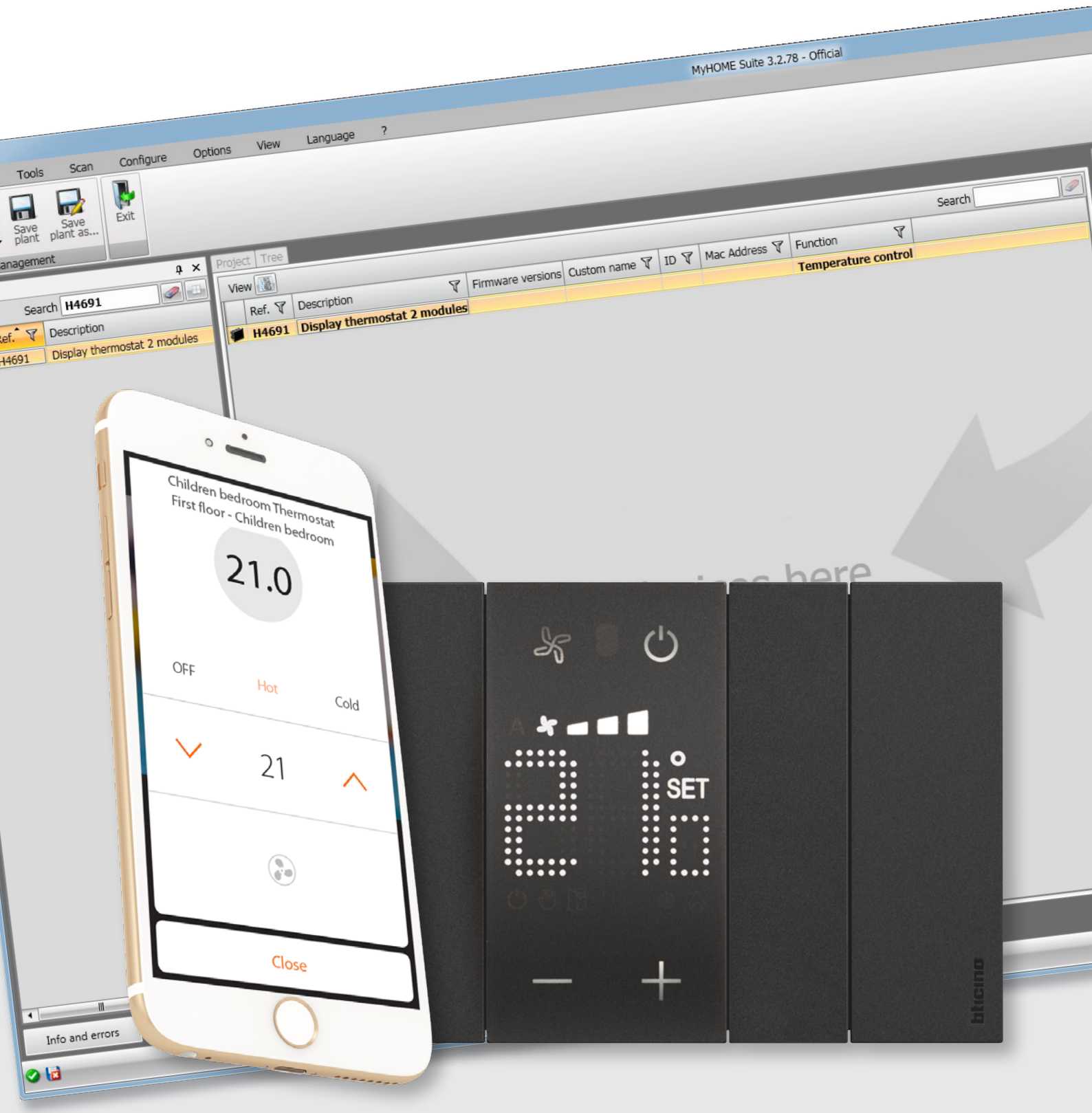
bticino

Room thermostat
KW4691- KG4691- KM4691

Installation manual



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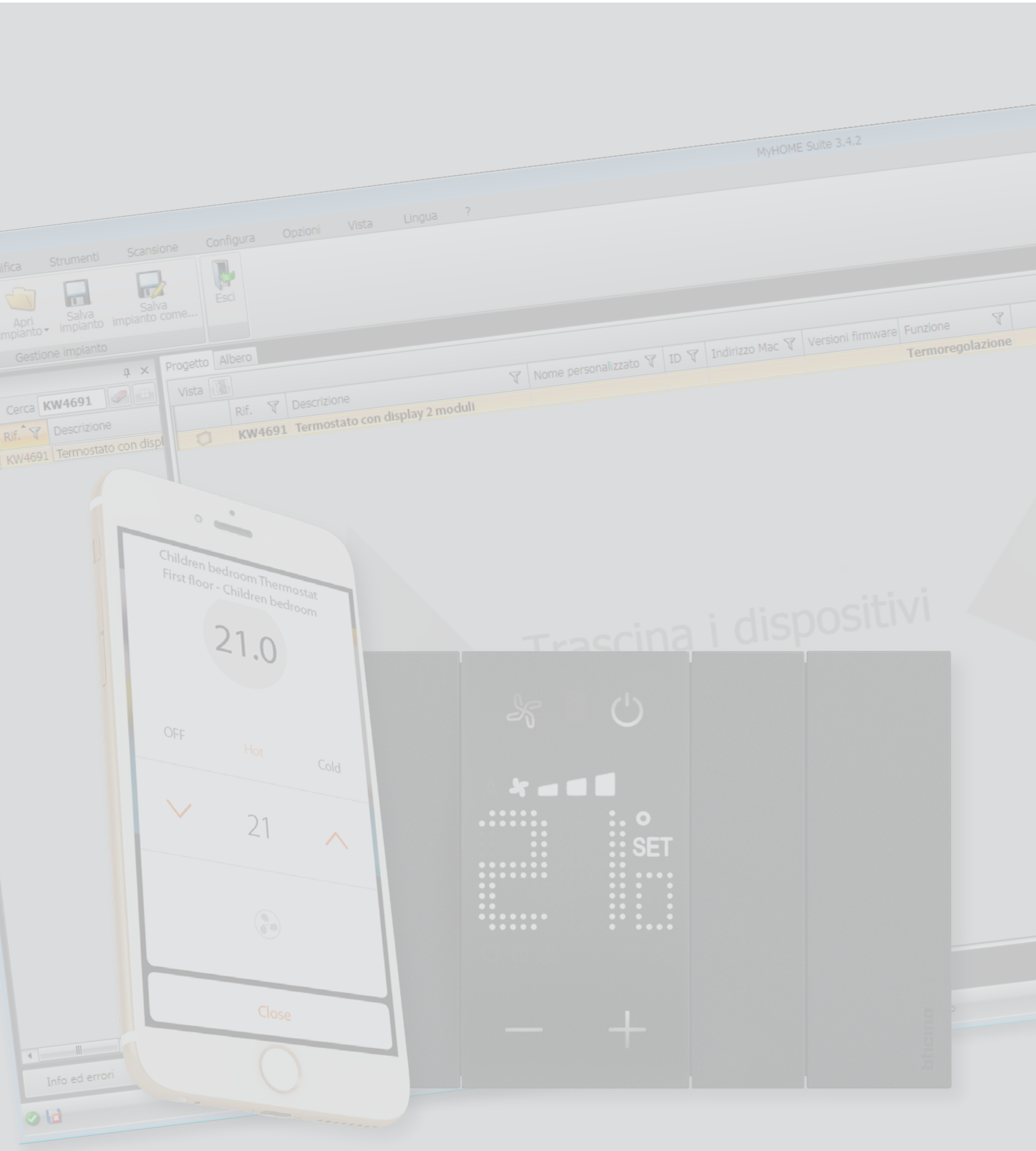


Contents

General information

Warnings and recommendations

It is important to read this manual carefully before proceeding with the installation.
The warranty becomes automatically void in case of negligence, improper use, tampering by unauthorised personnel.
The thermostat must only be installed indoors.

***Note**: in order to control the thermostat using MyHOME_Up, Customers must install the App on their smartphones. A home Wi-Fi network is also required, with connection to the Internet, and both the smartphone and MyHOMEServer1 must be connected to the same LAN network.*

To use the service, the Customer must acquire the technical equipment which allows access to the Internet, on the basis of an agreement made by the Customer himself with an ISP (Internet Service Provider). BTicino plays no part in this.

The services offered by means of the App require being able to interact with MyHOMEServer1 remotely and through the Internet.

In these cases the integration and good working between MyHOMEServer1 and App may depend on:
– a) quality of the Wi-Fi signal;
– b) type of access contract to the home internet;
– c) type of data contract on the smartphone.

When one of these 3 elements does not conform with the specifications required for product operation, BTicino accepts no responsibility for any faults.
We would like to inform you that the service provided by BTicino by means of remote use via the App involves the use of data. The cost linked to data usage depends on the type of contract which the customer has with his ISP (Internet Service Provider) and is solely the customer's responsibility.
Although the system manages devices from third parties, the home-automation system must be BTicino.

***Caution**: not all the functions shown in this manual are available for all countries.*
Check with your retailer which functions are available for your market.

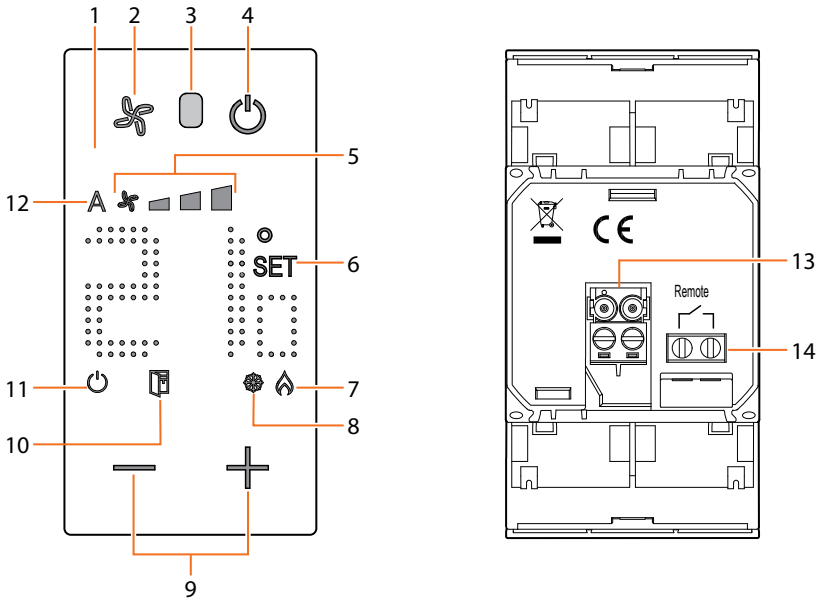
***Warning**: the images of this manual are only indicative, and therefore may not exactly represent the characteristics of the product.*

Description

It is possible to use the thermostat with display both with heating and cooling systems, locally (using the available keys) and remotely (using the Hotelsupervision software, the MyHOME_Up App or the HOMETOUCH internal unit - see the Thermostat Use section).
The LED display shows the current mode of operation (Antifreeze/Thermal Protection or Heating/Cooling), the room temperature measured, the temperature set point, the fan-coil speed, the window contact status and the zone status.
The configuration is completed using the MyHOME_Suite and Hotelsupervision software programs, and the MyHOME_Up App.

Factory settings		
	Heating	**Cooling**
Adjustment interval	3 – 40 °C	3 – 40 °C
Comfort*	21 °C	25 °C
Eco*	18 °C	28 °C
Antifreeze	7 °C	
Thermal protection		35 °C

***Note**: these set points cannot be set using the device, but only through the Hotelsupervision software*

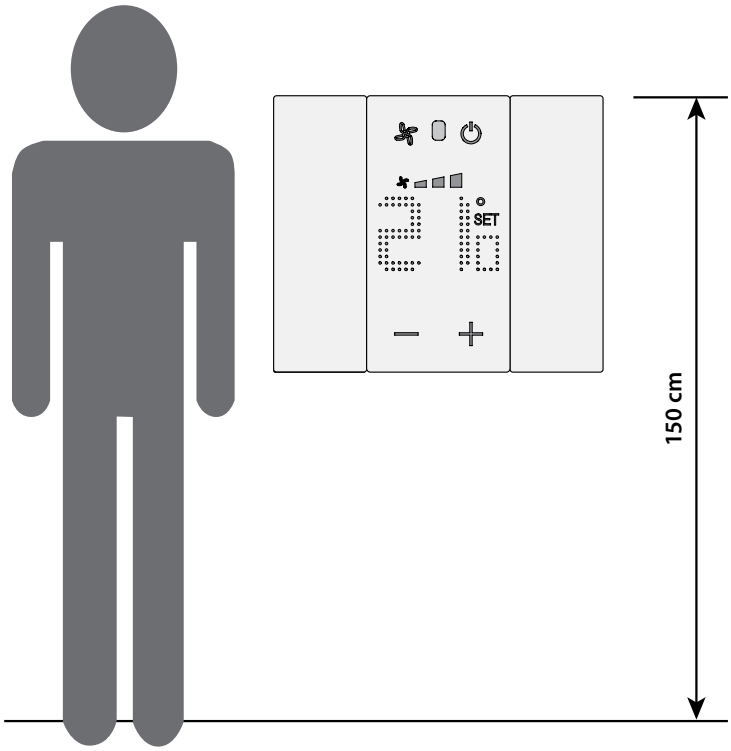


1. Backlight display
2. Fan key: sets the speed of the FAN-COIL on three levels plus automatic.
3. Lighting sensor
4. ON / OFF key
   Touch to switch from ON to OFF and vice versa.
   ON status:
   System in normal mode, Set point temperature
   OFF status:
   System in anti-frost (7 °C) or heat-protection (35 °C) mode
5. FAN-COIL speed indicator, three levels.
6. Temperature setting indicator: appears when the temperature is being set
7. ON heating indicator
8. ON cooling indicator
9. Keys for temperature setting
10. Window indicator: active local contact according to the programming completed by the installer.
11. Thermostat OFF indicator (see point 4)
12. FAN COIL in automatic mode indicator.
13. SCS clamps
14. Local contact (window)

***Note**: some local functions, such as setting antifreeze/thermal protection mode and automatic fan-coil speed adjustment , can be disabled during the configuration.*
Pressing the pushbutton to activate one of the deactivated functions will have no effect.

Installation heights

Height recommended, unless otherwise required by the law

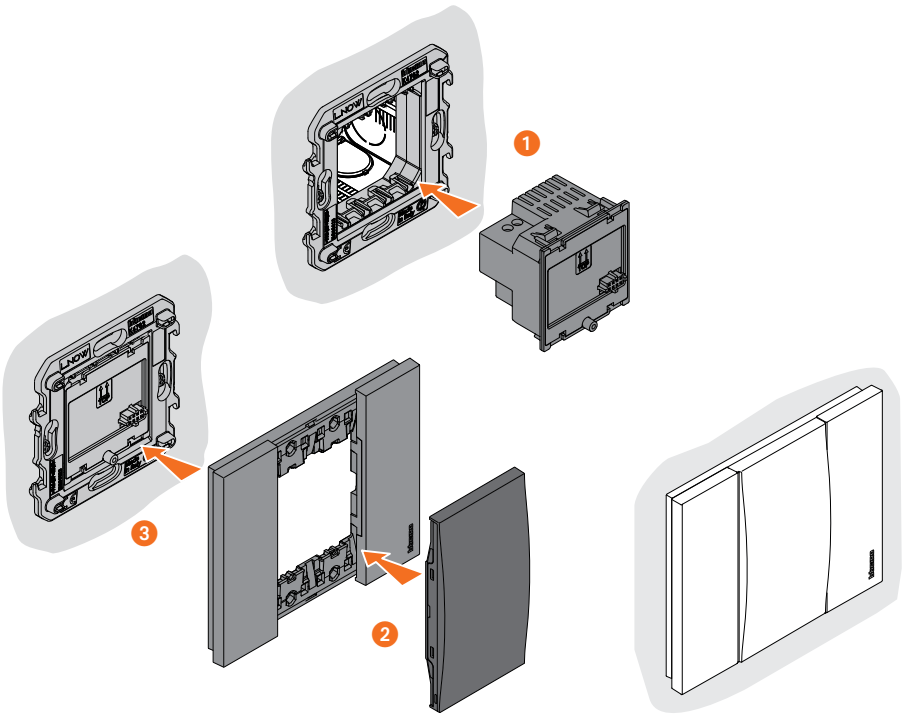


Technical data

Power supply from Bus	18 – 27 Vdc
Absorption	60 mA (maximum display level, when the keys are being used)
	30mA (standby display level, level 10)
	15 mA (display off)
Unit of measure	°C o °F
Operating temperature	0 – 40 °C
Dimensional data	2 flush mounted modules

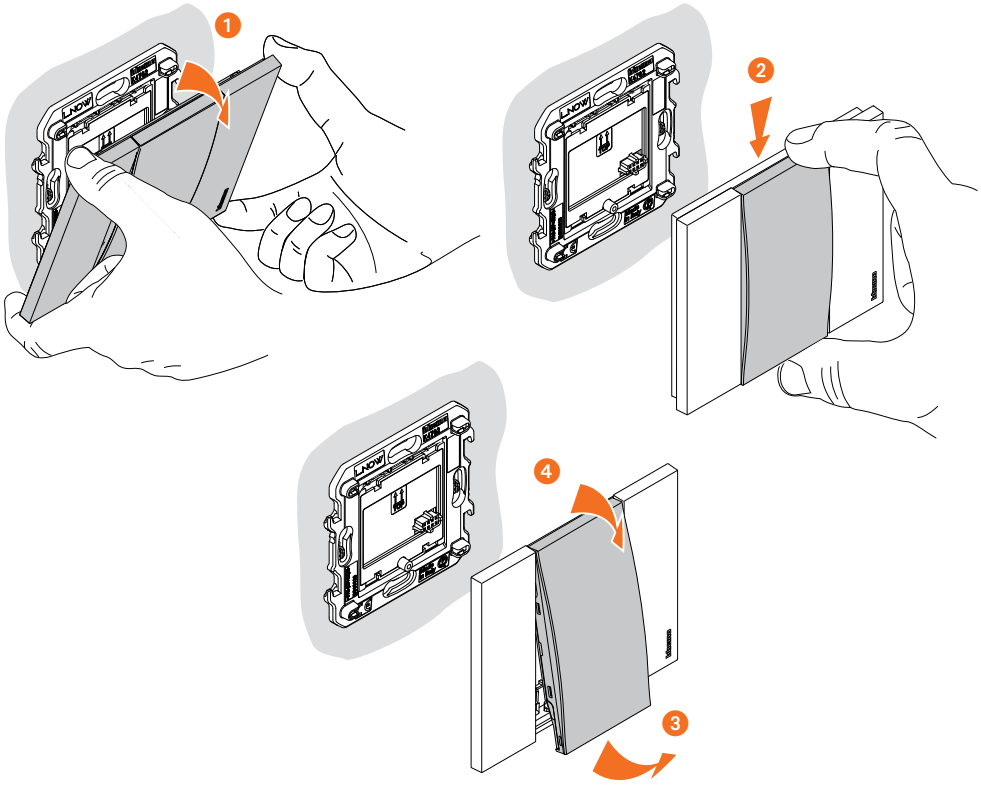
Installation

Mounting

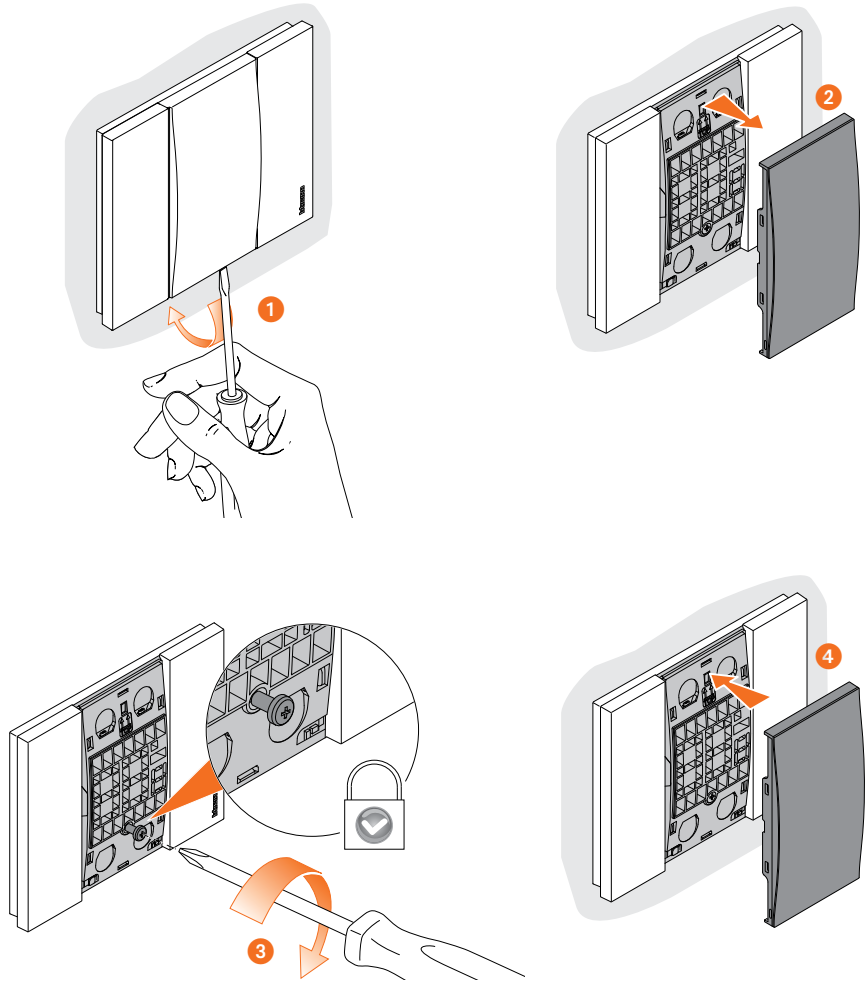


Installing the units near heat/cold sources or hot/cold air emission points is forbidden

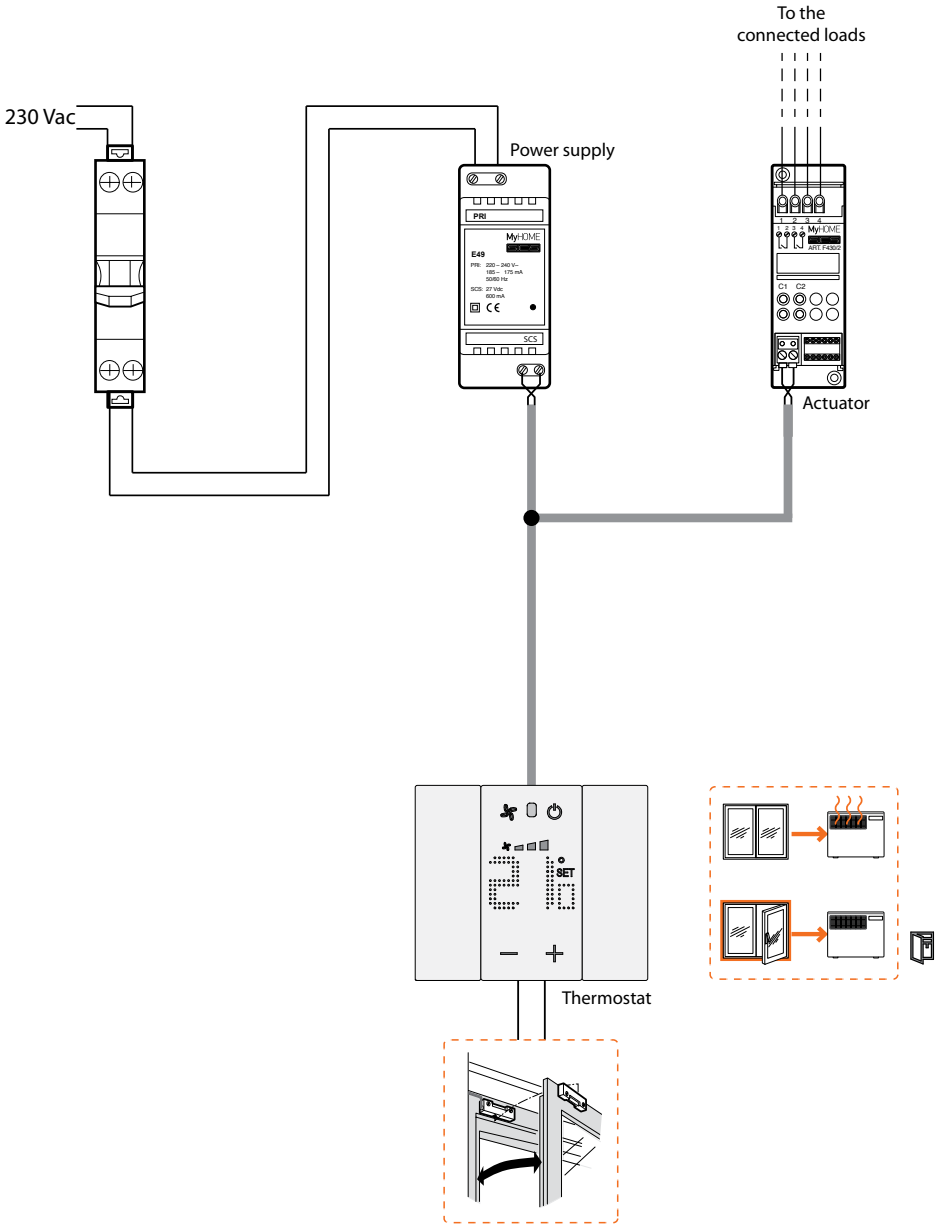
Disassembling



Anti-removal block



Wiring diagram



Operation

Operating modes

Residential system

The room thermostat operating mode makes the system temperature control possible directly from the device or using MyHOME_Up

The available modes are heating/cooling or antifreeze/Thermal Protection

Hotel system

The hotel room mode of operation allows the customer to easily set the temperature and reach the desired comfort level.
The hotel manager has the possibility of consolidating the different individual room thermostats in a system that can be managed using the Hotelsupervision software, monitoring consumption levels and therefore avoiding pointless energy waste.

The thermostat can be set for the management of four different functions, depending on the type of system to install:

- heating function (only the heating is active);
- cooling function (only the cooling is active);
- cooling function in summer / heating function in winter;
- automatic changeover between cooling and heating

Heating function

If the temperature measured is below the set point value, the heating system is activated and the corresponding symbol appears on the display
When the set temperature is reached, the thermostat switches the zone off and the symbol disappears.

Cooling function

It is possible to configure the thermostat for use with the heating system in winter and the cooling system in summer
The icons shown on the display will be the same as described in the heating and cooling functions.

Heating and cooling function

It is possible to configure the thermostat for use with the heating system in winter and the cooling system in summer
The icons shown on the display will be the same as described in the heating and cooling functions.

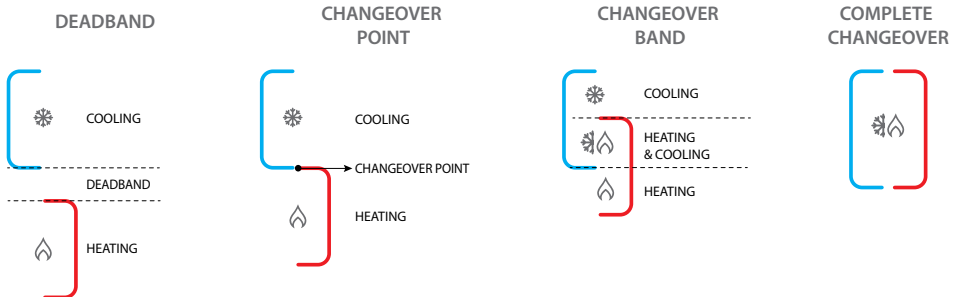
Automatic switching mode

The thermostat can be programmed for automatic changeover between the heating and the cooling functions.
Depending on the temperature measured, the heating or cooling system in operation symbols (/) will appear, to indicate that the corresponding function is active.

***Note**: automatic switching mode must be enabled during the configuration*

This function can be used when it is necessary for the thermostat to automatically manage the changeover between heating and cooling, and is for example useful in case of 4 tube fan-coils.

Using the MyHOME_Suite software, it is possible to set the range of temperature at different levels, for the activation of the heating and the cooling systems, depending of the thermal inertia of one's own system, and specific requirements.

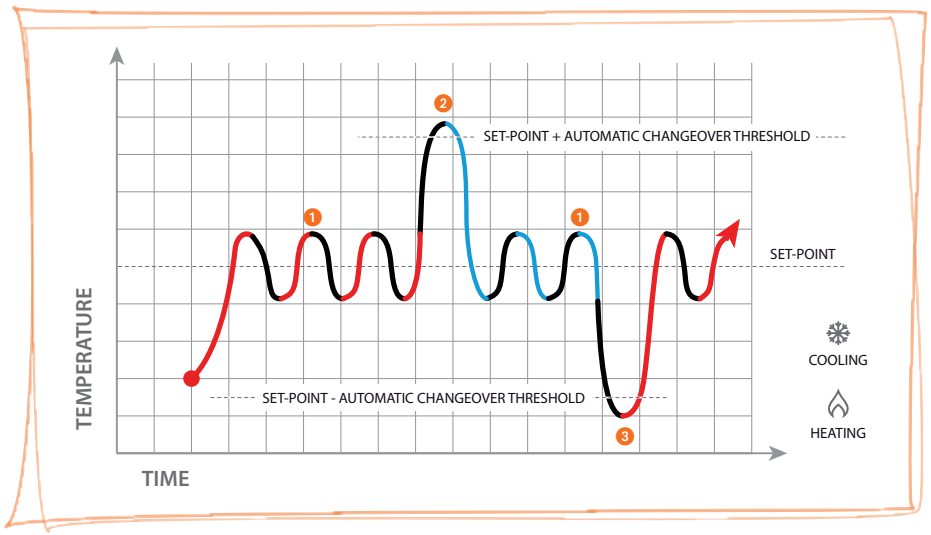


Automatic switching in heating/cooling mode

The switching from the heating to the cooling function, and vice versa, depends on the rules listed in the following table (T° represents the measured temperature).

Measured temperature	Action
T° between (set-point + automatic changeover threshold) and (set-point – automatic changeover threshold).	It maintains the current function. 1
T° > (set-point + automatic changeover threshold).	It switches to the cooling function. 2
T° < (set-point – automatic changeover function).	It switches to the heating function. 3

Note: *the automatic changeover threshold has been set to 2°C.*



Example chart

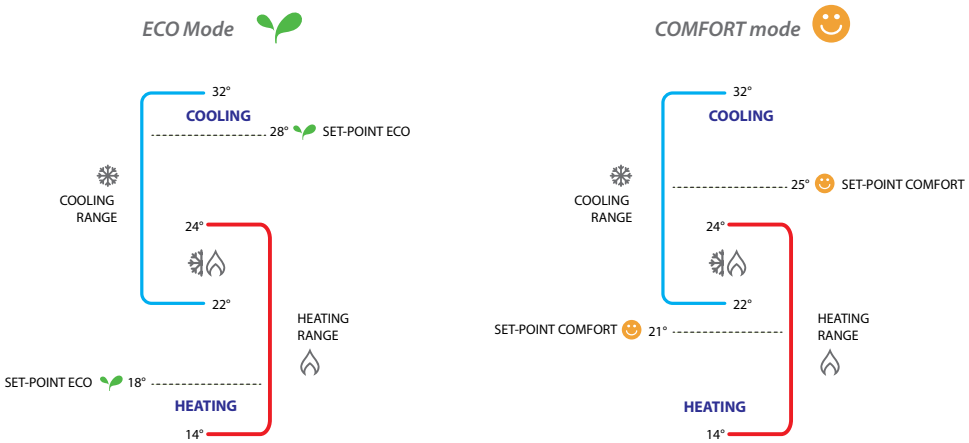
Automatic switching in Comfort, Eco and Protection mode

Automatic changeover depends on the operating mode selected: comfort, eco, or protection.

In this case, the heating and cooling ranges must be set in advance in their corresponding modes using MyHOME_Suite and Hotelsupervision.

You thus need to set two parameters for each mode: a high set point to be set in the cooling function and a low set point to be set in the heating function.

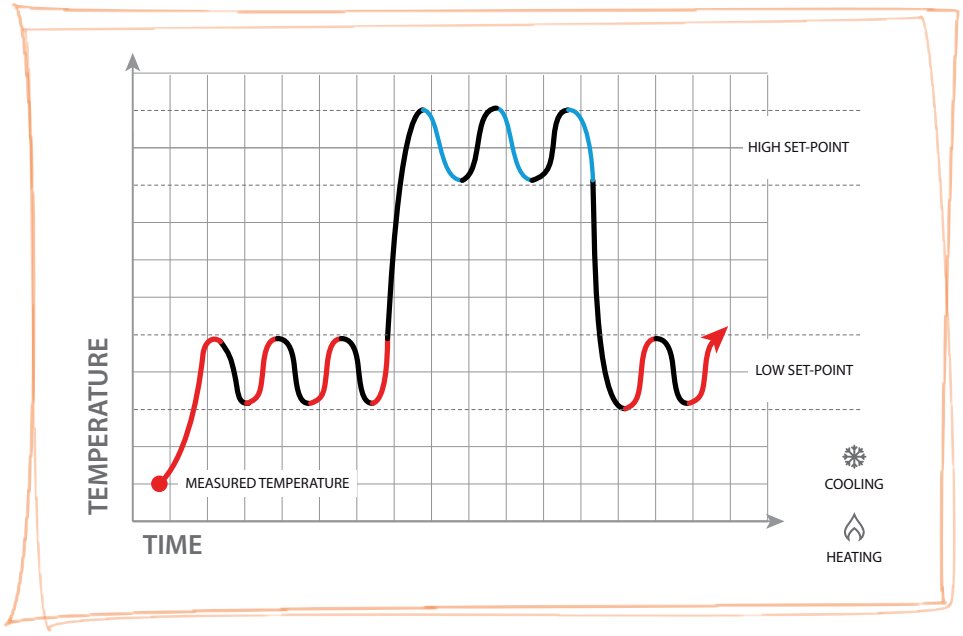
Example of temperature range settings



The above example indicates the temperature set-point pairs for Eco mode and Comfort mode.

The cooling system will activate when the temperature exceeds the upper set-point, while the heating system will activate when the temperature falls below the lower set-point.

The thermostat operates on two different set-points: high set-point, and low set-point.



Example chart

Configuration

It is only possible to configure the thermostat virtually using a gateway and one of the following procedures:

A) A smartphone connected to the home Wi-Fi network with access to the Internet and MyHome_Up

B) An Ethernet or USB connected PC with MyHOME_Suite installed

C) A PC with Supervision Server installed and one or more Client PCs with Hotelsupervision installed

The configurable functions depend on the method used; see the Virtual Configuration Table or the details.

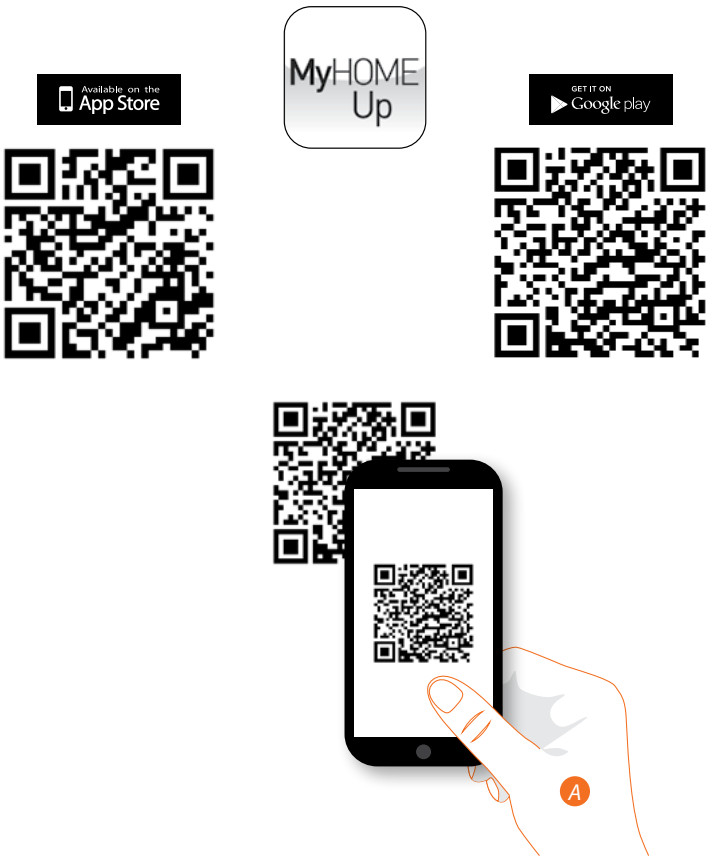
Virtual configuration table

	MyHOME_Suite	MyHOME_Up	Hotelsupervision
System settings			
Heating, cooling or both	YES	YES	YES
Automatic switching mode	YES	YES	NO
Modify setpoint			
Temperature range	YES	YES	YES
Eco temperature setting	YES	NO	YES
Comfort temperature setting	YES	NO	YES
Antifreeze/thermal protection temperature setting	YES	YES	YES
Loads and pumps			
Pump activation delay	YES	YES	NO
Continuous ventilation function	YES	NO	NO
Proportional speed percentage	YES	NO	NO
Anti-block protection	YES	NO	NO
Fan delay	YES	NO	NO
Adjustment range			
Automatic threshold setting	YES	YES	NO
Adjustment range	YES	YES	NO
PID adjustment range	YES	NO	NO
PID thermal inertia	YES	NO	NO
Fan-coil speed			
Operation thresholds	YES	YES	NO
Fan-coil valve switch on advance time	YES	YES	NO
Contact management			
Number of the local contact	YES	YES	NO
Preset	YES	NO	NO
Execution of an action upon opening/closing of the local contact	YES	YES (Protection or Manual only)	NO
Action activation delay	YES	YES	NO
Contact opening scenario execution	YES	YES	NO
Timeout for the action	YES	YES	NO
User interface			
Backlighting	YES	YES	NO
Room temperature display	YES	NO	NO
Temperature format	YES	YES	YES
Window contact symbol	YES	YES	NO
Disable all the pushbuttons	YES	YES	YES
Heating/cooling contact pushbutton disabling	YES	NO	NO
Pushbutton automatic speed in Heating/Cooling	YES	NO	NO
Mode change using the pushbutton	YES	NO	NO

Configuration with MyHOME_Up

In order to configure the thermostat with MyHOME_Up, it is necessary to first download the free App from the stores and then connect to the system

1. If necessary, download the App from the stores into your smartphone (for iOS devices from App Store, for Android devices from Play Store);

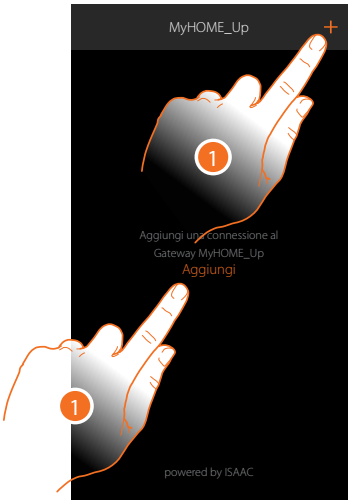


A. On your Smartphone run the App to read the QR codes and then frame the QR Code

***Note**: you can find the same QR code in the Instruction Sheet supplied with the MyHOMEServer1*

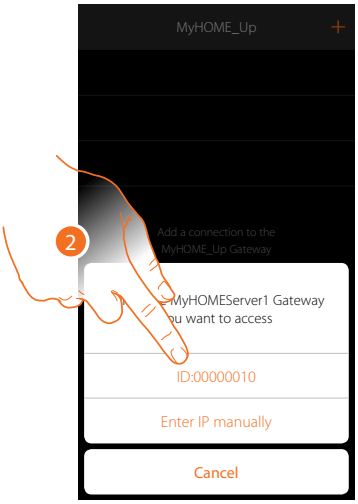
2. Connect to the system as installer
3. Create the Thermostat object and associate it to the system device

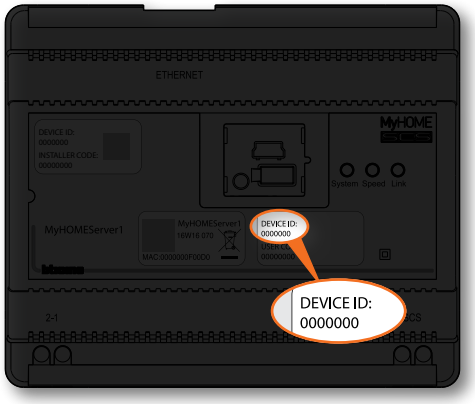
Connection to the system



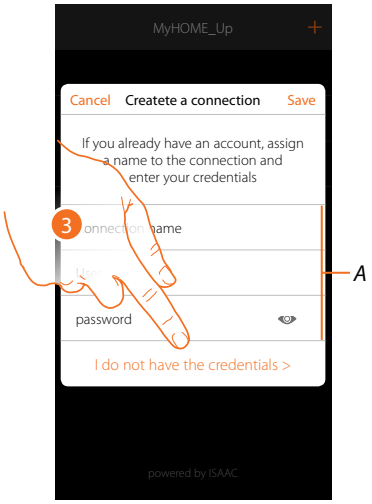
1. If the connection has already been established, go to item 7, otherwise touch to connect to your MyHOMEServer1. If this is not found, see the "What to do if" section.

The list of found MyHOMEServer1s appears



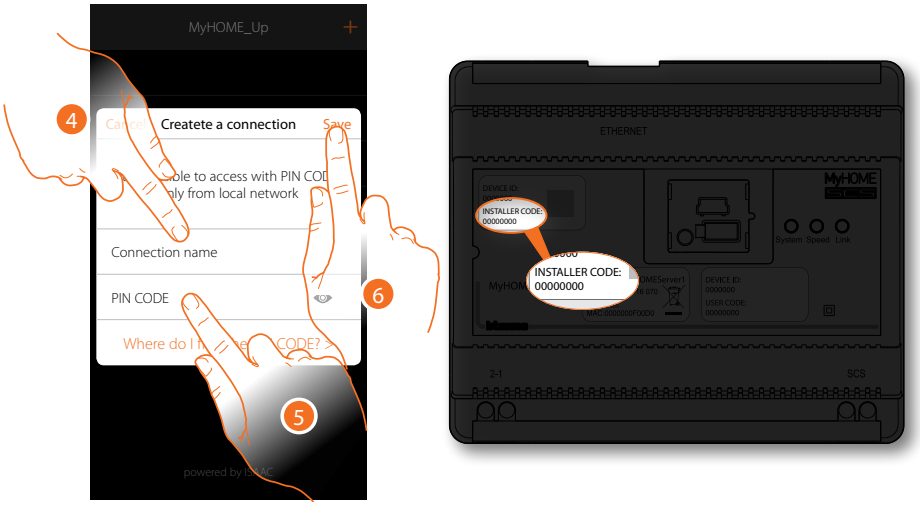


2. Select your MyHOMEServer1 identifying it by means of the ID DEVICE on the front of the device

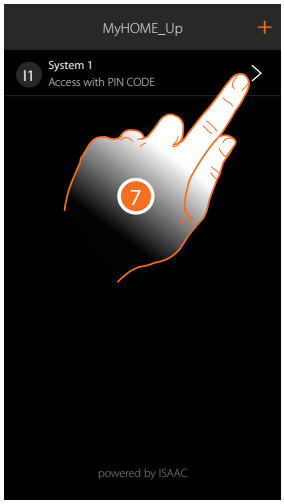


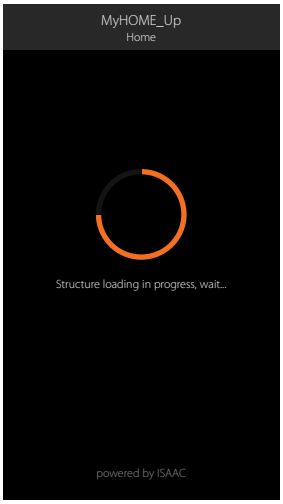
3. Touch to create the connection and access via local network with the INSTALLER CODE

***Note**: access via account (A) is reserved to the end user*



4. Enter a name to identify the new connection being created
5. Enter the INSTALLER CODE found on the front side of the device
6. Touch to save the system connection.



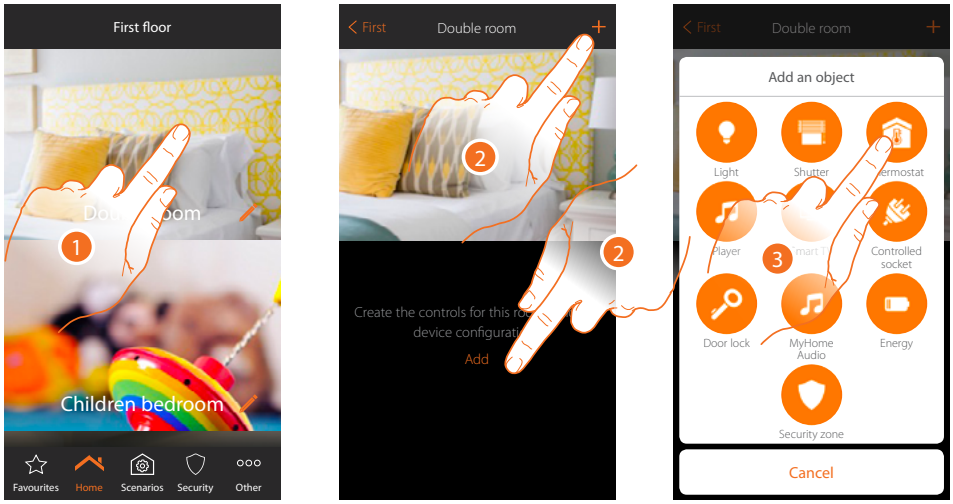


7. The system is now connected, touch to access.
   The system is now connected, touch to access.
   A scan and the automatic detection of the connected devices will activate automatically. An address will be allocated to each actuator channel, even if not used to drive a load. To check the number of engaged channels (max. 175), refer to the compatibility table.
   ***Note**: it is not possible to have more than 175 channels per system. If this limit is exceeded, MyHOME_Up will ask to remove any excess devices from the system.*
   At the end of the procedure the home page appears.

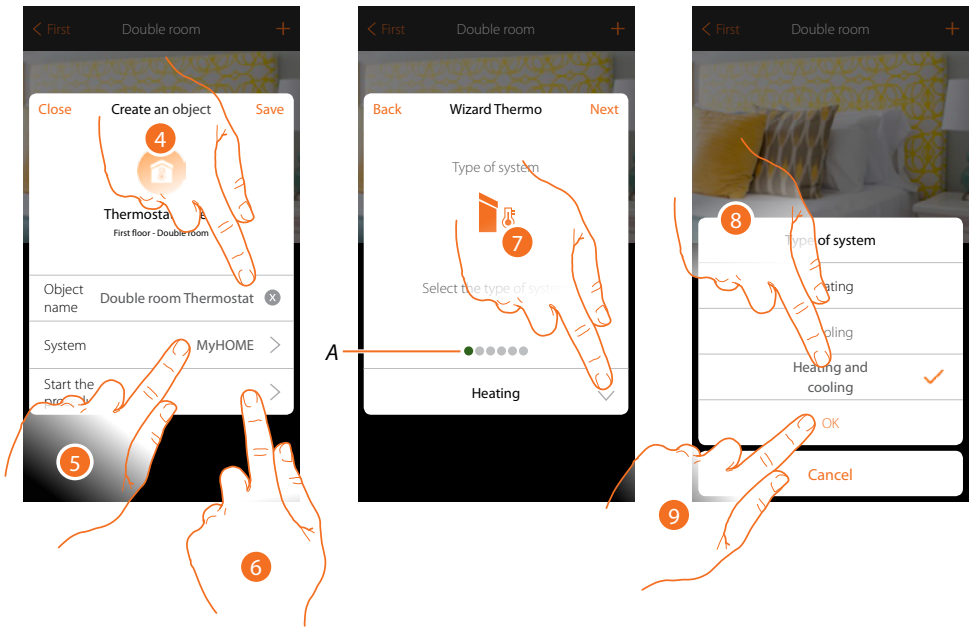
A zone and some rooms which you can access from the Home page are created automatically.

Create a thermostat object

On configuring the devices on the system and associating them to the thermostat object, the user can adjust the home temperature.



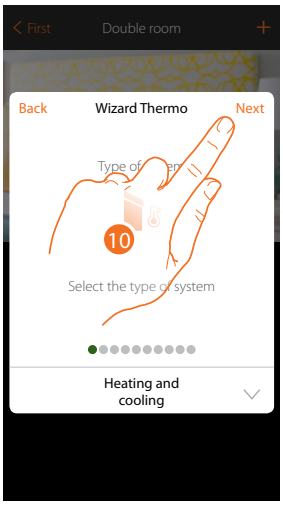
1. Touch to enter the room where you want to add a thermostat object
2. Touch to add an object to the double room
3. Touch to add the thermostat object

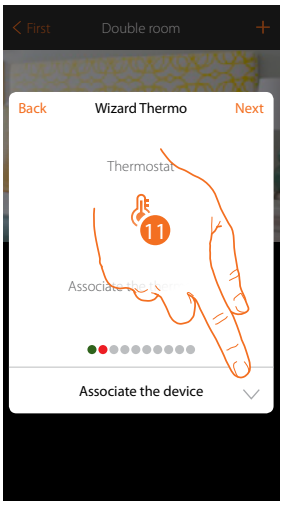


4. Touch to modify the object name.
5. Touch to select the relevant system
6. Touch to start the guided procedure for the association of a device detected in the system during the initial scanning to the graphic object Double room Thermostat

A. *Coloured visual indicators will indicate the progress of the procedure and the status of the step in progress:*
red = not yet completed or incorrect
green = successfully concluded

7. Touch to select the type of system
8. Select the type of system among those suggested
9. Touch to confirm

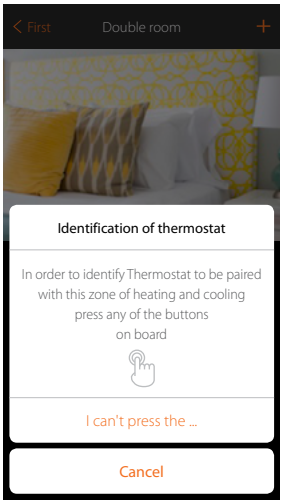


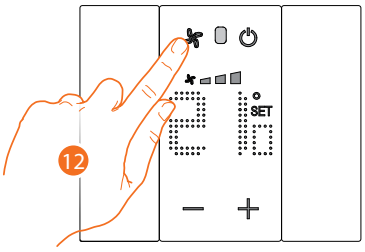


10. Touch to continue

11. Touch to associate a thermostat to the object. Two situations may occur:

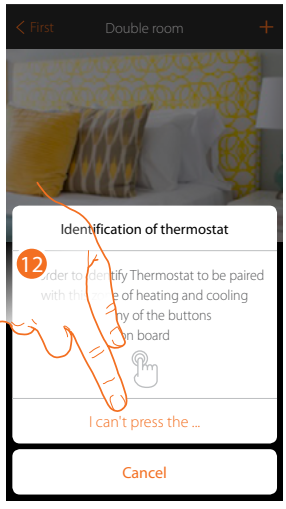
Accessible thermostat





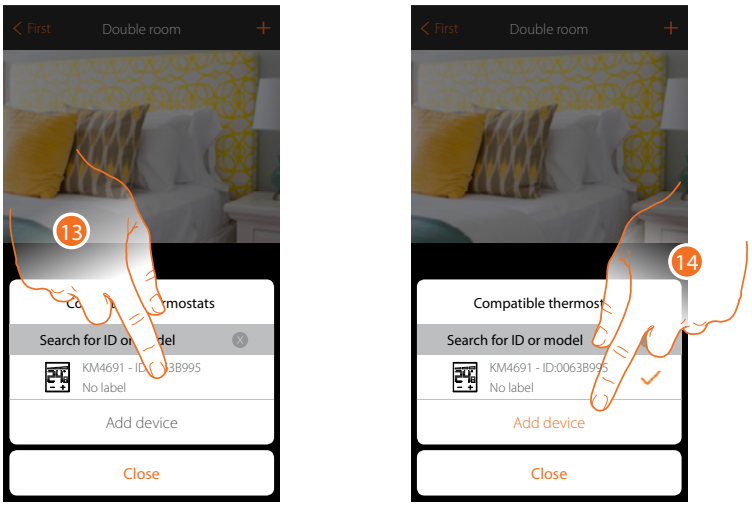
12. Touch any one of the pushbuttons on the thermostat on the system

Not accessible thermostat



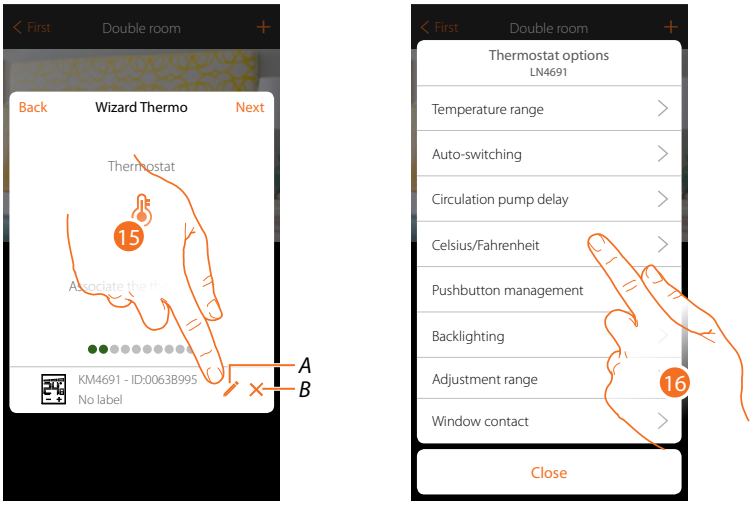
12. Touch if you cannot access the device

You will be proposed the list the thermostats which you can associate to the object.
You can identify the thermostat by its ID number.



13. Touch to select the thermostat
14. Touch to add the selected device

If the thermostat is already configured, see chapter "What to do if".



A. Set the thermostat options:

B. Delete association

15. Touch to modify the thermostat parameters
16. Select the parameter to modify among those available

Thermostat options

Temperature range

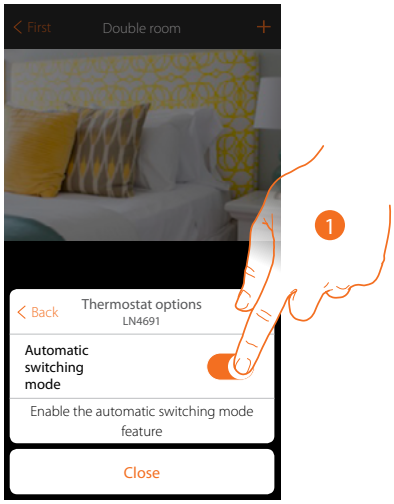
*A. Apply the setting to all the system thermostats**

***Note**: if a thermostat has not yet been configured or its configuration is not compatible with the same parameters, it will not be modified.*

1. Touch to set the minimum and maximum temperature levels which the user can select using the device keys.
   E.g. if a minimum limit of 15 °C is set, the user cannot set lower temperatures (e.g. 10 °C).
2. Select the temperature for the antifreeze/thermal protection function

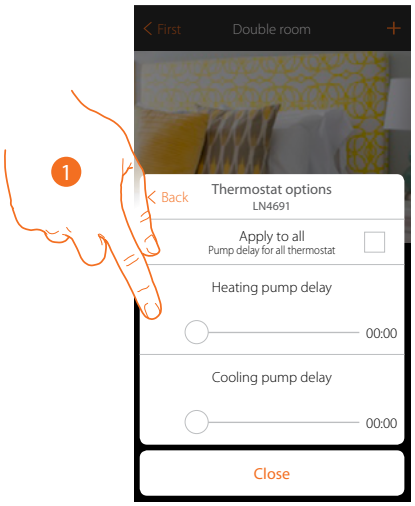
***Note**: when the the App or the dedicated pushbutton on the thermostat sends the switch-off command it sets the minimum (antifrost) or maximum (thermal protection) temperature*

Automatic switching (only for heating and cooling)



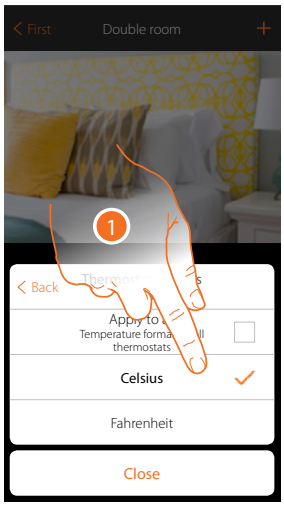
1. In systems with 4-pipe fancoils enabled for both heating and cooling or in systems where the water circulation systems for heating and cooling are completely independent, you can enable this function to manage the switching between heating and cooling automatically.

Circulation pump delay



1. Touch to set a delay time for the activation of the pumps thus avoiding them starting before the zone valves have opened, both for heating and cooling.

Celsius/Fahrenheit

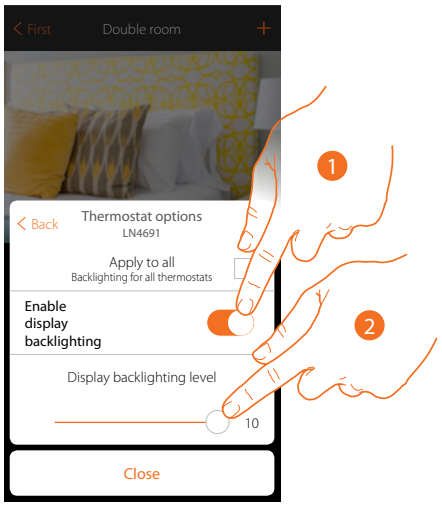


1. Touch to select the format of the displayed temperature between Celsius and Fahrenheit degrees

Key management

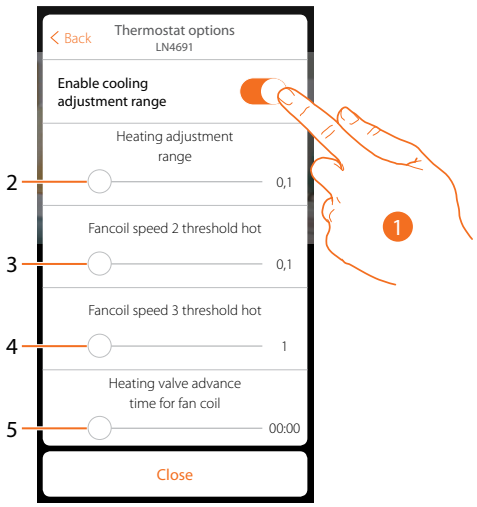
1. Touch to enable/disable the thermostat physical keys. If the function is disabled, it will no longer be possible to interact with it but only to display the information.
This function can be useful if you don't want the settings to be modified from the thermostat, but only from the App (e.g. children's bedroom or public establishment).

Backlighting



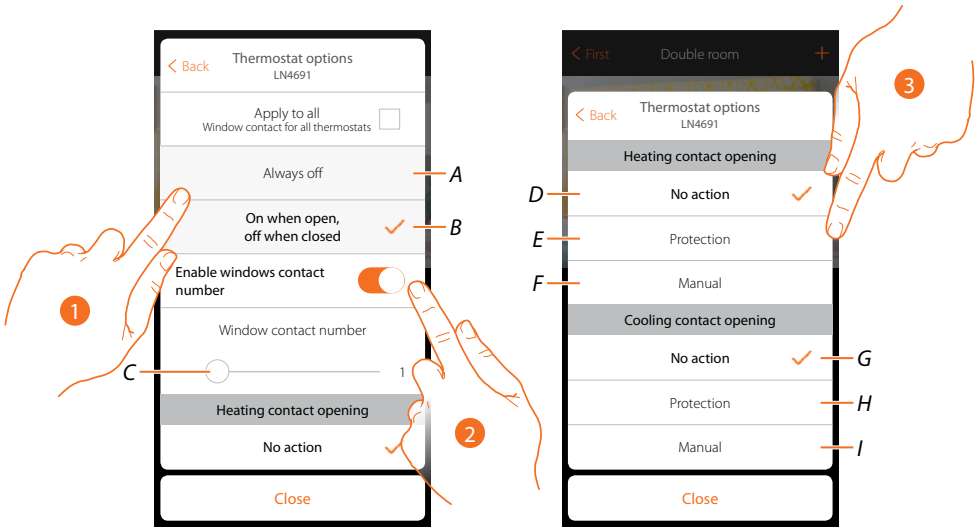
1. Activates/deactivates the display backlighting
2. Scroll to adjust the backlighting intensity precisely

Adjustment range



1. Enables/disables the adjustment
2. Scroll to adjust the operation threshold with respect to the set point set; for example with a set point of 20.0 °C for heating and a threshold of 0.1 °C the system will switch off when the temperature is higher than 20.1 °C and will switch on at 19.9 °C.
   For fan-coil systems the threshold can have values from 0.1 to 1 °C. Other types of system have threshold values from 0.1 to 0.5 °C.
3. Scroll to set the threshold (temperature differential) at which the fancoil fans will change speed at speed 2.
4. Scroll to set the threshold (temperature differential) at which the fancoil fans will change speed at speed 3.
5. Scroll to set a time delay for the activation of the fancoil in relation to the activation of the valve, in order to avoid that, for example, for the heating, switching on the fancoil too suddenly could blow cold air in the room.

Window contact function



1. Touch to display the window symbol for the contact status on the KM4691 thermostat:

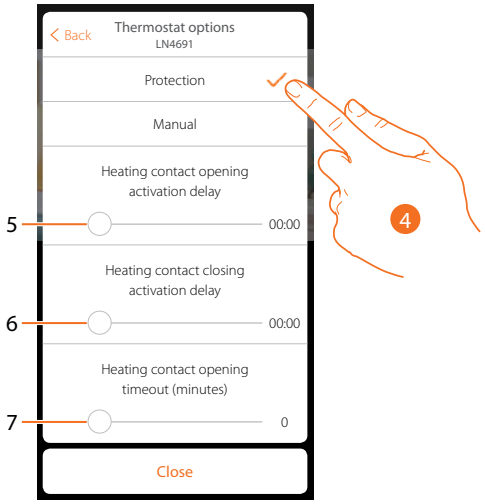
A. *Window symbol not displayed*

B. *Window symbol displayed = contact open*
Window symbol not displayed = contact closed

2. It enables the contact function which allows you to run a scenario saved in the MH202 scenario programmer when the contact opens

C. *Select the number of the window contact to associate*

3. Touch to avoid a heating or cooling system action when the window contact opens/closes

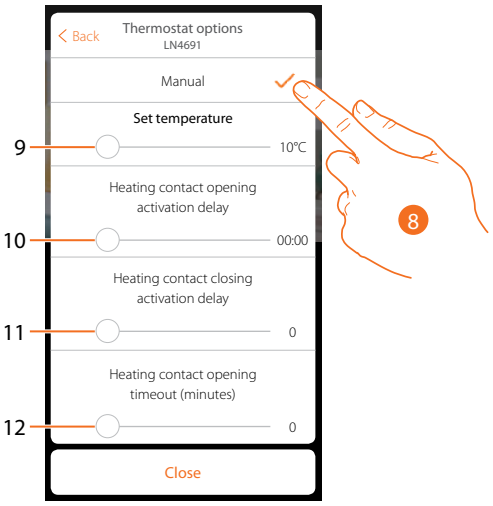


4. Touch to set the system to thermal or antifreeze protection mode when the contact is opened/closed.

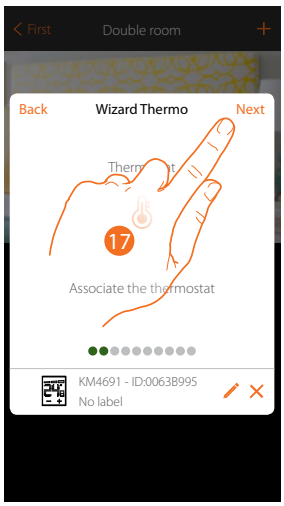
5. Set a delay between the opening of the contact and the activation of the system to thermal or anti-freeze protection

6. Set a delay between the closing of the contact and the activation of the system to thermal or anti-freeze protection

7. Set a time during which the system will be in thermal or anti-freeze protection

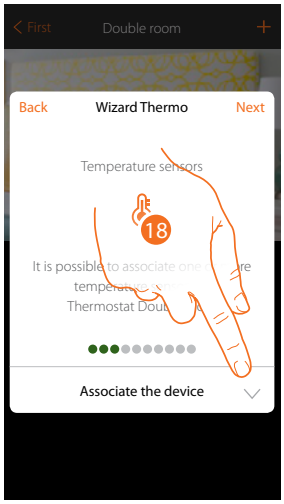


8. Touch to set the system to a certain temperature when the contact is opened/closed.
9. Set the temperature
10. Set a delay between the opening of the contact and the activation of the heating/cooling setting at the Setpoint of item 9
11. Set a delay between the closing of the contact and the activation of the heating/cooling setting at the Setpoint of item 9
12. Set a maximum time during which the system will be at the temperature indicated at item 9



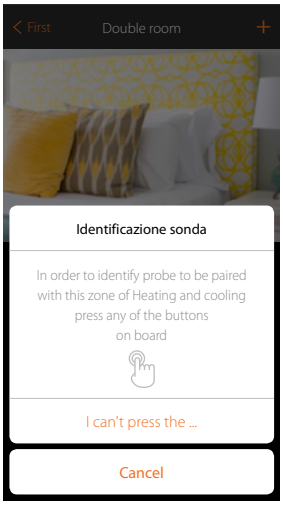
17. Touch to continue

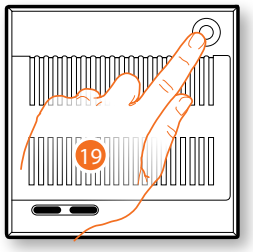
After associating the thermostat to the object, you can associate one or more 4693 temperature probes. On associating several probes to a thermostat you can for example obtain the average temperature of a large room.



18. Touch to associate a probe

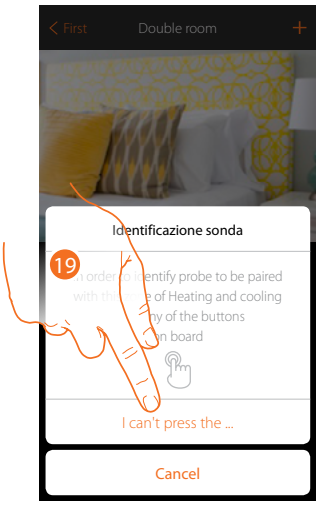
Accessible probe





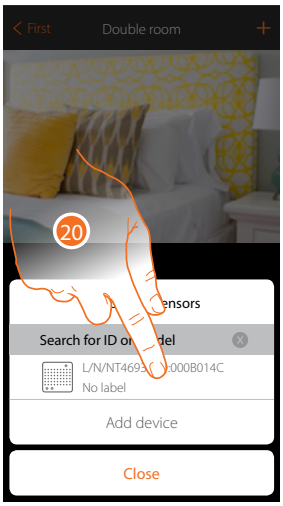
19. Touch any one of the pushbuttons on the probe on the system

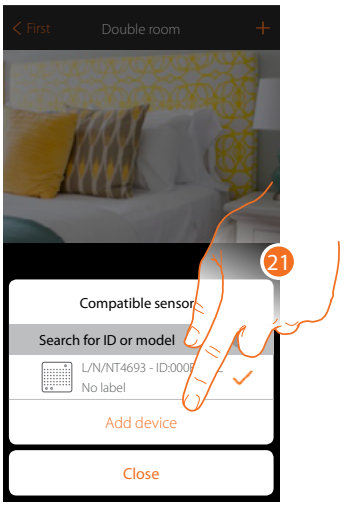
Not accessible probe



19. Touch if you cannot access the device

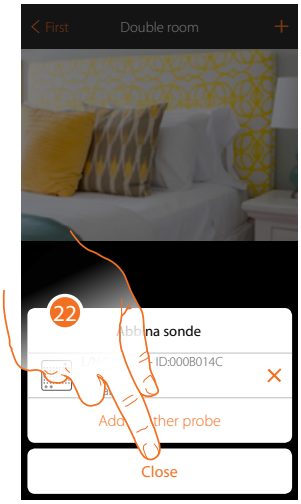
You will be proposed the list of compatible probes which you can associate to the object. You can identify the probe by its ID number.

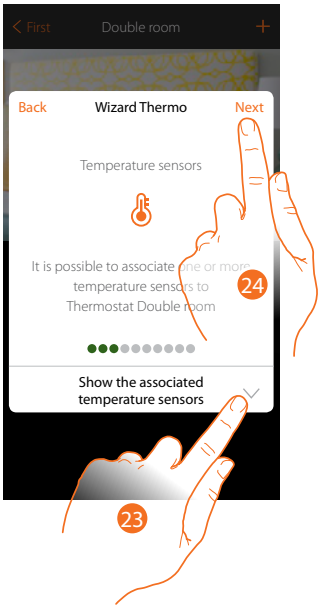




20. Touch to select the probe
21. Touch to add the selected device

If the probe is already configured, see chapter "What to do if".

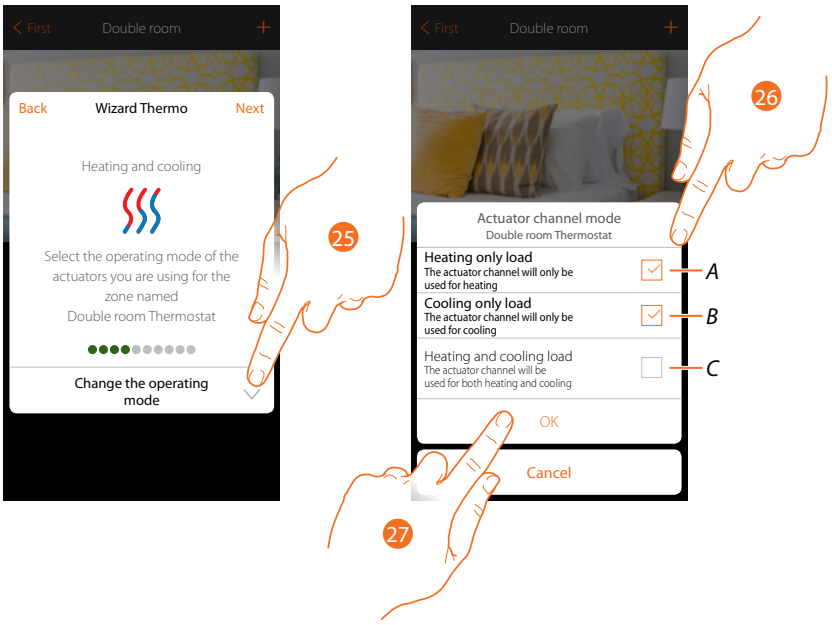




22. Touch to end the procedure
23. Touch to display the associated probes or to add other ones

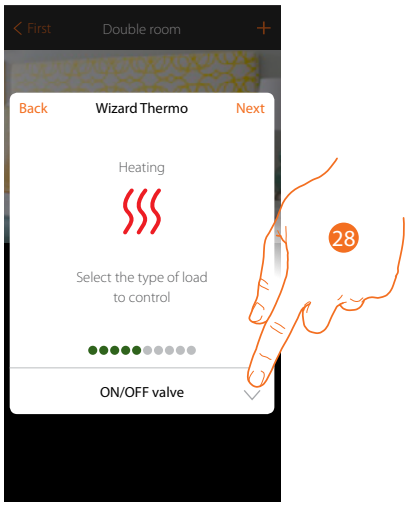
or

24. Touch to continue.

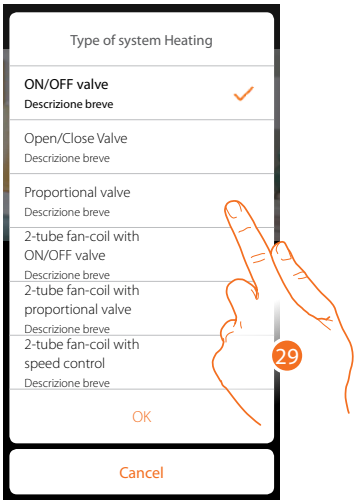


25. Select the actuator operating mode
26. Touch to set whether the actuator channel is used:
    A exclusively for heating
    B exclusively for cooling
    C exclusively for heating and cooling
27. Touch to confirm

After associating the thermostat and the probes to the object, select the type of heating system load to be controlled

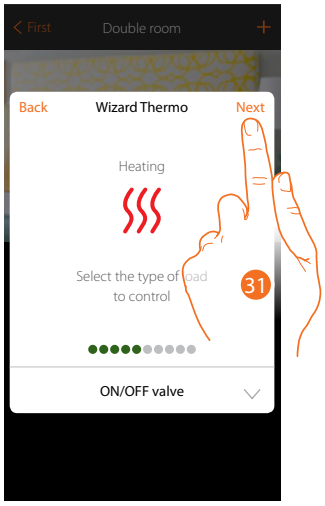


28. Touch to select the type of load



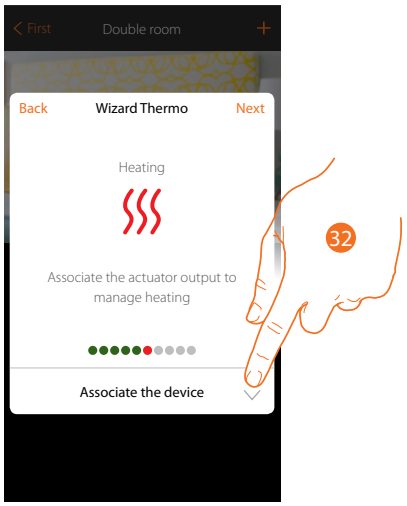
29. Select the type among those available

30. Touch to continue



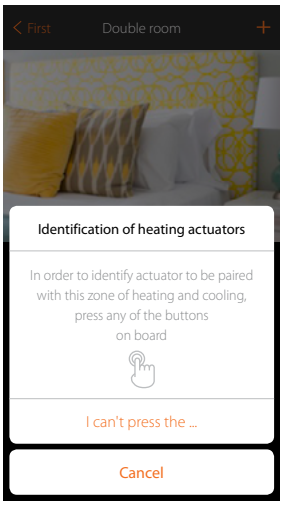
31. Touch to continue

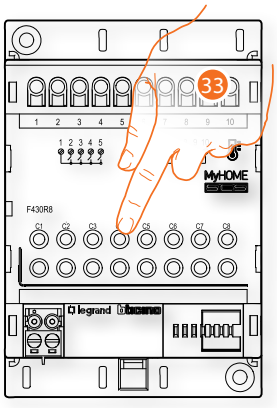
After selecting the type of load you can associate a heating system actuator



32. Touch to associate an actuator

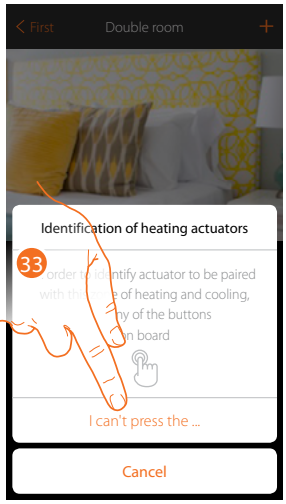
Accessible actuator





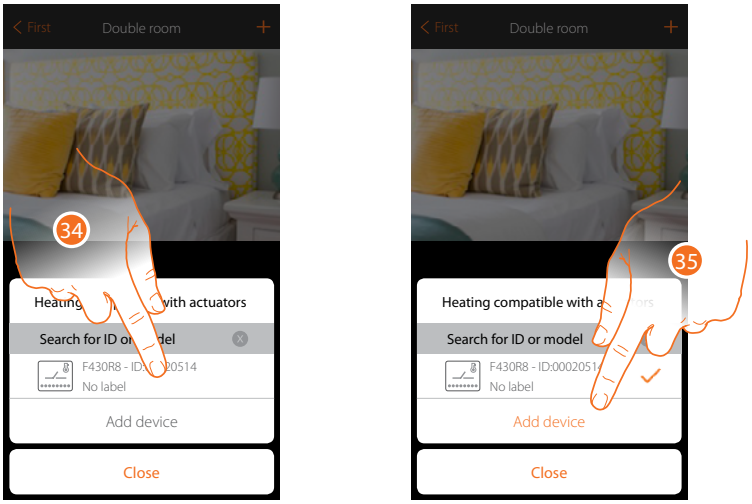
33. Touch any one of the pushbuttons on the actuator on the system

Not accessible actuator



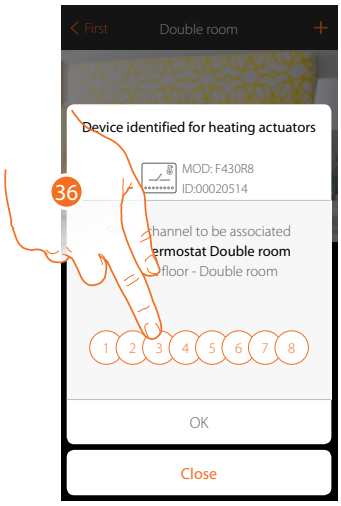
33. Touch if you cannot access the device

You will be proposed the list of compatible actuators which you can associate to the object. You can identify the actuator by its ID number:



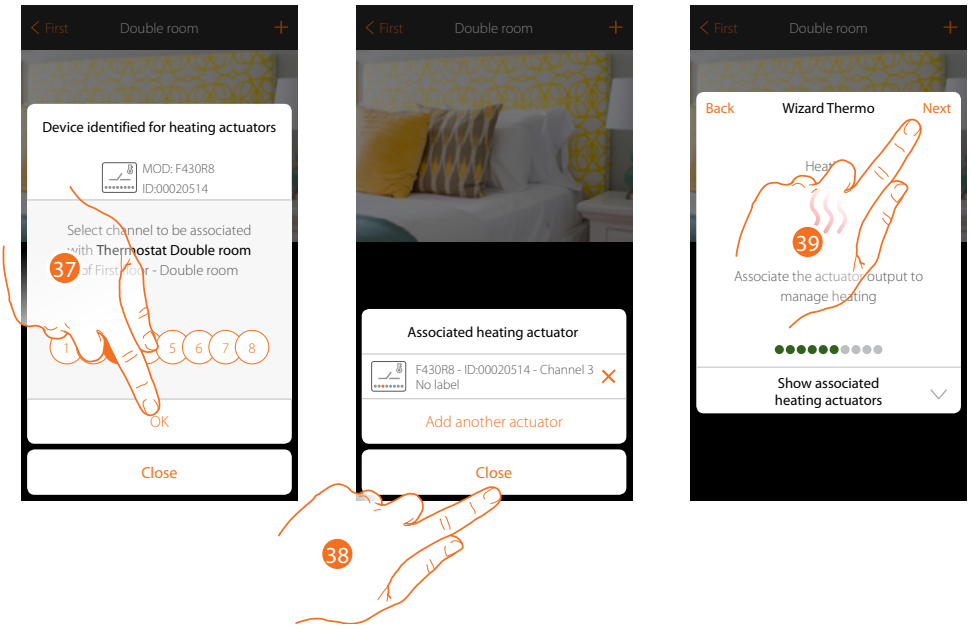
34. Touch to select the actuator
35. Touch to add the selected device

Whether the actuator is accessible or not, you must select the channel to use from those available



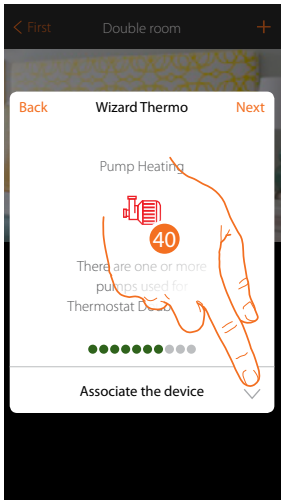
36. Select the channel

If the channel is busy, see chapter "What to do if".



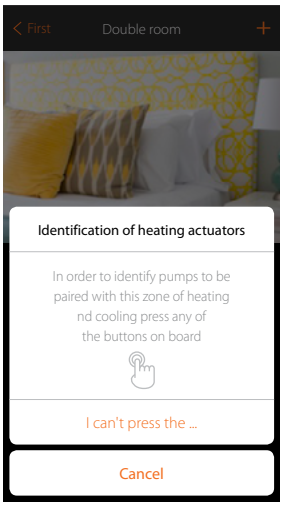
37. Touch to confirm
38. Touch to end
39. Touch to continue

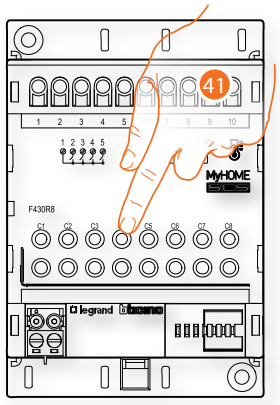
After associating the thermostat, probes and actuator to the object, you can associate a pump.



40. Touch to associate a pump

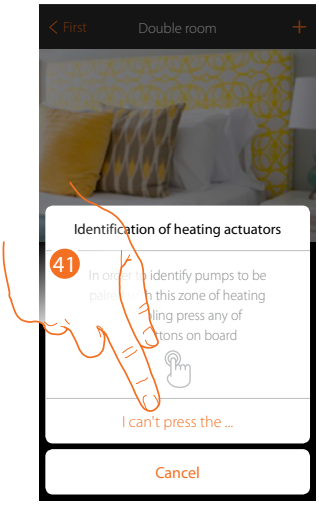
Accessible pump





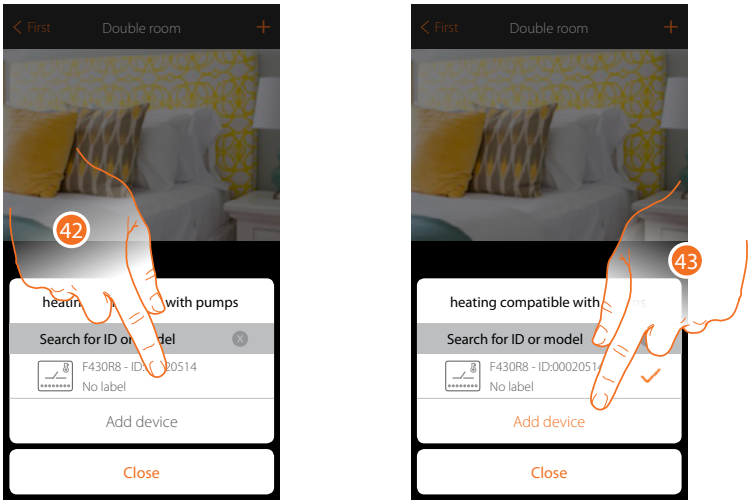
41. Touch any one of the pushbuttons on the pump on the system

Not accessible pump



41. Touch if you cannot access the device

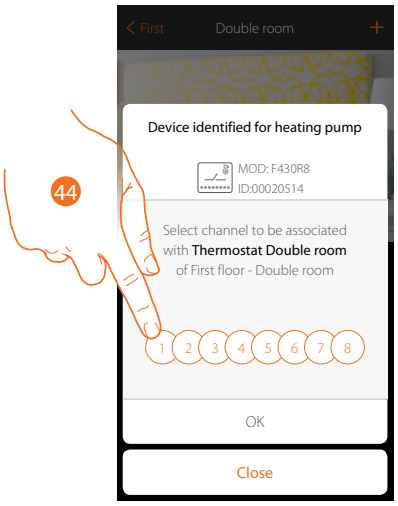
You will be proposed the list of actuators compatible with the pumps which you can associate to the object. You can identify the actuator/pump by its ID number.



42. Touch to select the actuator/pump

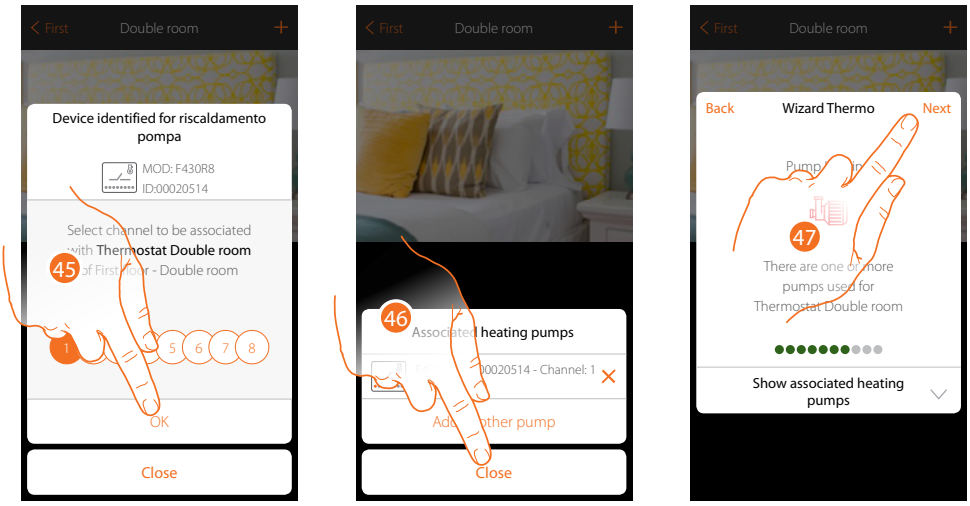
43. Touch to add the selected device

Whether the actuator is accessible or not, you must select the channel to use from those available



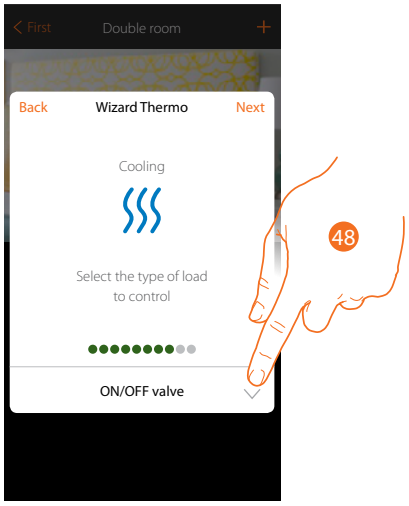
44. Select the channel

If the channel is busy, see chapter "What to do if".

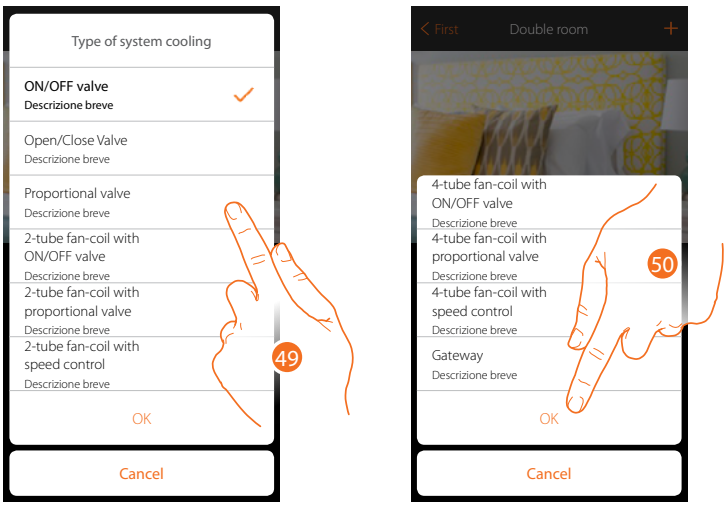


45. Touch to confirm
46. Touch to end
47. Touch to continue

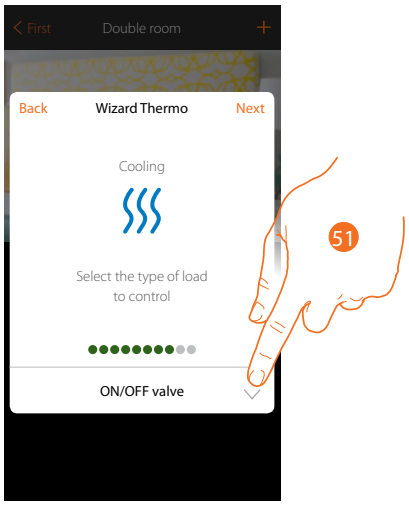
After associating the heating devices, repeat the procedure for the cooling devices. Select the type of load of the cooling system to be controlled



48. Touch to select the type of load

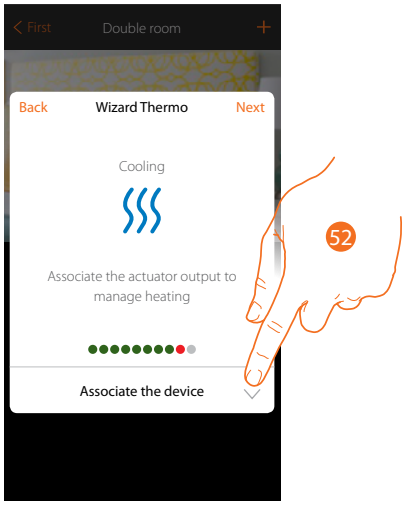


49. Select the type among those available
50. Touch to continue



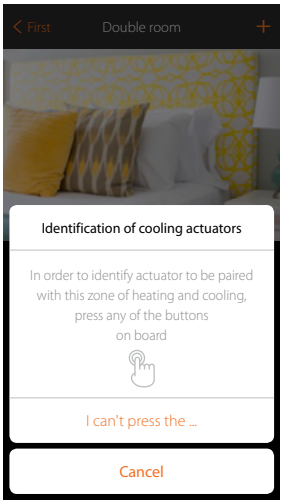
51. Touch to continue

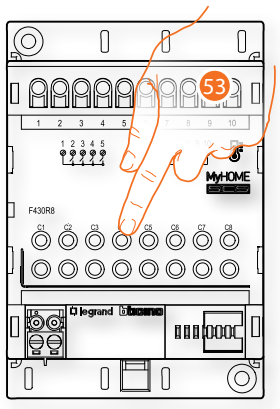
After selecting the type of load you can associate a cooling system actuator



52. Touch to associate an actuator

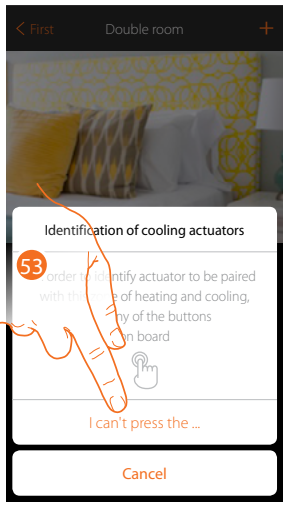
Accessible actuator





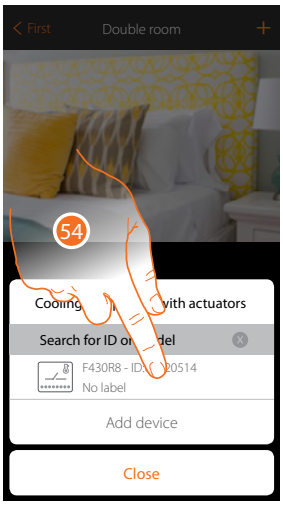
53. Touch any one of the pushbuttons on the actuator on the system

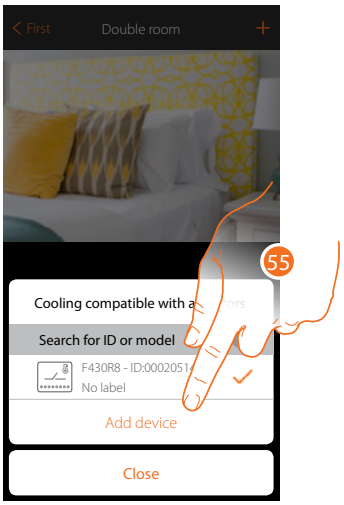
Not accessible actuator



53. Touch if you cannot access the device

You will be proposed the list of compatible actuators which you can associate to the object. You can identify the actuator by its ID number:

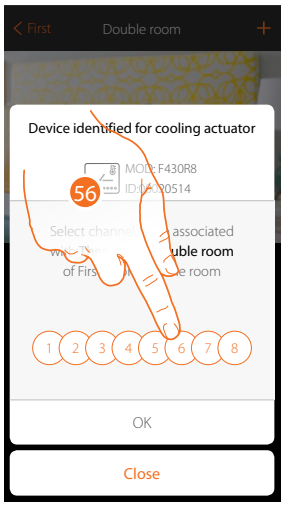




54. Touch to select the actuator

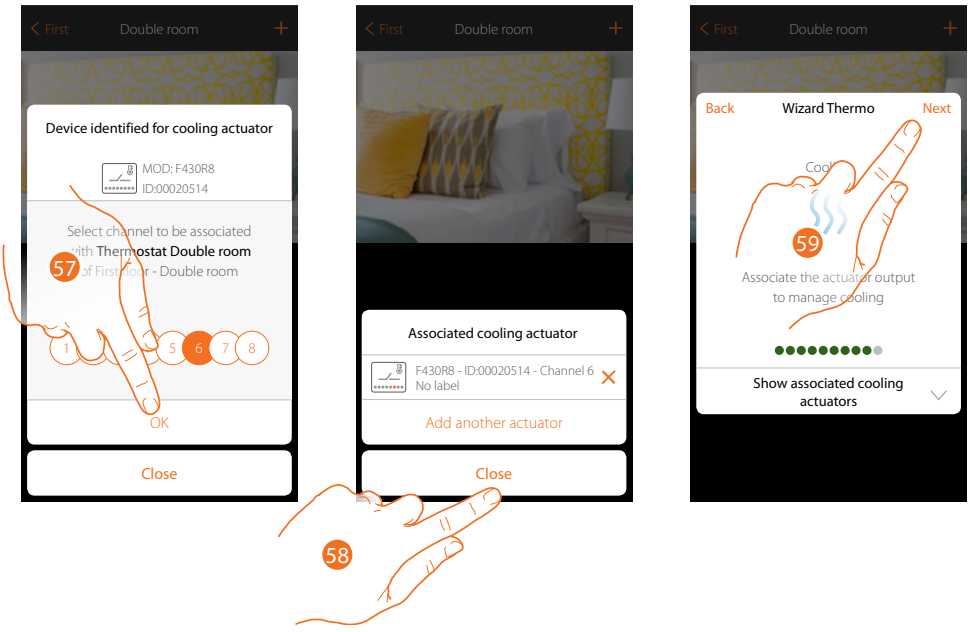
55. Touch to add the selected device

Whether the actuator is accessible or not, you must select the channel to use from those available



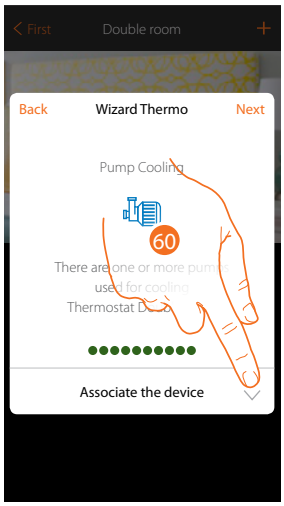
56. Select the channel

If the channel is busy, see chapter "What to do if".



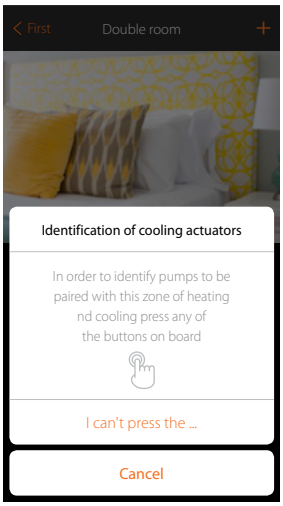
57. Touch to confirm
58. Touch to end
59. Touch to continue

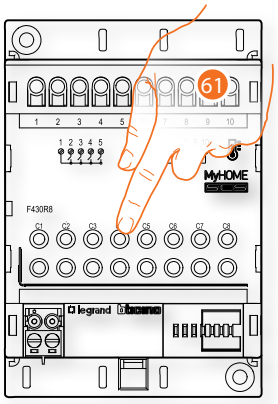
After associating the thermostat, probes and actuator to the object, you can associate a pump.



60. Touch to associate a pump

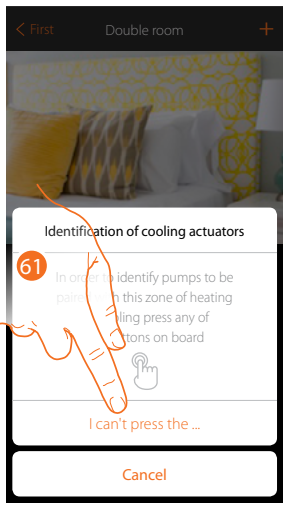
Accessible pump





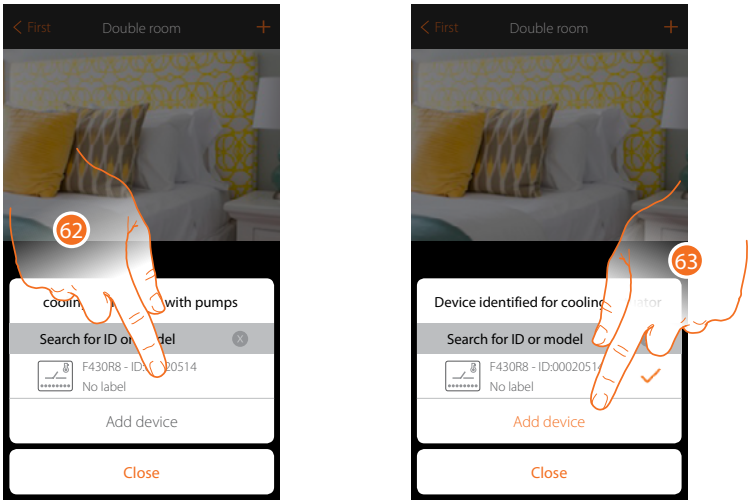
61. Touch any one of the pushbuttons on the pump on the system

Not accessible pump



61. Touch if you cannot access the device

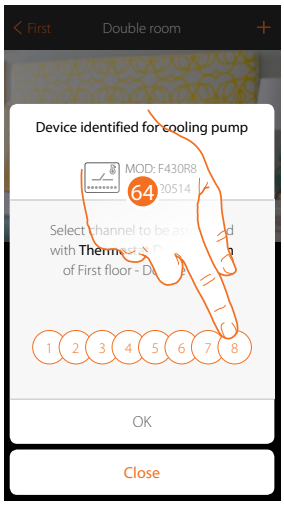
You will be proposed the list of actuators compatible with the pumps which you can associate to the object. You can identify the actuator/pump by its ID number.



62. Touch to select the actuator/pump

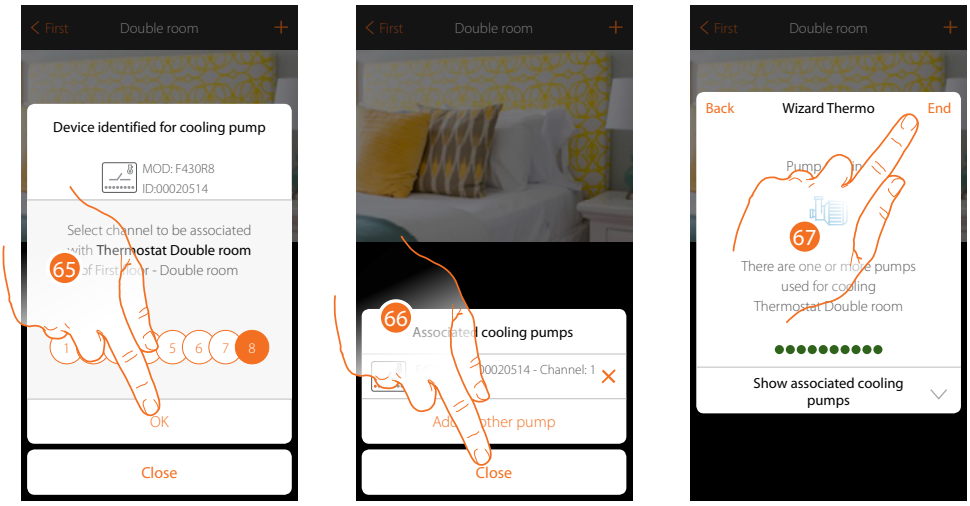
63. Touch to add the selected device

Whether the actuator is accessible or not, you must select the channel to use from those available

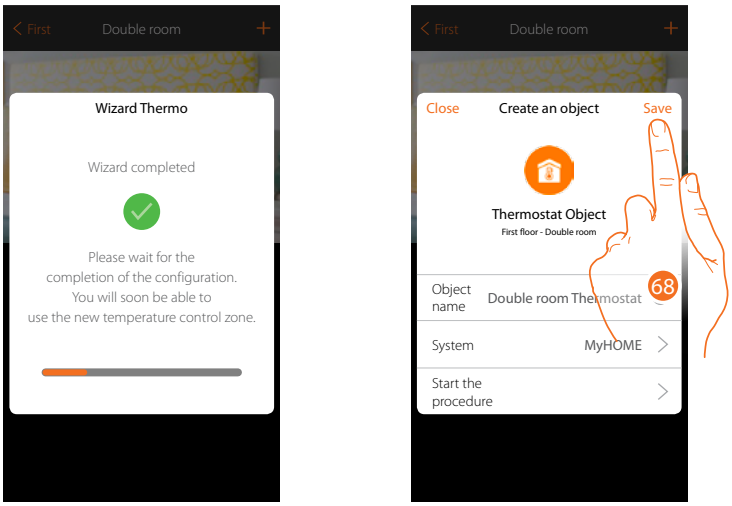


64. Select the channel

If the channel is busy, see chapter "What to do if".

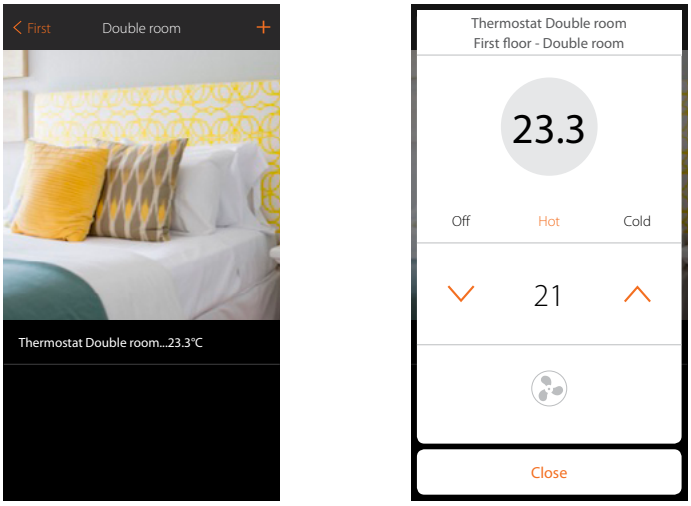


65. Touch to confirm
66. Touch to end
67. Touch to configure the objects



Wait for the end of the configuration of the temperature control objects

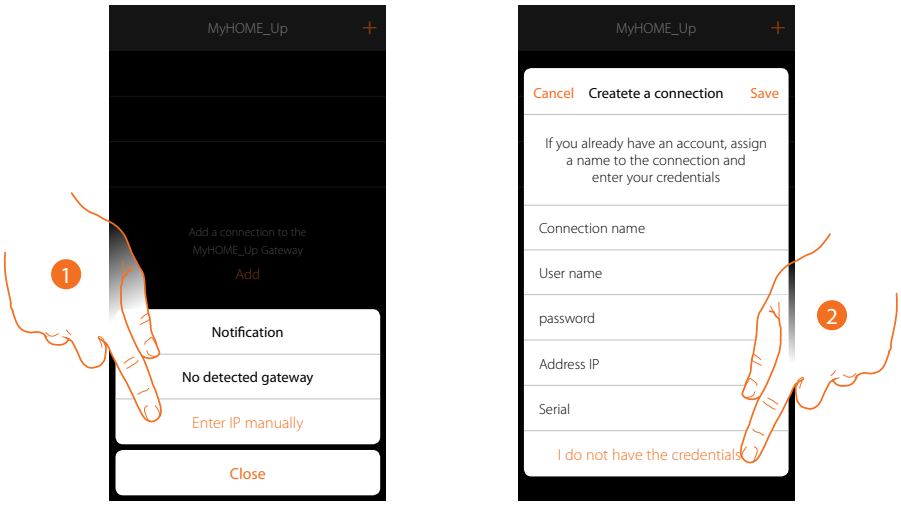
68. Touch to save



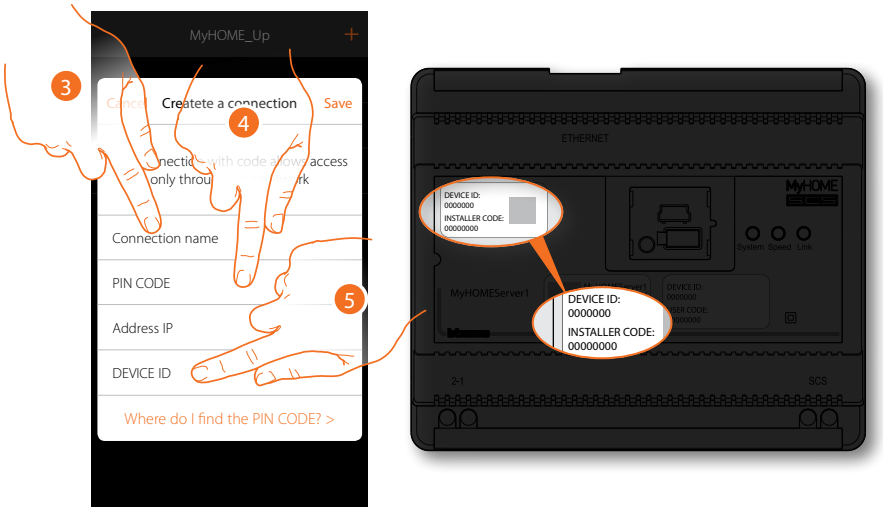
The object is available for the user to use

What to do if

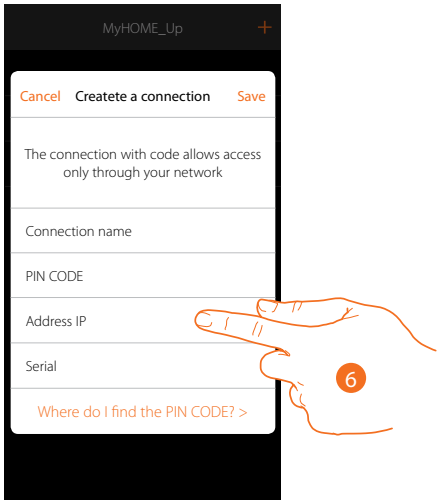
When, while creating a connection, your MyHOMEServer1 is not found automatically, you must enter the address manually



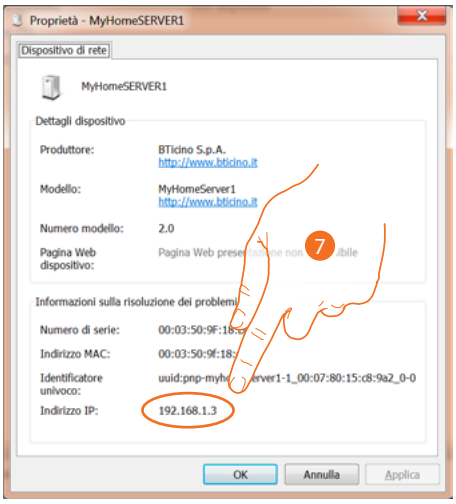
1. Touch to identify your MyHOMEServer1 manually in the network
2. Touch to create the connection and access via local network with the INSTALLER CODE



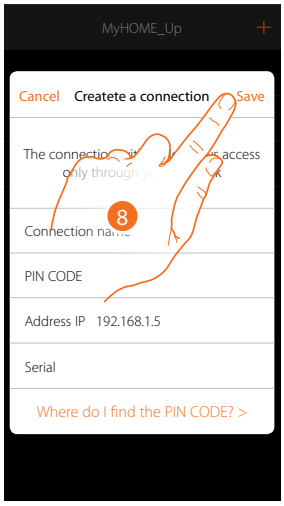
3. Enter a name to identify the new connection being created
4. Enter the INSTALLER CODE found on the front side of the device
5. Enter the ID DEVICE found on the front side of the device



6. Enter the IP address of your MyHOMEServer1



7. If you do not know it, connect the PC to the same network as the MyHOMEServer1, look for it in the network connections centre and open the properties mask.
If it does not appear in the network connections centre, you can press the MyHOMEServer1 reset pushbutton for 10 seconds and set it in DHCP



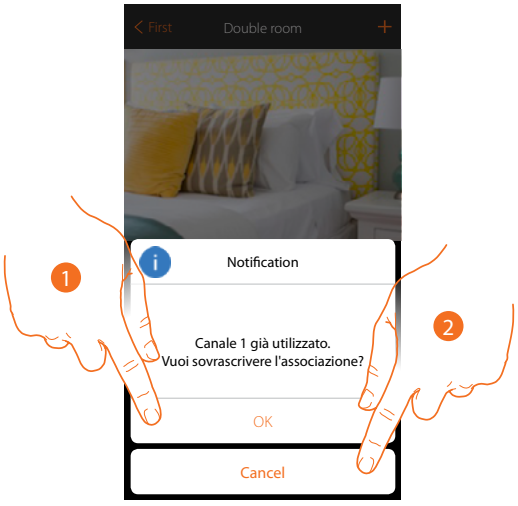
8. Touch to save the connection to the system

When you are associating an already configured thermostat, the following screen appears

1. Touch to confirm the selection and import the existing configuration*
2. Touch to return to the main screen

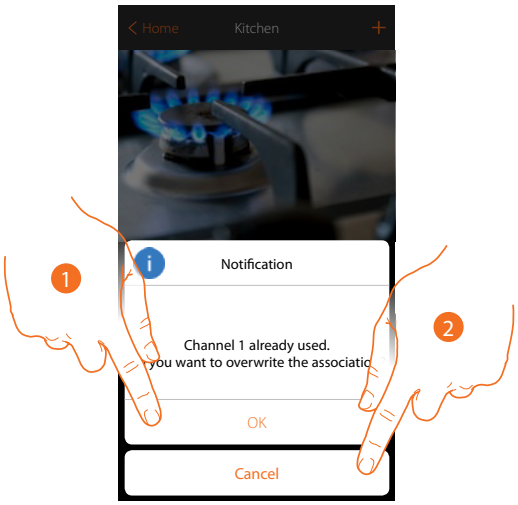
**Note: the configuration of the selected thermostat is converted for the new MyHome_Up system. The available functions are shown in the User Manual.*
When the thermostat is physically configured, the system obliges you to remove the configurators and make a new configuration.

When you are associating a probe which is already associated to another thermostat, the following screen appears



1. Touch to confirm the selection and overwrite the previous association
2. Touch to return to the main screen

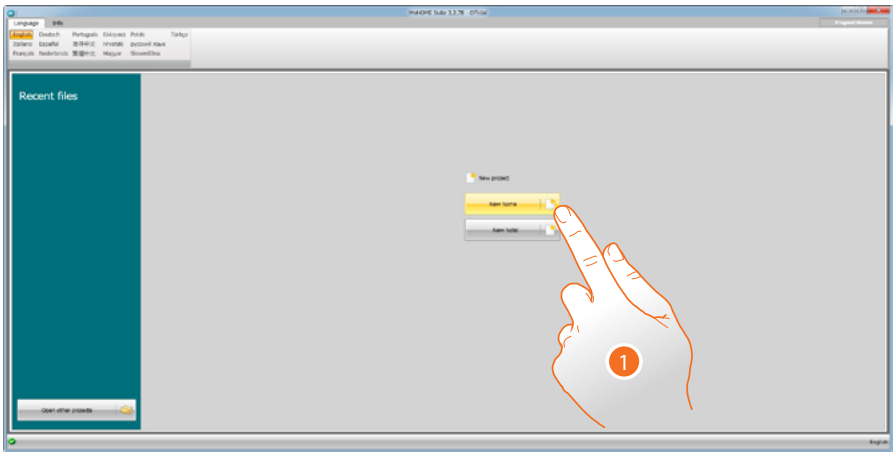
When you are associating an actuator and select a channel which is already used, the following screen appears



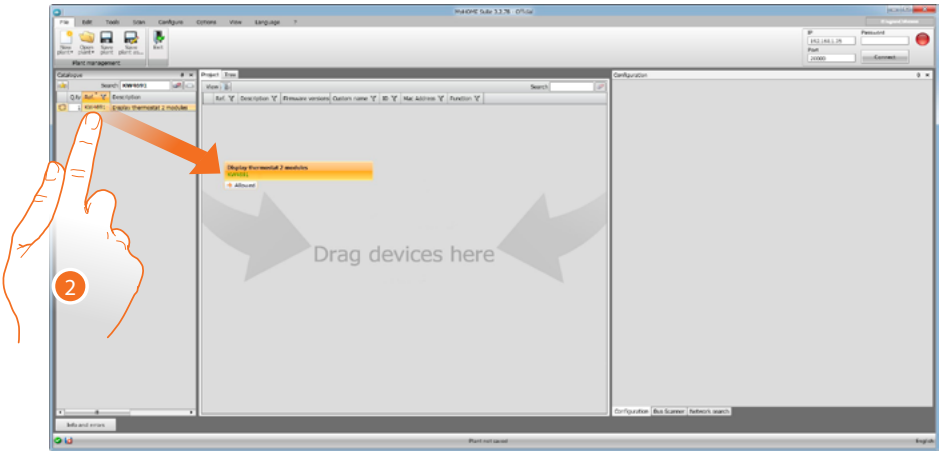
1. Touch to confirm the selection and overwrite the previous association
2. Touch to return to the previous screen

Configuration with MyHOME_Suite

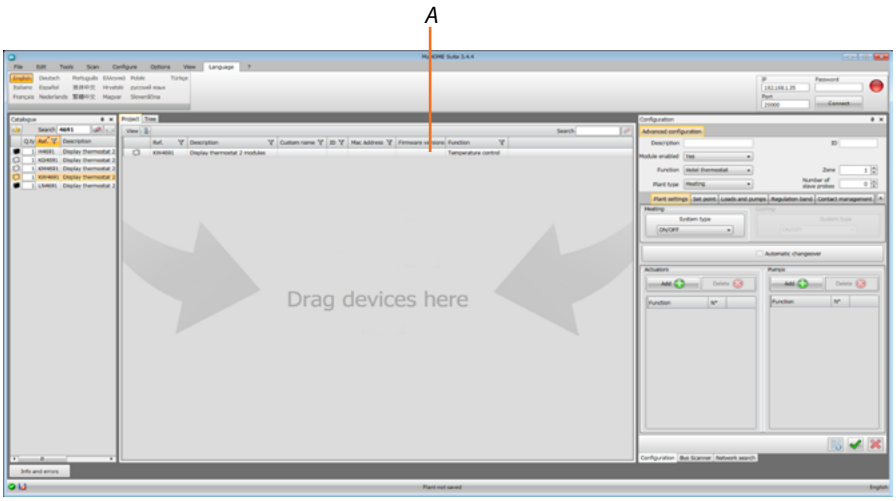
The thermostat can be configured by creating a new project, or by opening and existing one, which can then be changed and resent to the thermostat.



1. Click to enter the software dedicated to the configuration of a new home system.



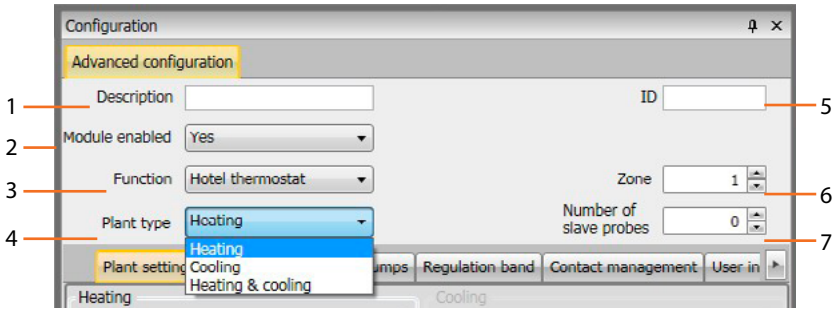
2. Select the thermostat in the Catalogue area and drag it to the Design area.



After selecting the thermostat to be configured, the Configuration A field will activate. This will be explained in detail below.

Thermostat configuration

Configuration

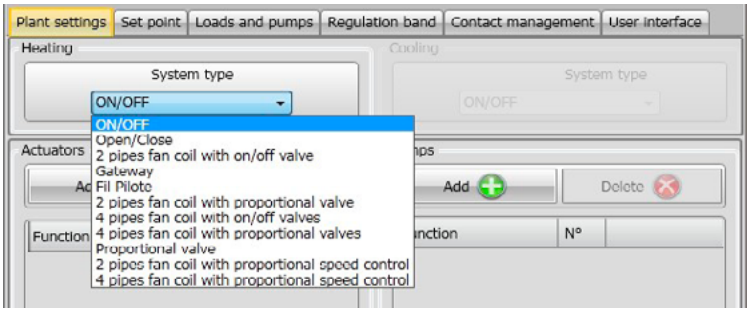


1. **Description**: Enter a description which identifies the thermostat in the system (e.g. "night zone thermostat").
2. **Module enabled: Enable the thermostat for the configuration via software.**
3. **Function: The thermostat is part of a single temperature control system which may be made up of one zone.**
4. **Type**: select the type of management for which the thermostat will be programmed from those listed.
5. **ID**: Enter the unique code which identifies the thermostat in the system, or find this datum automatically by means of the "System scan" function.
6. **Zone**: Set the system zone number where the thermostat is installed.
7. **Number of slave probes**: The Slave probes associated with the Master probe are used to calculate the average temperature of large rooms or areas.
   Up to 9 probes without knob configured as SLAVE can be associated with each thermostat (the control unit will consider the average temperature read by the probes).

System settings

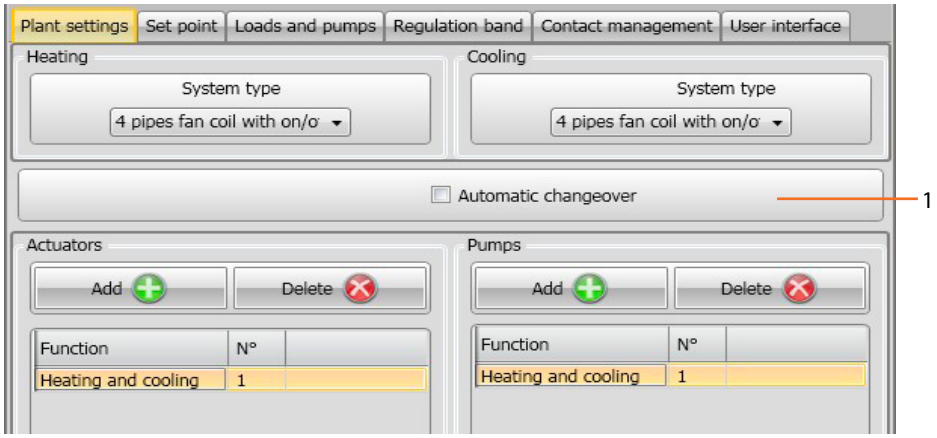
Type of system

The thermostat can manage all types of system, both heating and cooling; select your system from those in the list.



Actuators – Pumps

The Actuators and/or Pumps to be managed must be set for each thermostat; it is necessary to indicate their Function (Heating only, Cooling only or both). The software assigns the number in progressive order; you can modify the number assigned selecting it in the field. The numbers available are from 1 to 9.



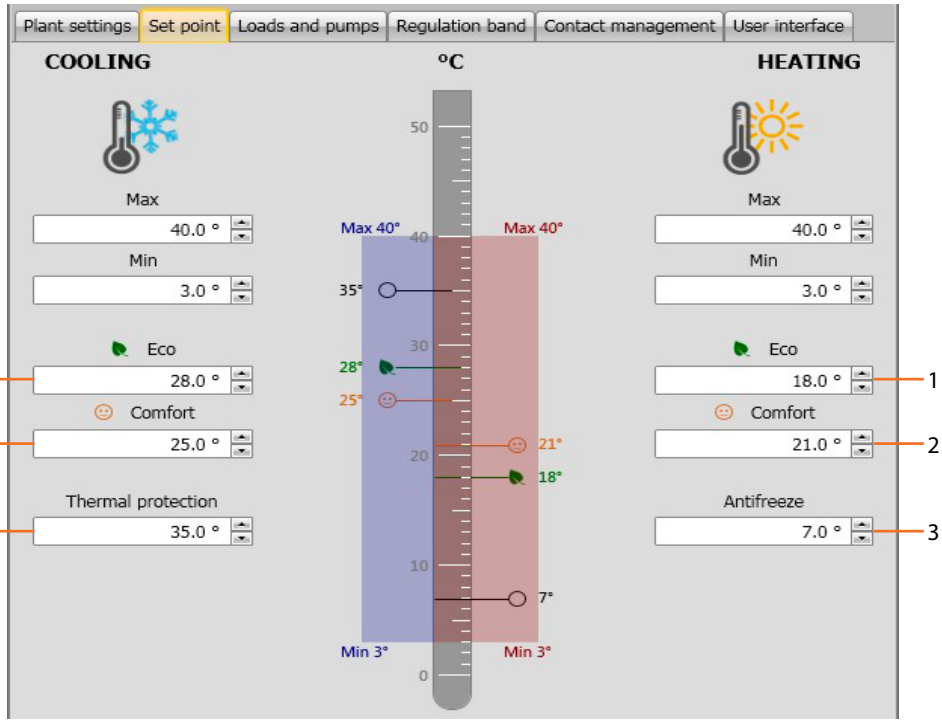
1. **Automatic change:** in systems with 4-pipe fancoils enabled for both heating and cooling or in systems where the water circulation systems for heating and cooling are completely independent, you can enable this function to manage the switching between heating and cooling automatically.

Set-point

The software has three pre-set temperature levels for both cooling and heating; or:

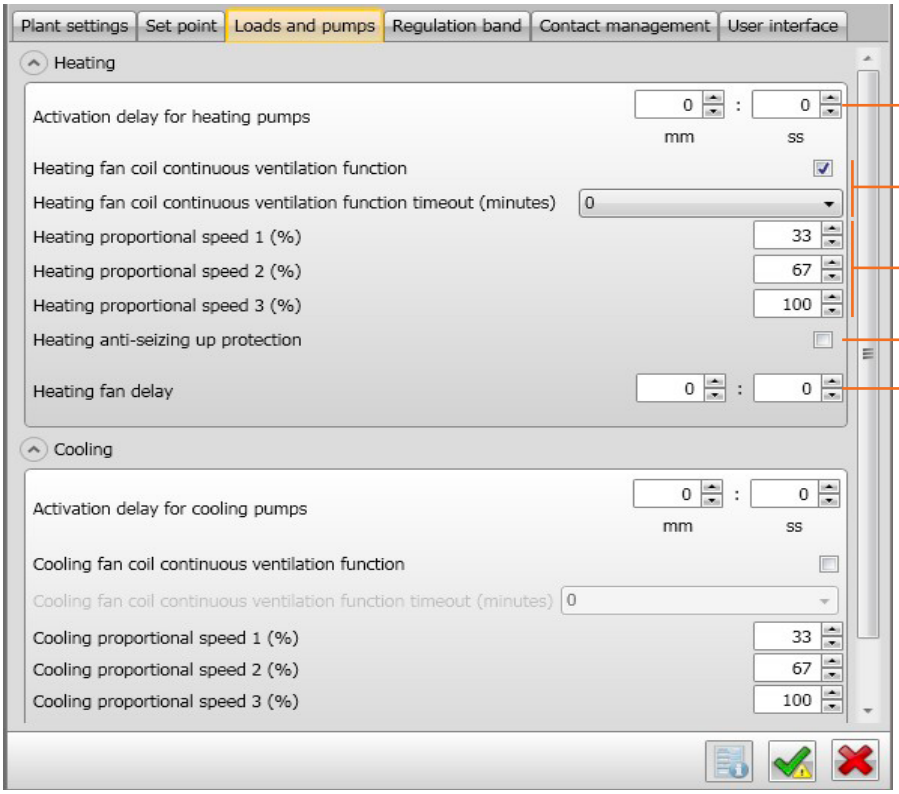
1. **Eco**: temperature which allows a relative energy saving
2. **Comfort**: temperature considered ideal for your wellbeing
3. **Thermal protection** (for cooling) or **Antifreeze** (for heating): temperature which can be set, e.g. when the system is not working to avoid superfluous consumption without however risking damaging the system.

You can customise the basic values remaining however within the Min (3 °C) and Max (40 °C) levels. The software does not accept the setting of conflicting values (e.g. Antifreeze cannot be higher than Eco, etc.)



Loads and pumps

You can set some parameters for the operation of the pumps and fans (for fan-coils) both for cooling and heating.

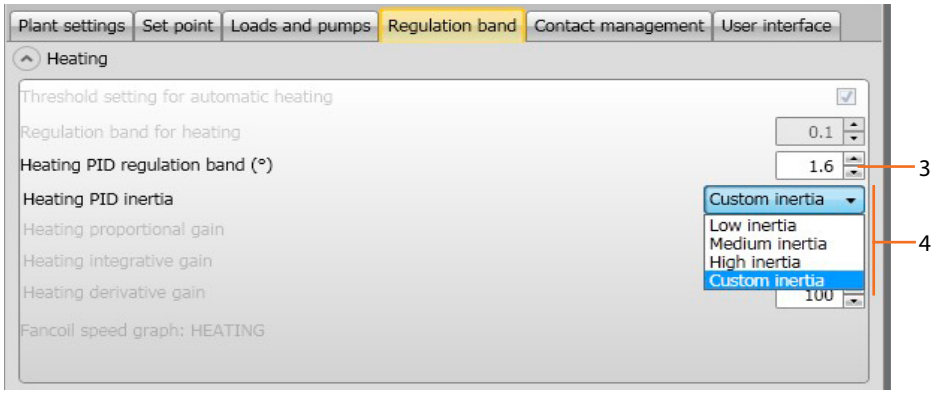


1. **Delay pump activation**: you can set a delay time for the activation of the pumps thus avoiding them starting before the zone valves have opened.
2. **Continuous ventilation function**: for best use of the fan-coil temperature you can decide to extend the operation of the fan even after the valves have closed. If the fan speed is in "**Automatic**" you can set the duration between 1 minute and 254 minutes, or infinite duration. If one of the three speeds is selected the duration is infinite..
   Note: Enabling this function excludes being able to activate the "**Fan delay**" function.
3. **Proportional speed percentage**: just for fan coils with this function you can vary the setting of the basic set percentages for the three speeds.
4. **Anti-block protection**: If the system does not work for a long time, this function activates the zone valves for two minutes every week to prevent them blocking.
5. **Fan delay**: set a delay time for activating the fan to avoid, for example, for the heating, that switching the fan on too suddenly could blow cold air in the room.

Regulation (adjustment) range

With MyHOME_Suite you can set the thermostat operation threshold and other advanced functions which depend on the type of thermal system installed.

1. **Setting automatic threshold**: enabling this parameter, the adjustment range will be the default (0.1 °C). Instead on disabling this you can set as follows.
2. **Regulation (adjustment) range**: this parameter determines the operation threshold with respect to the set point set; for example with a set point of 20.0 °C for heating and a threshold of 0.1 °C the system will switch off when the temperature is higher than 20.1 °C and will switch on at 19.9 °C.
   For fan-coil systems the threshold can have values from 0.1 to 1 °C. Other types of system have threshold values from 0.1 to 0.5 °C.



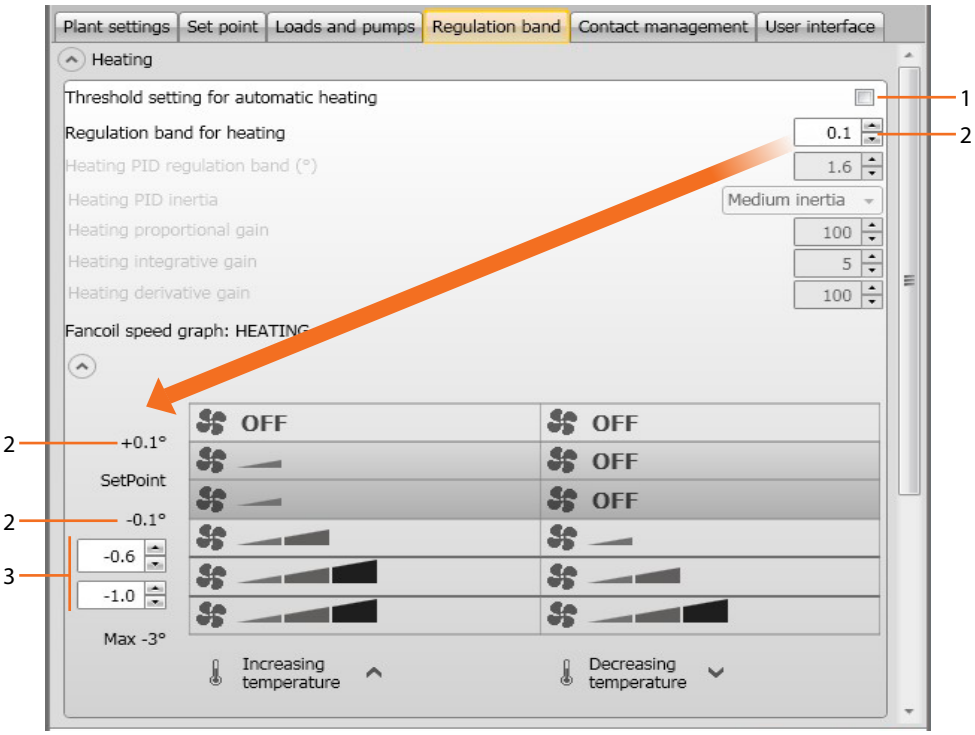
3. **PID (Proportional – Integral – Derivate) regulation (adjustment) range**: this parameter determines the operation threshold with respect to the setpoint set.
   For proportional loads use this parameter instead of the two preceding parameters.
4. **PID thermal inertia**: the thermostat manages the temperature in advanced mode controlling the opening of the valves or the speed of the Fan coil fans, using some parameters which depend on the type of system installed; comfort can thus be optimised and consumptions rationalised in the best way.
   The software has three pre-set temperature levels for both cooling and heating.

Thermal inertia	Heating	Cooling
Low	Fan-coil	Fan-coil
Medium	Radiators	Panels
High	Floor system	Floor system
* Customised	* Advanced configuration	* Advanced configuration

* For more expert installers, the "**Customised**" option lets you modify the individual parameters which determine the algorithm of this function; before making any modification you should however consult the heating engineer responsible for the system.

Fan-coil speed

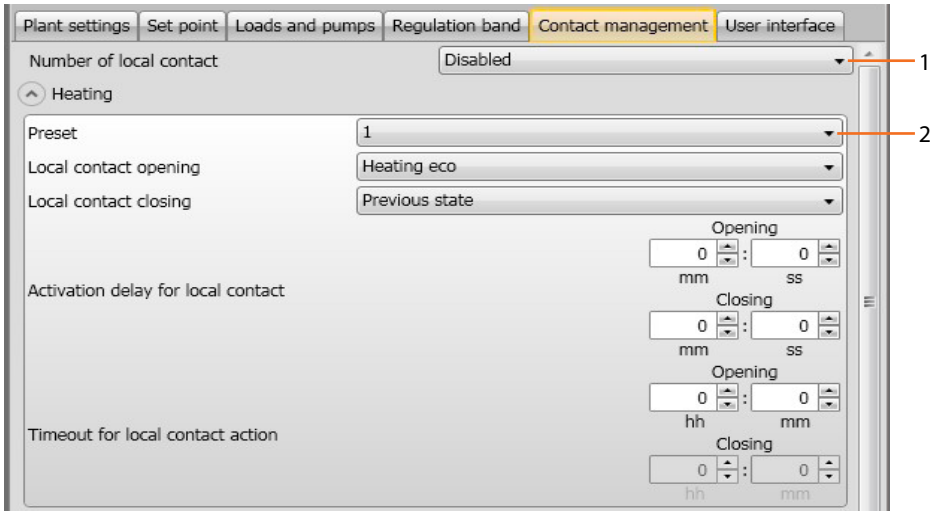
For systems made with Fan-coil and ON-OFF or Proportional valves you can set the operation thresholds relative to the change of fan speed with respect to the set-point set.



1. **Automatic threshold setting**: Disable this function to make the customised setting.
2. **Regulation (adjustment) range**: The value set determines the switching on/off of the fancoil(s) at speed 1.
3. **Operation thresholds**: in these fields you can set the thresholds (temperature differentials) at which the fancoil fans will change speed at speeds 2 and 3.

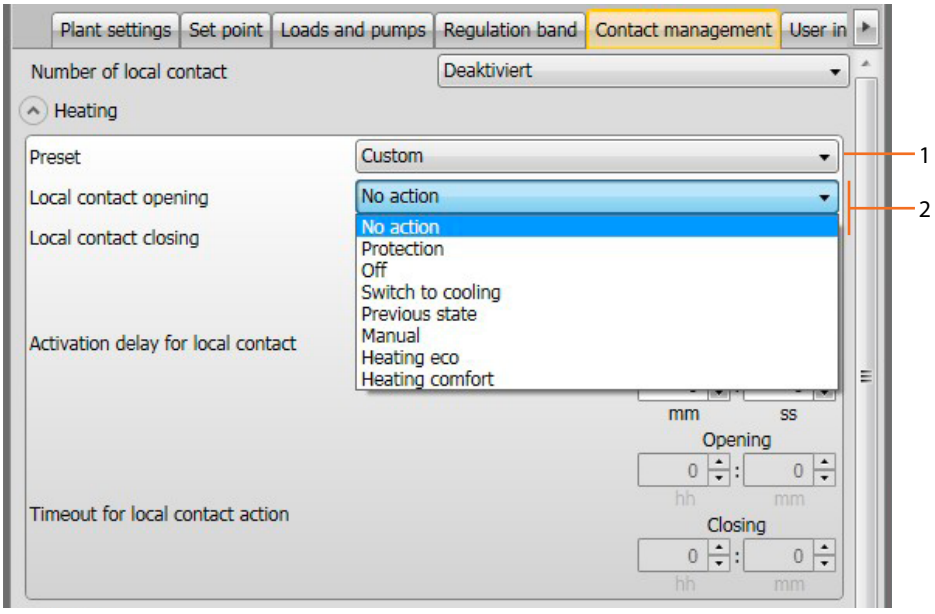
Contact management

You can associate a specific action which must be carried out on the system, e.g. on opening the zone 1 window the heating will switch off in the zone itself, to the change of state of the local contact (Open/Closed).
These settings are possible and can be differentiated for both heating and cooling.

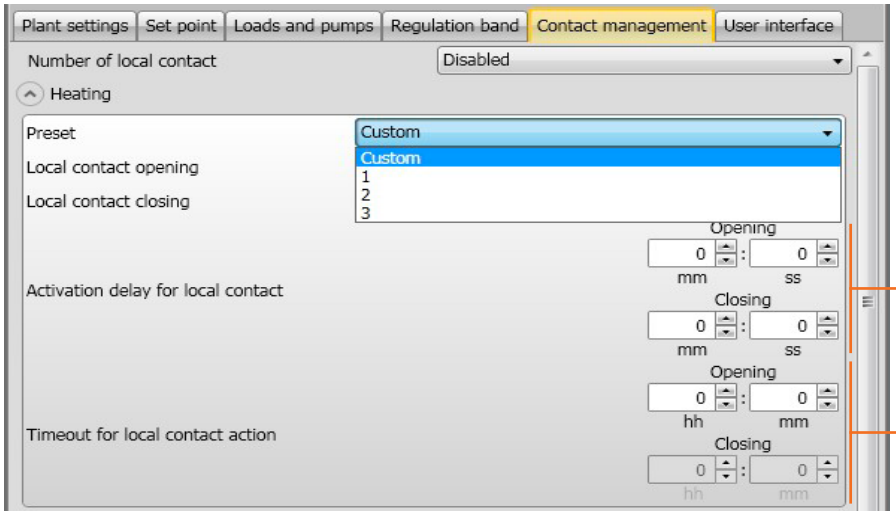


1. **Number of local contact: By enabling a list address, it will be possible to use the system scs "contact" function, which upon opening of the contact will give, for example, the possibility of executing a scenario saved in the MH202 scenario programmer.**
2. **Preset**: there are three preconfigured settings, on selecting one of these, you will see the corresponding action when Opening and Closing the contact in the fields below.

   2.1 **Custom**: when the preconfigured solutions are not satisfactory you can select the Custom option which allows you to customise the contact opening and closing actions, selecting from those in the fields.



1. **Preset - Custom**: Customised setting.
2. **Local contact opening/closing**: setting the action following the change of status of the thermostat local contact.

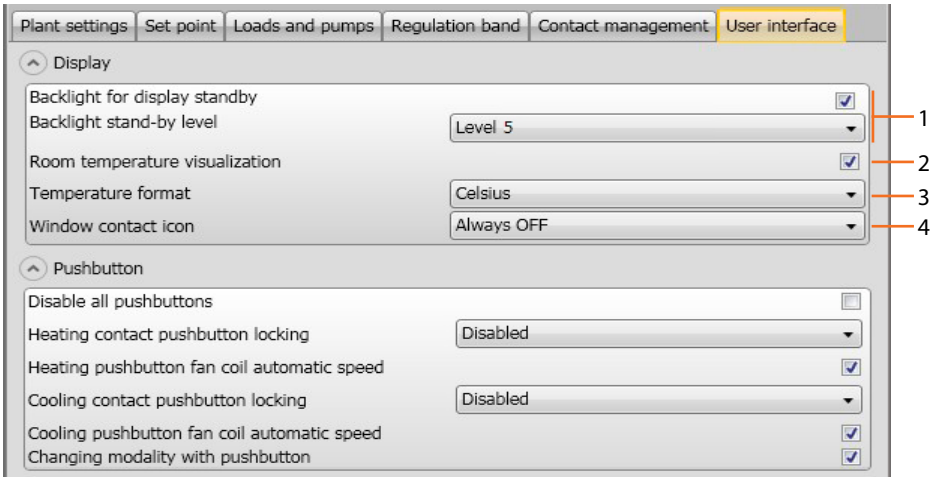


3. **Activation delay**: you can set a delay time between the contact opening/closing and the consequent action.
   For example: if I open the window the zone heating will switch off after 1 minute (set activation delay), if the window is closed in the meantime the heating will not switch off.
4. **Timeout for the action**: You can establish the maximum duration of the action determined by the local contact.
   For example: opening the window causes the zone heating to switch off ; after 1 hour (Timeout set) the heating switches on again even if the window is still open.

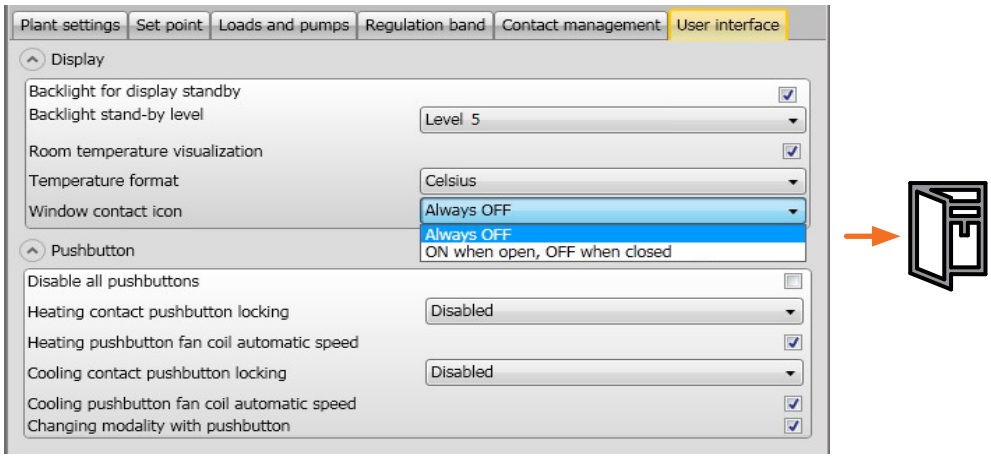
User interface

This software section allows you to set some functions concerning what is shown on the display and allows the user to interact with the thermostat.

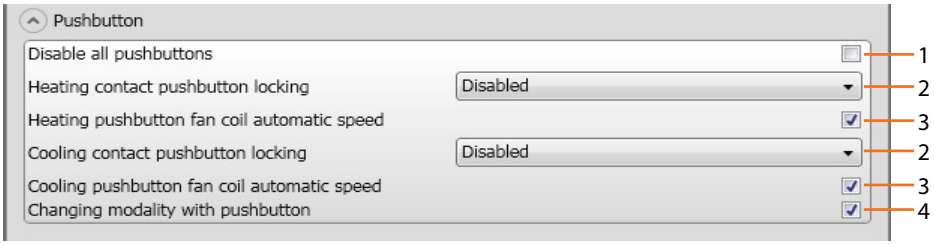
Display



1. Backlighting: It is possible to adjust the display brightness by selecting one of the 5 available levels, or by setting automatic adjustment mode based on the brightness of the room (automatic, with or without display switch off).
2. **Room temperature display**: Enable/disable the display of the temperature measured locally by the thermostat.
3. **Temperature format**: You can set the temperature measurement unit which will be valid for all the displays; select the unit used locally, Celsius or Fahrenheit.
4. **Window contact symbol: This function allows you to establish if and when the symbol which indicates activation of the local contact should appear on the display.**



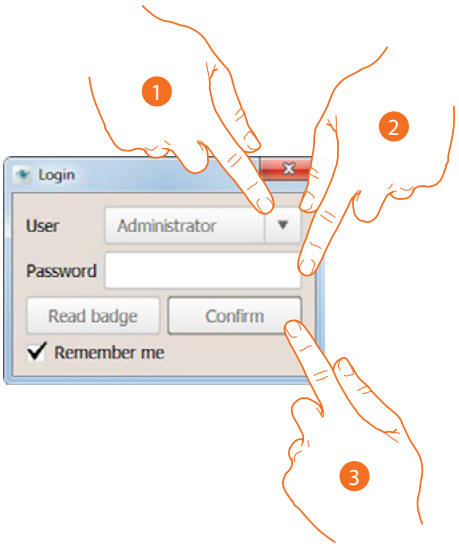
Pushbutton



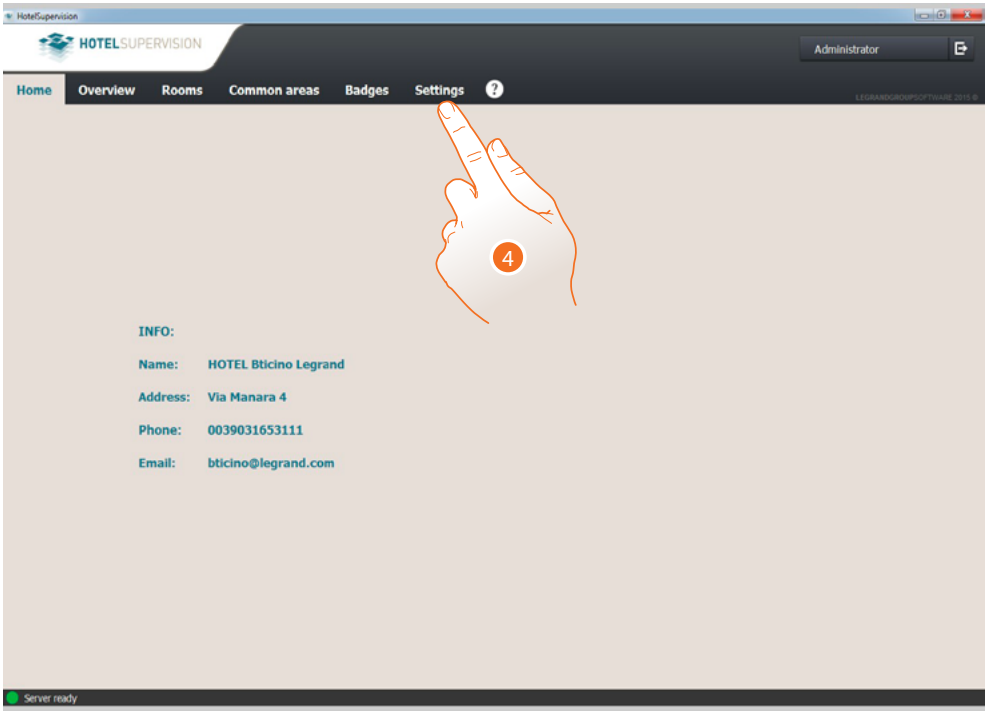
1. **Disable all the pushbuttons**: Activating this option prevents the user from using the pushbuttons to interact with the device.
2. **Heating/cooling contact pushbutton locking**: activating this option prevents the user from using the pushbuttons to interact with the device on the basis of the status of the local contact.
   The two possible choices are:
   - Disabled
   - Enabled when the remote contact is open.
3. **Pushbutton automatic speed in Heating / Cooling**: Enables or disables the possibility of selecting the automatic speed from the probe by means of the FAN pushbutton.
4. **Change mode with pushbutton: enables or disables mode selection (Antifreeze/Thermal protection) by means of the MODE key**

Configuration with HotelSupervision

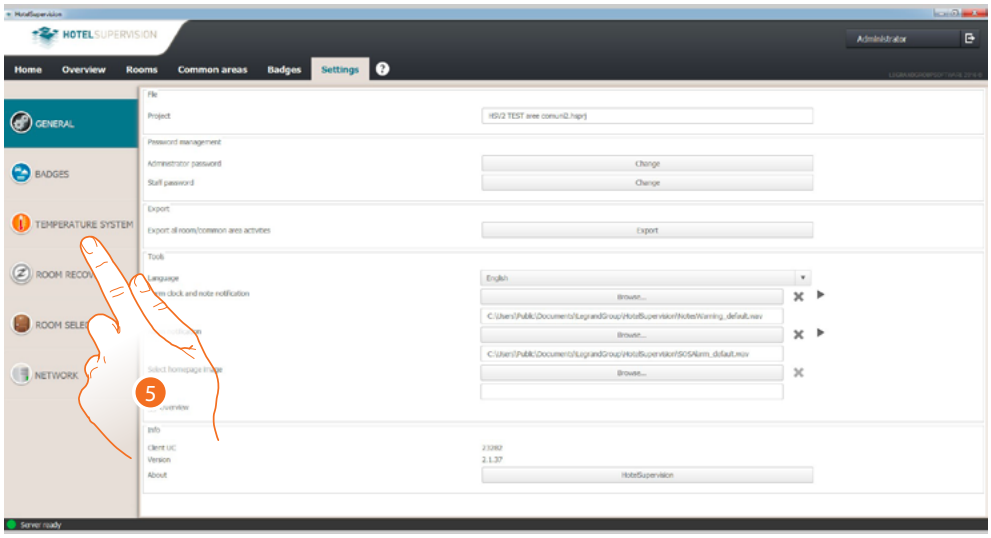
In order to configure the thermostat using Hotelsupervision, after starting the server module the program must also be started



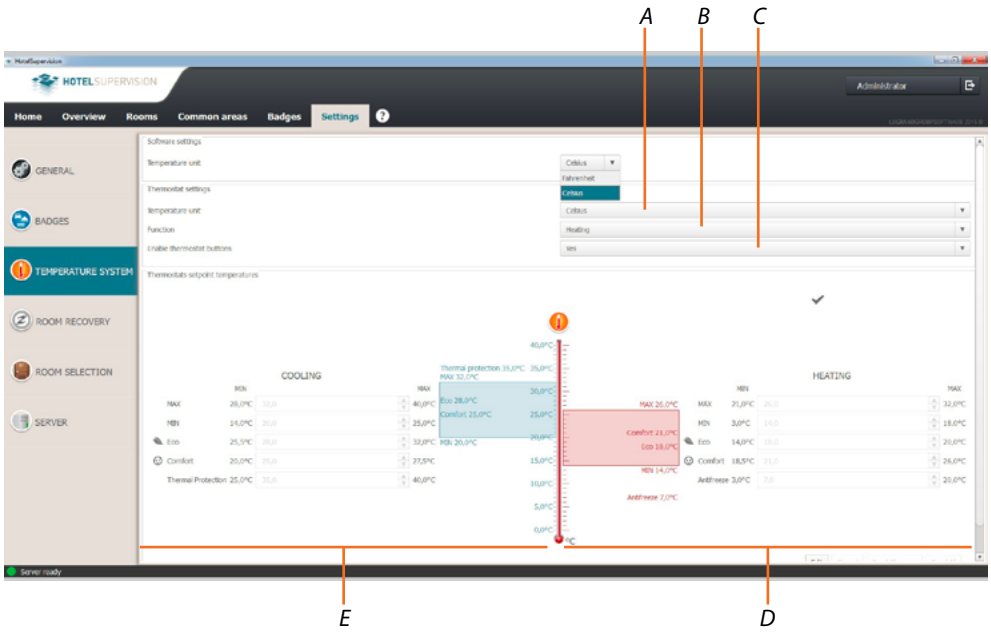
1. In the user field, select "Administrator"
2. Enter the administrator password
3. Click to confirm



4. Click to open the setting page



5. Click to configure the thermostat



A Set the temperature unit (Celsius / Fahrenheit)

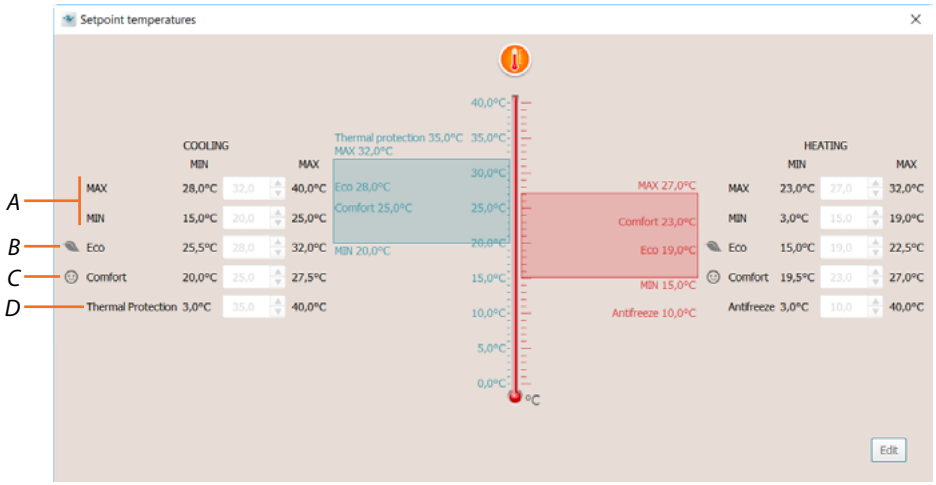
B Set the system type (heating, cooling, both)

C Enable/disable the device physical keys

D Set the heating set point values

E Set the cooling set point values

Set-point



A Set the minimum and maximum temperature values for all set points

B Set the Eco temperature value, which allows a certain level of energy saving

C Set the Comfort temperature value, ideal for personal comfort

D Set the Thermal Protection (cooling) or antifreeze (heating) values.

The values set in this section apply to all the system thermostats.
The user may change these parameters at a later stage from the sections dedicated to the rooms and/or common areas.

Thermostat use

You can interact with the thermostat in different ways::

- locally, using the thermostat keys
- using a smartphone with the free MyHOME_Up App installed
- using a PC with the Hotelsupervision software installed
- using a HOMETOUCH internal unit installed as part of the system

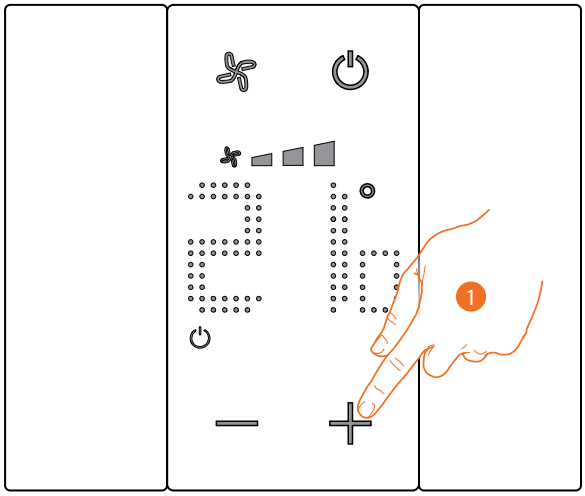
The functions available vary depending on the interaction mode

Function	Thermostat	MyHOME_Up	Hotelsupervision	HOMETOUCH
Programmed temperature	SÌ	SÌ	SÌ	SÌ
Protection mode activation	SÌ	SÌ	SÌ	SÌ
Setpoint Comfort activation	NO	NO	SÌ	NO
Setpoint Eco activation	NO	NO	SÌ	NO
OFF (thermostat OFF)	NO	NO	SÌ	NO
Fan adjustment	SÌ	SÌ	SÌ	SÌ

Local functions

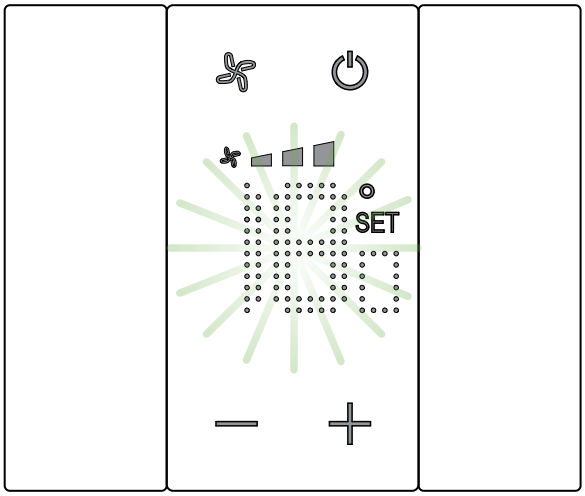
Set the programmed temperature

Using the — + keys, it is possible to change the temperature value that will be used by the temperature control system to switch on or off.
A subsequent remote temperature change will prevail on this setting.
When idle, the display shows the measured temperature and the programming status.



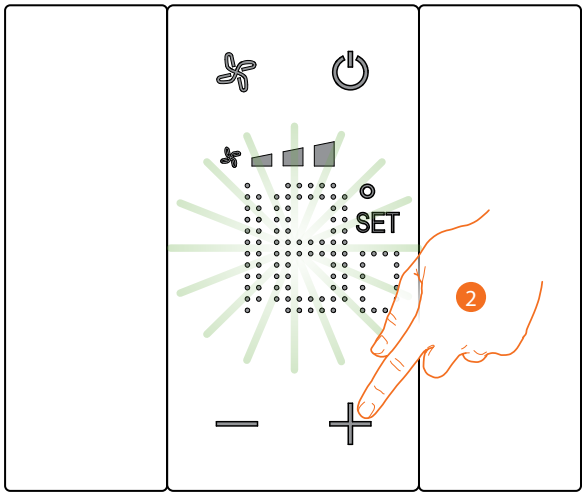
Programming status – Symbol ⏻	
Present	Protection Mode
Not present	Programmed temperature mode

1. Touch the — + keys to set the programmed temperature

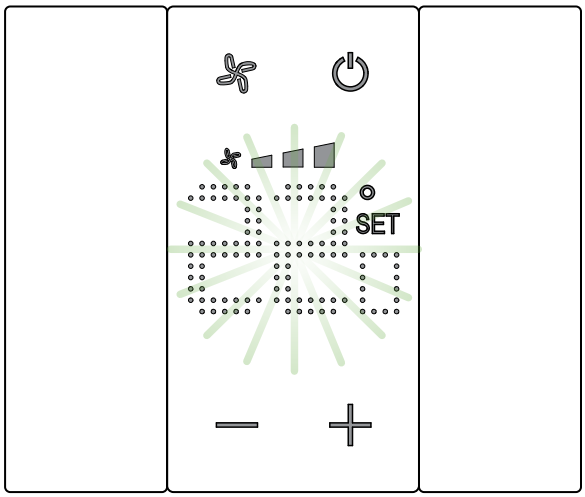


The display shows the SET symbol and the currently programmed temperature. If this value is acceptable, wait for flashing to end. The temperature will not be changed.

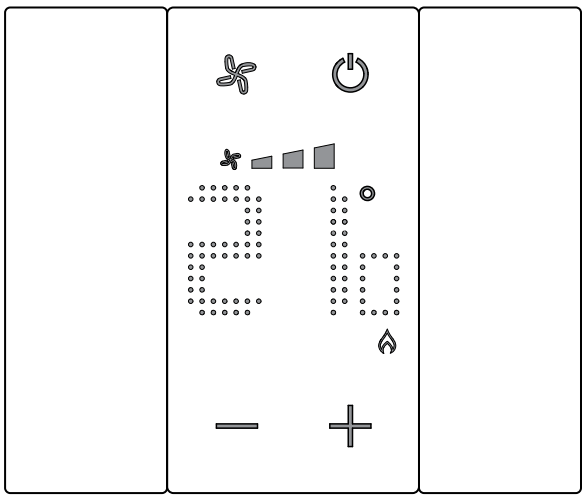
To change the value, before flashing ends:



2. Touch to increase or decrease the programmed temperature

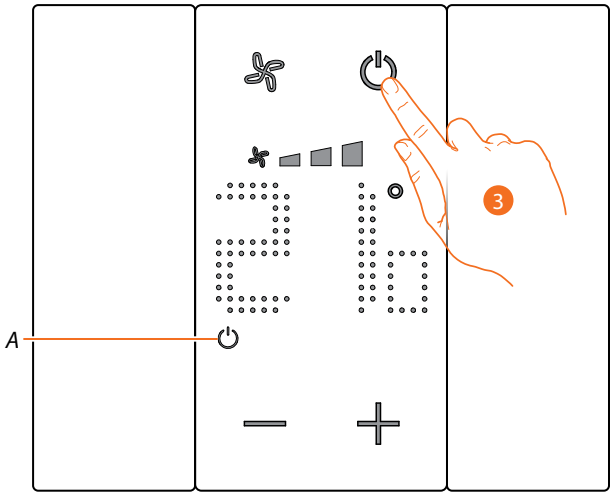


Wait for the end of the flashing.
The temperature is now set to the new programmed value.



After a few seconds, the new setting is saved and the measured temperature appears.
This example shows a set temperature higher than the measured temperature, therefore also displaying the symbol confirming that the heating system is in operation .

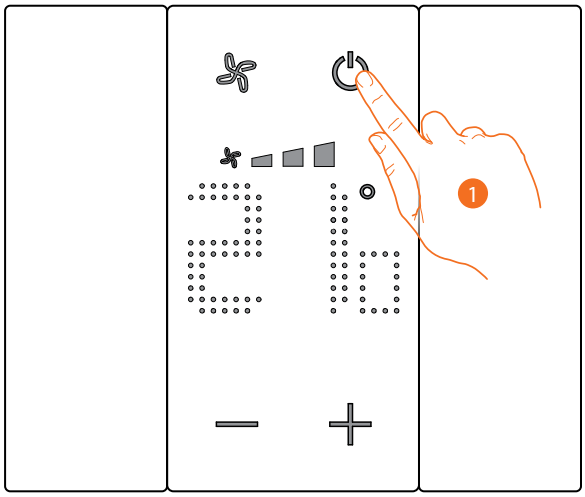
If the symbol (A) appears, the thermostat is set to Protection Mode.
To switch to Programmed Temperature mode:



3. Touch ON/OFF and restart from item 1

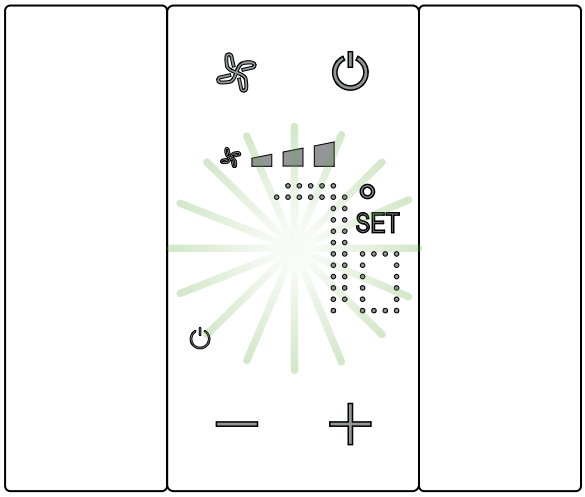
Protection Mode

This function allows you to set the system to Antifreeze (heating) or Thermal Protection (cooling) mode When idle, the display shows the measured temperature and the programming status.

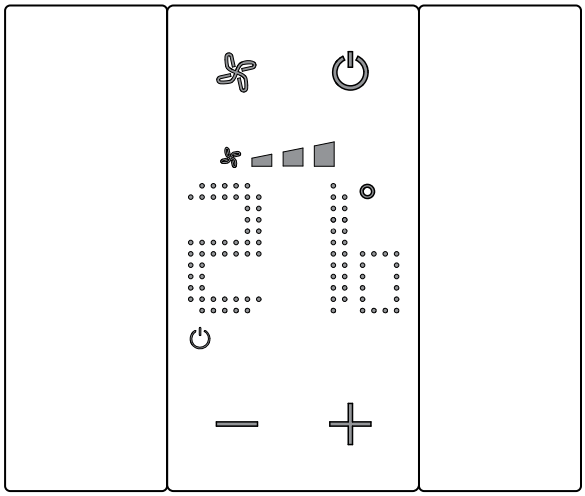


Programming status – Symbol	
Present	Protection Mode
Not present	Programmed temperature mode

1. Touch to set the Protection mode



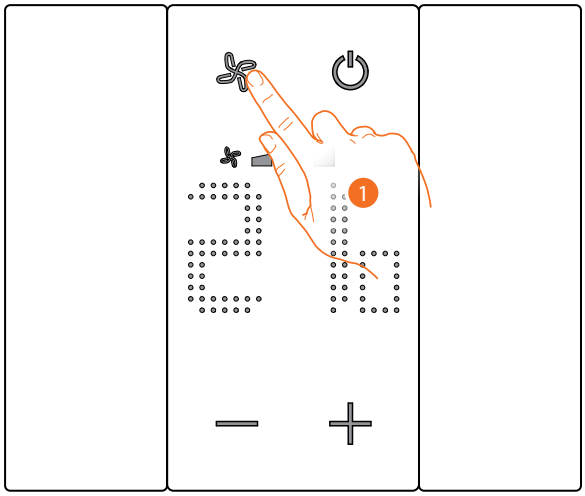
The display shows the SET and symbols, together with the default Antifreeze (7°C) or Thermal Protection (35°C) temperature. Wait for flashing to end.



After a few seconds, the value is saved and the ⏻ symbol appears, to indicate that the mode is active.

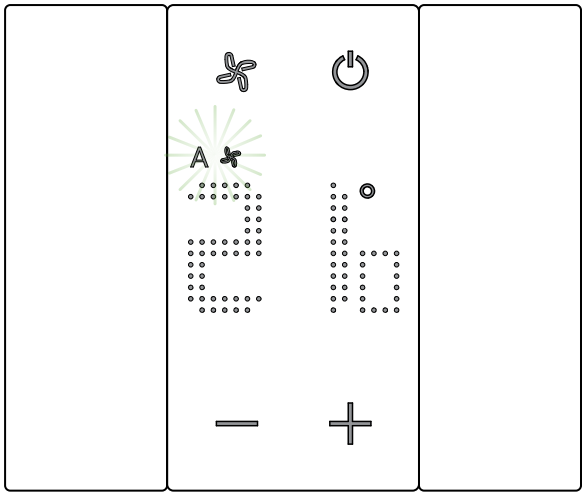
Fancoil fan adjustment

If the thermostat manages a fan-coil type load, the fan speed can be adjusted using the dedicated pushbutton.



1. Touch to set the fan speed at the desired level

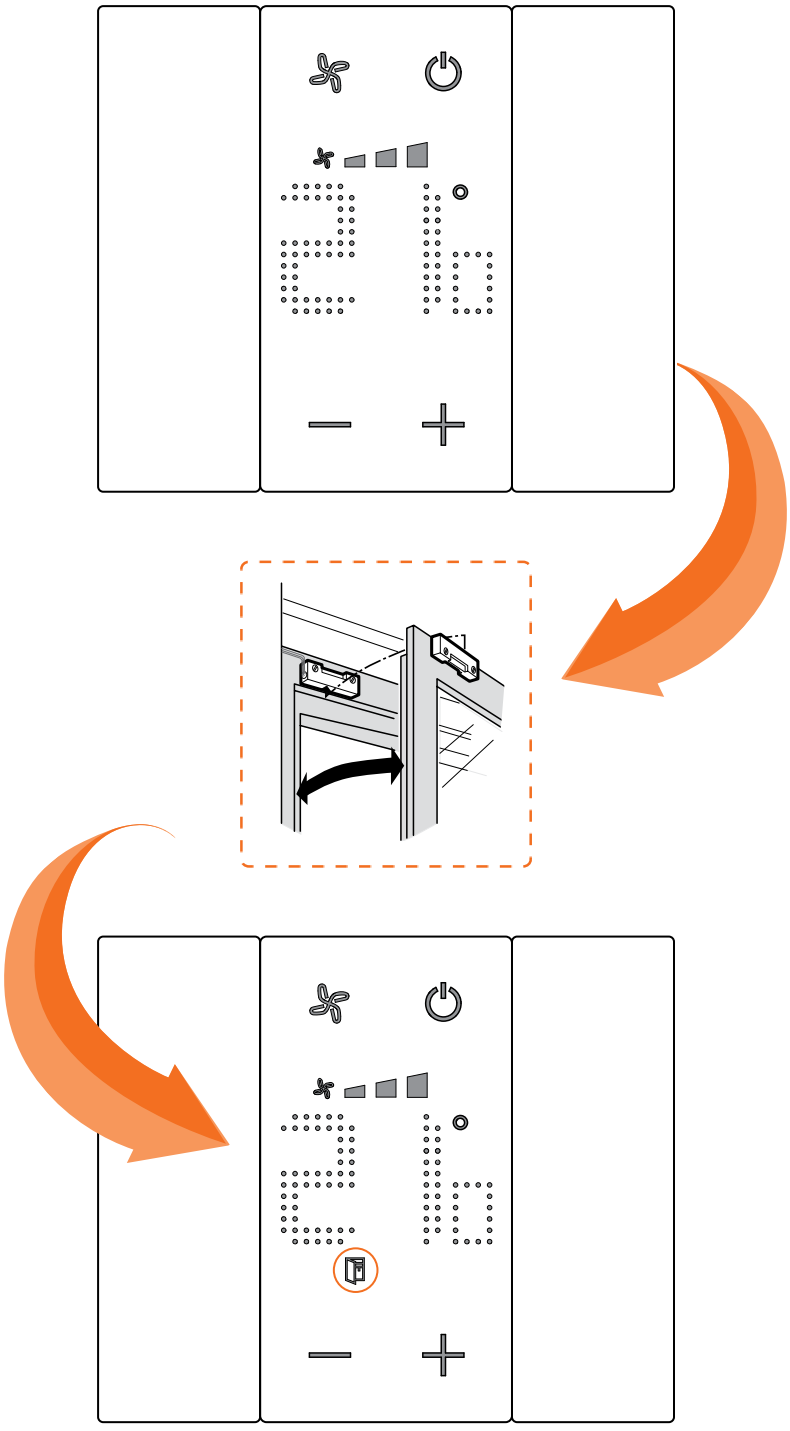
	Speed 1
	Speed 2
	Speed 3
A	Automatic operation



During the adjustment the fan symbol and the segment for the speed selected flash.
After a few seconds, the value is saved and the symbol shows the new adjustment.

Local contact

Upon opening of a local contact (e.g. window contact), the display shows the corresponding symbol, which will disappear again once the contact is closed

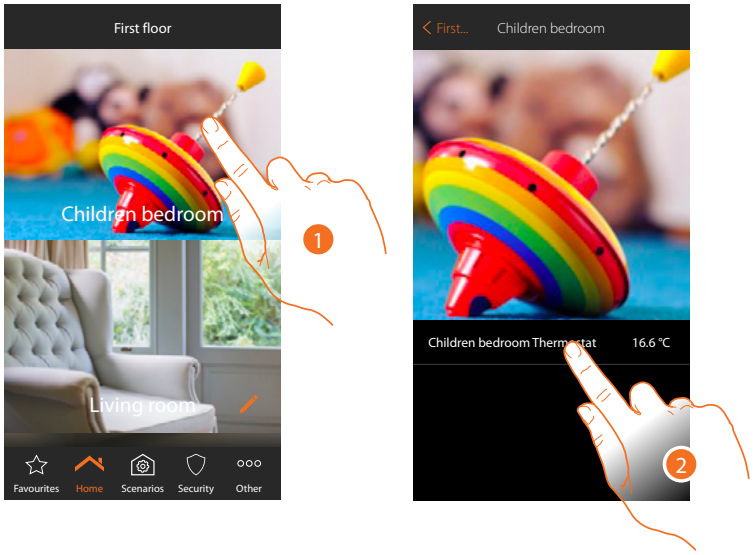


The symbol will disappear when the contact is closed.

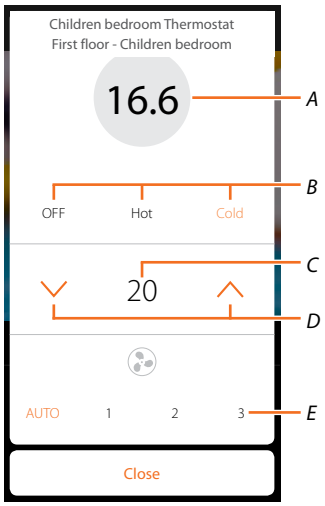
Functions with MyHOME_Up

In order to use the thermostat with MyHOME_Up, it will be necessary to first download the App (for iOS devices from App Store, for Android devices from Play Store), and then connect to the system (for the details see the MyHOME_Up manual).

Access the system



1. In the home page, touch the room for which you want to adjust the temperature
2. Touch the thermostat object



A Display the measured temperature

B Display/enable the operating mode
***OFF**: set the system in protection mode*
***Heat**: sets the system to heating mode and maintains the set temperature*
***Cold**: sets the system to cooling mode and maintains the set temperature*

C Display the programmed temperature

D Set the programmed temperature

E Display/set the FANCOIL fan speed (where present)

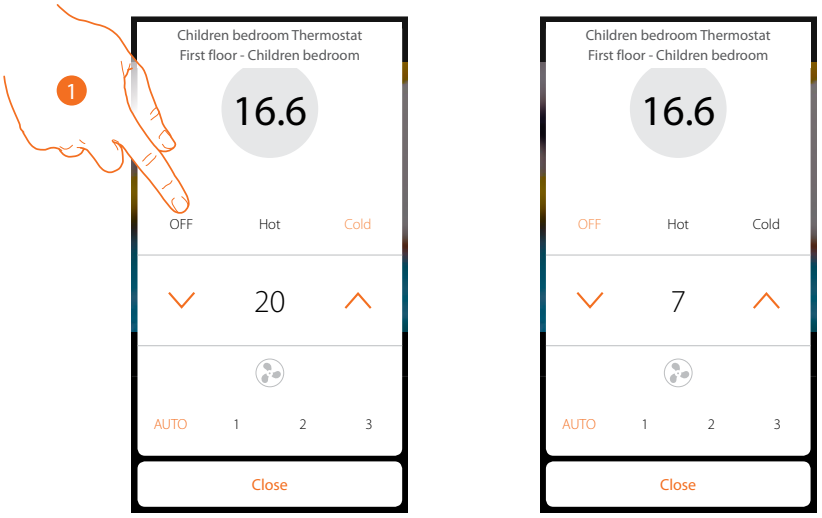
Hot/cold mode

Using this function, it is possible to set the system to heating/cooling and a programmed temperature

1. Touch to set the system mode
2. Touch to set the programmed temperature

Protection Mode

Using this function, it is possible to set the minimum safety temperature of 7°C (Antifreeze) for the heating system, and the maximum safety temperature of 35°C (Thermal Protection) for the cooling system



1. Touch to select the protection mode

Fancoil fan adjustment

If the thermostat manages a fan-coil type load, the fan speed can be adjusted

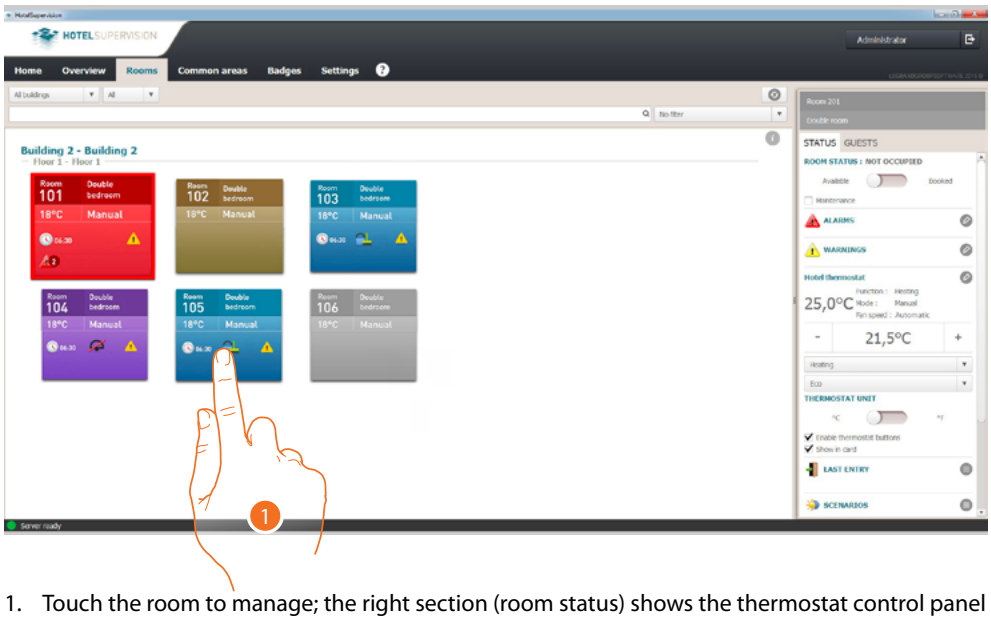
1. Touch to set the fan speed at the desired level

1	Speed 1
2	Speed 2
3	Speed 3
Auto	Automatic operation

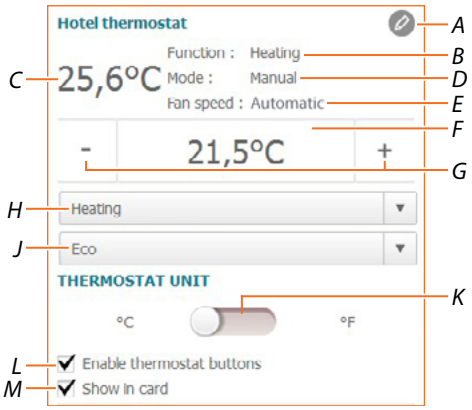
Functions with Hotelsupervision

In order to use the thermostat with Hotelsupervision, this must first be installed on a PC (for the details see the Hotelsupervision software manual).

Start the Client module; this is the system user interface, which gives the possibility of managing the room thermostats from the switchboard.



1. Touch the room to manage; the right section (room status) shows the thermostat control panel



A Advanced settings (see the installer manual)

B Display the system mode

C Display the measured temperature

D Display the thermostat operating mode

E Display the FANCOIL fan speed (where present)

F Display the programmed temperature

G Set the programmed temperature

H Set the system operating mode

J Display the thermostat operating mode(Setpoint)

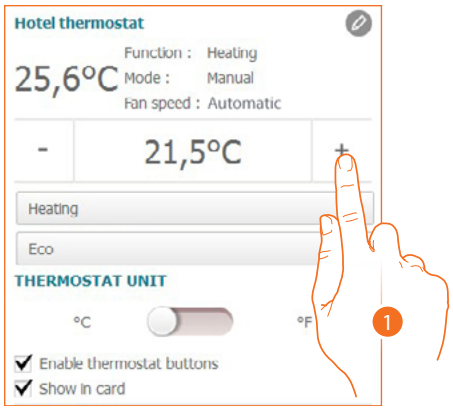
K Set the format of the displayed temperature between Celsius and Fahrenheit degrees

L Enable/disable the thermostat keys. If the function is disabled, it will no longer be possible to interact with the thermostat but only to display the information.

M Enables the display of the measured temperature directly in the room section.

Set the programmed temperature

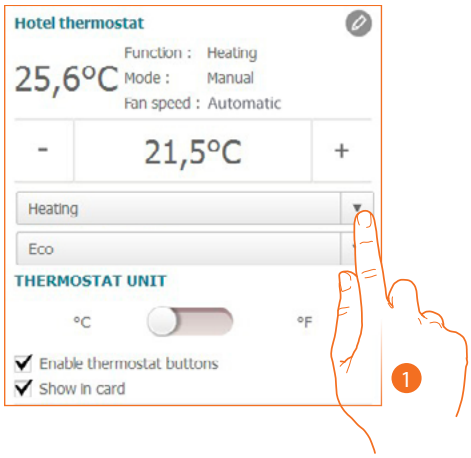
To set the room temperature, use the +/- keys. This new adjustment will delete any previous setpoints and will be active until a new setpoint is set.



1. Touch to increase or decrease the room temperature to the desired level. The system will then be switched on or off based on the measured room temperature

Set the system operating mode

Using this function, it is possible to set the system to heating or cooling, or both.



1. Touch to select the mode among:

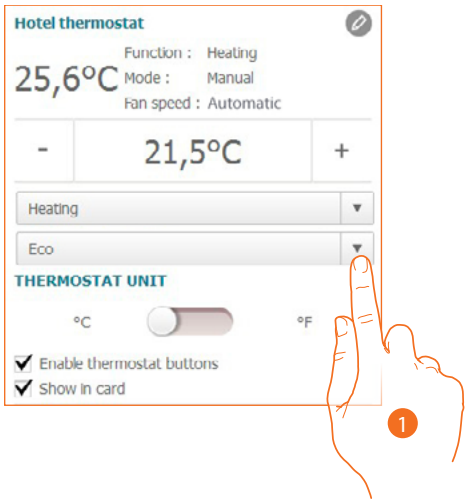
– **Heating**: : if the temperature measured is below the reference set point value, the heating system activates.

– **Cooling**: if the temperature measured is above the reference set point value, the cooling system activates.

– **Automatic switching**: the thermostat can be programmed (ask your trusted installer) for automatic switching between heating and cooling based on set thresholds.

Set the thermostat operating mode

Using this function, it is possible to select the mode that will be used by the thermostat for temperature adjustment.



1. Touch to select the mode among:

– **Eco**: the system only operates based on the energy saving set point set for the heating and cooling functions.

– **Comfort**: the system only operates based on the ideal set point set for the heating and cooling functions.

– **Protection**: in a heating system it sets the minimum safety temperature to 7°C (Antifreeze), and in a cooling system the maximum safety temperature to 35°C (Thermal Protection).

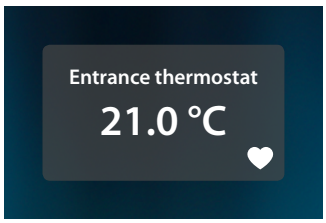
– **Off**: Switches the thermostat off. The system temperature is no longer managed

Functions with HOMETOUCH

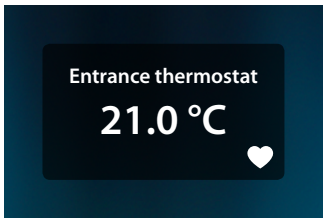
The home temperature may also be adjusted using the thermostat object of the HOMETOUCH internal unit temperature control page.

1. Touch to manage the temperature control system

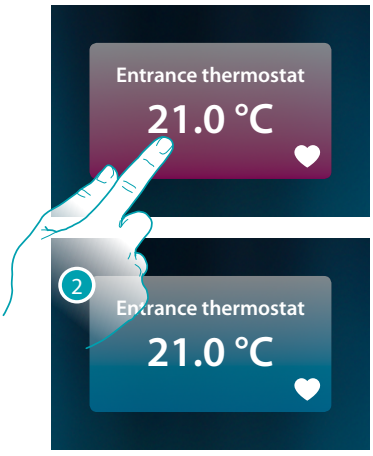
This page includes the thermostats of your home; the object background shows the status of the zone:



Pale background
Zone in manual mode in **Idle** status



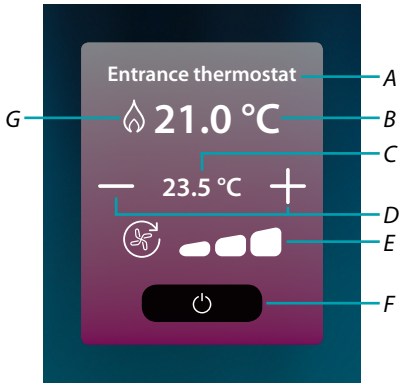
Dark background
Zone in thermal protection/antifreeze mode in **Idle** status



Red background
Zone in one of the two modes and in **Active** status because the measured temperature is below the set temperature (system in Heating mode)

Blue background
Zone in one of the two modes and in **Active** status because the measured temperature is higher than the set temperature (system in air conditioning mode)

2. Touch to open the zone management panel



A Zone name

B Displays the measured temperature

C Displays the set temperature

D Set the programmed temperature

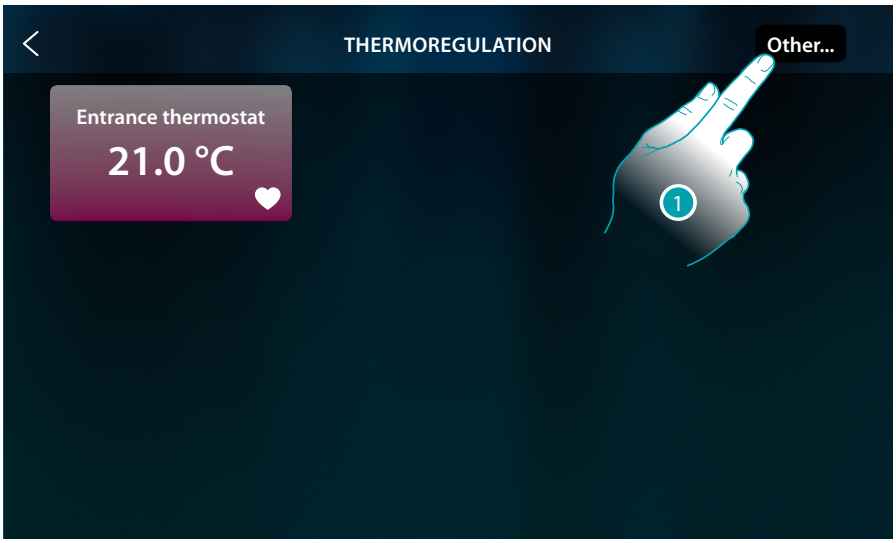
E Display/set the FANCOIL fan speed (where present)

F ***Thermal protection/antifreeze mode****:*
Touch to set Antifreeze Mode (heating). The system activates when the measured temperature falls below 7°C.
Touch to set Thermal Protection Mode (heating). The system activates when the measured temperature exceeds 35°C.

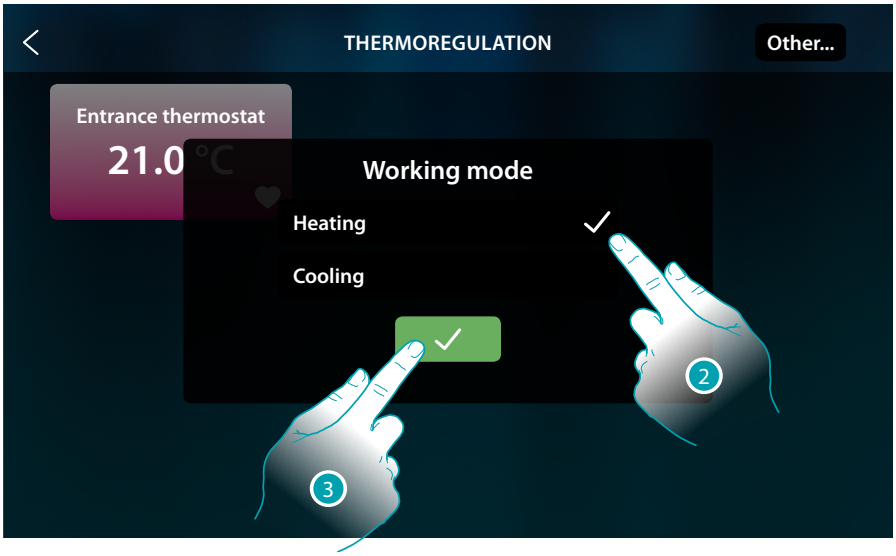
G Display the system mode

Heating/ Cooling mode

Using this function, it is possible to set the system to heating or cooling



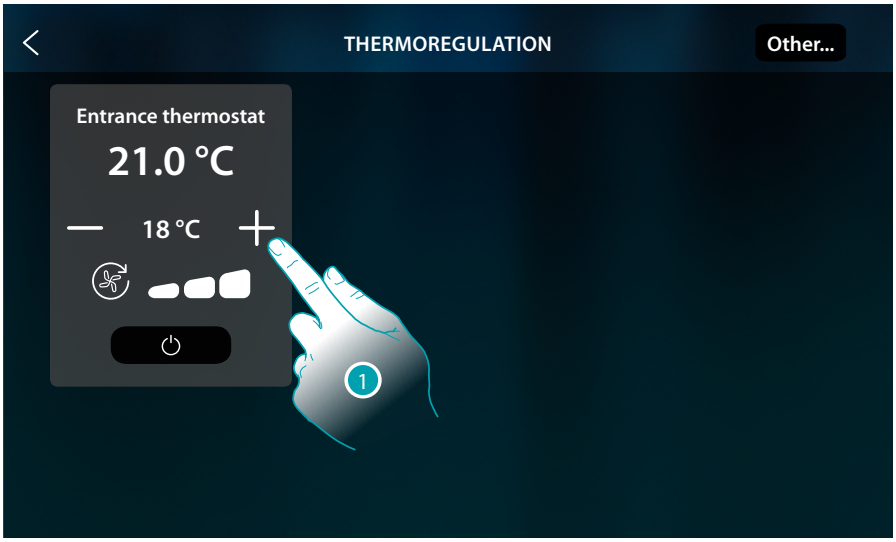
1. Touch to set the system operating mode, either heating or air conditioning



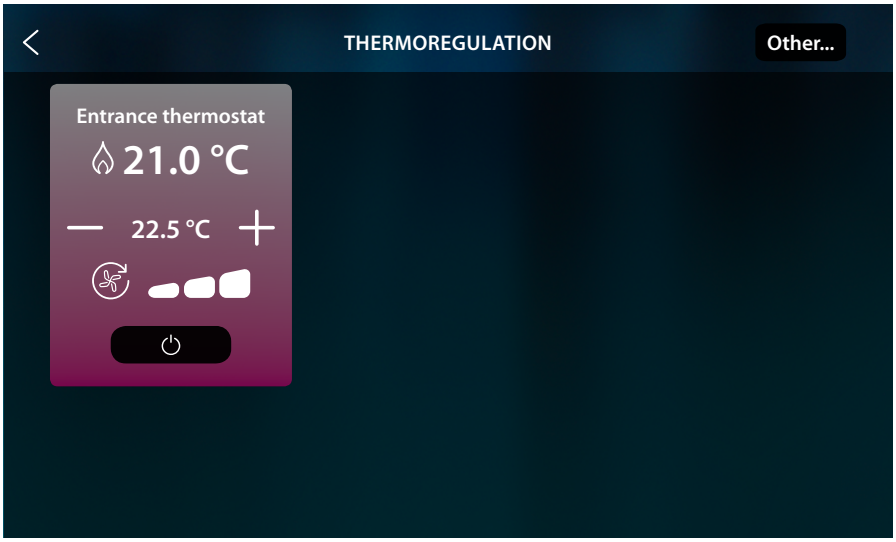
2. Select the operating mode
3. Touch to confirm

Set the programmed temperature

To set the temperature, use the +/- keys. This new adjustment will delete any previous setpoints and will be active until new setpoints are set.



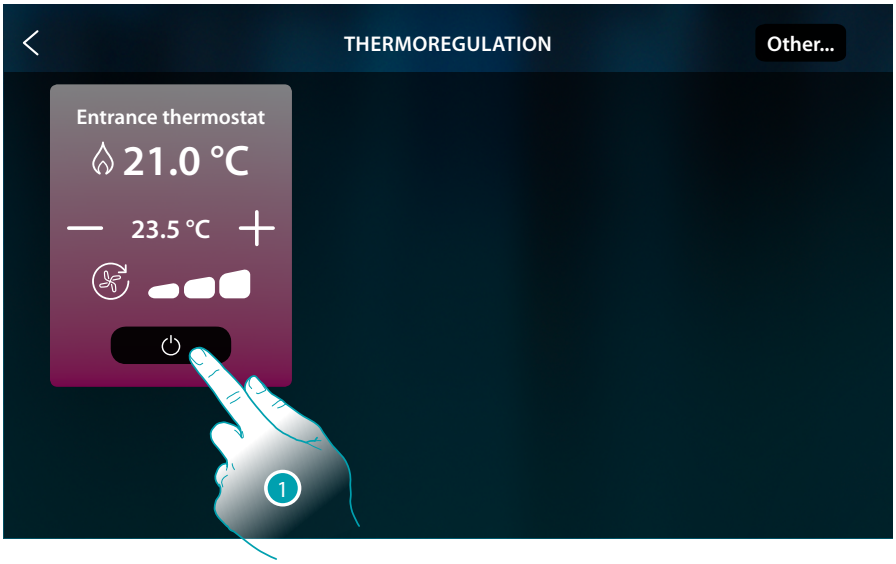
1. Touch to increase or decrease the temperature to the desired level. The system will then be switched on or off based on the measured room temperature



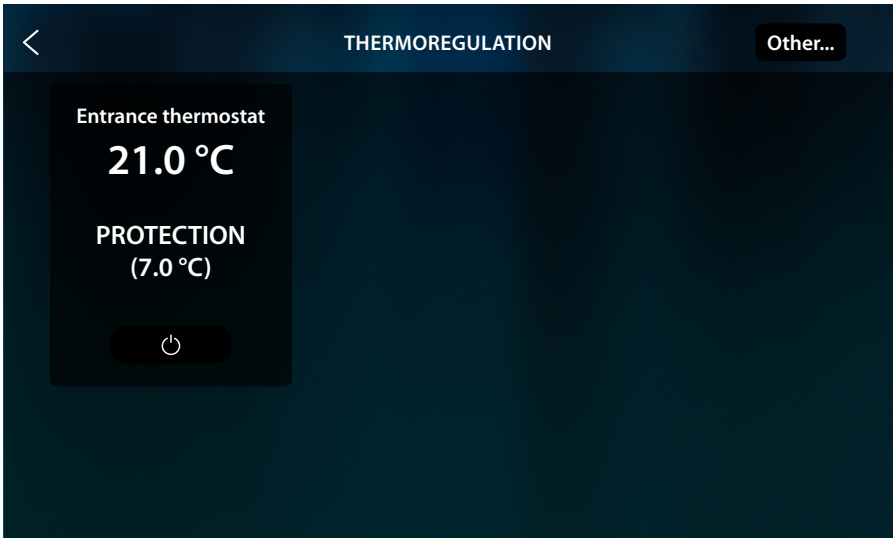
This example shows a set temperature higher than the measured temperature; the background turns red and the symbol appears, confirming that the heating system is in operation.

Protection Mode

Using this function, it is possible to set the minimum safety temperature of 7°C (Antifreeze) for the heating system, and the maximum safety temperature of 35°C (Thermal Protection) for the cooling system



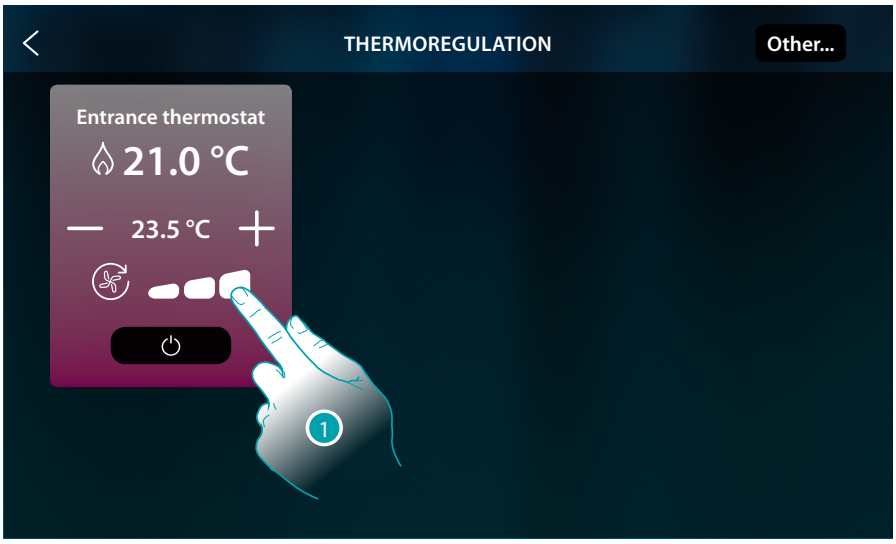
1. Touch to select the protection mode



After a few seconds, the value is saved, the background becomes dark, and a message indicates that protection mode is active.

Fancoil fan adjustment

If the thermostat manages a fan-coil type load, the fan speed can be adjusted



1. Touch to set the fan speed at the desired level

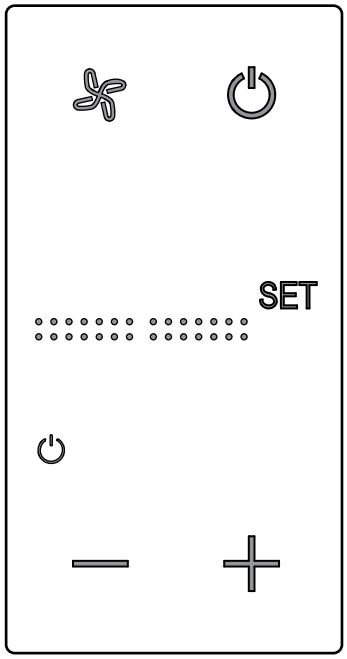
	Speed 1
	Speed 2
	Speed 3
AUTO	Automatic operation

Messages and errors

Messages

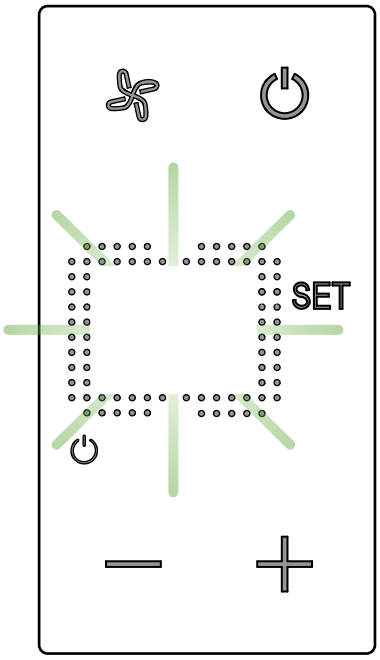
In some cases, the thermostat display will show some symbols to indicate that the current mode of operation is different from the standard mode.

"Thermostat OFF" indicator



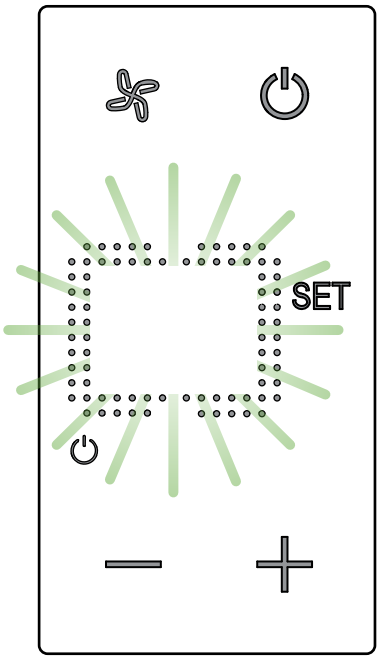
When the thermostat is OFF, this symbol appears. The OFF command can only be sent using the Hotelsupervision software, or the local window contact.
In this status, press ⏻ to set normal mode (temperature set based on the set point), or press — + to directly change (0.5°) the set point temperature.

"Thermostat configuration being completed" indicator



This symbol flashing slowly indicates that a configuration is being performed using MyHOME_Suite, MyHOME_Up or Hotelsupervision

"Thermostat not configured" indicator



This symbol flashing quickly indicates that the thermostat has not yet been configured

Errors

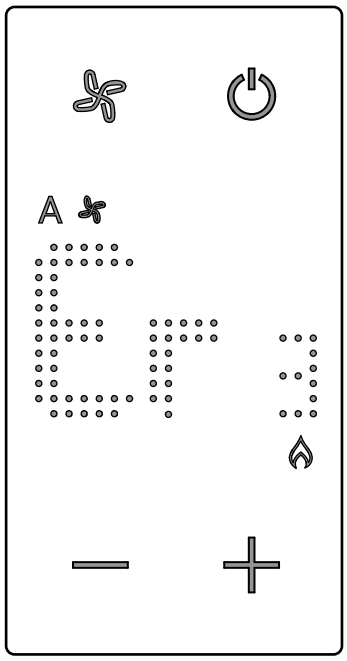
If the display shows "Er" followed by a number, the thermostat is indicating the existence of a condition of error.
Below is a list of the possible errors:

Er1	Pump not responding
Er2	Actuator not responding
Er3	Slave probe not responding
Er4	Temperature sensor fault
Er5	Thermostat internal fault
Er6	Capacitive sensor fault (keys)

In case of errors "**Er1**", "**Er2**", "**Er3**" and "**Er6**", the thermostat maintains the current mode and the displayed error condition can be reset (by pressing any key).
If the error condition persists, the error screen will be displayed again after 15 minutes.

In case of errors "**Er4**" and "**Er5**", the thermostat switches OFF and all the actions that can be performed by the user, such as pressing any of the keys, are disabled.

Below is an example of the error screen (*).



***Note**: if ER4 or a temperature significantly different from the one perceived are displayed, or after the first installation, wait at least 5 hours before checking the operation again and completing the calibration procedure.*

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