CONNECTED THERMOSTAT FOR HVAC SYSTEMS



Smarther AC Netatmo





Essential design, maximum comfort, wherever you are. Smarther AC

Netatmo

The BTicino 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.

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



bticino





Essential design. Modern style.



D

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.

Smarther Netatmo

The BTicino connected thermostat was conceived for integration with all living styles, and is perfectly coordinated with the Living Now range.

Living Now Netatmo





Wellbeing and energy waste reduction

What can you do with the BTicino 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.



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- 2016 • Device





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



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"



works alexa



Display the temperature and set it as desired



Display the set room temperature and humidity



Select the fan speed



Device user interface



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	Temperature Smarther 21.0° Fan speed	
	Control unit 14:00	

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

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Your home	Ensuit Prans do not not to school a Materiana account pas can interpreter consultante proceeder sink type has a pass interpreter procession and the procession of the procession interpreter procession of the procession of the procession interpreter procession of the procession of the procession of the procession interpreter procession of the proce	- 6P	
simply connected		Reep the bottom on the top right table of your thermount presaid unit the WirF up in bitwing and the tool "AP" appears.	Welcone Yos and about to create a new temperature schedule, We will optimize it by asking you a few qualificant solicul poor ille hebits.
Discover the products			
0	0	0	0
1	2	3	4
Download and install the Home + Control App	Create your account	Connect the thermostat to the home wi-fi network	You can start to set 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 BTicino after-sales service directly by means of the Help pushbutton integrated in the application.





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







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 (*)

Control of the AC units directly through the IR emitter on board of the Smarther AC with Netatmo



Living room

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 Smarther AC maximum per room. Maximum 10 Smarther 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 possibile to manage one AC unit through one dedicated accessory, the IR emitter, connected to Smarther 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 Smarther 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 Smarther AC can control up to 20 IR emitters in maximum 10 rooms.



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



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



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 5 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 Living Now 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.



Living Now Netatmo





Smarther AC with Netatmo







XG8003





3460IR

This actuator can be used in combination with Smarther AC with Netatmo on thermoregulation installations, to control

different load types according to requirements



XW8003W

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ltem **CONNECTED THERMOSTAT FOR AIR CONDITIONING**

Item	CONNECTED THERMOSTAL FOR AIR CONDITIONING	пеш
 □ XW8003 ■ XM8003 ■ XG8003 	The Smarther 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, Smarther 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. Smarther 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 mm ² ; - 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	 ○ 0 489 10 ○ 3460IR
	 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 Available in three colours: white (XW8003), sand (XM8003) and black (XG8003). 	Works with Apple
□XW8003W	Features: as XW8003. Installation: on the wall, using screws and dowels suitable for the installation surface (brickwork, plasterboard, tiles etc.). It is available only in white colour.	
N (%) 0(0)		

Note(*): 868MHz/915MHz radio link not available in Malaysia, China, Japan, Singapore and Taiwan.



Home + Control App

for the management of connected devices



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
IR INTERFACE FOR AIR CONDITIONING UNIT
Connected IR emitter for air conditioning. The installation with Smarther 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: $5 \div 12Vdc$ and $110-240V \sim 50/60Hz$. It communicates with Smarther 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.

ACTUATOR FOR FAN COIL UNIT

Works with Apple HomeKit works with **Hey Google**

works alexa with

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.

Smarther AC with Netatmo CONNECTED THERMOSTAT

Features and connections

How to install it

Smarther with Netatmo flush mounted thermostat

Items XW8003 - XG8003 - XM8003







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.



DIMENSIONAL DATA







Smarther 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.



Heating solenoid valve

Smarther 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



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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



Smarther AC with Netatmo CONNECTED THERMOSTAT

Control of a Fan-Coil system

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





Smarther AC

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 Smarther 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

Smarther AC with Netatmo CONNECTED THERMOSTAT

Example of installation

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



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 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



Smarther 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



Smarther 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

Smarther AC with Netatmo CONNECTED THERMOSTAT

Control of an Air Conditioning Units System



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

For the best realiable installation, you can use Smarther 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



The temperature measured by Smarther 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 Smarther 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.



Smarther AC with Netatmo CONNECTED THERMOSTAT

Example of installation

RELIABILITY solution

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

So Smarther 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 Smarther 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 Smarther AC maximum per room.

BEDROOM

- 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.

Radio







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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