



SMART HOME COMFORT
THERMOSTAT

SmartOne **365**



Welcome to your smart home comfort

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Download the Smart365 App!

Register your system to enable remote control functions.





Optimized for
radiant heating and
cooling systems



VOC sensor to
measure air quality



Secure remote
connection and
automatic updates



Innovative regulation
strategies for
energy saving



Fan coil
mode



The system learns
the amount of time
required to warm up or
cool down every room



Voice control
through Amazon Alexa
& Google Home



Remote control
with Apps
iOS and Android



Cloud platform
for supervision
and statistics

Get to know your SmartOne365

What is SmartOne

SmartOne is a smart thermostat. As a programmer, it allows you to set comfortable temperature periods during the day to suit your lifestyle, while keeping an eco-friendly temperature level while away and overnight.

As a room thermostat, it works by sensing air temperature, switching on the heating when the air temperature falls below the thermostat setting, and switching it off when the set temperature has been reached. The thermostat also works in cooling.

So a programmable room thermostat lets you choose what times you want the heating or cooling to be on, and what temperature it should reach while it is on. It will allow you to select different temperatures in your home at different times of the day (and days of the week) to meet your particular needs and preferences.

Setting a programmable room thermostat to a higher temperature will not make the room heat up any faster, as how quickly the room heats up depends on the design and size of the heating and cooling system. Similarly reducing the temperature setting does not affect how quickly the room cools down.

Setting a programmable room thermostat to a lower temperature will result in the room being controlled at a lower temperature, and saves energy.

Here is where the smart thermostat comes in. The thermostat computes how long it takes to heat up or cool down the room, and it starts heating or cooling before it's needed to reach the desired comfort temperature just in time.

The way to set and use your programmable room thermostat is to find the lowest temperature settings that you are comfortable with at the different times you have chosen, and then leave it alone to do its job.

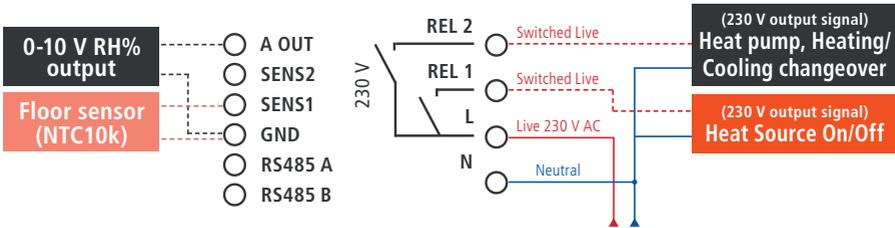
The best way to do this is to set the room thermostat to a low temperature – ie. 18 °C and then turn it up by 1 °C each day until you are comfortable with the temperature. You won't have to adjust the thermostat further. Any adjustment above this setting will be inefficient and consume excessive energy.

You are able to temporarily adjust the heating program by overriding or using the temperature hold feature. Programmable room thermostats need a free flow of air to sense the temperature, so they must not be covered by curtains or blocked by furniture. Nearby heat sources, televisions, wall or table lamps may also prevent the thermostat from working accurately.

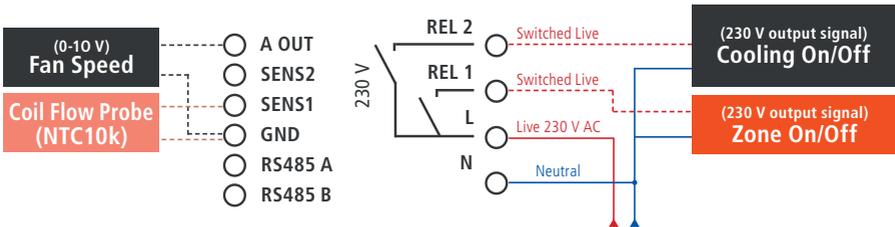
Installation procedure

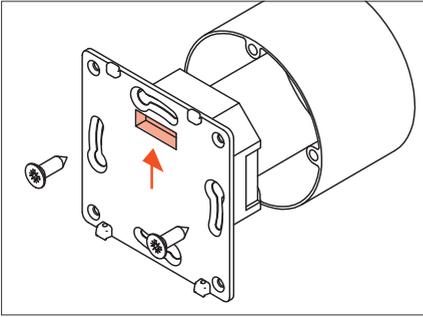
Mount the SmartOne at eye level. Read the instructions fully so you get the best from our product. SmartOne is designed to be flush mounted and requires a euro flush box with 60 mm fixing centers and 40 mm (minimum depth) to be fitted in the wall prior to installation. This product must only be installed by a qualified electrician and must comply with local installation regulations.

Wiring diagram (backplate) for radiant heating and cooling systems

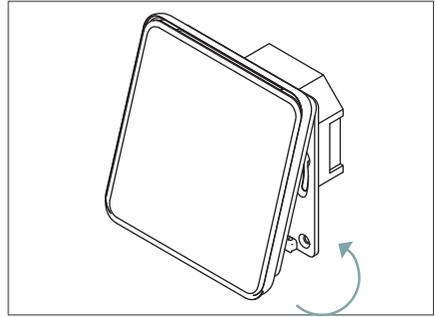


Wiring diagram (backplate) for fan coil control

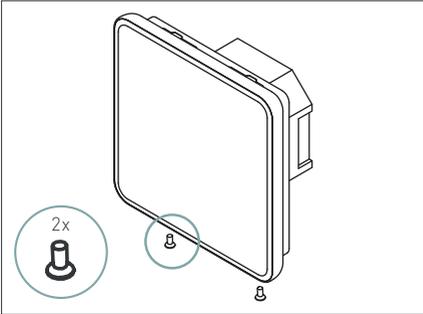




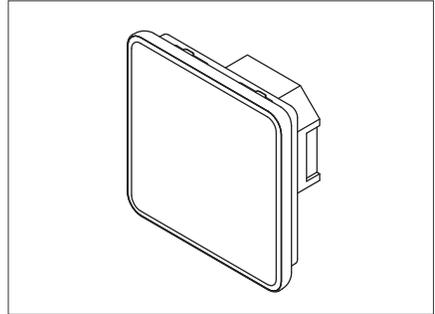
Screw the backplate of the thermostat securely into the box. The right position is indicated in the picture.



Clip the front display onto the backplate as indicated in the picture, starting from the upper site.



Using a small screwdriver you can secure it in place.



Ready to manage your indoor comfort.

Mode Select

This thermostat can be used for either heating only, heating and cooling or cooling only. Heating and Cooling is the default setting.

To change thermostat mode follow these steps:

- Enter Menu and select settings, then select advanced
- Input Tech password and confirm
- Select Setup → Operating mode
- Select the desired option

The thermostat will restart in the selected mode.

☰ Menu → Settings → Advance → Input password → Setup → Operating mode

Fan Coil Mode

To set the thermostat into fan coil mode follow the steps below:

- Update the thermostat to the latest software version
- Enter the Menu and select settings, then select advanced
- Input Tech password and confirm
- Select Setup → Type
- Select Fan-coil

The thermostat will restart in the selected mode.

☰ Menu → Settings → Advance → Input password → Setup → Type

Factory reset

To reset thermostat parameters to factory default follow these steps:

- Enter Menu and select settings, then select advanced
- Input Tech password and confirm
- Press the option Factory reset and hold for 10 seconds
- The thermostat will reset all parameters and restart in the default mode.

Setup and pairing processes must be repeated after the restart has completed.

☰ Menu → Settings → Advance → Input password → Factory reset

WiFi setup

WiFi connection is not mandatory for the device to operate, but it is required for interactions by App and cloud services, and is suggested in order to keep the device updated to the latest software.

NOTE: only 802.11 b/g/n 2.4 GHz WiFi networks are supported.



WiFi setup

To connect the SmartOne with the WiFi network follow these steps:

- Enter Menu and select Network
- Select WiFi, then Scan network
- Select the preferred network
- Input access credentials and confirm

The connection process may take a few moments, until a confirmation message appears.

 **Menu → Network → WiFi → Scan network → ... select your home network**

To check the communication to WiFi and cloud services, follow these steps:

- Enter Menu and select Network
- Select Check connections

 **Menu → Network → WiFi → Check connections**

Pairing with Smart365 App

Download the free Smart365 App from Apple App Store or Google Play Store. Make sure the SmartOne is connected to WiFi.

- On the SmartOne, enter Menu and select Cloud
- Select Pairing
- Select Pair now, a QR code will be shown

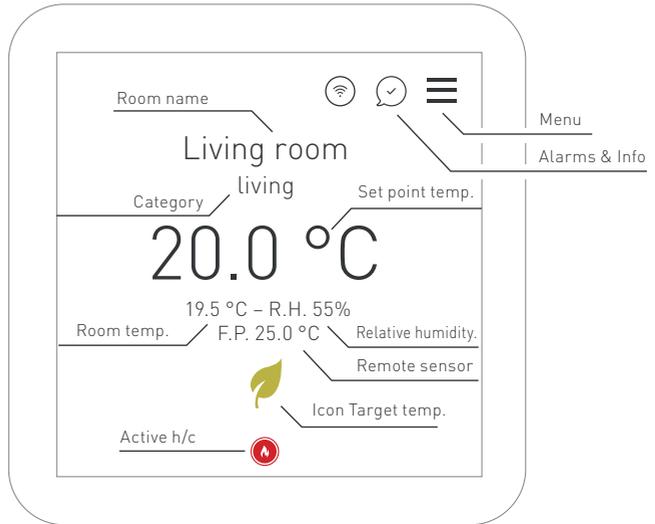
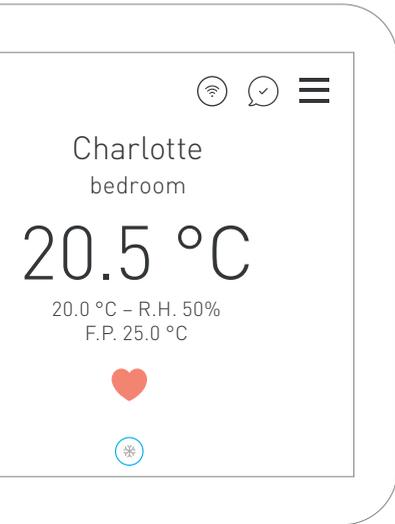


 **Menu → Cloud → Pairing → Pair now**

Open the Smart365 App, register your device and create your new account. Both the App and SmartOne will confirm once the pairing is successful. To pair more than one SmartOne to the same account, select Add zone from the App and follow the same procedure above.

Pairing with the App allows you to check and control the thermostat remotely, to visualize historical data and to share thermostat control with other users.

Display and symbols



Symbology

-  Comfort temperature
-  Night temperature
-  Eco temperature
-  Manual
-  Temporary manual
-  Party (+2 h comfort temperature)
-  Early bird (activate comfort temp.)
-  Good night (activate night temp.)
-  Floor limit
-  Heating/cooling active (relay ON)
-  Heating/cooling not active (relay OFF)
-  Heating/cooling (optimum start)

Room/zone name

You can customize the name of each room.

Room category

Give each room a category to have a preset standard schedule, which you can simply modify and adapt to your specific needs.

Target temperature

You can automatically set up three target temperatures for each room to be programmed and managed within a day.

Current temperature

Room current temperature and relative humidity, Room floor probe temperature: SmartOne can be configured for different sensor options such as built-in air sensor, floor sensor or both. When the thermostat is set to use both the air & the floor sensor, the room temperature will be displayed by default, and F.P. indicates the floor temperature.

Automatic schedule programming

The SmartOne offers 24h – 7 days program mode. The thermostat is supplied with comfort levels already programmed based on room type, but these can be changed easily.

To program comfort levels:

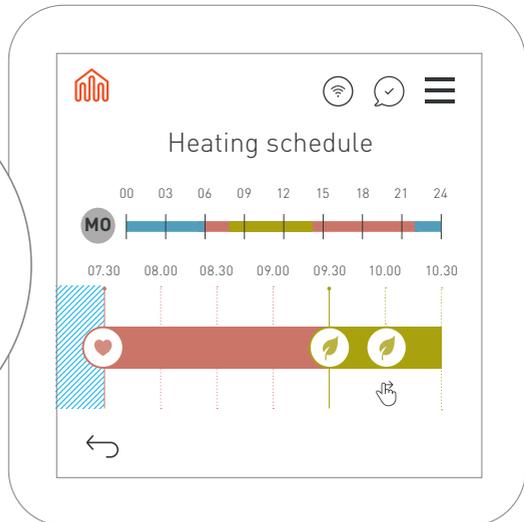
- From main view, scroll down and set the room to Automatic mode.
- Scroll down one more time and adjust the values for Comfort, Eco, Night temperature levels



- Scroll down and set the week scheduling



Long press on day button



- Tap on one day to edit. Drag the icons to modify the time slots, or tap and input from-to hours
- Tap on day icon / long press on the schedule will allow day to day copy

Setting the temperature manually

The SmartOne allows you to adjust the current set temperature and to apply it indefinitely.

To set the temperature, please follow these steps:

- From main view, scroll down and set the room to Manual mode
- Set the temperature
- Select “fixed” option



Fixed manual

Set the room with a manual temperature.

Temporary manual

Choose a period for the fixed temperature. After this time, the system returns to automatic mode.

Temperature control

Once you have set up the manual mode, you can easily change the target temperature using the symbols -/+ on the home screen.



Temperature Hold function

The temperature hold function allows you to manually override the current operating program and set a different temperature for a desired period.

To set the temperature, please follow these steps:

- From main view, scroll down and set the room to Manual mode
- Adjust the temperature
- Select “temporary” option and set the end time

NOTE: now you can adjust temperature setpoint from main view. This new temperature is maintained only until the expire time. At this time, the thermostat will revert back to the programmed levels.

Home/Away mode

Home mode is the default operating mode. The room follows the programmed mode or manual temperature setpoint.

Away mode automatically decrease the programmed temperature levels from Comfort to Eco for efficiency.

To set Away mode, follow these steps:

- From main view, scroll left and select Away
- To recover from Away mode, select Home.



Holiday mode

SmartOne maintains a desired temperature up to your return date. This function is helpful for example to maintain a lower temperature, still suitable for animals and plants, during the holiday period. Then return to the programmed settings once the holiday period is finished. The function works for heating and cooling.

NOTE: minimum/maximum floor temperature will not be maintained while this mode is active.

To set Holiday mode, follow these steps:

- From main view, scroll left and select Holiday
- Select a return date from the calendar
- Set a desired temperature
- To recover from Holiday mode, select Home. A holiday period starts immediately and runs until 00:00 of return date.



Off mode

SmartOne maintains a lower temperature to give frost protection.

NOTE: minimum floor temperature will not be maintained while this mode is active. In cooling mode, the frost protection cannot operate.

To set Off mode, follow these steps:

- From main view, scroll left and select Off
- To recover from Off mode, select Home.



Operating mode

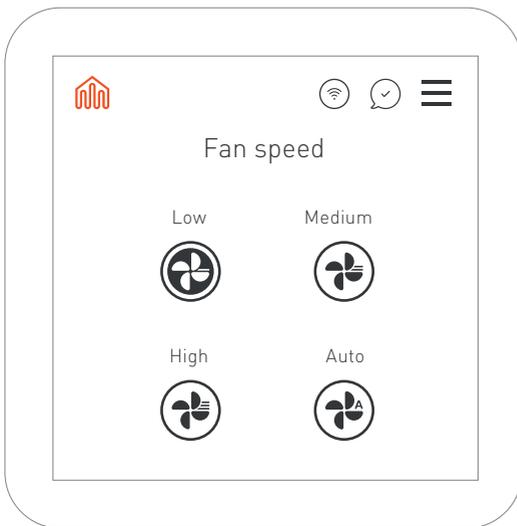
The SmartOne is able to switch between heating and cooling mode. This will reverse cycle the heat pump as a result.

To set a different operating mode:

- From main view, scroll left, then scroll down
- Select heating or cooling

Fan speed

In Fan Coil mode the SmartOne thermostat retains very similar functionality to the standard product, the main difference is the inclusion of a Fan Speed screen below the main screen for the user to select the fan speed.



4 fan speed options are available to be selected as described below:

- Low: when heating or cooling is required the fan will run at the low fan speed irrespective of the distance to set point.
- Medium: when heating or cooling is required the fan will run at the medium fan speed irrespective of the distance to set point.
- High: when heating or cooling is required the fan will run at the high fan speed irrespective of the distance to set point.
- Auto: when heating or cooling is required the fan speed will be varied up and down depending on the distance to set point.

NOTE: if const fan is enabled the fan will run at the low fan speed when there is no heating or cooling required and irrespective of the fan speed selected.

Locking/Unlocking

The SmartOne has a touchscreen lock utility.

To activate the lock follow these steps:

- Enter Menu and select Lock
- Select “Lock it now”
- Enter your secure code on both text fields for confirmation

☰ Menu → Lock → Lock it now → Enter your secret code

NOTE: you'll be asked to input a Code reminder, which is aimed to help you to remember the secure code. Optionally, you can enable the SmartOne to ask for a secure code when resuming from a screensaver.

To unlock, follow these steps:

- Touch the thermostat touchscreen
- Enter the secure code and confirm

User preferences

☰ Menu → Preferences → ...

Brightness

The SmartOne allows you to customize the display brightness. Low brightness is selected by default. High brightness is suggested for thermostats in bright rooms.

Screensaver

The SmartOne can show a screensaver. By default, the screensaver is not active (option No screensaver is selected).

Other options are:

- Blank screen: this option disables screen backlight
- Clock (digital, analog): this option shows current time
- Rooms loop: this option shows room data

To take control of the thermostat when screensaver is shown, just touch the touchscreen to activate the thermostat or enter the user set code to unlock (see unlock).

Language

English is the default language. To change language follow these steps:

- Enter Menu and select Preferences
- Select Language
- Select the preferred language

NOTE: this option only affects the thermostat, not the App or cloud services.

Setting date&time

When the thermostat is connected to WiFi, the time & date settings are automatically synchronized according to the time zone setting.

To set the time zone, please follow these steps:

- Enter Menu
- Select Preferences, then Date time
- Select Time zone, choose the preferred timezone and confirm

NOTE: you can change the time format between am/pm and 24h format by switching Use 24-hour format in the same menu.

Room settings

The SmartOne adapts to the room usage, thus it is helpful to define correctly which room it is operating into,

To change room settings, follow these steps:

- Enter Menu
- Select Preferences, then Room settings
- Select the preferred room

Name: you can edit room name

Type: choose the right room type. This will help the thermostat to adapt to specific room usage. You will be prompted for changing the current schedule accordingly.

Bookmark: reserved for future use.

Reset schedule: you will be prompted to reset room settings to default according to selected room type.

Party/early bird/good night mode

The SmartOne lets you choose special room modes that allow you to change the program occasionally.



Party: when selected, the thermostat sets the temperature level to Comfort for a user defined time.

To set the duration, follow these steps:

- Enter Menu
- Select Preferences, then Party mode
- Select the preferred duration

Earlybird: when you wake up early in the morning, you can set the thermostat to disregard night mode and move to the next temperature level scheduled for the morning.

Good night: when you are going to bed earlier than usual, you can set the thermostat to disregard the scheduled temperature level and move to night temperature level.

NOTE: this new temperature is maintained only until the next programmed temperature level. At this time, the thermostat will revert back to the programmed levels.

Advanced options

☰ Menu → Advanced → ...

Software update

We suggest to keep the device connected to WiFi. Software updates will be received from time to time and installed automatically by the thermostat. During the update process, the thermostat may show a message “Updating...” and it may restart. Powering off the thermostat while the update process is ongoing may damage the thermostat.

Home automation

The SmartOne can be easily integrated as a thermostat in a home automation system / BMS. Available interfaces are:

- Serial bus RS485 (Modbus RTU protocol)
- WiFi (Modbus TCP protocol)

NOTE: refer to specific documentation for further instructions on how to interface.

Room temperature

Sensor offset/calibration: the thermostat allows for calibrating the built-in temperature sensor.

NOTE: the thermostat has a self-compensation algorithm which may take up to 30 minutes to adapt, especially after frequent device restarts. Do not calibrate the temperature sensor before 30 minutes since last power on.

Setpoint

You can set a minimum and a maximum value for the setpoint.

Optimum start

Optimum start will delay the startup of the heating system to the latest possible moment to avoid unnecessary activation, while ensuring the building is comfortable at the programmed time.

Radiant system

☰ Menu → Advanced → ...

Switching type

The SmartOne supports two different ways for activating the heat source.

ON/OFF: the heat source is ON until the setpoint temperature is reached. A switching differential is considered to prevent from frequent restart. Default.

Advanced modulation (PID): the heat source operates intermittently rather continuously, over a 15 minutes duty cycle. This provides a better temperature regulation, but some heat pumps or boilers may suffer from frequent restarts.

Switching differential: a switching differential is considered to prevent frequent restart. When setpoint temperature is reached, the thermostat will not activate the heat source until the temperature deviates from the setpoints of the switching differential value.

Sensor selection

The thermostat comes with a built-in temperature/humidity/VOC sensor and it supports an optional remote temperature probe. You can select which sensor should be used for temperature reference. You can select between built-in (air temperature only), floor sensor only (floor temperature), or both.

When you enable both sensors, the floor sensor is used as a floor limiting sensor and is designed to prevent the floor from overheating, as well as allowing you to set minimum floor temperature.

Floor temperature

This function is available when the built-in and floor sensor mode is enabled. The SmartOne continuously monitors floor temperature, and eventually activates/deactivates the heating/cooling if floor temperature limitations are reached.

Min (heating) / Max (heating): these limits will maintain the floor temperature in range.

NOTE: this model MUST NOT be used to control electric underfloor heating. Min (cooling) / Max (cooling): these limits will maintain the floor temperature in the selected range.

Dew point check: if enabled, the thermostat will stop cooling if floor temperature drops below the dewpoint, for condensation prevention.

Dew point offset: an offset can be applied to the dew point calculation.

Humidity

Dehumidification threshold: not applicable to this model.

Sensor offset: the thermostat allows for calibrating the built-in humidity sensor.

NOTE: the thermostat has a self-compensation algorithm which may take up to 30 minutes to adapt, especially after frequent device restarts. Do not calibrate the temperature sensor before 30 minutes since last power on.

Fan coil

☰ Menu → Advanced → Parameters → Fan-coil → ...

Parameters

Once the SmartOne thermostat is in fan coil mode the following parameter can be adjusted. Only some of these may be required to suit a given application.

Automatic parameters: these settings allow the automatic fan speed control settings to be adjusted.

Manual parameters: these settings are used to set the fan speed output voltages for the 3 manual fan speed options (Low, Mid, High).

Temp. Driven parameters: these are the set points for preventing the fan operation before the heated or cooled water has reached the coil inlet.

Minimum off delay: this is the minimum off time for the fan coil to stop the fan cycling on and off as settings are changed or due to sudden changes in the room temperature – for most fan coils this should be set to 1 minute.

Constant fan

Turn this on if it is desired for the fan to never switch off but to drop back to the minimum fan speed when there is not active heating or cooling demand. This function is useful for fan coils located in sleeping areas where the fan coil switching off and on would be more disturbing than the fan remaining on permanently.

Temp-Driven

Turn this on when a probe located on the fan coil flow pipe has been wired into the SENS1 and GND contacts. This will prevent fan operation until the coil flow temperature has reached the Temp. Driven set points. This function is useful to stop the fan operating until the heated or chilled water has reached the fan coil. Note: if Constant Fan is enabled the fan will continue to run at the min fan speed until the Temp. Driven set points are reached.

Information

☰ Menu → Info → ...

You can get information on thermostat status, legal information and assistance contacts by following these steps. To access information, follow these steps:

→ Enter Menu

→ Select Info

Status: information on the thermostat model and serial number, connectivity and other useful information that you will be asked to report in case of assistance request.

Legal: the device contains open source software with different OSS licensing. The list of included packages and respective licenses are shown. A link to software sources is also provided under "Software licenses".

Help: shows contacts for assistance.

Messages and alerts

The SmartOne may show some messages and alarms. To access the list and read the message content, from the main view select the Notification icon on top right corner.

NOTE: if an alarm is shown, the Notification icon turns red. Alarms are shown while a fault is active. If an alarm persists for more than 30 minutes, check the information contained in this manual. If unable to solve, please contact us for assistance. Serial number and information contained in Info/Status menu.

Note







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