checkbox"/> L4672N	 <p>Axolute Livinglight</p> <p>Actuator with 1 relay - 10 A for incandescent lamps 4 A for fluorescent lamps or ferromagnetic transformers and 500 W for LED lamps and compact fluorescent lamps for the Automation and/or load control management functions. Load forced operation button - built-in version - 2 modules</p>
<input type="checkbox"/> HD4673 <input checked="" type="checkbox"/> HC4673 <input checked="" type="checkbox"/> HS4673 <input type="checkbox"/> N4673 <input checked="" type="checkbox"/> NT4673 <input checked="" type="checkbox"/> L4673	 <p>Axolute Livinglight</p> <p>Panel for the loads connected to the actuators displaying and control</p>
○ F524	 <p>IP DATA CONCENTRATOR - ENERGY DATA LOGGER</p> <p>Device for the centralization of the power consumption data, measured with F520 bus meters with toroids, F521 load control unit or 3522N pulse-counter interface. The data can be displayed by integrated web pages connecting the device to a network by the Ethernet port. It allows the configuration of different tariffs and the downloading of data, the addition or subtraction of lines as well as multiplication by a factor. The device is equipped with a slot for micro SD for an additional backup of the recorded data and of the OpenWebNet controls related to the consumption displaying. DIN rail mounting version - 1 module - Power supply from 27V BUS</p>

Item	ACCESSORIES
○ 3508BUS	 <p>plug-in clamp for BUS connection - width 3.81 mm</p>
○ 3508U2	2 pole plug-in clamp
○ 3508U3	3 pole plug-in clamp

COMMON DEVICES AND ACCESSORIES



E46ADCN



335919



3559

Item		POWER SUPPLIES
<input type="radio"/> E46ADCN		Power supply - input 230 Vac, output 27 Vd.c. SELV - maximum absorbed current 450mA - version for fastening on DIN rail for flush-mounted or wall-mounted central units - 8 DIN modules
<input type="radio"/> E46ADCN/127		As above - 127 Va.c.
<input type="radio"/> E49		Compact power supply - input 230 Va.c. - output 27 Vd.c. - maximum power delivered 600 mA - 2 DIN modules
<input type="radio"/> 346020		Compact additional power supply. For local supply of internal and external video door entry entrance panels. Power supply: 230 Va.c. @ 50-60 Hz. Maximum power delivered 600 mA. Protected by integrated fuse (not replaceable). Double insulation SELV device - 2 DIN modules

Item		VARIOUS ACCESSORIES
<input type="radio"/> 3515		Spare plug-in clamp
<input type="radio"/> 335919		Connecting cable to the PC for programming Automation, Burglar Alarm, Temperature Control and Sound System devices - RS232 port
<input type="radio"/> 3559		Cable as above - for USB port

For the selection of the power supply, based on the system being installed, refer to the following table.

System	Power supply		
	E46ADCN	E49	346020
Automation	●	●	
Energy management/Consumption display	●	●	
Temperature control	●	●	
Integration and control			●

COMMON DEVICES AND ACCESSORIES



L4669
L4669/500
L4669HF



336904



502PA

Item

WALL MOUNTED BOXES FOR POWER SUPPLY AND BATTERY - BURGLAR ALARM SYSTEM

○ F115/8A		DIN wall mounted enclosure for the installation of power supply item E47ADCN
○ F115/8B		container for 12V 7Ah battery for burglar alarm system self-powering with power supply item E47ADCN - self-protection contact against opening attempts

WALL MOUNTED BOXES FOR MODULAR DEVICES

○ 502NPA		surface box with reduced depth for wall installation - equipped with anti-tamper device - 2 modules - fitted with support
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ANGULAR BOX

○ 502PA		Surface box for angle installation - equipped with anti-tamper device - 2 modules - fitted with support and white cover plate (LB)
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CONNECTION CABLES

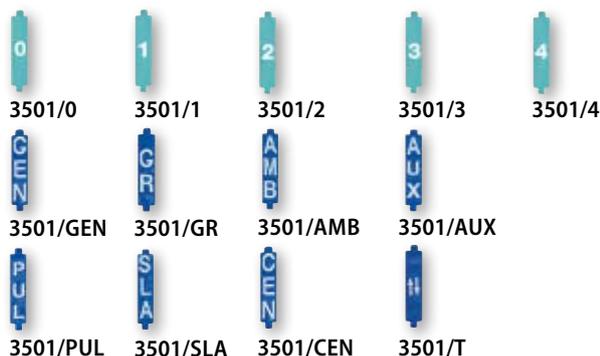
○ L4669		sheathed twisted pair made up of 2 flexible wires with plaited and unshielded sheath - 300/500 V insulation - in compliance with CEI 46-5 and CEI 20-20 - coil length 100 meters
○ L4669/500		as above - coil length 500 meters
○ L4669KM1		as above - coil length 1000 meters (1)
○ 336904		specific cable with 2 twisted conductors. It can be installed in underground piping, in accordance with standards (CEI 20-13 and CEI 20-14). It ensures the best performance in video systems (greater distance between PE and PI than using other cables). Coil length 200 meters
○ L4669HF		as above - low toxicity halogen-free cable - ideal for applications in environments where there will be greater regard for safety in case of fire - coil length 200 m

System

Cable

	L4669 L4669/500 L4669KM1	336904 L4669HF
Automation	●	●(2)
Energy management/Consumption Display	●	●(2)
Temperature control	●	●(2)

NOTE (1): for availability contact your local BTicino sales representative
(2): for systems with underground cable lines



Item

VIRTUAL CONFIGURATION KIT

○ 3504		kit for the Automation system configuration through PC and VIRTUAL CONFIGURATOR software, supplied by CD and Secure Digit (SD) memory card. It replaces item 3503N.
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CONFIGURATORS - SINGLE-TYPE PACKAGE OF 10 PIECES

○ 3501/0	configurator 0
○ 3501/1	configurator 1
○ 3501/2	configurator 2
○ 3501/3	configurator 3
○ 3501/4	configurator 4
○ 3501/5	configurator 5
○ 3501/6	configurator 6
○ 3501/7	configurator 7
○ 3501/8	configurator 8
○ 3501/9	configurator 9
○ 3501/GEN	configurator GEN
○ 3501/GR	configurator GR
○ 3501/AMB	configurator AMB
○ 3501/AUX	configurator AUX
○ 3501/ON	configurator ON
○ 3501/OFF	configurator OFF
○ 3501/OI	configurator OI

CONFIGURATORS - SINGLE-TYPE PACKAGE OF 10 PIECES

○ 3501/PUL	configurator PUL
○ 3501/SLA	configurator SLA
○ 3501/CEN	configurator CEN
○ 3501/T	configurator ↑↓
○ 3501/TM	configurator ↑↓ M

CONFIGURATOR KIT

○ 3501K		Configurator kit from 0 to 9
○ 3501K/1		Configurator kit AUX, GEN, GR, AMB, ON, OFF, O/I, PUL, SLA, CEN, ↑↓, ↑↓ M

CONFIGURATOR TWEEZERS

○ 3502	tweezers for the connection and the removal of configurators (1)
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KEY COVERS

KEY-COVERS WITHOUT SILK-SCREEN PRINTING FOR 1 FUNCTION



KEY-COVERS WITHOUT SILK-SCREEN PRINTING FOR 2 FUNCTIONS

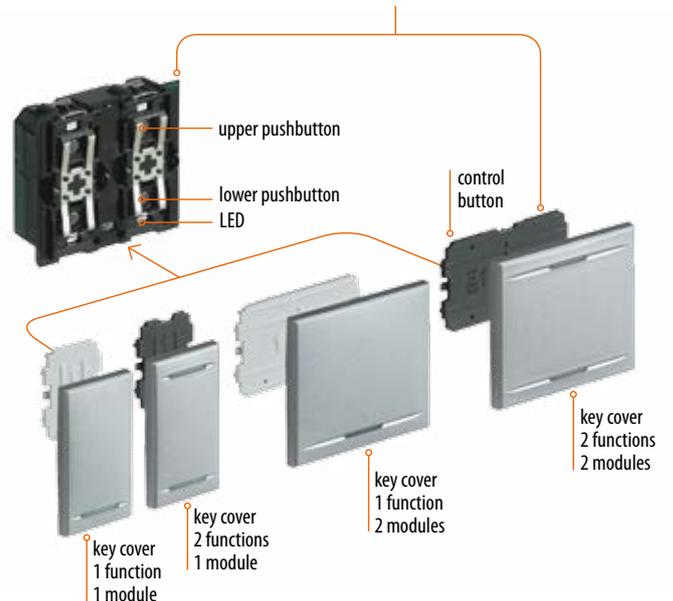


KEY-COVERS WITHOUT SILK-SCREEN PRINTING - 1 FUNCTION		
	1 module	2 modules
	Item	Item
Axolute		
<input type="checkbox"/>	HD4915	HD4915M2
<input type="checkbox"/>	HC4915	HC4915/2
<input type="checkbox"/>	HS4915	HS4915/2
Livinglight		
<input type="checkbox"/>	N4915LN	N4915M2LN
<input type="checkbox"/>	NT4915N	NT4915M2N
<input type="checkbox"/>	L4915N	L4915M2N
Mätix		
<input type="checkbox"/>	AM5911*	AM5911/2*

KEY-COVERS WITHOUT SILK-SCREEN PRINTING - 2 FUNCTIONS		
	1 module	2 modules
	Item	Item
Axolute		
<input type="checkbox"/>	HD4911	HD4911M2
<input type="checkbox"/>	HC4911	HC4911/2
<input type="checkbox"/>	HS4911	HS4911/2
Livinglight		
<input type="checkbox"/>	N4911N	N4911M2N
<input type="checkbox"/>	NT4911N	NT4911M2N
<input type="checkbox"/>	L4911N	L4911M2N
Mätix		
<input type="checkbox"/>	AM5911*	AM5911/2*

* key-covers usable for 1 and 2 functions

NOTE: control keys are supplied with the device as standard.



KEY COVERS

KEY-COVERS WITH SILK-SCREEN PRINTING FOR 1 FUNCTION

Axolute



HD4915AA HC4915/2AA HS4915BA

Livinglight



NT4915AN NT4915M2ADN NT4915MR

Màtix



AM5915AC AM5915/2AA AM5915BA

KEY-COVERS WITH 1 FUNCTION SYMBOL SILK-SCREEN PRINTING

Description	Axolute		Livinglight		Màtix		
	1 module	2 modules	1 module	2 modules	1 module	2 modules	
	Item	Item	Item	Item	Item	Item	
OFF	<input type="checkbox"/>	HD4915AA	HD4915M2AA	—	—	—	—
	<input type="checkbox"/>	HC4915AA	HC4915/2AA	—	—	AM5915AA	AM5915/2AA
	<input type="checkbox"/>	HS4915AA	HS4915/2AA	—	—	—	—
ON	<input type="checkbox"/>	HD4915AB	HD4915M2AB	—	—	—	—
	<input type="checkbox"/>	HC4915AB	HC4915/2AB	—	—	AM5915AB	AM5915/2AB
	<input type="checkbox"/>	HS4915AB	HS4915/2AB	—	—	—	—
GEN	<input type="checkbox"/>	HD4915AC	HD4915M2AC	—	—	—	—
	<input type="checkbox"/>	HC4915AC	HC4915/2AC	—	—	AM5915AC	AM5915/2AC
	<input type="checkbox"/>	HS4915AC	HS4915/2AC	—	—	—	—
DIMMER	<input type="checkbox"/>	HD4915AD	HD4915M2AD	—	N4915M2ADN	—	—
	<input type="checkbox"/>	HC4915AD	HC4915/2AD	—	NT4915M2ADN	AM5915AD	AM5915/2AD
	<input type="checkbox"/>	HS4915AD	HS4915/2AD	—	L4915M2ADN	—	—
BUTTON	<input type="checkbox"/>	HD4915AE	—	N4915AEN	—	—	—
	<input type="checkbox"/>	HC4915AE	—	NT4915AEN	—	AM5915AE	—
	<input type="checkbox"/>	HS4915AE	—	L4915AEN	—	—	—
ON-OFF	<input type="checkbox"/>	HD4915BA	HD4915M2BA	N4915AN	N4915M2AN	—	—
	<input type="checkbox"/>	HC4915BA	HC4915/2BA	NT4915AN	NT4915M2AN	AM5915BA	AM5915/2BA
	<input type="checkbox"/>	HS4915BA	HS4915/2BA	L4915AN	L4915M2AN	—	—
STAIRCASE LIGHT	<input type="checkbox"/>	—	—	N4915BN	N4915M2BN	—	—
	<input type="checkbox"/>	—	—	NT4915BN	NT4915M2BN	—	—
	<input type="checkbox"/>	—	—	L4915BN	L4915M2BN	—	—
BED LIGHT	<input type="checkbox"/>	HD4915BL	HD4915M2BL	—	—	—	—
	<input type="checkbox"/>	HC4915BL	HC4915M2BL	—	—	—	—
	<input type="checkbox"/>	HS4915BL	HS4915M2BL	—	—	—	—
BELL	<input type="checkbox"/>	HD4915BB	HD4915M2BB	—	—	—	—
	<input type="checkbox"/>	HC4915BB	HC4915/2BB	—	—	AM5915BB	—
	<input type="checkbox"/>	HS4915BB	HS4915/2BB	—	—	—	—
EXHAUST FAN	<input type="checkbox"/>	HD4915BC	HD4915M2BC	—	—	—	—
	<input type="checkbox"/>	HC4915BC	HC4915/2BC	—	—	—	—
	<input type="checkbox"/>	HS4915BC	HS4915/2BC	—	—	—	—
KEY	<input type="checkbox"/>	HD4915BD	HD4915M2BD	N4915FN	N4915M2FN	—	—
	<input type="checkbox"/>	HC4915BD	HC4915/2BD	NT4915FN	NT4915M2FN	AM5915BD	—
	<input type="checkbox"/>	HS4915BD	HS4915/2BD	L4915FN	L4915M2FN	—	—
DO NOT DISTURB	<input type="checkbox"/>	HD4915DD	HD4915M2DD	N4915DD	N4915M2DD	—	—
	<input type="checkbox"/>	HC4915DD	HC4915M2DD	NT4915DD	NT4915M2DD	—	—
	<input type="checkbox"/>	HS4915DD	HS4915M2DD	L4915DD	L4915M2DD	—	—
DOORBELL	<input type="checkbox"/>	—	—	N4915DN	N4915M2DN	—	—
	<input type="checkbox"/>	—	—	NT4915DN	NT4915M2DN	—	—
	<input type="checkbox"/>	—	—	L4915DN	L4915M2DN	—	—
REARRANGE THE ROOM	<input type="checkbox"/>	HD4915MR	—	N4915MR	—	—	—
	<input type="checkbox"/>	HC4915MR	—	NT4915MR	—	—	—
	<input type="checkbox"/>	HS4915MR	—	L4915MR	—	—	—

KEY COVERS

KEY-COVERS WITH SILK-SCREEN PRINTING FOR 1 FUNCTION

Axolute



Livinglight



Màtix



KEY-COVERS WITH 2 FUNCTIONS SYMBOL SILK-SCREEN PRINTING

		Axolute		Livinglight		Màtix	
		1 module	2 modules	1 module	2 modules	1 module	2 modules
Description		Item	Item	Item	Item	Item	Item
ON - OFF - GEN	<input type="checkbox"/>	HD4911AF	HD4911M2AF	N4911AFN	N4911M2AFN	AM5911AF (*)	AM5911/2AF
	<input type="checkbox"/>	HC4911AF	HC4911/2AF	NT4911AFN	NT4911M2AFN		
	<input type="checkbox"/>	HS4911AF	HS4911/2AF	L4911AFN	L4911M2AFN		
ON - OFF	<input type="checkbox"/>	HD4911AG	HD4911M2AG	N4911AGN	N4911M2AGN	AM5911AG	AM5911/2AG
	<input type="checkbox"/>	HC4911AG	HC4911/2AG	NT4911AGN	NT4911M2AGN		
	<input type="checkbox"/>	HS4911AG	HS4911/2AG	L4911AGN	L4911M2AGN		
UP - DOWN	<input type="checkbox"/>	HD4911AH	HD4911M2AH	N4911AHN	N4911M2AHN	AM5911AH	AM5911/2AH
	<input type="checkbox"/>	HC4911AH	HC4911/2AH	NT4911AHN	NT4911M2AHN		
	<input type="checkbox"/>	HS4911AH	HS4911/2AH	L4911AHN	L4911M2AHN		
ON - OFF ADJUSTMENT	<input type="checkbox"/>	HD4911AI	HD4911M2AI	N4911AIN	N4911M2AIN	AM5911AI (*)	AM5911/2AI
	<input type="checkbox"/>	HC4911AI	HC4911/2AI	NT4911AIN	NT4911M2AIN		
	<input type="checkbox"/>	HS4911AI	HS4911/2AI	L4911AIN	L4911M2AIN		
ON-OFF	<input type="checkbox"/>	HD4911BA	HD4911M2BA	—	—	—	—
	<input type="checkbox"/>	HC4911BA	HC4911/2BA	—	—	—	—
	<input type="checkbox"/>	HS4911BA	HS4911/2BA	—	—	—	—
EXHAUST FAN	<input type="checkbox"/>	HD4911BC	HD4911M2BC	—	—	—	—
	<input type="checkbox"/>	HC4911BC	HC4911/2BC	—	—	—	—
	<input type="checkbox"/>	HS4911BC	HS4911/2BC	—	—	—	—
SOL KEY	<input type="checkbox"/>	HD4911BE	—	—	—	—	—
	<input type="checkbox"/>	HC4911BE	—	—	—	—	—
	<input type="checkbox"/>	HS4911BE	—	—	—	—	—
+ upward and - downward	<input type="checkbox"/>	HD4911AD	—	N4911ADN	—	—	—
	<input type="checkbox"/>	HC4911AD	—	NT4911ADN	—	—	—
	<input type="checkbox"/>	HS4911AD	—	L4911ADN	—	—	—
SOUND SOURCE CHANGE TRACK CHANGE	<input type="checkbox"/>	HD4911BF	—	N4911BFN	—	AM5911BF (*)	—
	<input type="checkbox"/>	HC4911BF	—	NT4911BFN	—		
	<input type="checkbox"/>	HS4911BF	—	L4911BFN	—		

NOTE (*): key covers that can be used with Sound System devices as well.

KEY COVERS

CUSTOMIZABLE LIVINGLIGHT KEY COVERS WITH LENS AVAILABLE IN KIT

CUSTOMIZABLE KEY COVERS			
		1 module	2 modules
Description		Item	Item
1 FUNCTION KEY COVER CUSTOMIZABLE WITH 1 LENS*	<input type="checkbox"/>	N4915TN	N4915M2TN
	<input type="checkbox"/>	NT4915TN	NT4915M2TN
	<input type="checkbox"/>	L4915TN	L4915M2TN
2 FUNCTION KEY COVER CUSTOMIZABLE WITH 2 LENS	<input type="checkbox"/>	N4911TN	N4911M2TN
	<input type="checkbox"/>	NT4911TN	NT4911M2TN
	<input type="checkbox"/>	L4911TN	L4911M2TN

1 FUNCTION



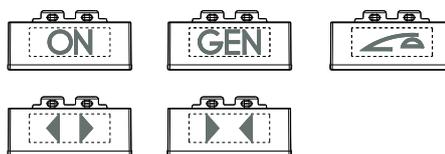
customizable
with 1 lens

2 FUNCTIONS

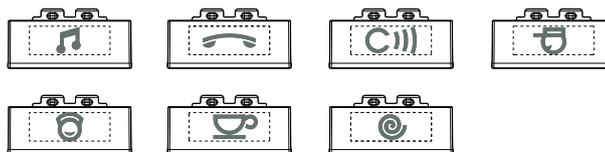


customizable
with 2 lens

KIT OF LENS		
Description	Item	
KIT WITH THE COMPOSITION SHOWN ASIDE (5 LENS EACH TYPE)	<input type="checkbox"/>	N4915KIT
	<input type="checkbox"/>	NT4915KIT
	<input type="checkbox"/>	L4915KIT



KIT OF LENS		
Description	Item	
KIT WITH THE COMPOSITION SHOWN ASIDE (5 LENS EACH TYPE)	<input type="checkbox"/>	N4915KIT1
	<input type="checkbox"/>	NT4915KIT1
	<input type="checkbox"/>	L4915KIT1



KIT OF LENS		
Description	Item	
KIT WITH THE LENS SHOWN ASIDE (50 LENS)	<input type="checkbox"/>	N4915SETBL
	<input type="checkbox"/>	NT4915SETBL
	<input type="checkbox"/>	L4915SETBL



HOTEL OFFER RANGE

These pages contain the BUS devices dedicated to the implementation of solutions for hotels comfort and temperature control. The offer includes many other types of devices common to other applications. For more information see the Hotel Room Management section.



H4651



LN4651



H4650



LN4650



348402



HS4547



NT4547



H4653



LN4653

Item	BADGE-HOLDER POCKET	
	Badge holder pocket for the activation of functions in the hotel room - slot lit by built-in light - SCS-BUS connection - dimensions: 2 modules – to be completed with front cover in the desired design	
○ H4649		Axolute
○ LN4649		Livinglight
	Badge holder pocket for the activation of functions in the hotel room with RFID recognition technology - slot lit by built-in light - SCS-BUS connection - dimensions: 2 modules – to be completed with front cover in the desired design	
○ H4648		Axolute
○ LN4648		Livinglight
	FRONT COVERS FOR BADGE-HOLDER POCKETS	
	Front cover for traditional badge-holder pocket or SCS - 2 modules	
□ HD4547		Axolute
■ HC4547		
■ HS4547		
□ N4547	Livinglight	
■ NT4547		
■ L4547		
	Front cover for traditional badge-holder pocket or SCS - 3 modules	
□ N4551	Livinglight	
■ NT4551		
■ L4551		

Item	BADGE AND BADGE PROGRAMMER	
○ 3547		Badge in credit card format (ISO 50x80 mm). It uses the transponder Mifare Classic ISO14443 type A technology. To be used in combination with the badge programmer 348402. The badge can be customized and is sold in packs of 5 pieces. Compatible with H4651 reader starting from batch 14W40.
○ 348402		Table-top badge programmer to be connected to the PC at the reception.
	CONTROL INDICATORS FOR ROOM MANAGEMENT	
	DO NOT DISTURB - REARRANGE THE ROOM indicator and Ringer button - connection to SCS-BUS - dimensions: 2 modules	
○ H4650		Axolute
○ LN4650		Livinglight
	Badge reader in RFID technology + DO NOT DISTURB - REARRANGE THE ROOM indicator and Ringer button - connection to SCS-BUS - dimensions: 2 modules	
○ H4651		Axolute
○ LN4651		Livinglight
	DO NOT DISTURB - REARRANGE THE ROOM control to be completed with key covers - connection to SCS-BUS - dimensions: 2 modules	
○ H4653		Axolute
○ LN4653		Livinglight

NOTE: To request the integration with PMS using the FIAS protocol (e.g. Fidelio) contact the BTicino sales force.

HOTEL OFFER RANGE



MH201



F458



F459



3544SW
3546SW

Item		SCENARIO MODULE IP
○MH201		It manages scenarios for hotel rooms - operates as a gateway for Configuration and Supervision software - it is necessary to install one for each room or zone - connection on SCS-BUS or Ethernet network - dimensions: 1 DIN module

Item		SCENARIO MODULE
○F420		Device to store 16 scenarios for Automation, Sound System, Temperature control and Video Door Entry applications - 2 DIN modules

Item		IP SERVER
○F458		IP SERVER to use in case of systems with more than 100 rooms or zones (over 100 MH201 installed). Dimensions: 6 DIN modules

Item		DRIVER MANAGER
○F459		Integration platform to third-party systems - 6 DIN modules

To check the feasibility of specific integrations and to apply for the necessary license for using the Driver manager contact the specialists of the "BTicino Systems Integration Service toll free number 800.837035.

Item		SOFTWARE
○3544SW		Software license for the room status monitoring, for related basic management and for badges programming for Hotels up to 20 rooms
○3546SW		Software license as above - for Hotels with over 20 rooms

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AD-EXMH16GT/GB - Edition 05/2016