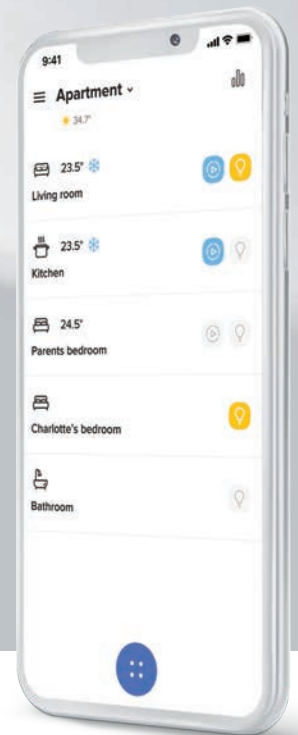


CONNECTED THERMOSTAT FOR HVAC SYSTEMS



Smarter AC ^{WITH} Netatmo



THE GLOBAL SPECIALIST
IN ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURES



Essential design,
maximum comfort,
wherever you are.

Smarter AC

WITH
Netatmo

The Legrand connected thermostat monitors and manages the temperature of the home simply and timely. Thanks to the Home + Control App and the compatibility with voice assistants, it allows smart management of the temperature in homes equipped with cooling and heating systems with AC units and Fan Coil units.

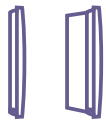


Legrand connected thermostat,
developed jointly with Netatmo, forms
part of the Eliot by Legrand programme
dedicated to connected objects

DESIGN

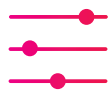


3 colours for flush mounted version: white, black and sand



2 versions: flush mounted and wall mounted

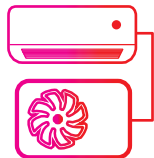
WELLBEING AND ENERGY WASTE REDUCTION



Easy cooling system management and monitoring



Boost function for maximum comfort



Compatibility with A/C units (Air Conditioning Unit) system and Fan-coil systems.

EASE OF USE



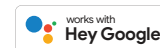
Basic functions with local device control



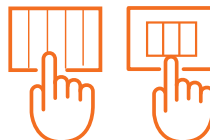
Advanced functions and programming with the Home + Control App



Basic functions with local voice assistant compatible control: Siri (Apple), Google Assistant, Amazon Alexa



Other smart home functions with
- Arteor with Netatmo
- Livinglight with Netatmo





Essential design.
Modern style.



A minimal and refined design, in which the thickness and glass-effect finish make it versatile and suitable for any style of home.

The metallised detail is a distinctive element which characterises the object and becomes an informative and enhancing element of the distinctive "Boost" function. At last, its discrete white light is decorative and informative, assisting the user in understanding and using the functions.

Smarter AC WITH Netatmo

The Legrand connected thermostat was conceived for integration with all living styles, and is perfectly coordinated with the Arteor and Livinglight range.

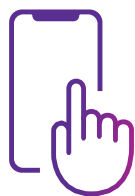


Arteor WITH Netatmo



Wellbeing and energy waste reduction

What can you do with the Legrand connected thermostat?



SETTING THE PROGRAMS

Using the Home + Control App, it is possible to set preset programs based on your habits.



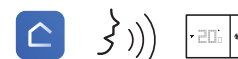
AWAY

If you need to be away from home for a few days you can, via the APP, act remotely to adjust the thermostat independent of the automatic programming.



BOOST

The Boost function can be used to activate cooling system for a limited time (15, 30 e 45 minutes), irrespective of the set program and the ambient temperature.



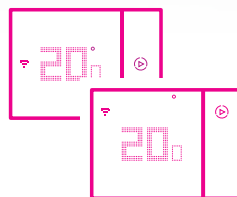


MONITORING OF CONSUMPTIONS(*)

Using the Home + Control App, it is possible to easily manage and monitor consumptions.



(*) only for fan coil units systems



MAXIMUM COMFORT IN EVERY ZONE

Using the same App, it is possible to manage several thermostats in the same home or in different homes, as well as set the desired temperature in every room for maximum comfort.



Ease of use

The connected thermostat is simple and intuitive



LOCAL DEVICE CONTROL



VOICE CONTROL

It is also possible to manage the heating with your voice using voice control assistants.

Siri (Apple), Google Assistant, Amazon Alexa.

GOOGLE: "Set the kitchen to automatic"

AMAZON: "Alexa, decrease the living room temperature by 3°C"

APPLE: "Siri, set the temperature to 20°C"



Display the temperature and set it as desired



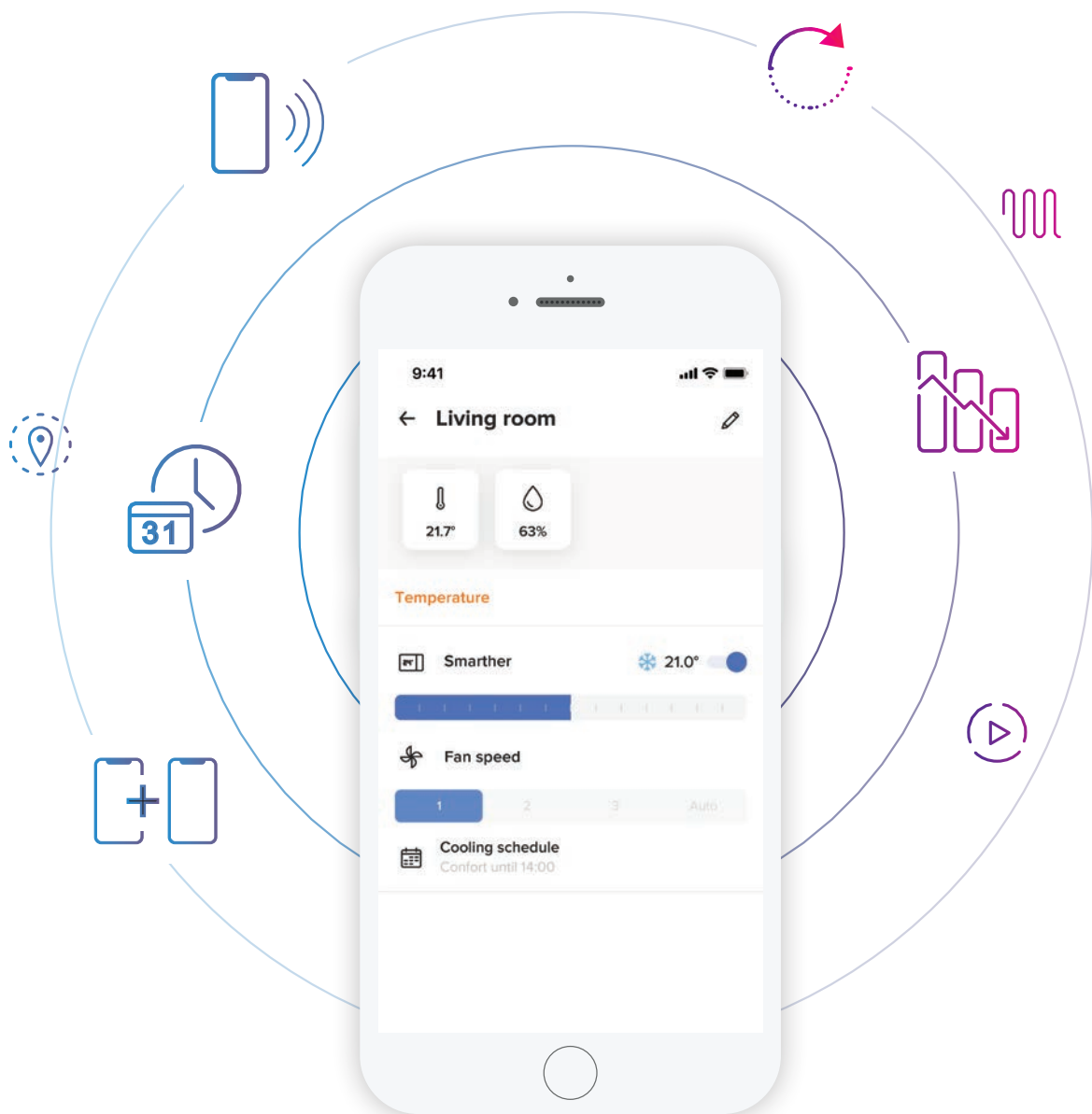
Display the set room temperature and humidity



Select the fan speed

Device user interface





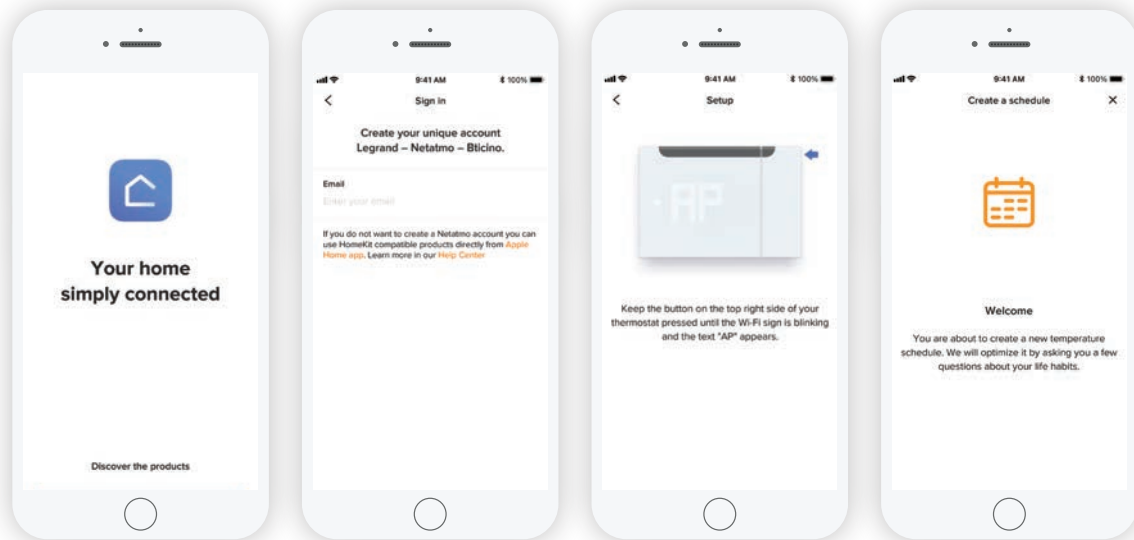
Home + Control App

With the App it's all easier

- Remotely manage the thermostat simply and intuitively
- Create and modify the weekly programs
- Manage the thermostat from several smartphones and different users
- Control several thermostats in the same home or different homes
- Manage the thermostat updates

Home + Control App

In just a few steps you can already use the connected thermostat



1

Download and install the Home + Control App

2

Create your account

3

Connect the thermostat to the home wi-fi network

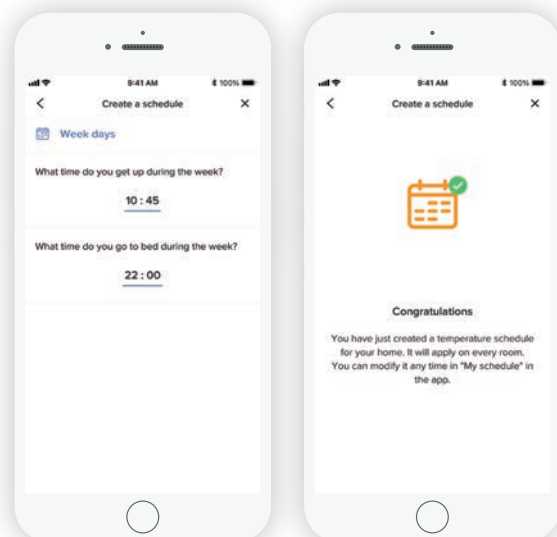
4

You can start to set the programs



SETTING THE PROGRAMS

- Select the guided procedure to set daily and weekly programs
- Set the desired temperature when at home, when away, or when sleeping
- The program is already active



If necessary, you can call the Legrand after-sales service directly by means of the Help pushbutton integrated in the application.



The Home + Control App is available on

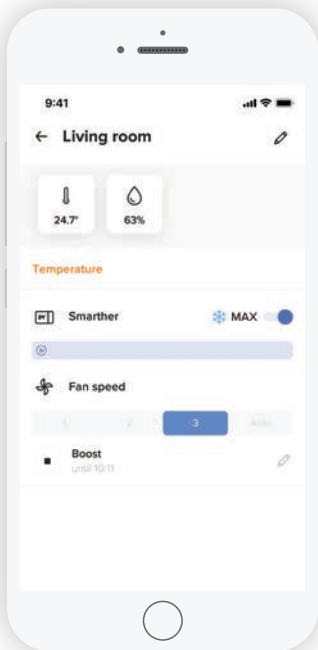
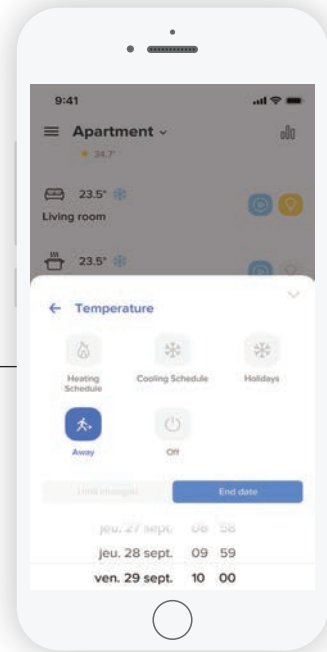




AWAY

It is possible to control the home at any time:

- Changing the temperature or the set program
- Setting the away functions irrespective of the set program



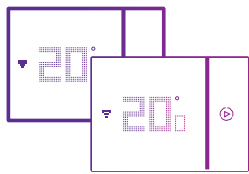
BOOST FUNCTION

Activate the cooling for a limited time, regardless of the profile set and the room temperature.

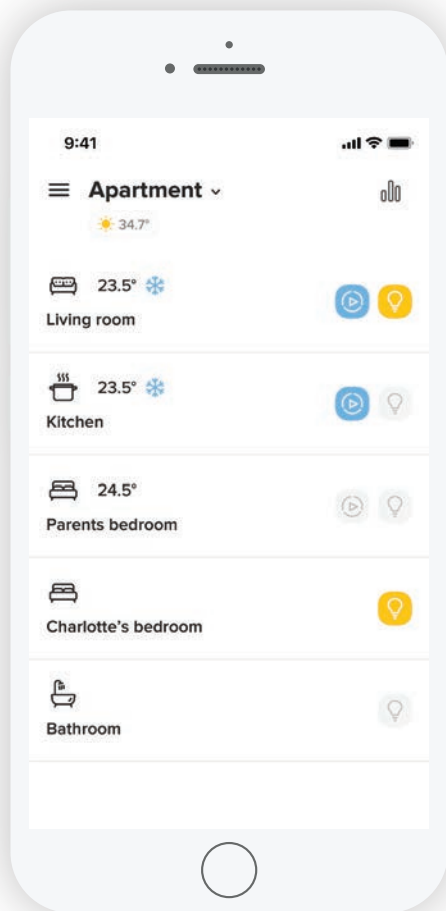
At the end of the period of operation you can be certain that the cooling will switch OFF.

- Click on the “Boost” function icon.
- Select the duration (15, 30 e 45 minutes) and confirm. Cooling is ON.

Maximum comfort in every zone

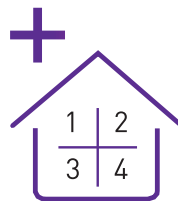


More thermostats?
More houses?

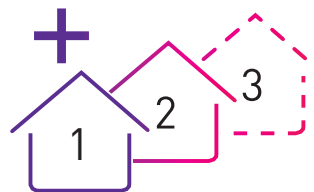


Management of several thermostats

As well as a single device you
can also manage:



Several thermostats in the same
home (zone isolation of the system)

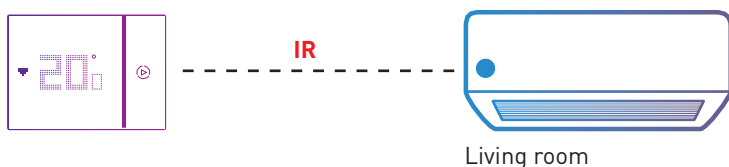


Thermostats in different buildings
(main home and second home)

Setting the temperature in every room is simple

Cooling system with AC units (*)

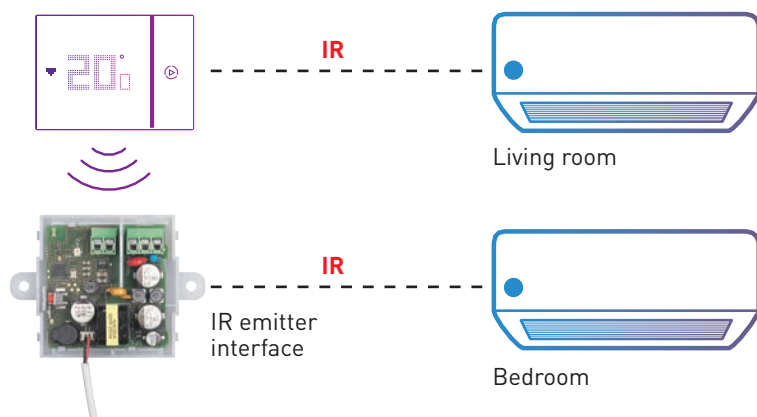
1. Control of the AC units directly through the IR emitter on board of the Smarter AC with Netatmo



In case of two or more Air Conditioning Units in the room, they must be the same model and the same brand. They will all be set to the same settings.

Note: one Smarter AC maximum per room. Maximum 10 Smarter AC for each installation/house and maximum 10 installations/houses for each account.

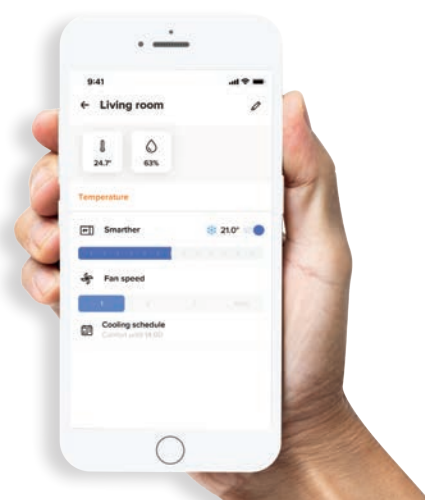
2. Control of the AC units through the IR emitter interface item 3460IR



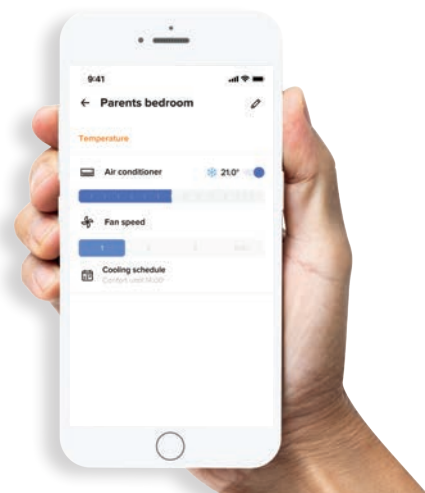
It is also possible to manage one AC unit through one dedicated accessory, the IR emitter, connected to Smarter AC with Netatmo via Zigbee 3.0. The features of the IR emitter ensure reliable communication: we can place the emitter of this accessory really close to the receiver of the AC unit. The Smarter AC integrated IR can be disabled or can be used in parallel with the IR emitter, to control one additional A/C unit.

Note: a single Smarter AC can control up to 20 IR emitters in maximum 10 rooms.

* Smarter AC with Netatmo supports one database with around 70 compatible brands. For more information visit the Smarter AC with Netatmo page at the following address: www.homesystems-legrandgroup.com.

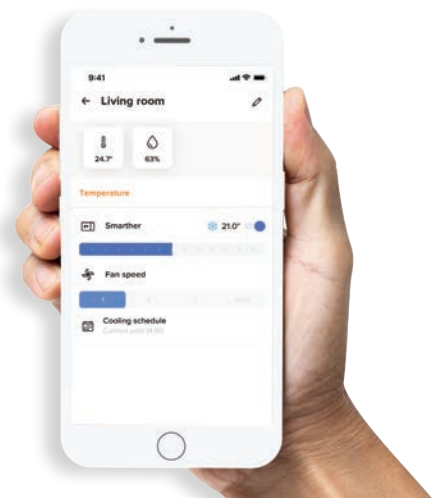
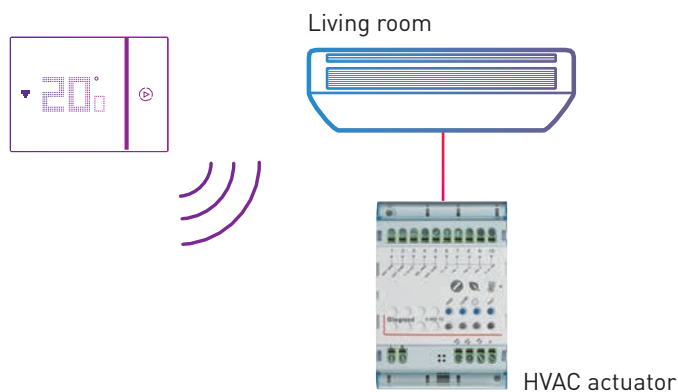


Both Smarter AC with Netatmo and IR emitter item 3460IR allow Smart management from the app, of the AC unit they control.

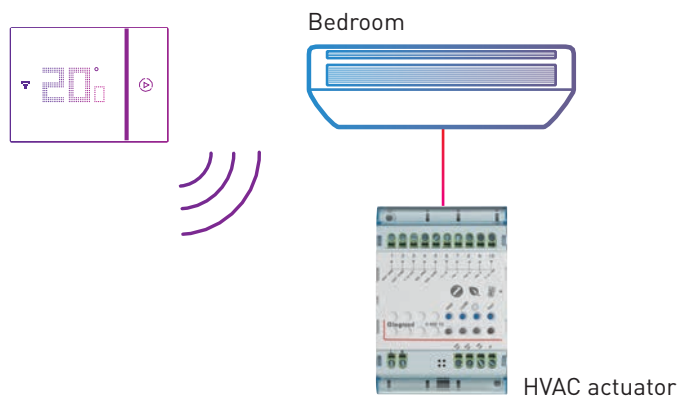


Cooling system with Fan Coil units

Control of Fan Coil units through the HVAC actuator



The App show Smarther AC in the same room of the Fan Coil.



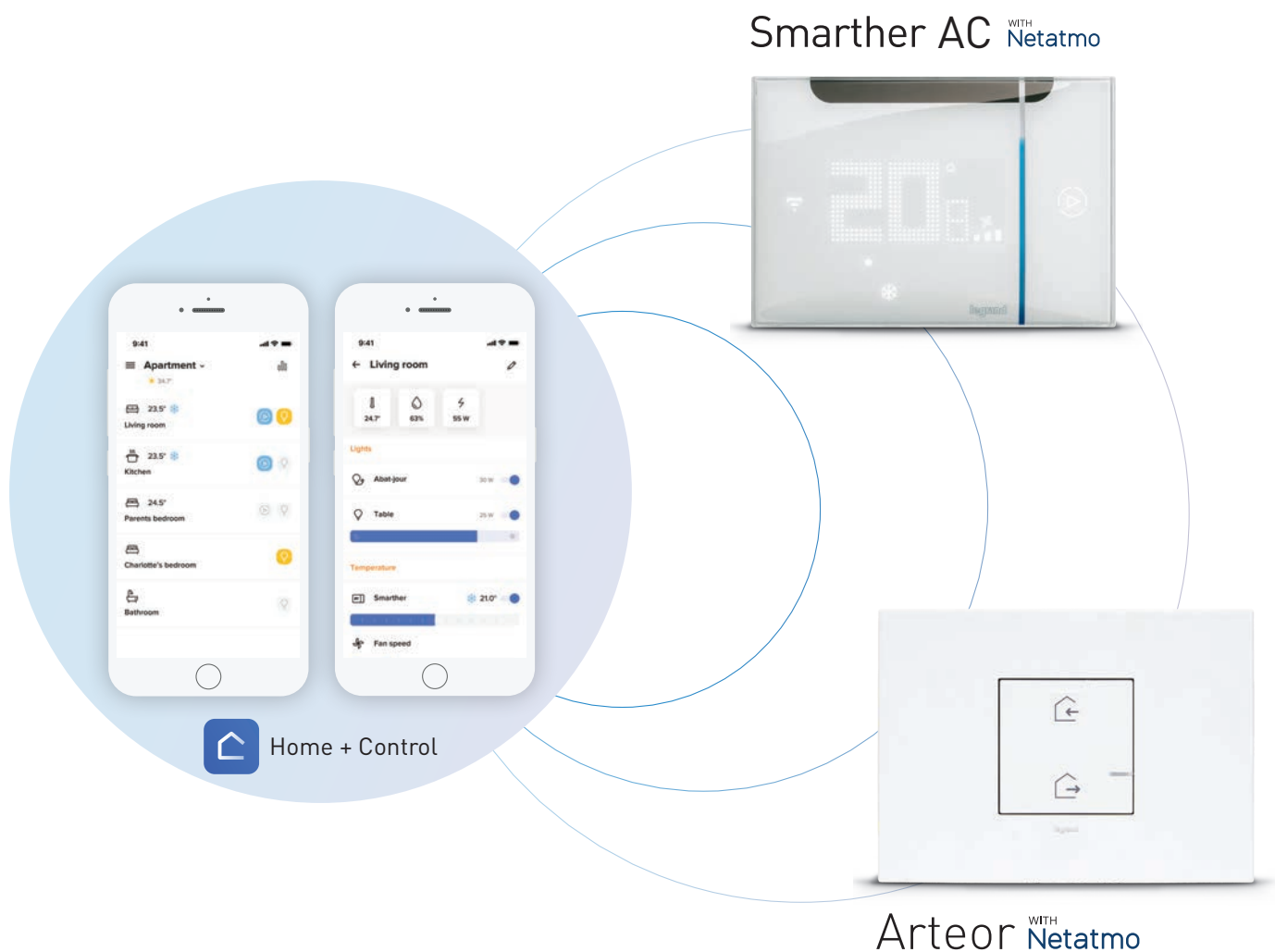
A single Smarther AC device is installed in one room and the control of the Fan coil unit is through the actuator connected to Smarther AC via ZigBee radio. Smarther AC measures the ambient temperature and sends it to the HVAC actuator.

Note: one Smarther AC maximum per room.
 Maximum 10 Smarther AC for each installation/house and maximum 10 installations/houses for each account.
 A single Smarther AC can control up to 10 actuators but they must be in the same room.
 All Fan coil units in the same room must be of the same type.

Just one App. Several connected advantages

In addition to the connected thermostat, with the same Home + Control App, users can also control the Arteor with Netatmo connected systems.

- Display and check the status of lights, shutters and loads connected to sockets;
- Check and monitor the consumption trends;
- Activate and customise scenarios.





0 490 43



0 490 44



0 490 45



0 489 10



BT-3460IR

Réf. **Connected thermostat for air conditioning**

The Smarter AC with Netatmo connected thermostat, together with the Home + Control APP, is a device which allows to precisely and accurately adjust and monitor the temperature in the rooms; all the programming and most of the functions can be easily and intuitively performed using the App. Thanks to its Wi-Fi connection, Smarter AC can be programmed and controlled remotely; it can also display the temperature, fan speed and humidity measured in the room. The temperature level can be set locally for manual operation and Boost mode can be activated. The Boost forces the switching on of the system for a limited time (15, 30 or 45 minutes) irrespective of the measured and programmed temperature. Smarter AC with Netatmo can also be controlled with Google, Amazon Alexa and Apple Home Kit voice assistants.

- Power supply 110 to 240 Vac , 50/60 Hz;
- 2 W max absorption;
- Maximum cable section 1 x 1.5 mm²;
- Operating temperature 5 to 40 °C;
- 1-switching contact output free of 5(2)A potential.
- Type of operation 1BU
- Pollution index 2
- Rated pulse voltage 4 kV
- Wireless device in compliance with 802.11b/g/n standard, frequency 2.4 - 2.4835 GHz, transmission power < 20 dBm. WEP/WPA/WPA2 safety protocol IPv4.
- Radio link: short range communication, frequency 868MHz/915MHz, transmission power < 25mW e.r.p. (*)

Types of installation

- flush mounted, on boxes item 503E or 500 (for item 500 use the wall dowels)
- plasterboard, on boxes item PB503 and PB502

0 490 43 White colour device

0 490 44 Black colour device

Features: as Item 0 490 43. Installation: on the wall, using screws and dowels suitable for the installation surface (brickwork, plasterboard, tiles etc.). It is available only in white colour.

0 490 45 White colour device

Réf. **Actuator for fan coil unit**

This actuator can be used in combination with Smarter AC with Netatmo on thermoregulation installations, to control different load types according to requirements.

This DIN actuator can control:

- 2-pipe fan coil unit with On/Off valve
- 2-pipe fan coil unit with 3-way valve
- 2-pipe fan coil unit with 0-10 V valve
- 4-pipe fan coil unit with two On/Off valves
- 4-pipe fan coil unit with two 3-way valves
- 4-pipe fan coil unit with two 0-10 V valves
- 3-speed fan
- 1 0-10 V fan

0 489 10 White colour device

IR interface for air conditioning unit

Connected IR emitter for air conditioning. The installation with Smarter AC allows the smart management of an A/C unit with infrared. The device size is 60x60x30 mm, white color and it is provided with a white cable (length 1,5 m). It supports both power sources: 5÷12 Vd.c. and 110-240V ~ 50/60Hz. It communicates with Smarter AC through RF 2.4 GHz: thanks to its features, the emitter can be placed on the receiver of the A/C unit, ensuring perfect communication.

BT-3460IR Neutral item



Home + Control App
for the management of connected devices



And if the internet does not work?
The thermostat continues to work in the room following the set program.
The App cannot be used remotely.

Smarter AC with Netatmo CONNECTED THERMOSTAT

Features and connections

How to install it



Smarter with Netatmo flush mounted thermostat
Items 0 490 43 - 0 490 44



Flush mounting :
Batibox flush-mounted boxes



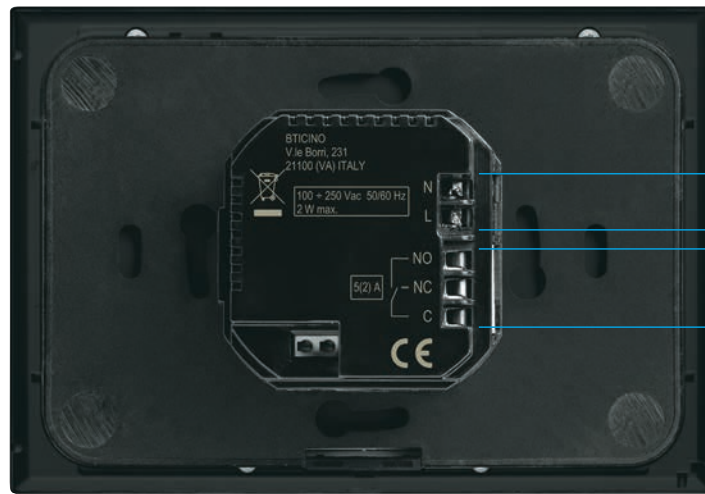
Smarter with Netatmo wall mounted thermostat
Item 0 490 45



In both types of installation
prepare 2 cables:
- two for the 230 Va.c. Power supply

Rear view

FLUSH MOUNTED VERSION



Power supply 230 Va.c.

Relay contacts (connections to boilers, air conditioning, solenoid valves).

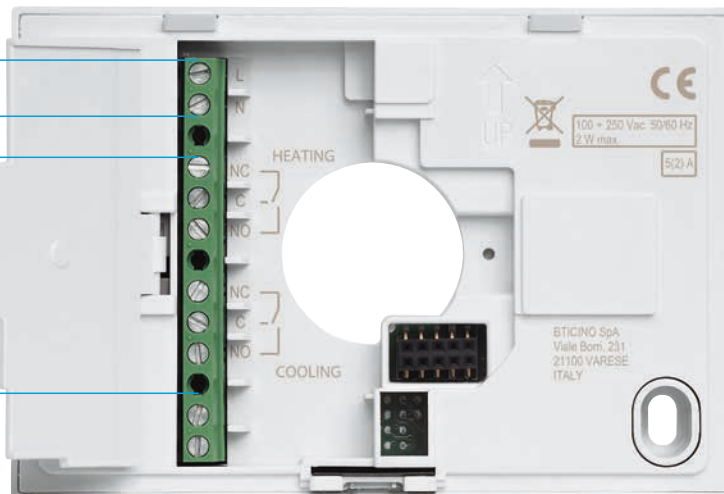
Do not use for Fan Coil and Air Conditioning Units systems.

WALL MOUNTED VERSION

Power supply 230 Va.c.

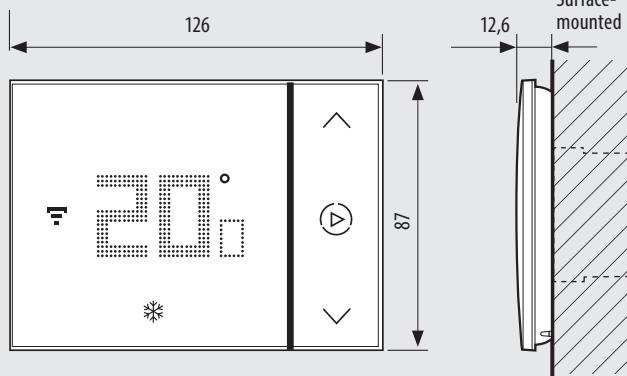
Relay contacts (connections to boilers, air conditioning, radiator valves).

Do not use for Fan Coil and Air Conditioning Units systems.



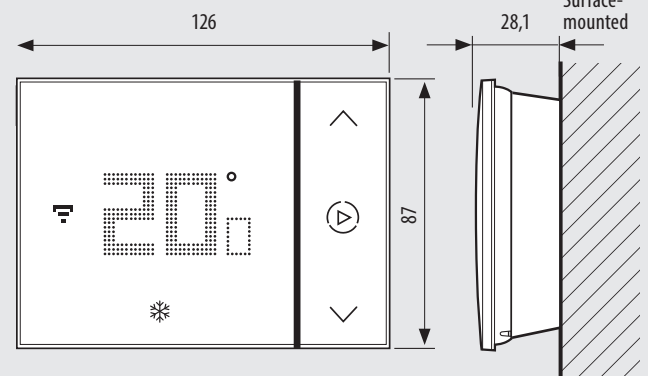
DIMENSIONAL DATA

Flush mounted version



0 490 43 - 0 490 44

Wall mounted version



0 490 45

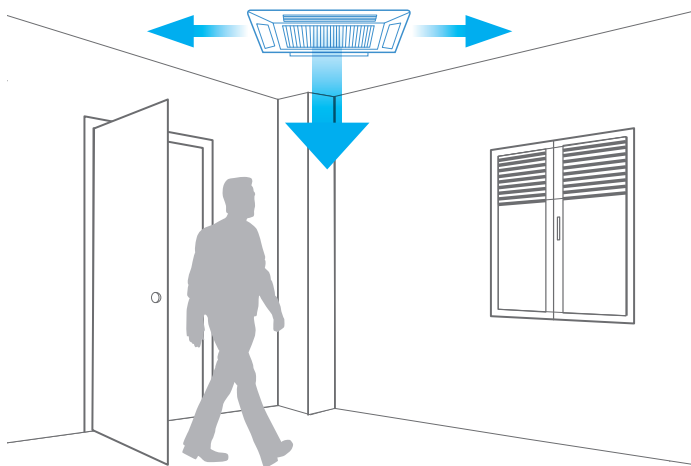
Size in mm

Smarter AC with Netatmo CONNECTED THERMOSTAT

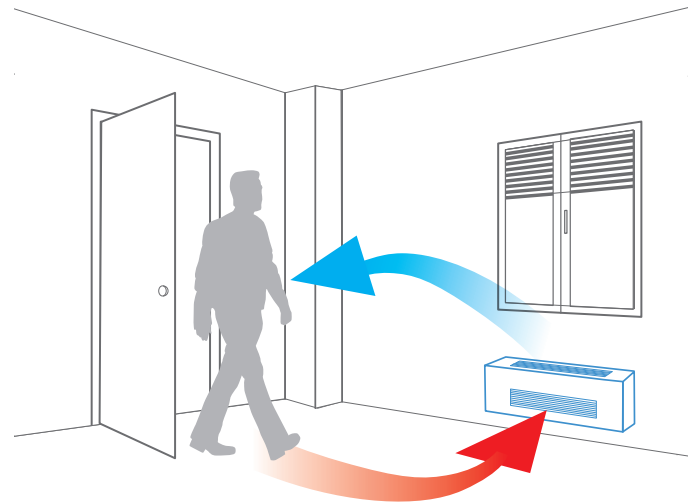
Features of a Fan-Coil system

Fan coil systems (hereinafter referred to as Fan Coils) take air from the room and cool or heat it inside the Fan Coil through contact with pipes filled with cold or hot water.

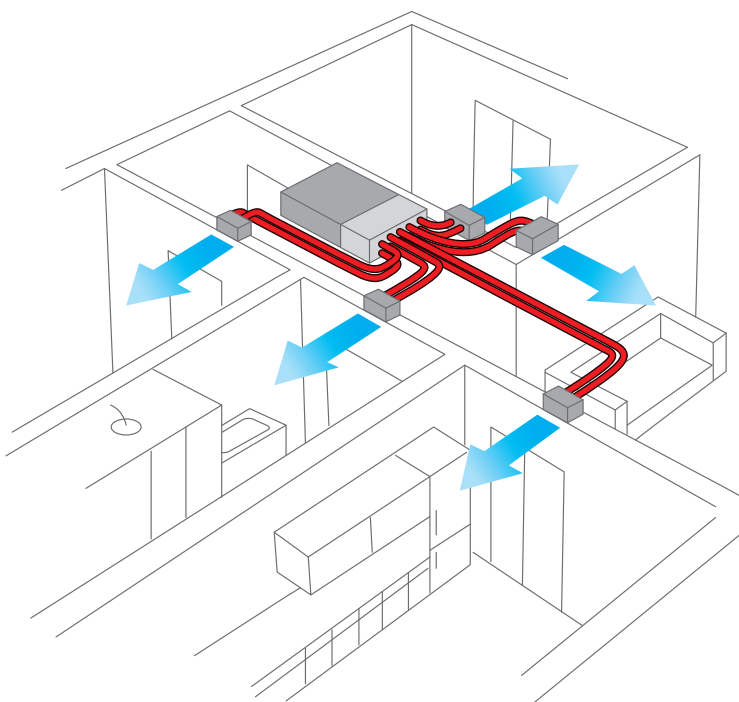
They are available for wall, floor and ceiling installation and to cool/heat several rooms through special ducts and air vents.



CEILING INSTALLATION



WALL-MOUNTED INSTALLATION



MULTIROOM FAN-COIL

Types of Fan-Coil

Fan coils can be split into two families, depending on the type of heat exchanger:

- 2-pipes
- 4-pipes

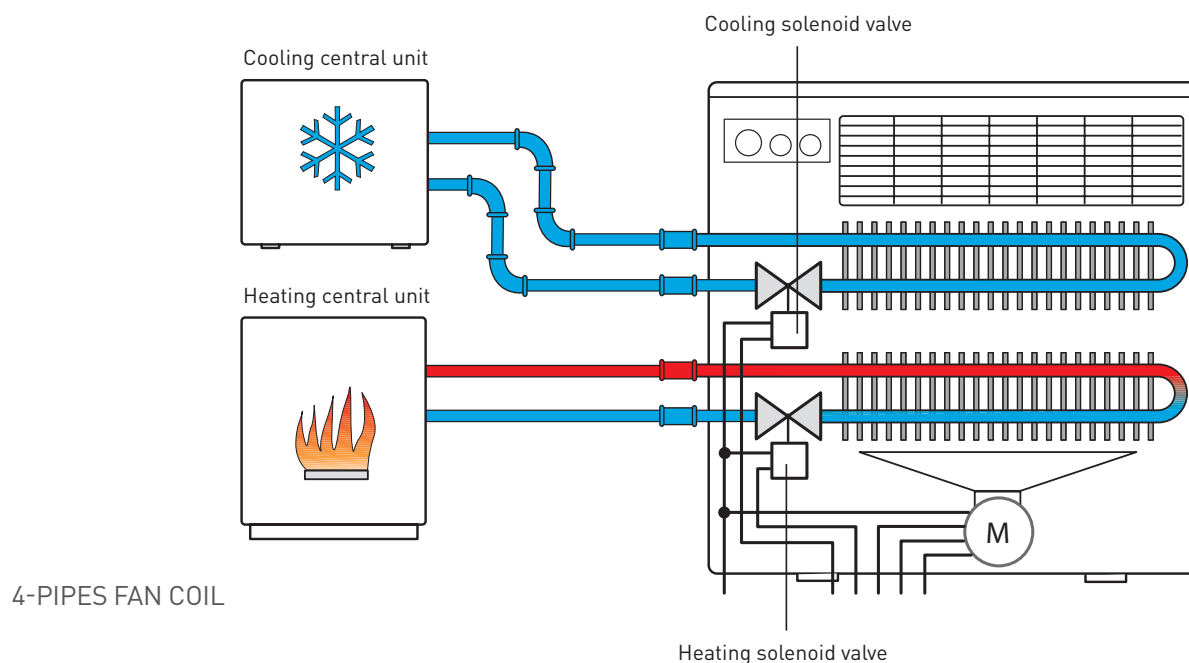
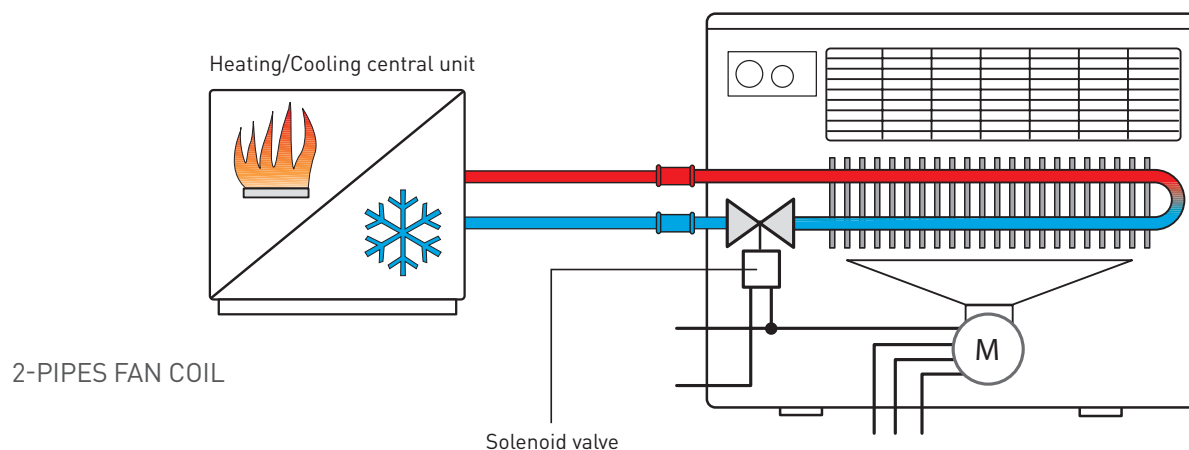
2-pipe Fan Coils: they only work with one type of liquid, hot for heating and cold for cooling.

The Fan Coil therefore has 2 connections with the central heating/cooling unit: input and output.

A solenoid valve inside the Fan Coil regulates the flow of liquid, the temperature of which is set by the Central Heating unit.

4-pipe Fan Coils: they have 2 independent circuits, for hot and cold water, each with their own input and output connections to the central heating/cooling unit (which can also consist of 2 separate units).

In this case, 2 separate solenoid valves are used to manage the flows of the two liquids.



Smarter AC with Netatmo CONNECTED THERMOSTAT

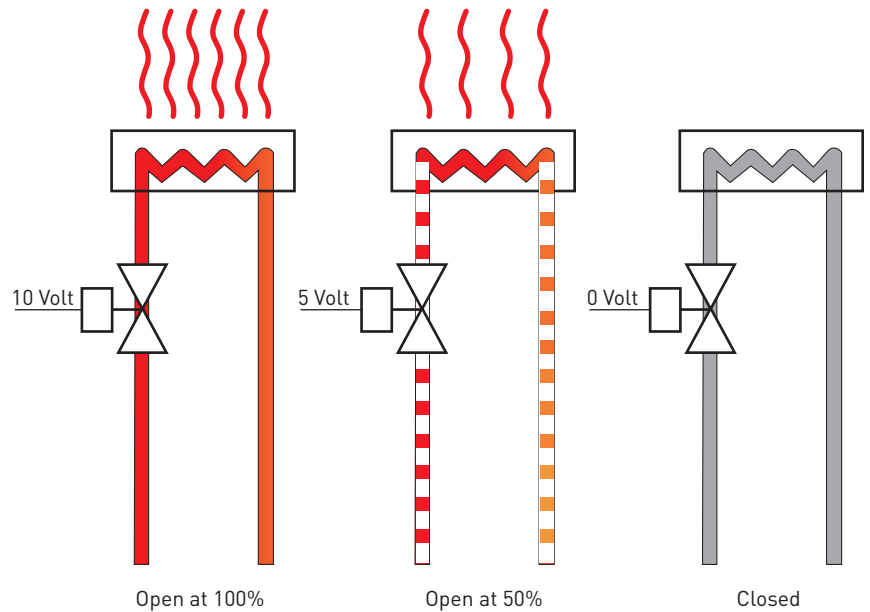
Features of a Fan-Coil system

Types of solenoid valves

The solenoid valve can be of the following types:

- ON/OFF valve: when powered (normally at the mains voltage) the solenoid valve switches from Closed to Open or vice versa. In the first case, the valve is NC (Normally Closed), while in the second case it's NO (Normally Open).
- Proportional 0-10 V valve: the opening status is a function of an applied voltage value, which can vary between 0 and 10 Volts. A value of 0V means a closed valve, while a value of 10V equals an open valve. Intermediate voltage values result in intermediate opening levels (e.g.: a value of 4V equals 40% opening).
- 3-point valve: these types of valves are an alternative of the 0-10V and they allow a proportional management.

EXAMPLE: BEHAVIOUR OF A 0-10 V SOLENOID VALVE AS A FUNCTION OF THE SUPPLY VOLTAGE



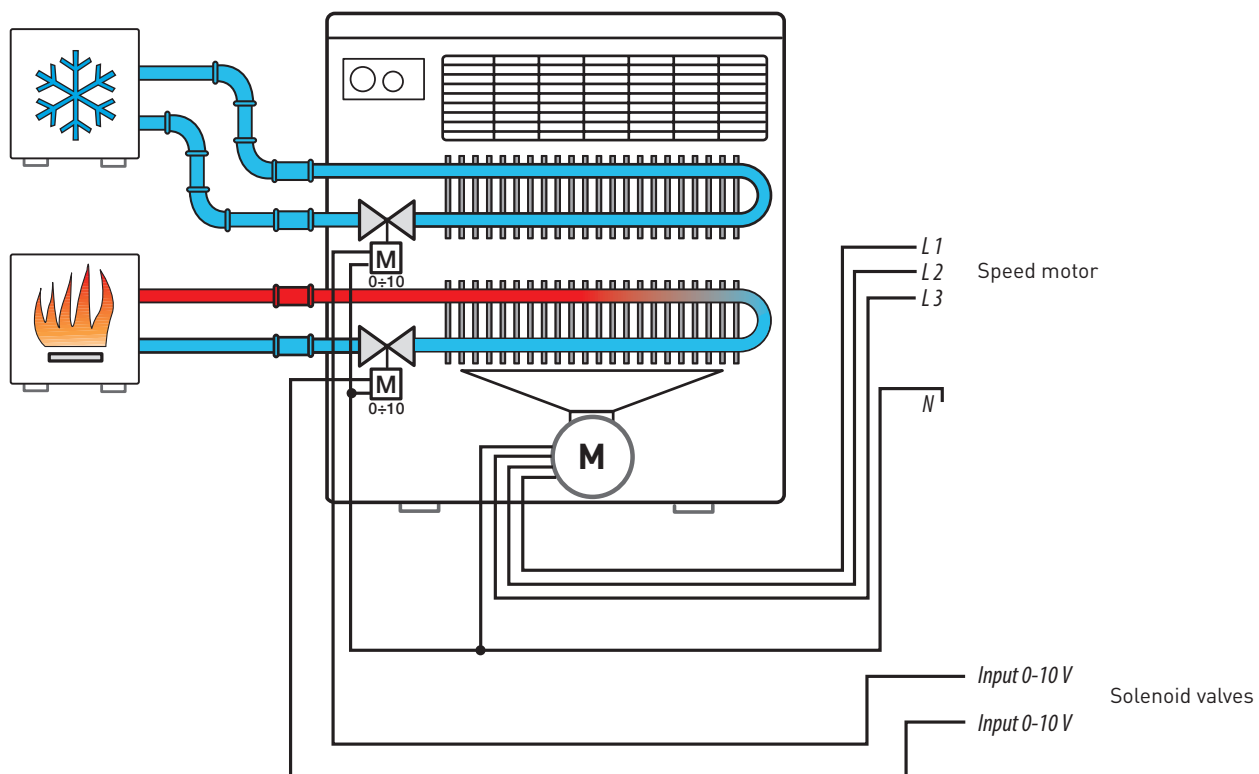
Types of internal fans

There are 2 categories of fans available:

- with motor with **3 preset speed levels** (low, medium, high);
- with motor with **variable speed and 0-10V control**, where the application of a variable control voltage between 0V and 10V adjusts the motor speed from standstill to maximum.

In the Fan Coil, both the valves and fan are controlled by the room chrono-thermostat through a special actuator.

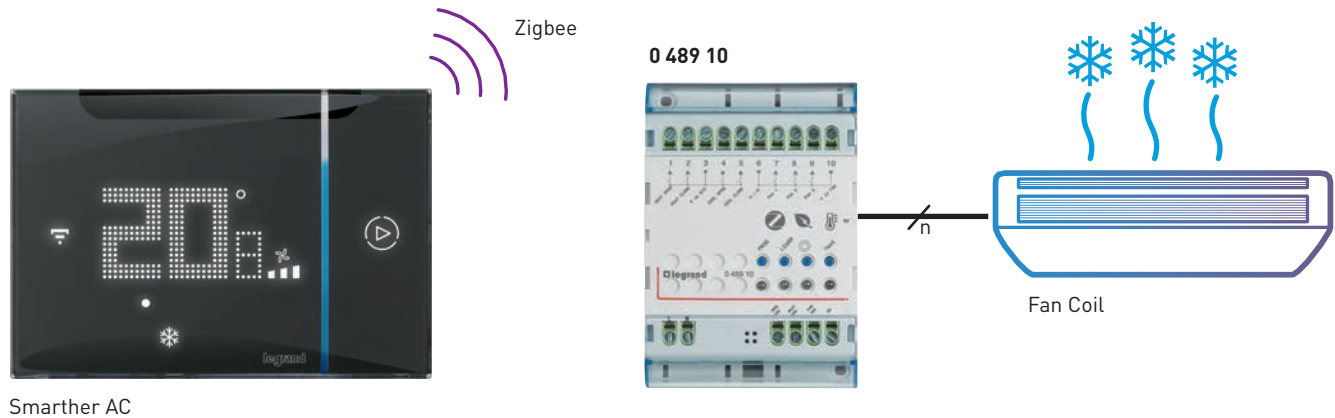
EXAMPLE: 4-PIPES FAN COIL WITH 0-10V SOLENOID VALVES AND 3-SPEED MOTOR



Smarter AC with Netatmo CONNECTED THERMOSTAT

Control of a Fan-Coil system

Smarter AC with Netatmo in combination with an HVAC actuator allows the management of fan coil systems.



HVAC actuator item. 048910 for the control of 2-pipe and 4-pipe fan coils.

This DIN actuator can control:

- 2-pipe fan coil unit with On/Off valve
- 2-pipe fan coil unit with 3-way valve
- 2-pipe fan coil unit with 0-10 V valve
- 4-pipe fan coil unit with two On/Off valves
- 4-pipe fan coil unit with two 3-way valves
- 4-pipe fan coil unit with two 0-10 V valves
- 3-speed fan
- 1 0-10 V fan

The association with the Smarter AC thermostat is completed through radio signal with ZigBee technology: this reduces wiring and masonry work. The device can be installed inside the Fan Coil, or in the switchboard of the house.

Technical features

Power supply : 110/240 Va.c., 50/60 Hz

Standby consumption: 0.6 W

Maximum consumption: 1.5 W

Connection: 2 x 2.5 mm²

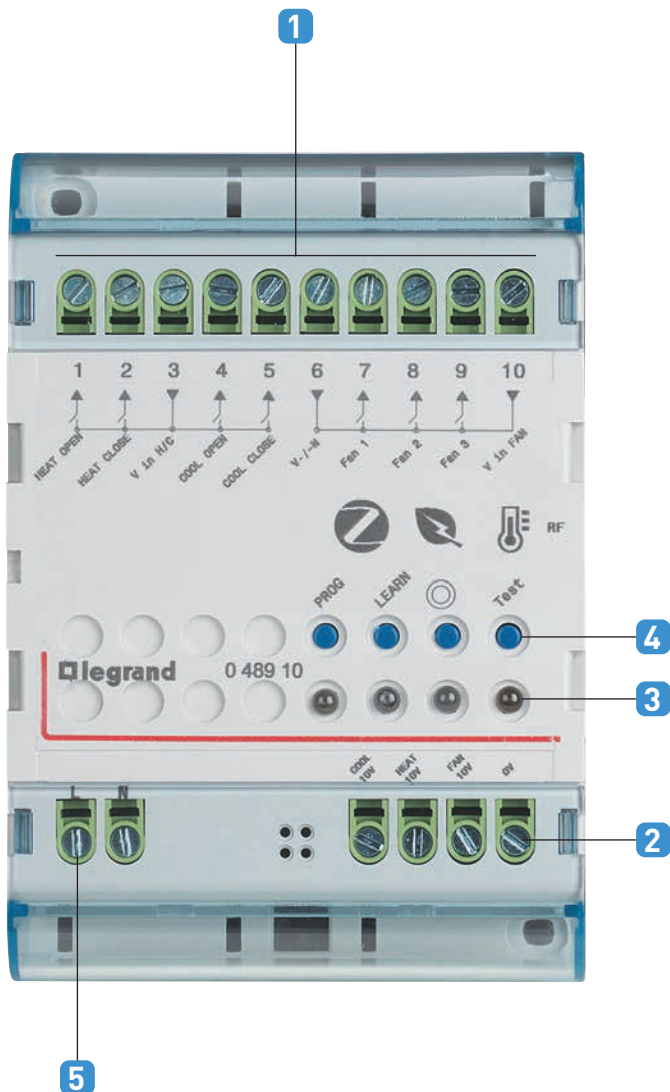
Operating temperature: +5°C to +40°C

Storage temperature: -20°C to +70°C

Purpose Control: Thermostat

Type action: 1B

Construction Control: panel mounting



Legend

1. VALVE OUTPUTS AND FAN RELAYS

1. Heat valve open connector
2. Heat valve closed connector
3. Power supply common input connector
4. Cool valve open connector
5. Cool valve closed connector
6. Power supply common input fan connector (neutral for AC and "-" for VDC)
7. Speed 1 fan connector
8. Speed 2 fan connector
9. Speed 3 fan connector
10. Power supply common input fan connector (phase for AC and "+" for VDC)

2. 0-10 V OUTPUTS

- COOL 10 V. Cool 0-10 V connector
- HEAT 10 V. Heat 0-10 V connector
- FAN 10 V. Fan 0-10 V connector
- 0 V. Common connector

3. LED INDICATORS

4. BUTTONS

Open/close the Zigbee network, Reset

Test. Test mode: used to test the device without a network connection. To activate or exit this mode, press and hold down the button until the status LED flashes. Then, browse the different steps in the test by pressing the test button briefly

5. POWER SUPPLY TERMINALS

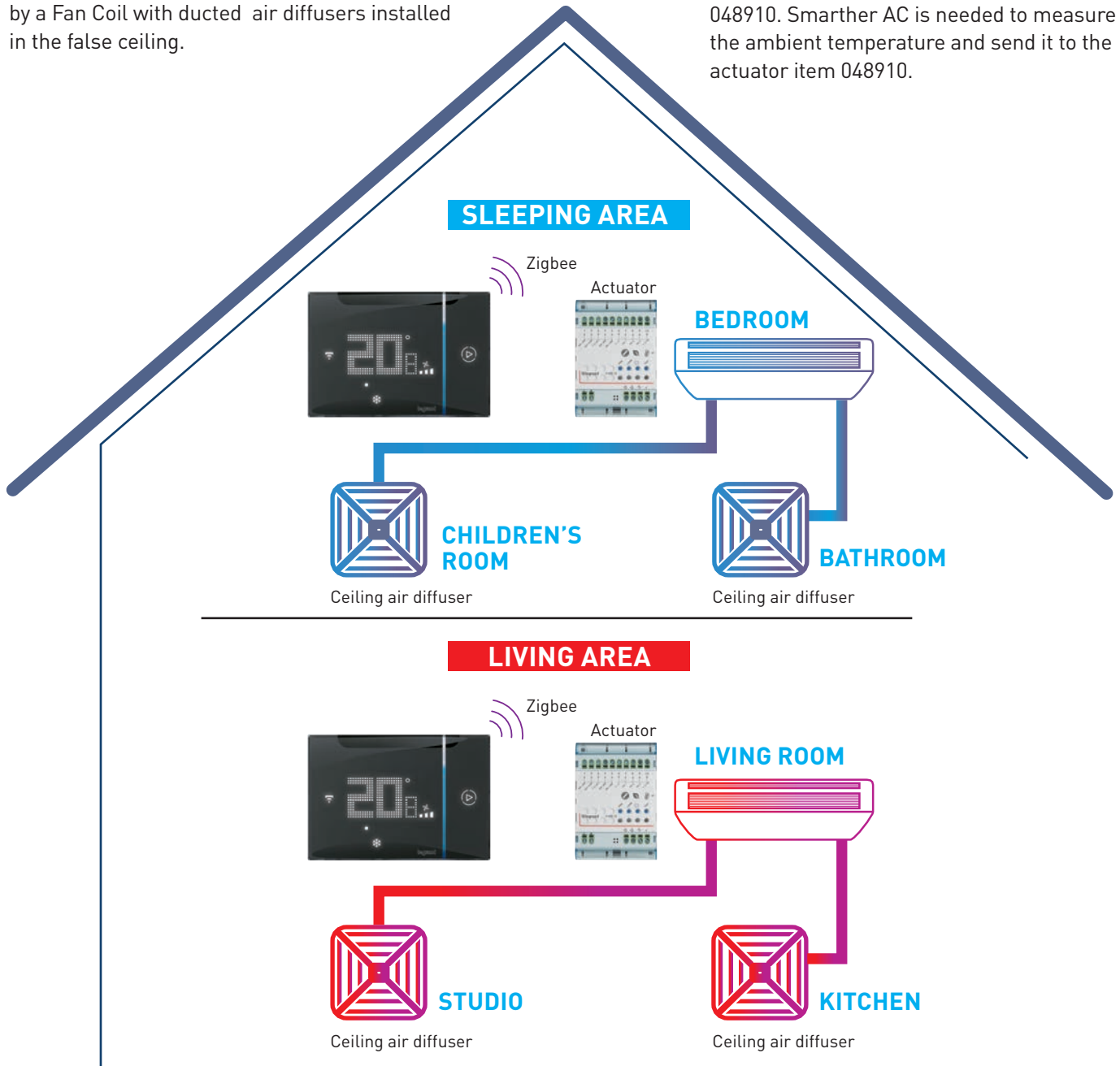
Smarter AC with Netatmo CONNECTED THERMOSTAT

Example of installation

Smarter AC with actuator in two rooms and ducted Fan Coil system in the false ceiling

The example shows a home where the room “sleeping area” and the “living area”, are managed by a Fan Coil with ducted air diffusers installed in the false ceiling.

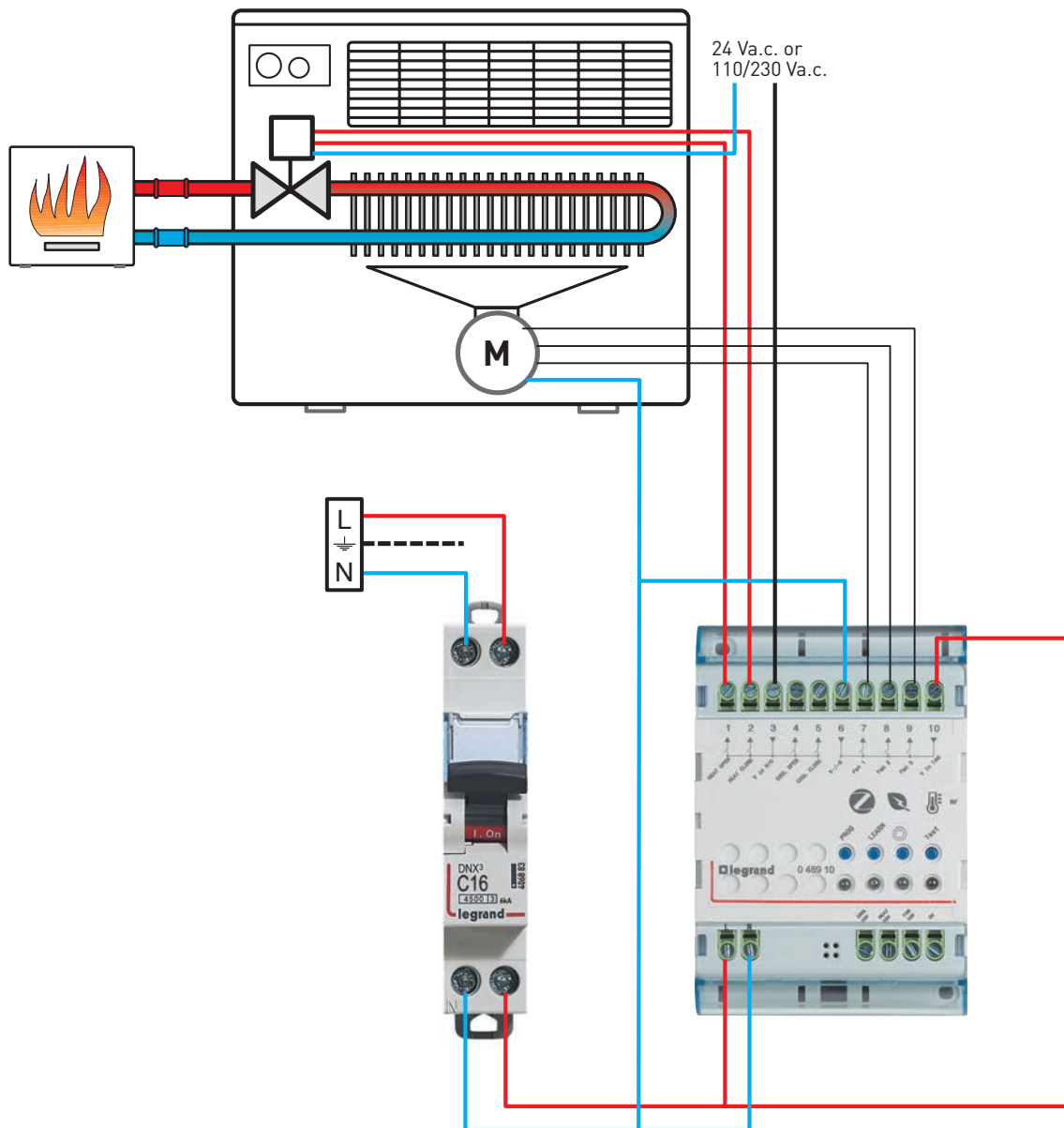
Each Fan Coil is managed by the respective Smarter AC via Zigbee radio actuator item 048910. Smarter AC is needed to measure the ambient temperature and send it to the actuator item 048910.



REQUIREMENTS:

- One Smarter AC maximum per room
- Maximum 10 Smarter AC for each installation/house and maximum 10 installations/houses for each account
- A single Smarter AC can control up to 5 actuators but they must be in the same room
- All fan coil units in the same room must be of the same type.

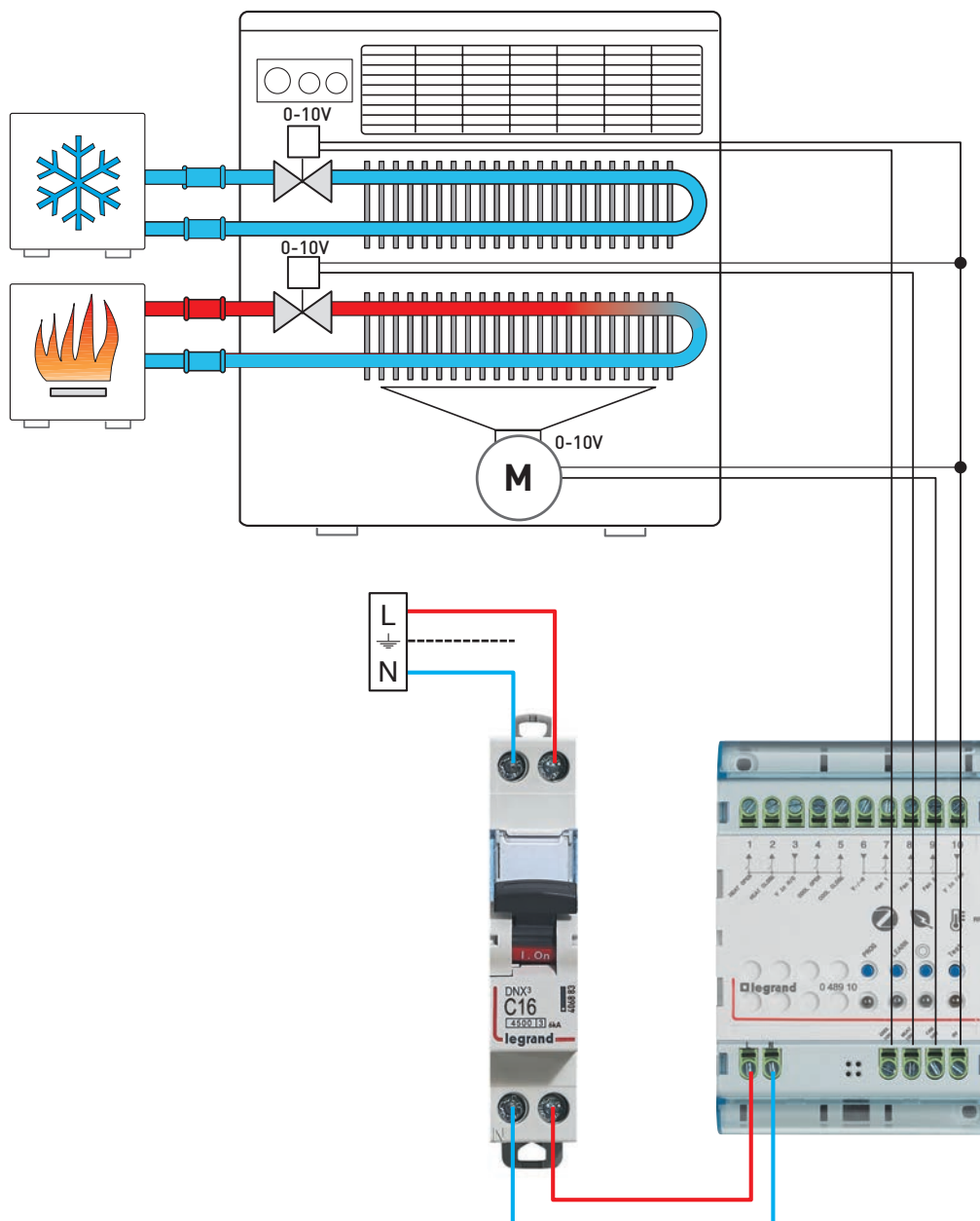
Wiring diagram - Variant for 2-pipe fan coil system with 3-points valves and 3-speed fan



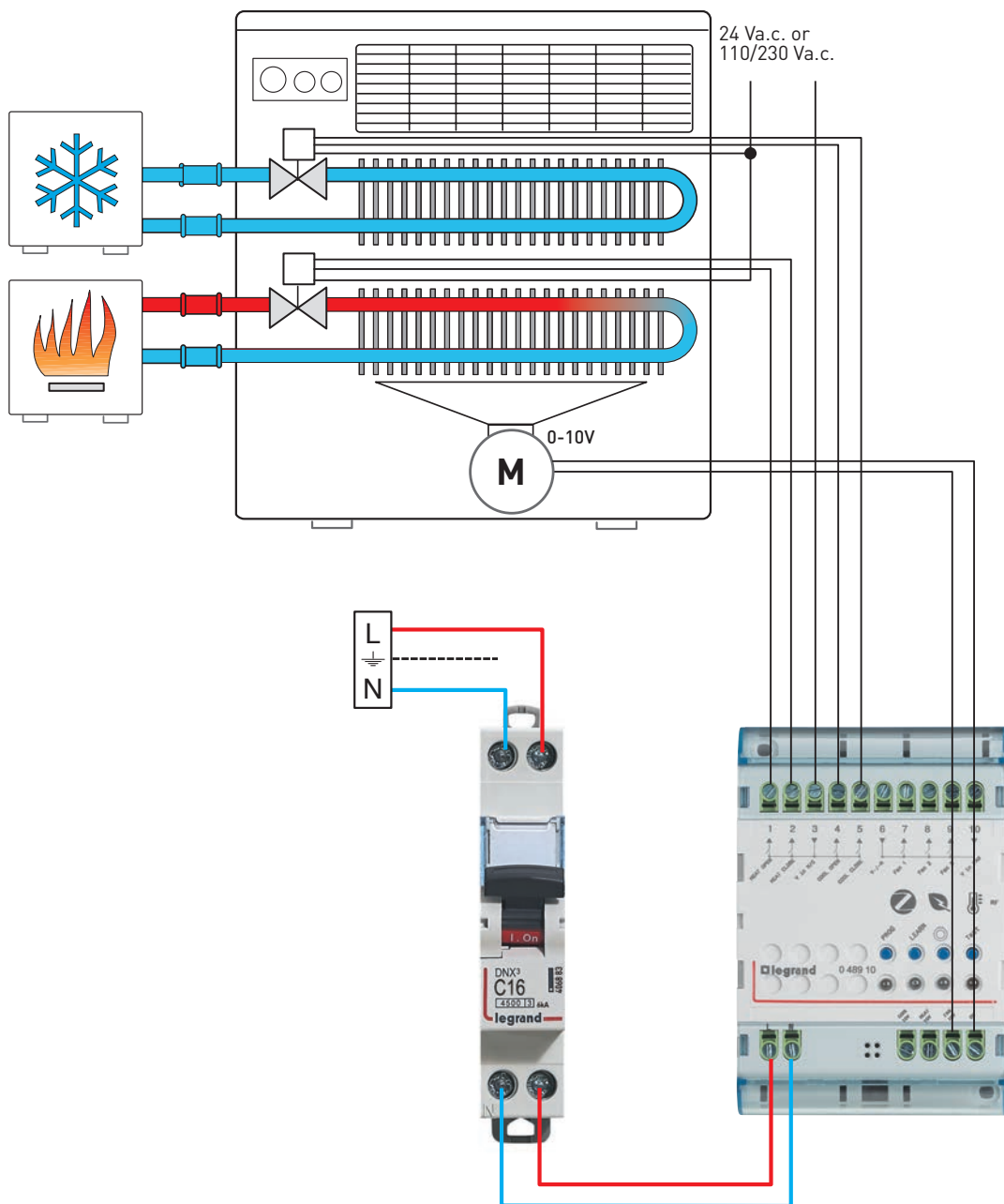
Smarter AC with Netatmo CONNECTED THERMOSTAT

Example of installation

Wiring diagram - Variant for 4-pipe fan coil with 0-10 V solenoid valves and 0-10 V fan



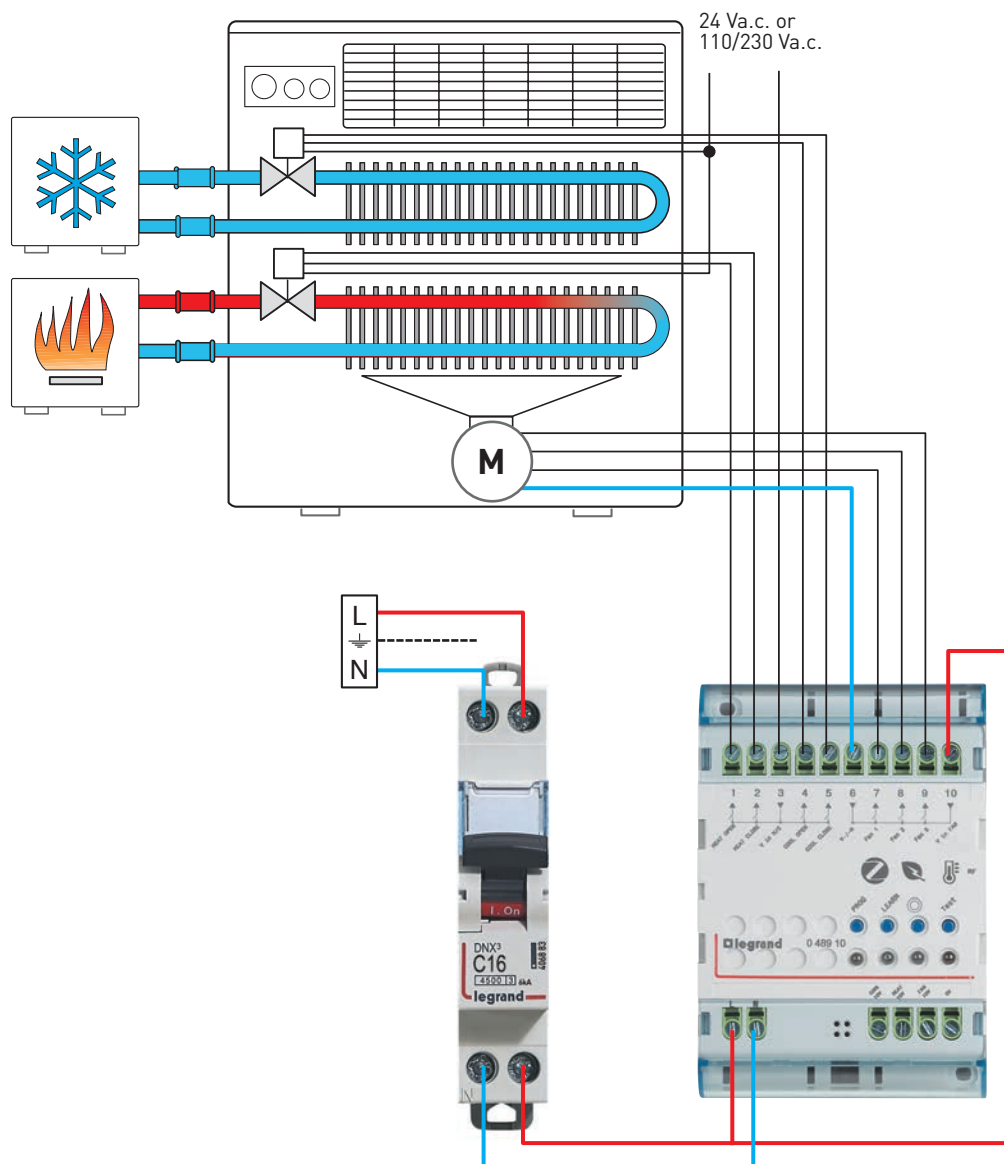
Wiring diagram - Variant for 4-pipe fan coil with 3-points valves and 0-10 V fan



Smarter AC with Netatmo CONNECTED THERMOSTAT

Example of installation

Wiring diagram - Variant for 4-pipe fan coil with 3-points valves and 3-speed fan



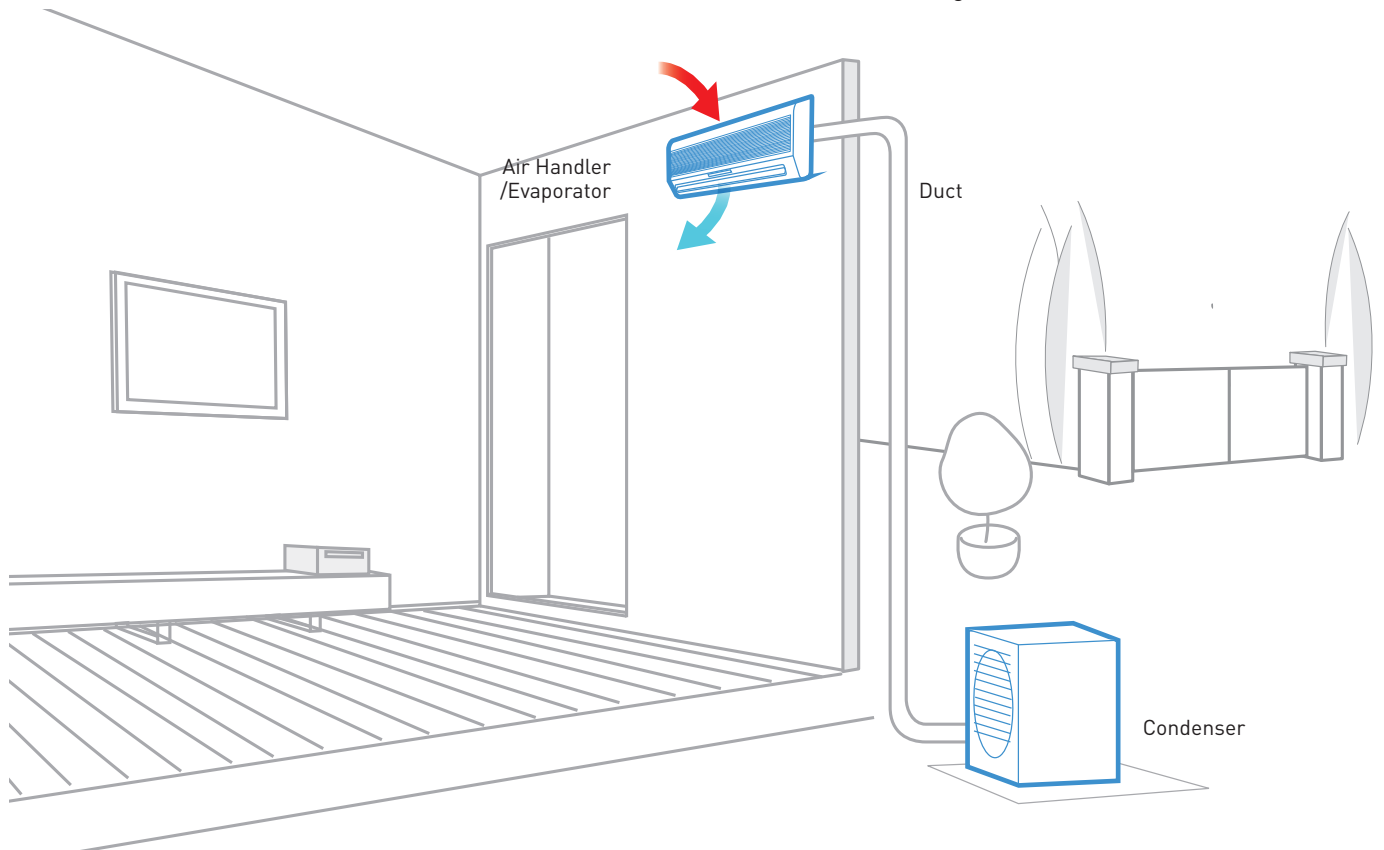
Features of an Air Conditioning Units System

Air conditioning unit systems consist of two units connected together by pipes:

- the outdoor unit is called the Condenser;

- the indoor unit, installed on the wall in the room to be cooled and/or heated, is called Diffuser or Air Conditioning Unit.

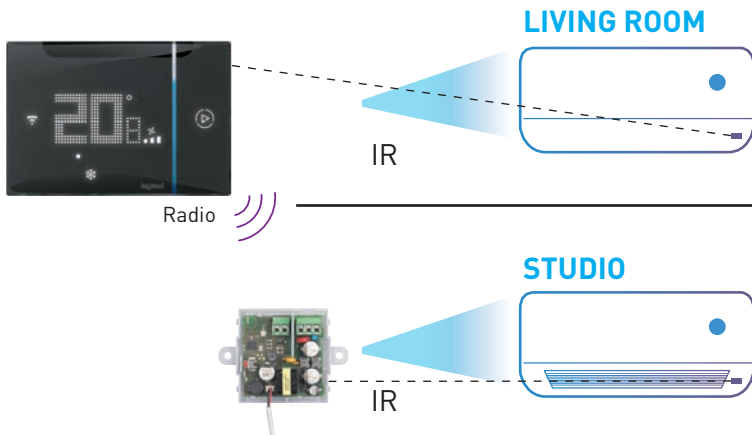
Some systems, called "multi Air Conditioning Unit systems", use one single suitably sized outdoor unit, connected to several indoor Air Conditioning Units, for the air conditioning of several rooms.



MULTI AIR CONDITIONING UNIT SYSTEM

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Control of an Air Conditioning Units System



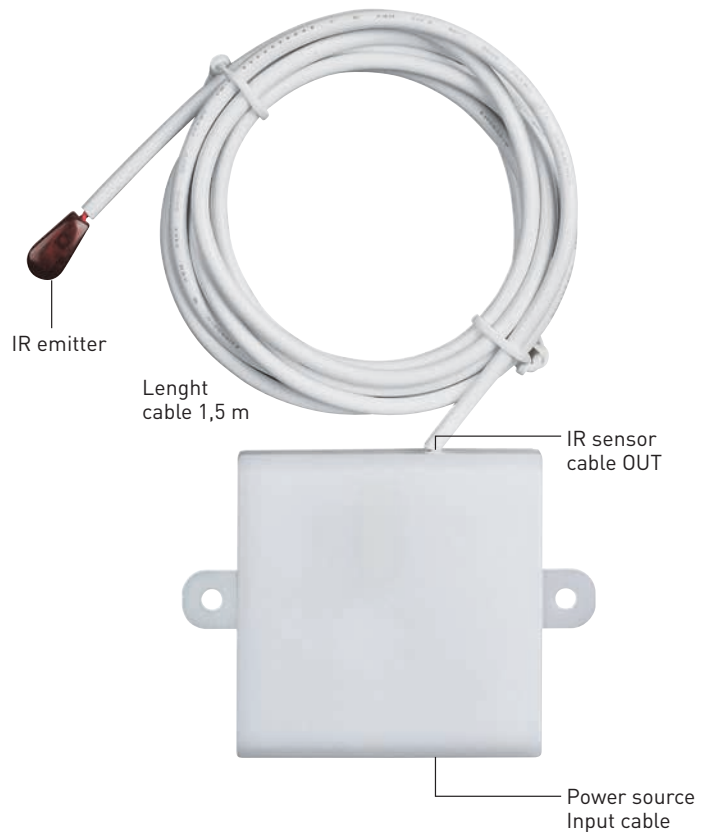
Thanks to its on-board IR emitter, Smarter AC with Netatmo is able to directly manage an Air Conditioning unit.

For the best reliable installation, you can use Smarter AC with Netatmo in combination with a connected IR emitter: these devices communicates via radio signal and the IR emitter can be placed really close to the receiver of the Air Conditioning unit.

Connected IR emitter item 3460IR

Features

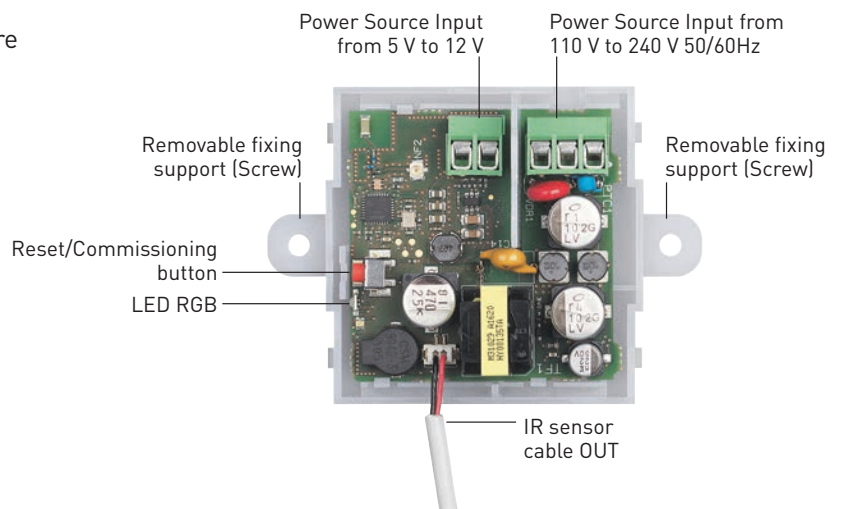
- Dimension: 60x60x30 mm
- Power supply: 5 to 12 Vdc and 110 to 240 Vac
- Maximum power consumption: 300 mW
- Radio data: power level <100 mW, band frequency from 2.4 to 2.4835 Ghz
- Clamps inside the device for a totally safe installation
- It has an IR transmitter to be placed in front of the IR receiver of the A/C unit
- IR cable is 1,5 meter long



WARNING:

The temperature measured by Smarter AC is not used as a reference for turning the system on/off.

The reference temperature will be the temperature measured by the Air Conditioning Unit, which cannot be displayed on Smarter AC or the App.



Example of installation

ALL IN ONE solution

With this solution it's possible to install one Smarther AC with Netatmo for each AC unit you want to control.

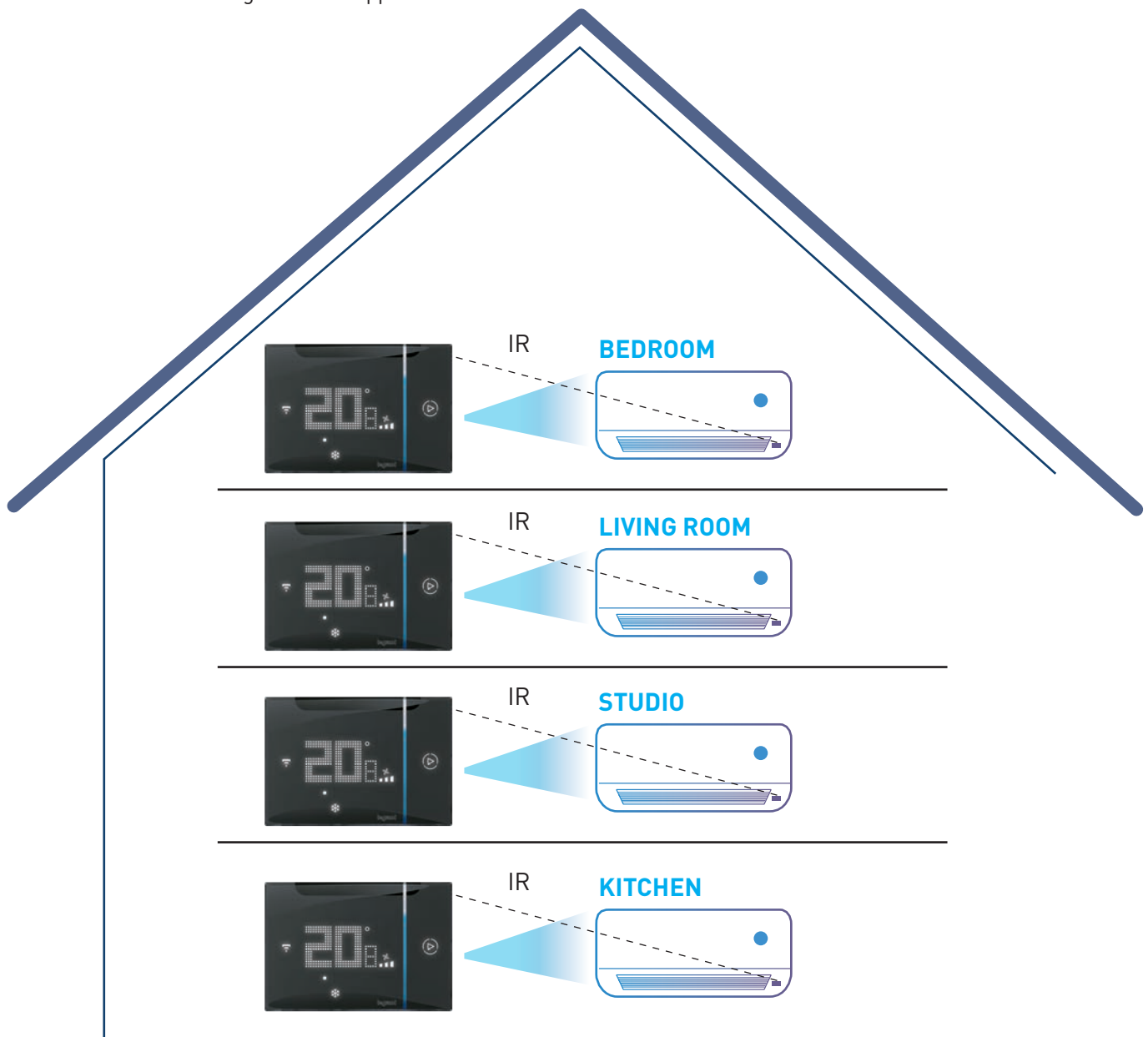
In this case the communication between Smarther AC and the AC unit is via IR signal emitted directly from the thermostat.

It will be possible so to have a room control on the wall for each AC unit: select the desired temperature, modify the speed of the fans, activate the practical boost function and display the humidity level.

In addition to this, there will be the smart management of each thermostat through the H+C app.

REQUIREMENTS:

- One Smarther AC maximum per room.
- Maximum 10 Smarther AC for each installation/ house and maximum 10 installations/houses for each account.



Smarter AC with Netatmo CONNECTED THERMOSTAT

Example of installation

RELIABILITY solution

Installing one IR emitter for each Smarter AC, it's possible to ensure maximum control in all rooms and the most reliable connection between Smarter AC and the Air Conditioning Unit (avoiding so potential IR Signal interferences due to direct or reflected sun rays or physical obstacles).

So Smarter AC may be installed anywhere in the room, since communication no longer takes place directly through the IR system, but through the radio signal sent by Smarter AC to the IR emitter accessory.

Thanks to its installation features, the IR interface allows to place the emitter very close to the Air Conditioning Unit receiver, ensuring a highly reliable communication signal.

Also in this case, it will be possible to have a room control on the wall for each AC unit together with a punctual AC unit smart management through H+C app.

REQUIREMENTS:

- One Smarter AC maximum per room.
- Maximum 10 Smarter AC for each installation/ house and maximum 10 installations/houses for each account.
- A single Smarter AC can control up to 20 IR emitters in maximum 10 rooms.
- The IR on-board of Smarter AC can be disabled or can be used in parallel with the IR emitter to control one additional A/C unit.



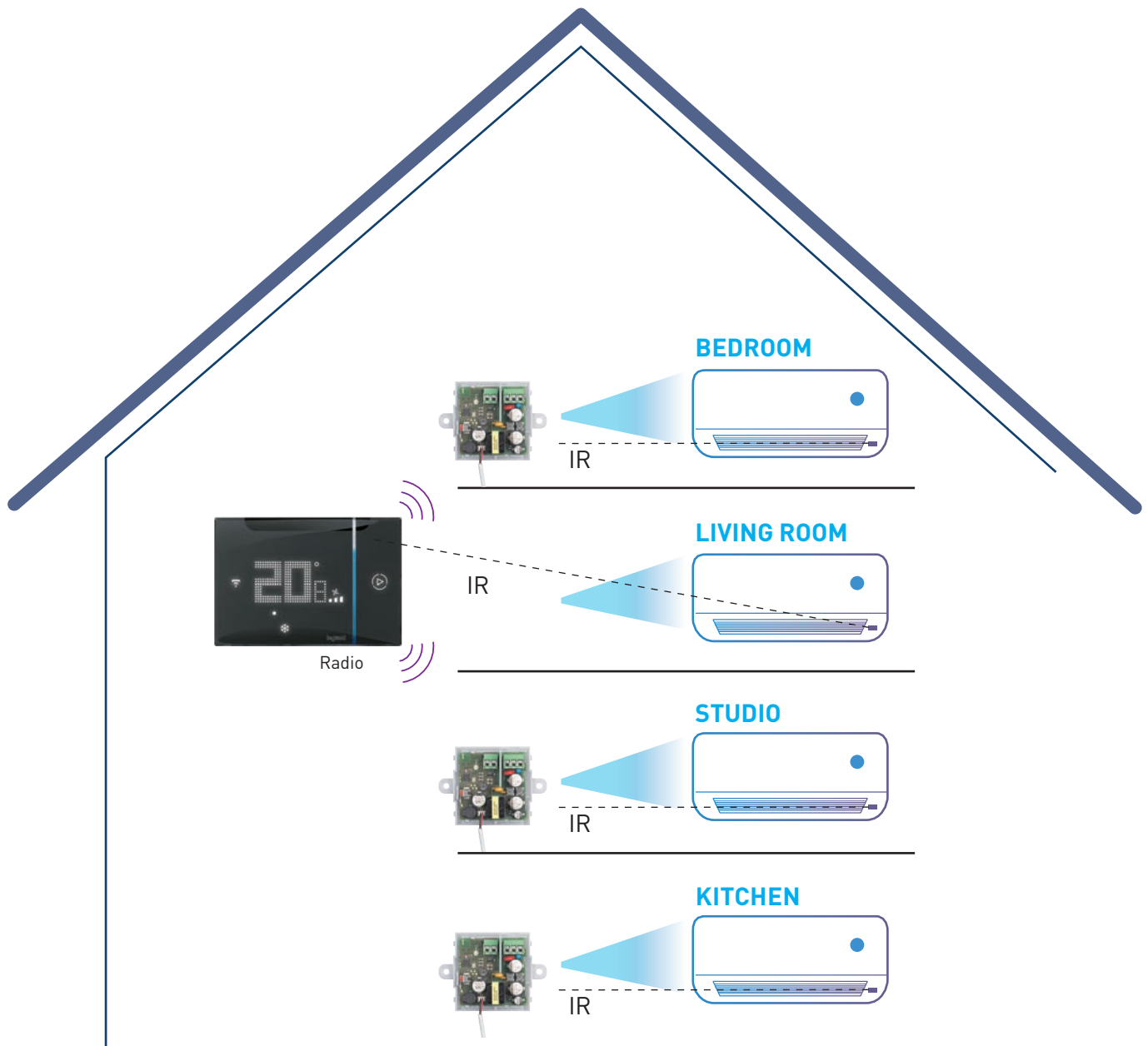
ECONOMY solution

With this solution, it's possible to install one single Smarther AC that in one room will directly manage one AC unit via IR. All the other Air Conditioning Units in the other rooms will be managed through their respective IR emitters, item 3460IR, connected to the Smarther AC via radio signal.

In this particular case the parameters set by the physical thermostat (temperature, fan speed, etc.) will be applied just to the AC in the same room of Smarther AC. While the H+C app will allow the punctual management of all the AC units.

REQUIREMENTS:

- One Smarther AC maximum per room.
- Maximum 10 Smarther AC for each installation/ house and maximum 10 installations/houses for each account.
- A single Smarther AC can control up to 20 IR emitters in maximum 10 rooms.
- The IR on-board of Smarther AC can be disabled or can be used in parallel with the IR emitter to control one additional A/C unit.



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