

## WIFI THERMOSTAT

Ref. 1054/101



## INSTALLATION AND USER MANUAL



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## 1. GENERAL DESCRIPTION

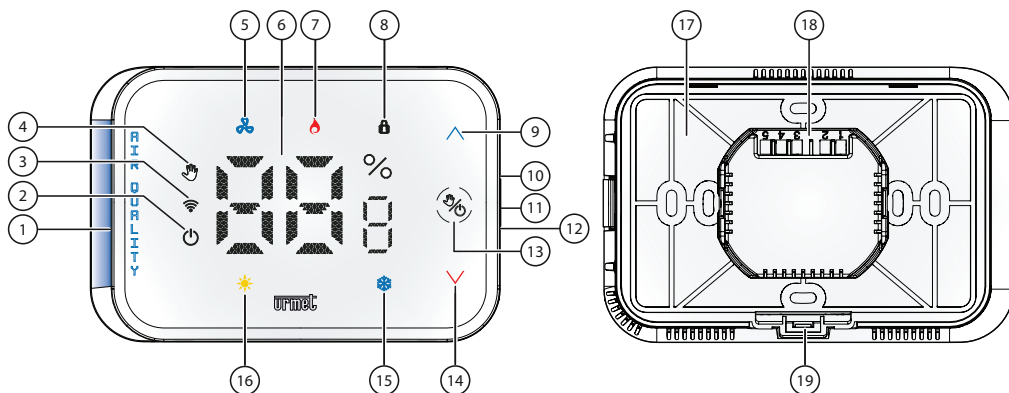
The Layout The 1054/101 is the new WiFi thermostat with a modern, minimalist design, suitable for room temperature control in both heating and cooling mode. To configure the device, it is necessary to use the free **UrmelON** App available for Android and IOS.

The UrmelON App not only allows configuration of all product functions, but also gives access to various features including: switching the heating/air conditioning system on or off, configuring weekly programming, switching the operating mode from automatic to manual, setting the antifreeze function, etc.

### 1.1 Main features

- Summer and winter operating modes.
- 110 ÷ 260V~ power supply
- Installation on flush mounting boxes 502 and 503.
- Sensors for monitoring air quality (Indoor Air Quality-IAQ).
- Remote programming and operation via UrmelON app.
- Possibility of programming any temperature within the control ranges every 30 minutes of the day for every day of the week.
- Capacitive touch screen display.

## 2. DESCRIPTION OF COMPONENTS



1. Indoor Air Quality-IAQ Led Bar
2. **Off** mode active
3. **WiFi** connection (on: WiFi connected / flashing: connecting to WiFi)
4. Indication of the operating mode:
  - **Manual** operation: fixed lit icon
  - **Timed Manual** operation: icon on - flashing
  - **Automatic** operation: icon off
5. Status icon **Cooling** active
6. Display of temperature (°C) and humidity (%) measured in the room

7. Status icon **Heating** active
8. **Key lock** function active
9. **Temperature Increase** button (Manual program only):
  - Short touch: temperature increase by **0.2°C**
  - Long touch: temperature increase by **1°C**
10. Key for **Reset to factory settings** of the device
11. **Temperature** or **humidity** display selection key
12. Device **restart** key
13. **Automatic/Manual** program selection key and **Off** mode activation key
  - Short touch: change program selection from Automatic to Manual and vice versa.
  - Long touch (longer than 3s): activation or deactivation of Off mode.
14. **Temperature Decrease** key (Manual program only):
  - Short touch: temperature decrease by **0.2°C**
  - Long touch: temperature decrease by **1°C**
15. Operating mode icon **Winter** (heating on)
16. Operation mode icon **Summer** (cooling on)
17. Fixing base
18. Terminal blocks for system connection
19. Button for releasing the thermostat from the fixing base

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## 3. INSTALLATION

**ATTENTION! Urmet S.p.a. denies all liability for damage or malfunctions of any kind arising from or in any way connected with installations carried out in ways different from or contrary to these instructions or by unskilled personnel. This exclusion of liability extends beyond the warranty period of the product.**

### 3.1 Warnings for the installer

The following instructions must be observed when installing the device:

- The device must be installed by a qualified person in strict compliance with the connection diagrams.
- Installation must be carried out in accordance with the regulations in force in the country of installation and in compliance with all safety regulations for carrying out electrical work.
- The system power supply must be completely switched off and remain so until the installation is completed.
- The device must be connected to a power line protected upstream by a curve C circuit breaker.
- Do not power or connect the device to the base if any part of it is damaged. Do not carry out repairs and contact technical support directly.
- Do not use the device for purposes other than those indicated.
- The device must be installed in a dry, draught-free place, away from heat sources, doors and windows.
- To avoid possible malfunctions, make sure to install the device in an area with good WiFi coverage.

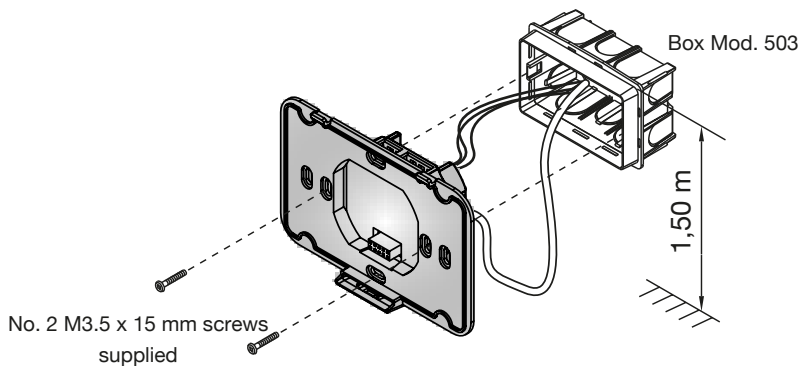


## 3.2 Installation modes

The thermostat is designed for installation in flush mounting boxes Mod. 502 and 503. It is possible to install the product on the wall after fitting an external box (not supplied).

1. Release the thermostat from the fixing base (17) by pressing the button (19) on the back.
2. Connect the system conductors to the terminal blocks.
3. Fasten the fixing base (17) to the flush mounting box or wall mounting as shown in the figure below.

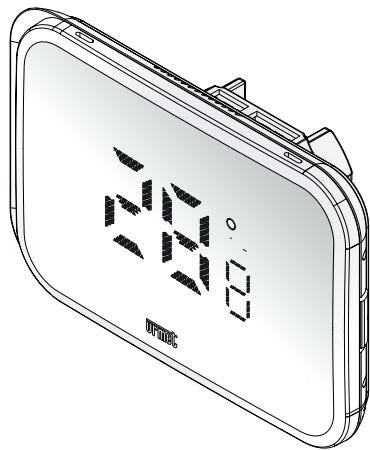
 The flush mounting box Mod. 503 can be installed either horizontally or vertically.



4. Hook the thermostat onto the fixing base by making a rotary movement from top to bottom, first coupling the small teeth on the upper side.



- Power the system from the mains; the device switches on in **configuration** mode. Only the measured temperature is visible on the display.



### 3.3 Description of terminals

#### RIGHT TERMINAL BLOCK

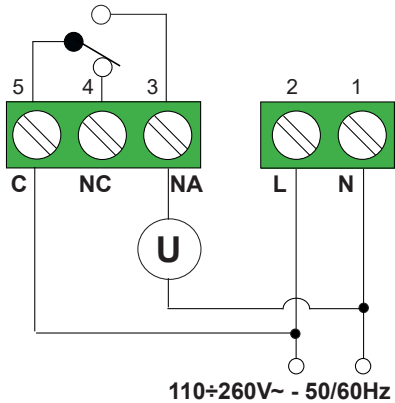
⌀	1	110 - 260 Vac (N)	Neutral for power supply
⌀	2	110 - 260 Vac (L)	Phase for power supply

#### LEFT TERMINAL BLOCK

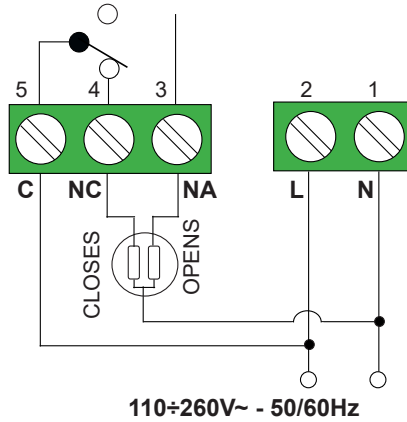
⌀	3	NA	Normally open relay output contact
⌀	4	NC	Normally closed relay output contact
⌀	5	M	Relay common contact


### 3.4 Wiring

Example of connection with burner, wall-mounted boiler, air conditioning system and spring return zone valve.



**Example of connection with zone valve.**



 The cables used must comply with IEC 60332-1-2 if they have a cross-section of 0.5 mm<sup>2</sup> or more, or with IEC 60332-2-2 if they have a cross-section of less than 0.5 mm<sup>2</sup>.

## 4. PAIRING OF THE THERMOSTAT WITH A SMARTPHONE

When switched on for the first time, the thermostat is in the “**Configuration**” state, only the detected temperature being visible on the display.

To configure and use the device, it is necessary to pair the thermostat with a smartphone or tablet using the **UrmetON app**. The smartphone or tablet must be connected to the Internet, via its own data connection or WiFi.

### 4.1 The UrmetON application

The **UrmetON** app compatible for devices with operating systems IOS 13 or higher and Android 9 or higher, is available in the dedicated stores

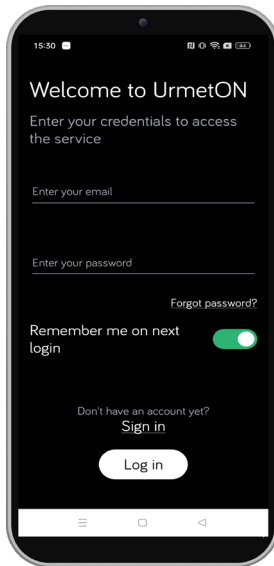
Start the app and provide all required authorisations:

- Access nearby devices;
- Access photos, media content and files on the device
- Record audio
- Accessing the exact location of the smartphone via GPS

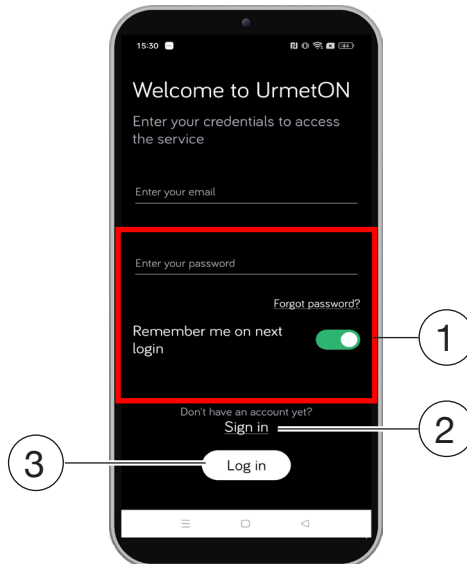
**CAUTION!** If you do not provide consent for all functions, some services may not work properly.

After downloading, start the application on your device.

“**Create an account or log in**” appears on display.



In order to use the app, you need to create a Cloud account or log in with an account that is already registered on the Urmet Cloud (e.g. because it was previously created with the Urmet Secure app).

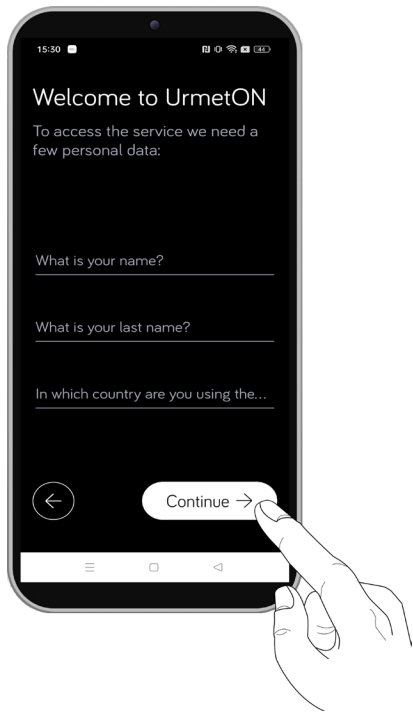


Below is the meaning of the various fields and buttons:

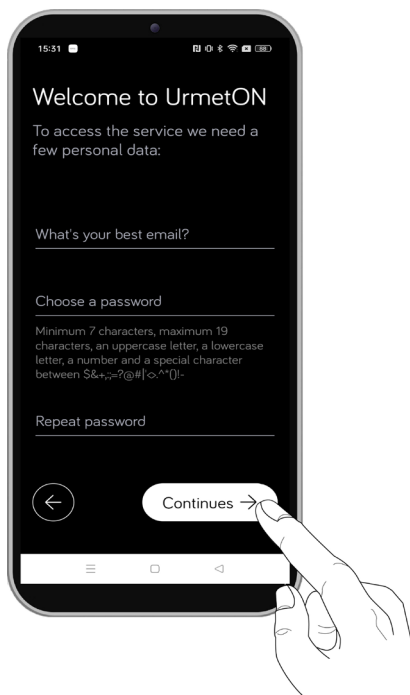
1. It allows the device to be used by logging in with an Account already registered on the cloud.
  - By clicking on “**Forgot password?**”, you can get a new password.
  - By enabling the “**Remember me on next login**” function, the app stores the username and password entered at the next log-in.
2. To be selected if you do not yet have an account with Urmet cloud (first access).
3. To be selected after entering **Username** (e-mail) and **Password**.

### 4.1.1 Create a new account or register

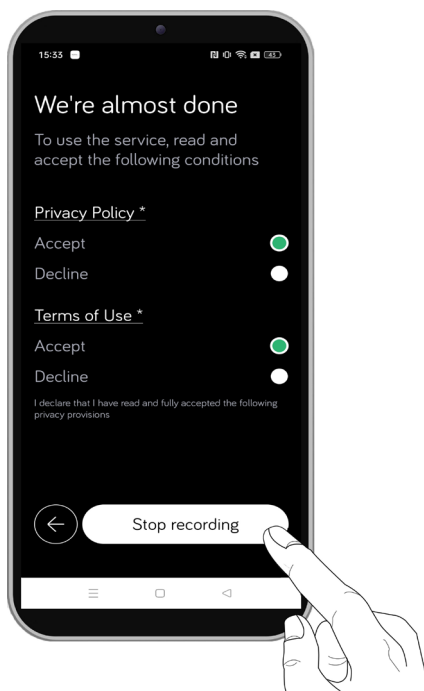
If you do not have an Urmet Cloud account, you can register by filling in the required data. On the screen displayed, enter the desired **first** and **last name** (e.g. Mario Rossi) and indicate the **nationality**. Then press the “**Continue**” button to proceed to the next registration step.



A new screen appears where you must enter a valid e-mail address and choose a password. The password must meet certain security criteria as required by the app. Then press the “**Continue**” button to proceed to the last registration step.

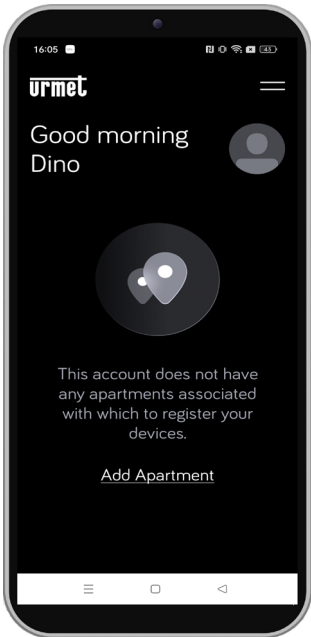


In order to complete registration, the boxes for acknowledgement of ***Terms of Use, and Privacy*** must be ticked. Then press the “**Stop recording**” button to conclude the registration phase.



To activate the account, click on the validation link in the e-mail received at the mailbox indicated during registration.

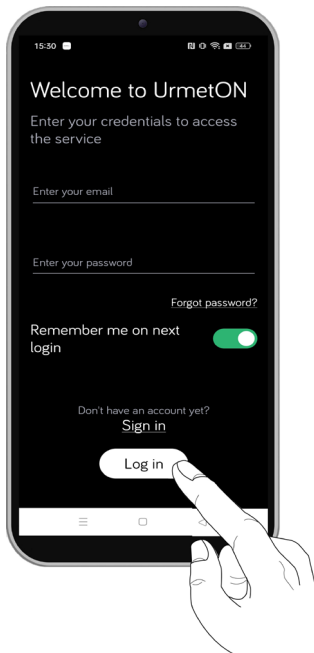
Once registration is complete, you can start using the planned functionalities.



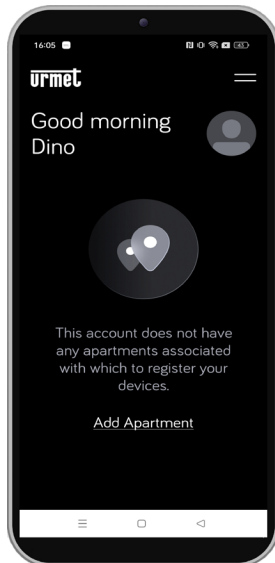
### 4.1.2 Use an existing account (Login)

If the user already has an Urmet Cloud Account he can log in directly by pressing the "Login" button after entering his credentials.

- User name (E-mail)
- Password





The Homepage is displayed. If the user has already created apartments via the Urmet Secure app, these will also be displayed on the Urmet ON app.

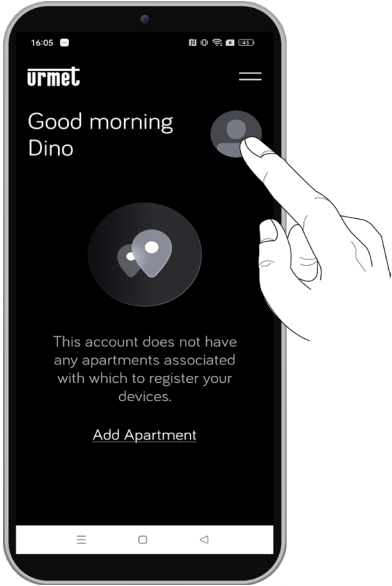




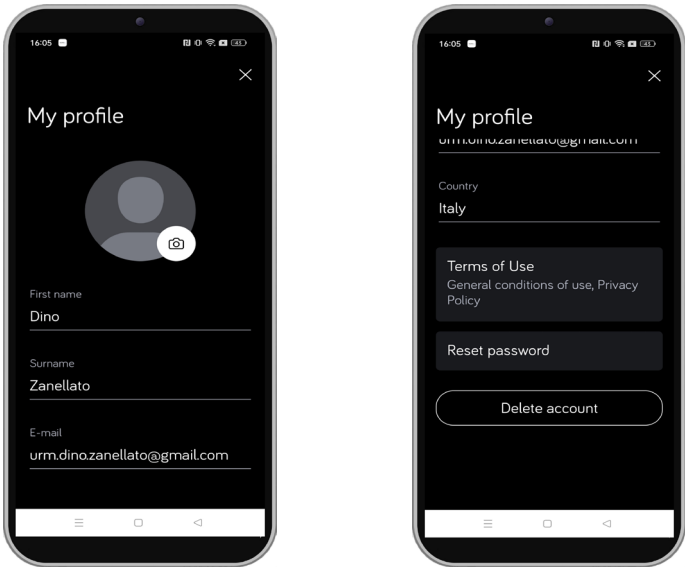
## 4.2 User account

You can view/edit the profile of the account with which you are logged into the UrmetON app.


Press the  icon or press the  button and from the side menu select **“My Profile”**.



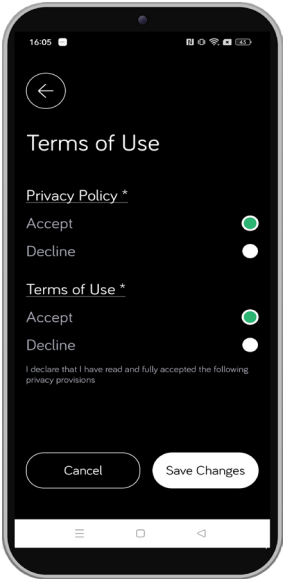
The following screen appears on the display of the smartphone.



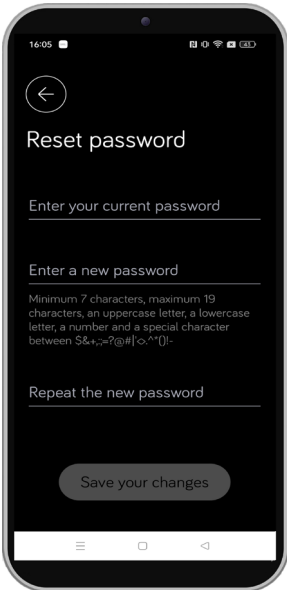
The following parameters can be displayed in this screen:

- By pressing the  icon, an image can be inserted into the user profile. Select whether to use an image in the device's memory or take a snapshot.
- Display the first name, last name, email address and nationality entered during account creation.
- Press the **“Terms of Use”** button to view/change the acceptance status of all terms of use and privacy proposed by the application.

**ATTENTION!:** rejection of the mandatory terms of use will result in the inability to continue using the app.

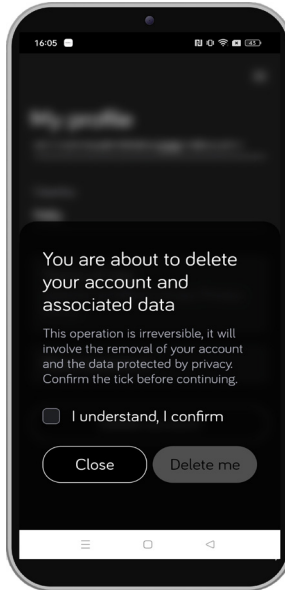


- Press the **“Reset Password”** button to reset the password for the account.



**WARNING:** changing the password will affect access to all Urmet Apps used with the same account.

- Press the **“Delete Account”** button to delete the account with which you are logged into the app.



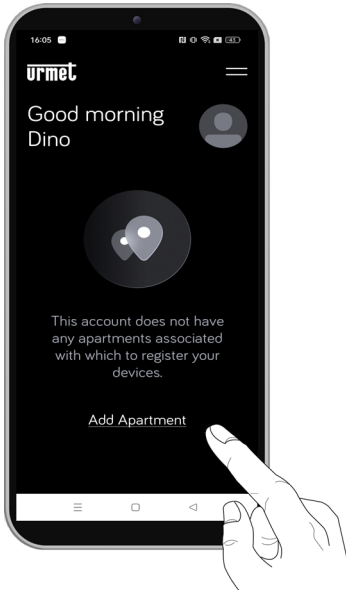
**ATTENTION!** Deleting the account will result in the deletion of all data entered when creating the account on the Urmet Cloud and the deletion of all apartments created through the app with their associated devices.

To delete the account, tick the box next to **“I understand, I confirm”**, then press the **“Delete me”** button, which will be unlocked.

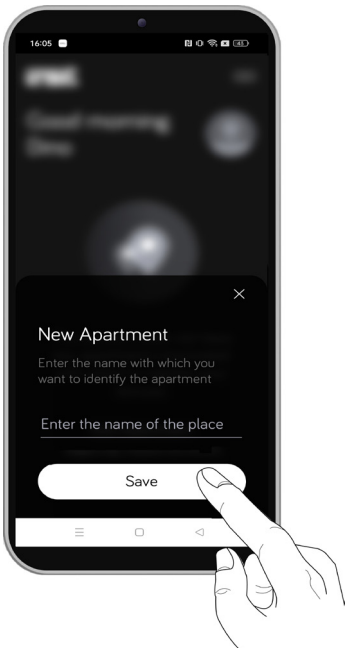
### 4.3 Thermostat WiFi pairing and configuration

Below are the steps for pairing the thermostat with the smartphone and the procedure for configuring the device's WiFi.

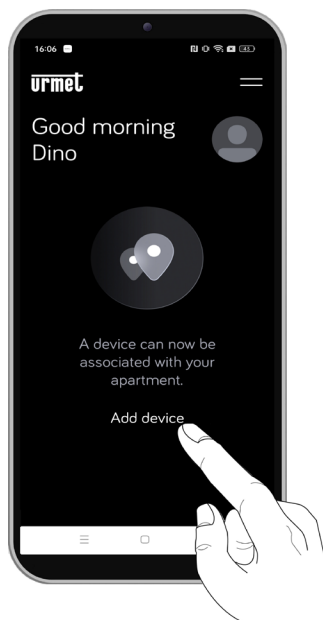
1. Press the “**Add Apartment**” button to add an apartment in which to place a device. Alternatively, select a apartment that already exists because it was created with another Urmet app.



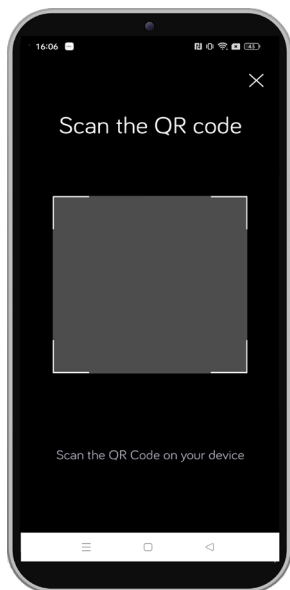
2. Enter the name of the place (**Apartment**) and press the “**Save**” button.



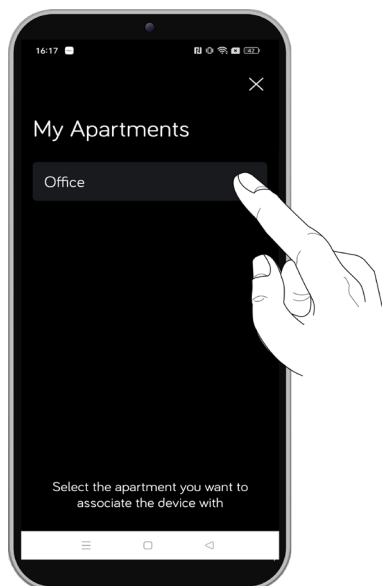
3. Press the “**Add Device**” button to start the QR Code reader application.



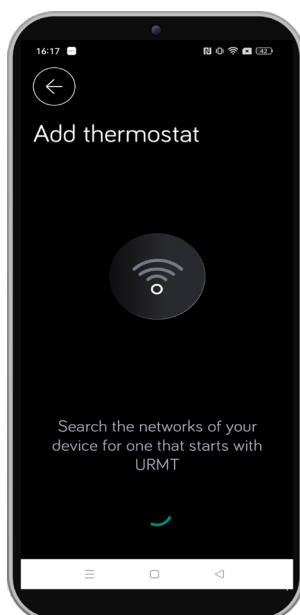
4. Remove the thermostat from the fixing base (17) and scan the QR code on the back of the device. Replace the device on the fixing base and wait for it to switch on.



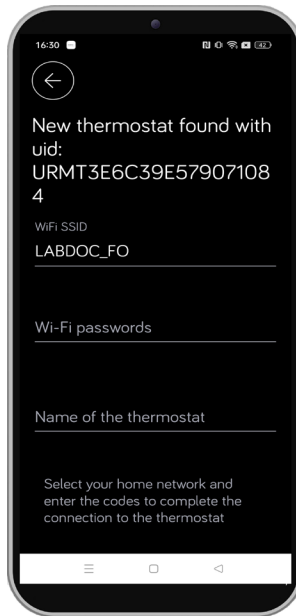
5. After scanning, the following screen appears where you can select the apartment where you want to associate the device. In this example, the thermostat was associated with the apartment named “**Office**”.








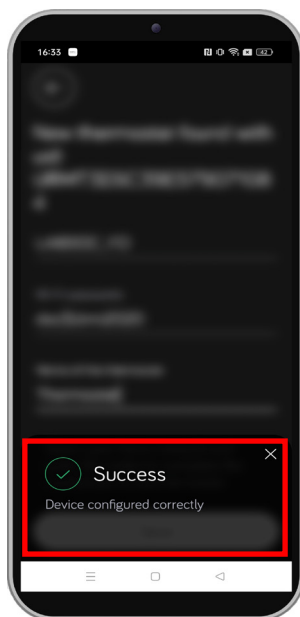
6. Next, you need to activate WiFi on your smartphone, and access the “**URMXXXXXXXXXXXXXX**” network (e.g. **URMT3E6C39E579071084**) created by the device.



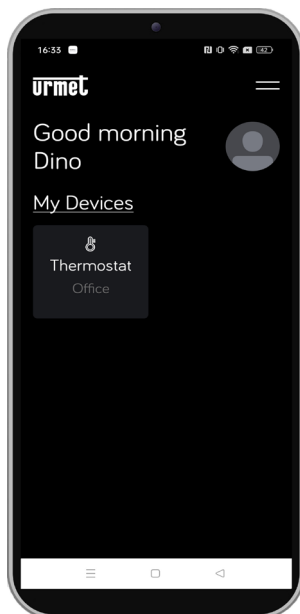
7. After logging on to the thermostat network, the following settings screen appears.



8. To function, the device must be connected to a WiFi network with Internet connectivity.  
It is essential to choose from the **“WiFi SSID”** drop-down menu the network to which the device is to be connected.  
 *The list of proposed WiFi networks is generated by the thermostat. If the WiFi network to connect to is not listed, it means that this network is incompatible or out of coverage.*  
After selecting the WiFi network, enter its password in the **“WiFi password”** field.  
Next, you must enter the name you want to give your device in the **“Thermostat name”** field.  
 *During the configuration phase, the WiFi icon  on the display of the thermostat lights up with a flashing light.*
9. Then press the **“Save”** button to save and send the configuration to the device.
10. After about 30 seconds, the configuration is sent and the following screen appears on the smartphone.  
 *When the configuration phase is complete, the WiFi icon  on the thermostat display stops flashing and remains lit with a steady light.*



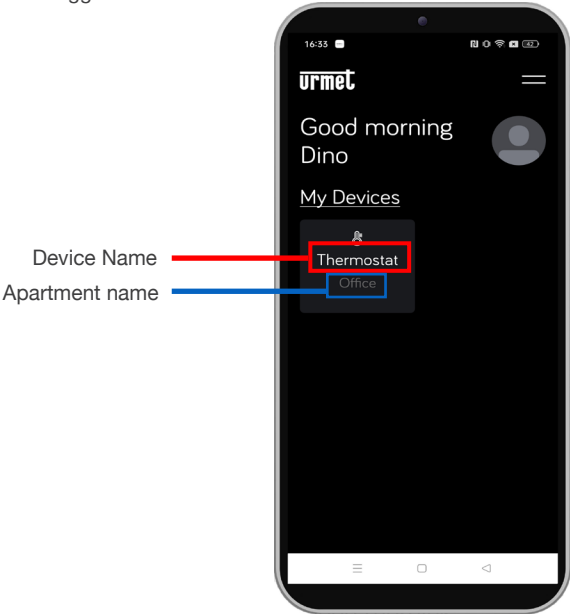
11. After configuration, you are redirected to the homepage.





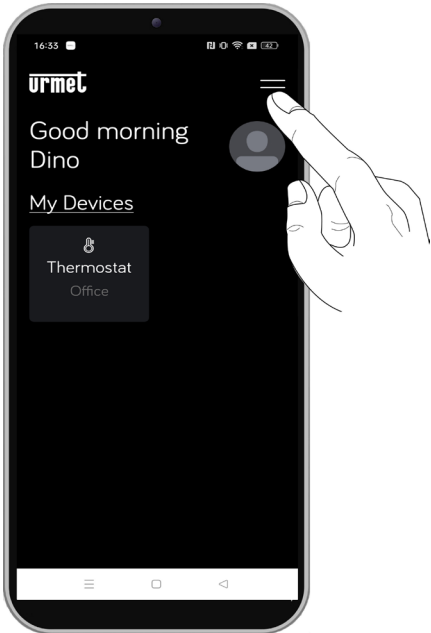
# 4.4 My apartments

The main screen (dashboard) displays all the devices associated with the apartments linked to the account with which you are logged in.

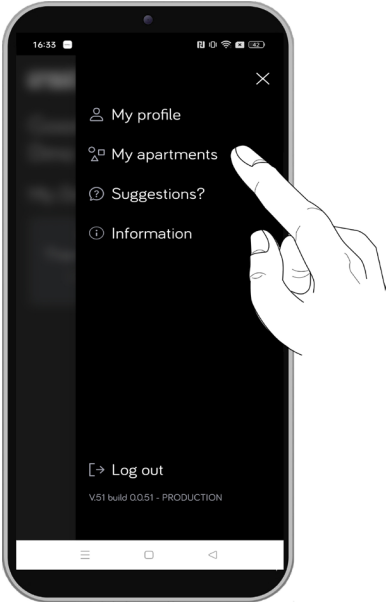


If you wish to create a new apartment by associating a new thermostat or associate a new thermostat with an existing apartment, follow the procedure below.

- 1. On the homepage, press the  button in the top right-hand corner.



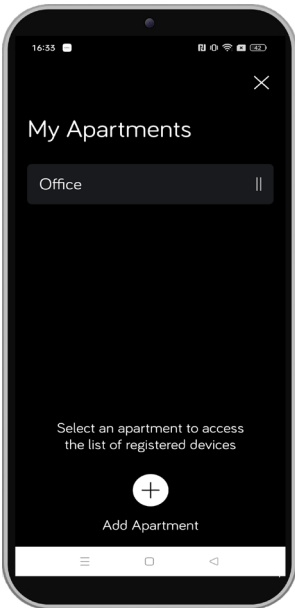
2. The following side menu is displayed, click on “My apartments”.



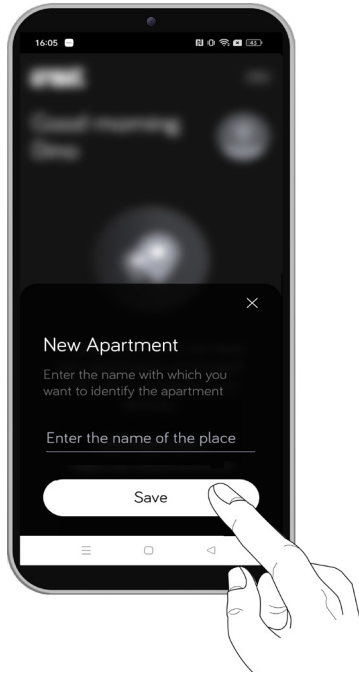
3. The following screen appears with all the apartments created. To add a new apartment press the icon



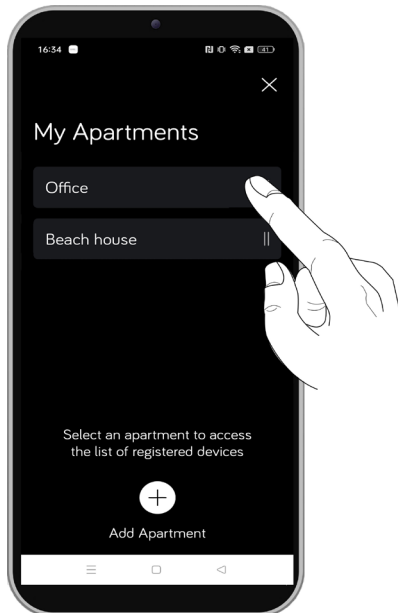
above the words “Add apartment”.



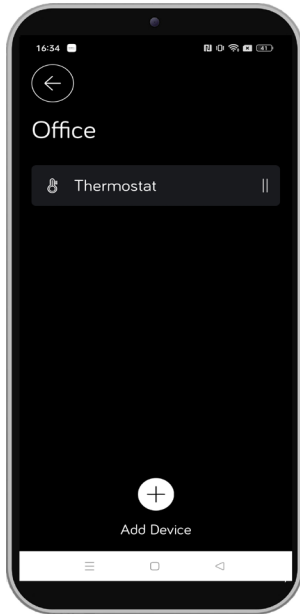
4. Enter the name of the place (**Apartment**) and press the “**Save**” button.




5. Select the apartment in which you want to associate a new thermostat. In the following example, the apartment “**Office**” was selected.



6. The following screen is displayed in which all devices associated with the apartment are shown, in this apartment the device “**Thermostat**” was previously associated.

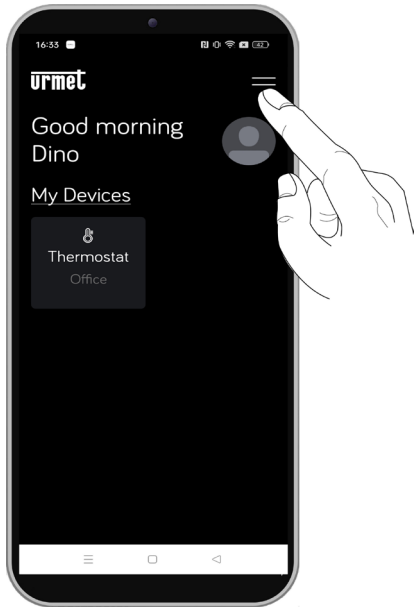


7. To add a new device, press the icon  above the words “**Add Device**”. For the configuration of a new device, please refer to Section 4 of Chap. "[THERMOSTAT WIFI PAIRING AND CONFIGURATION](#)".

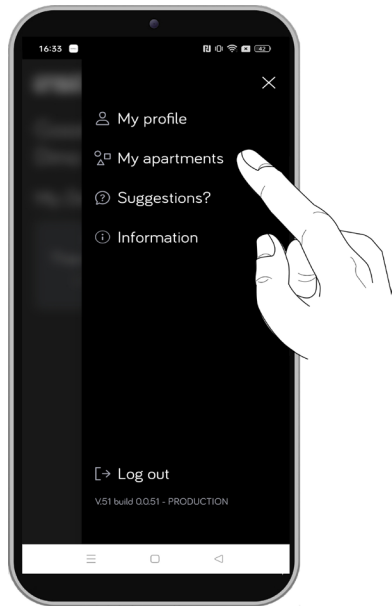
4.4.1 *Modifying or deleting apartments or devices*

It is possible to edit or delete a apartment or a device associated with a apartment via the **UrmnetON** app. Comply with the instructions below:

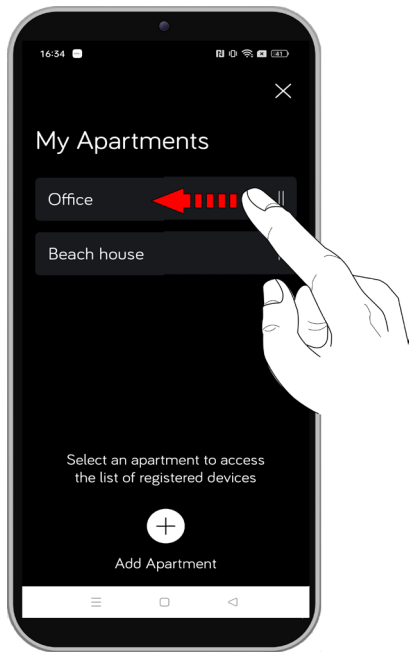
On the homepage, press the  button in the top right-hand corner.



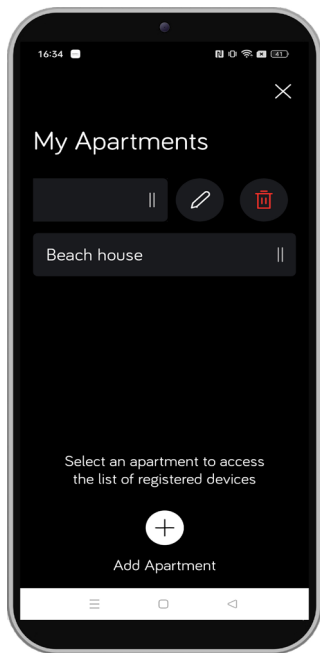
8. The following side menu is displayed, click on **“My apartments”**.





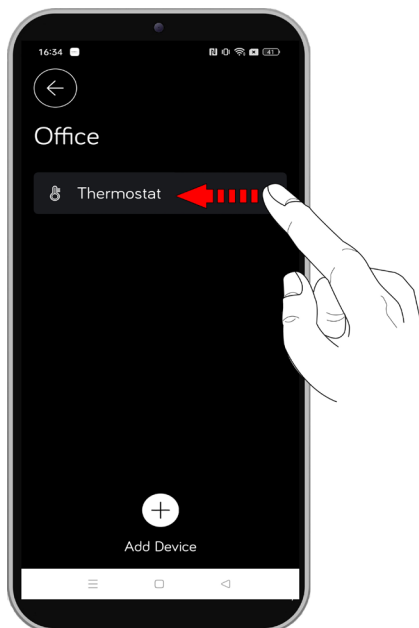
9. Scroll from right to left the box of the apartment you wish to edit. In this example, the apartment “Office” was selected.





10. A scroll bar appears with the following icons:




- By pressing the  icon, it is possible to rename the name of the apartment assigned during creation.
  - By pressing the  icon, the selected apartment can be deleted. When the apartment is deleted, any devices associated with it are automatically deleted.
11. To delete a device, on the other hand, it is necessary to select the apartment where the device has been associated.
  12. Then scroll from right to left through the box of the device you wish to edit.

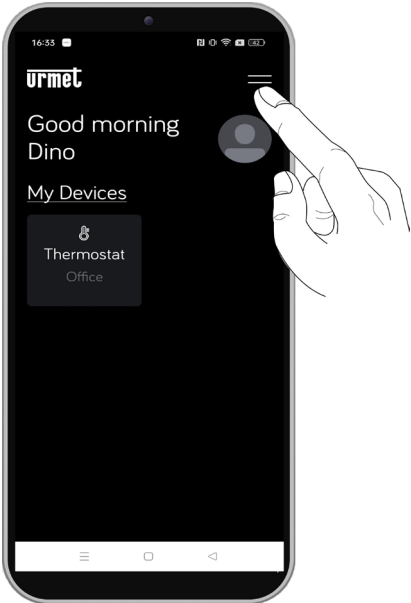


13. A scroll bar appears with the following icons.
    - By pressing the  icon, it is possible to rename the device name assigned during creation.
    - By pressing the  icon, the selected device can be deleted.
- WARNING!:** the operation is irreversible.

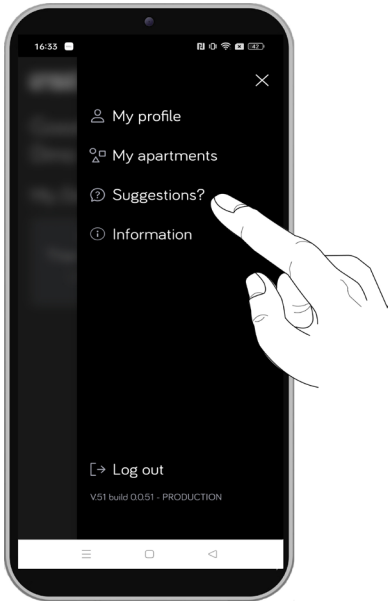
# 4.5 Suggestions

The **UrmelON** app has a dedicated section for sharing with the development team any reports on operation or suggestions on use.

To access the "**Suggestions**" page on the Homepage, press the  button at the top right.

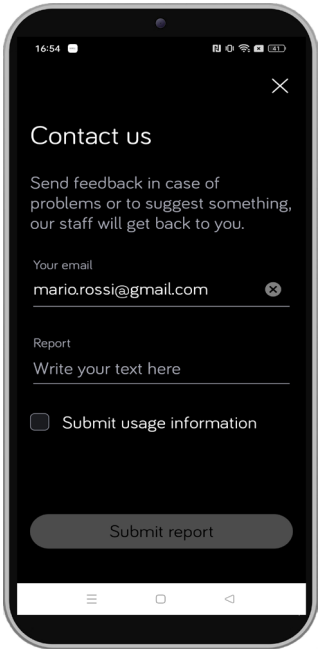


The following side menu is displayed, click on "**Suggestions?**".





The following screen appears on the display of the smartphone.




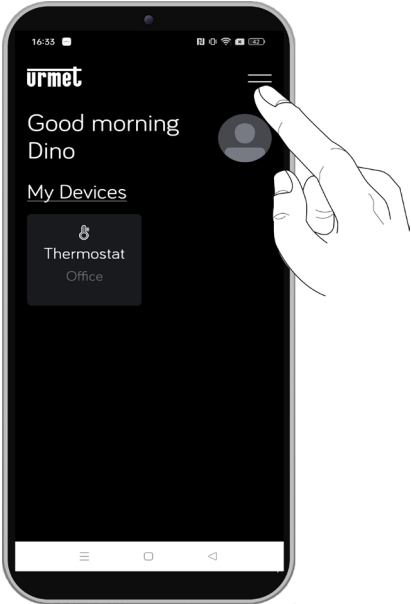
In the "**Your email**" box is the e-mail with which you registered for the Urmet Cloud. If necessary, it is possible to change the e-mail address.

In the "**Report**" box, you can enter a report on the functioning of the app or a possible suggestion for improving its use.

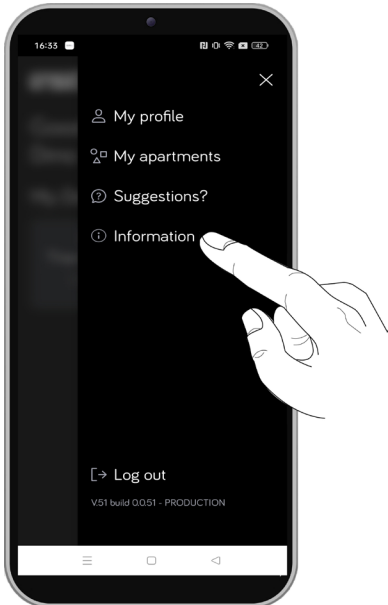
Then press the "**Submit report**" button.

# 4.6 Information

To access the UrmetON app information page, press the  button at the top right of the homepage.



The following side menu is displayed, press on “Information”.

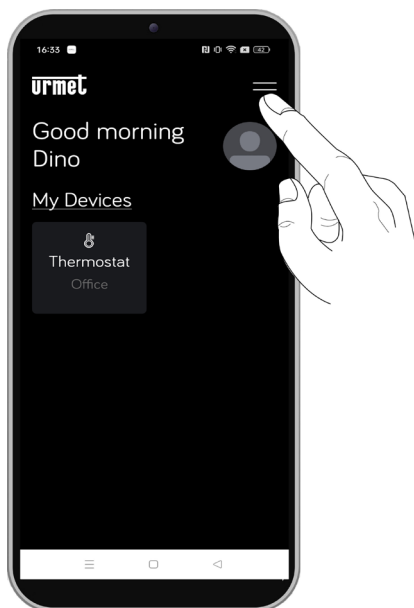


The following screen with the link to the Urmet website and the UrmetON app version appears on the smartphone display.

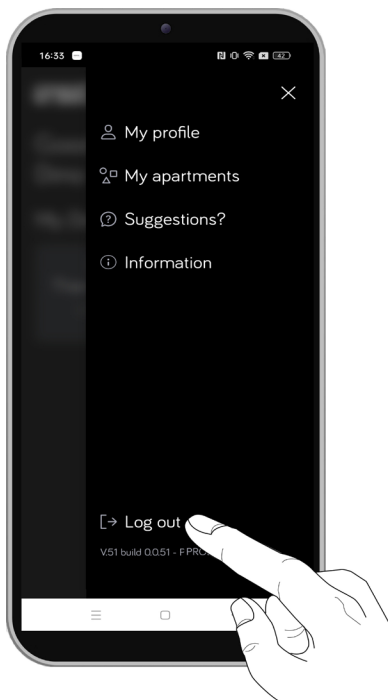


## 4.7 Log out

To log out with the account you used to access the **UrmelON** app, press the  button at the top right of the homepage.



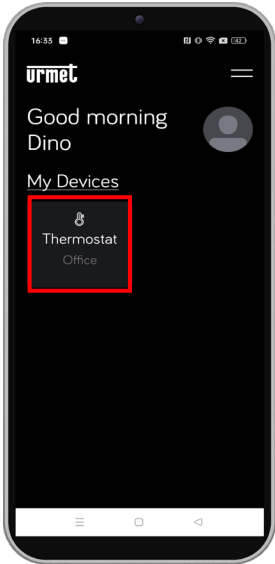
The following side menu is displayed, click on “Log out”.



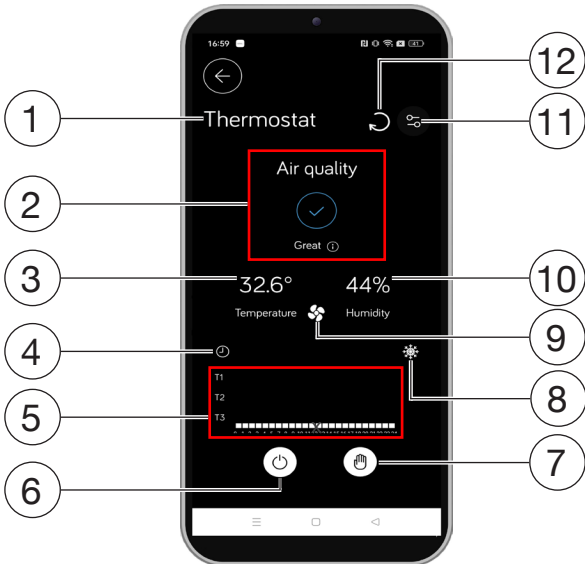
# 5. OPERATION OF THE THERMOSTAT

## 5.1 Thermostat user interface

On the **UrmelON** app homepage, select thermostat to display the device's user interface.



In this example, the “**Office thermostat**” device associated with the “**Office**” apartment was selected. The user interface of the thermostat is displayed.



The various meanings of the buttons and icons are described below:

- 1. Name assigned to the thermostat during configuration.

- Air quality indicator ([INDOOR AIR QUALITY-IAQ](#)).
- Temperature (°C) detected in the room by the thermostat.
- Temperature and humidity history detected by the thermostat ([TEMPERATURE AND HUMIDITY HISTORY](#)).
- Temperatures set for the automatic program ([TEMPERATURE](#)).
- Key for activating the off mode (⏻) ([OFF MODE](#)) or key for deactivating the mode (▶) (▶).
- Button for activating the (👉) manual program ( [MANUAL PROGRAM](#)) or the automatic program (A) ([AUTOMATIC PROGRAM](#)).
- "Winter" mode icon ❄️ active or "Summer" mode icon ❄️ active ([WINTER OR SUMMER MODE](#)).
- Active load icon 🔥 or active load icon in "Summer" mode 🌀.
- Degree of humidity (%) detected in the room by the thermostat.
- Key for access to thermostat configuration parameters.
- Reload button to update the user interface.

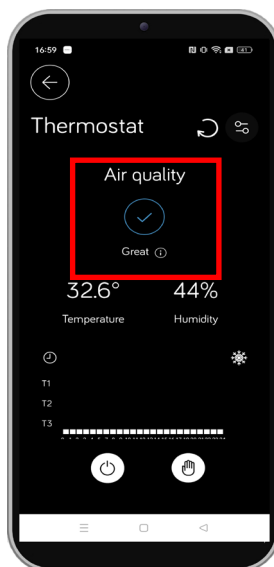
📎 Some of the signals or icons described above are also visible on the thermostat.

## 5.2 Air Quality Indicator (INDOOR AIR QUALITY-IAQ)

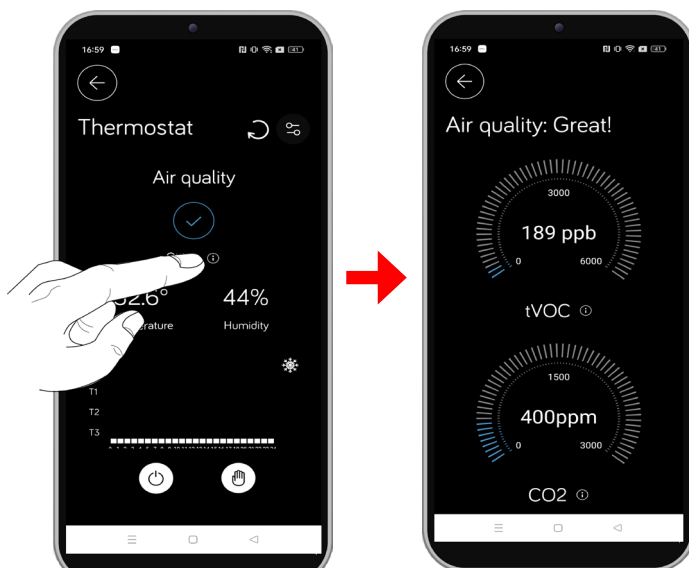
Thanks to dedicated sensors, the thermostat can measure not only temperature and humidity, but also levels of **Volatile Organic Compounds (TVOCs)** and **carbon dioxide equivalents (CO<sup>2</sup>eq)**, notifying the user if the recommended exposure limits are exceeded. An LED band on the device (can be deactivated) or the indication in the device's user interface on the UrmetON app, indicate the air health status in three different colours.



- **BLUE** = Excellent air quality.
- **ORANGE** = Fair air quality.
- **RED** = poor air quality.



On the UrmetON app by pressing the ⓘ icon (next to the air quality assessment) it is possible to see in detail the levels of Volatile Organic Compounds (VOC) and carbon dioxide (CO<sup>2</sup>) measured by the thermostat.



## Total volatile organic compounds

Total Volatile Organic Compounds “**tVOC**” include many different chemical compounds that are characterised by high volatility, i.e. they are able to change from the solid to the vapour state and pollute the air we breathe. In the office (furniture, textiles, wall coverings, photocopiers and the like), and in the home (stoves, smoke, cooking food and the mere presence of people) can raise tCOV values above the maximum tolerable level.

Even a simple rise in temperature or humidity can trigger VOC emissions. It is necessary to ensure adequate ventilation and ventilation in indoor environments on a daily basis.

Symptoms in humans depend on the compound or mixture of compounds in the environment. They range from simple headaches, loss of concentration, drowsiness, to respiratory problems which, in sensitive individuals or after long exposure, can become severe. Among the most important VOCs are benzene (also found in tobacco smoke and used in the production of plastics), and formaldehyde (found largely in furniture paints, glues, resins). These have been declared carcinogens by the scientific community.

**The WHO has set a maximum threshold value of 3mg/m<sup>3</sup> above which the air quality of an indoor environment is highly unhealthy.**

## Carbon dioxide equivalent (CO<sup>2</sup> eq)

Carbon dioxide produced in an indoor environment is noticeable, if present in large quantities, as a “bad smell” or simply as “stale air”. In large concentrations, CO<sub>2</sub> can lead to poor performance, drops in concentration, difficulty breathing, headaches, physical exhaustion.

Carbon dioxide, also known as CO<sub>2</sub>, is an inert, odourless and colourless gas that occurs naturally on our planet. This gas, in indoor environments, is mainly produced by the biological process of respiration, whereby individuals inhaling oxygen molecules release carbon dioxide. It can also be produced by plants, especially in the absence of light. To detect carbon dioxide correctly, rather expensive sensors are needed.


For indoor environments, it makes sense to estimate the presence of carbon dioxide by measuring VOCs and hydrogen. This estimate is called “carbon dioxide equivalent” (**CO<sup>2</sup> eq**).

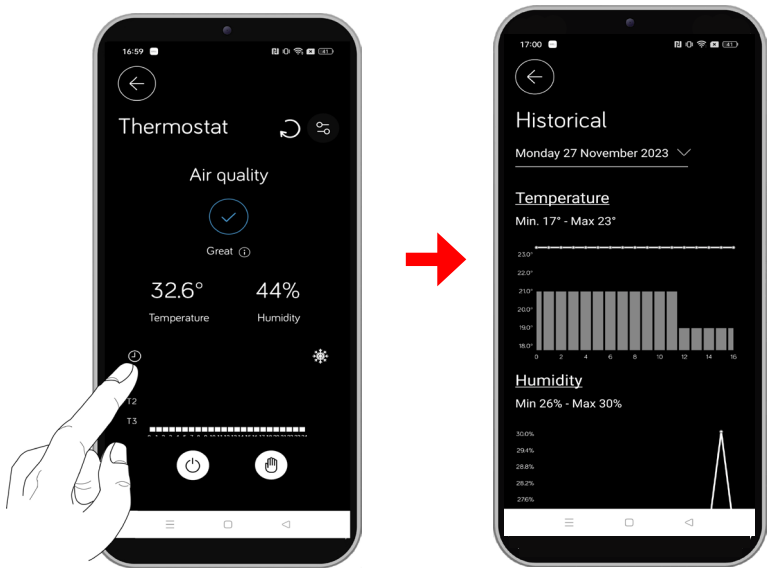
Under “**normal**” conditions, the estimate is approximately correct, but under certain conditions, such as the presence of cleaning product vapours, ethyl alcohol and other particularly interfering VOCs, cause values higher than the actual CO<sub>2</sub> concentration present. Under these conditions, ventilation of the room is

recommended as the air quality is in any case unhealthy due to the high presence of VOCs.

**There is no precise limit for CO<sup>2</sup>. Various international legislations have imposed exposure limits between 800ppm and 1500ppm.**

### 5.3 Temperature and humidity history

By pressing the following icon  you can view the history of all temperatures and humidity percentages measured by the thermostat. The following screen appears:



By pressing in the box where the day and date is displayed, a drop-down menu is shown where you can select all the days on which you want to view the temperatures and humidity measured by the device.

In the **Temperature** section you can view the **minimum (Min.)** and maximum (**Max.**) temperature measured on the selected day. The graph shows the temperature trend at various times of the day.


In the **Humidity** section, you can view the **minimum (Min.)** and maximum (**Max.**) humidity measured on the selected day. The graph shows the humidity trend at various times of the day.

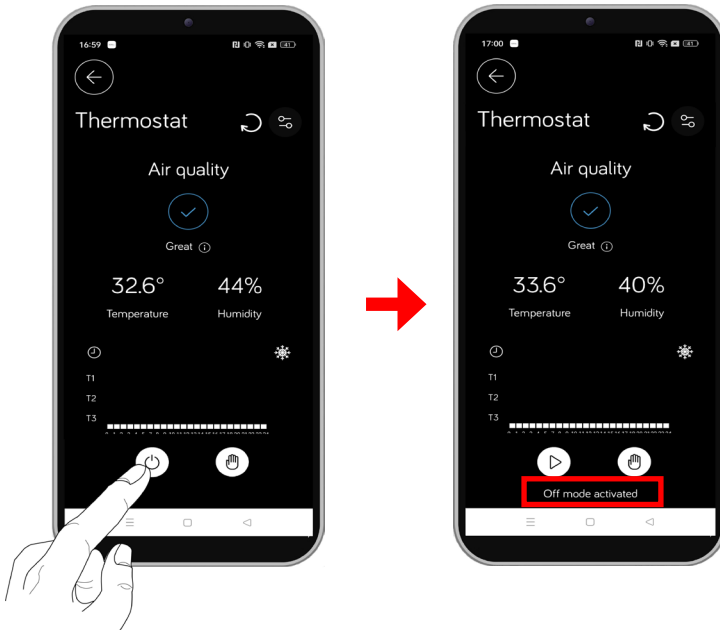


## 5.4 Off mode



In off-mode, the thermostat does not make any adjustments, but continues to display the temperature and humidity percentage measured in the room.

### ACTIVATION VIA URMETON APP

To activate the off mode, press the  button in the user interface displayed on the smartphone.





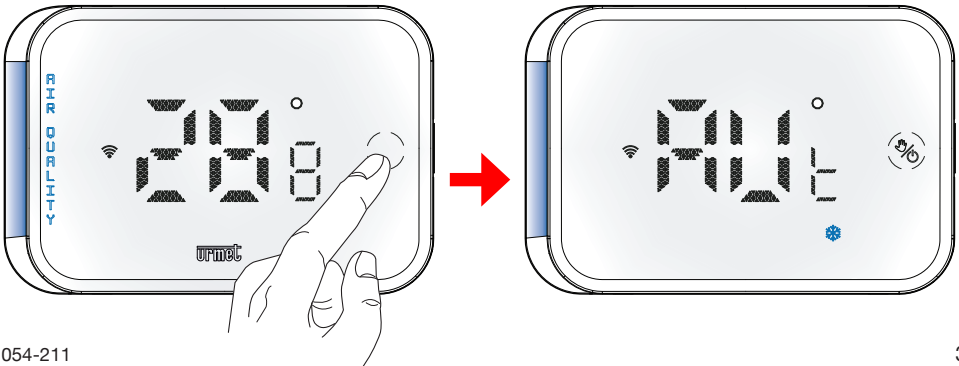
Activation of the mode is confirmed by the words “**Off mode activated**” in the screen displayed on the app.



 On the device's display, the icon  lights up steadily to indicate the activation of the off mode.

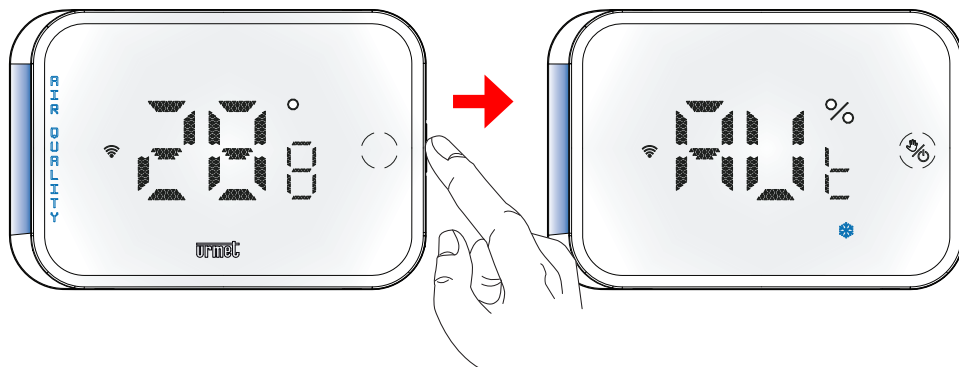
To deactivate the off mode, press the  button on the user interface.

### ACTIVATION FROM THERMOSTAT

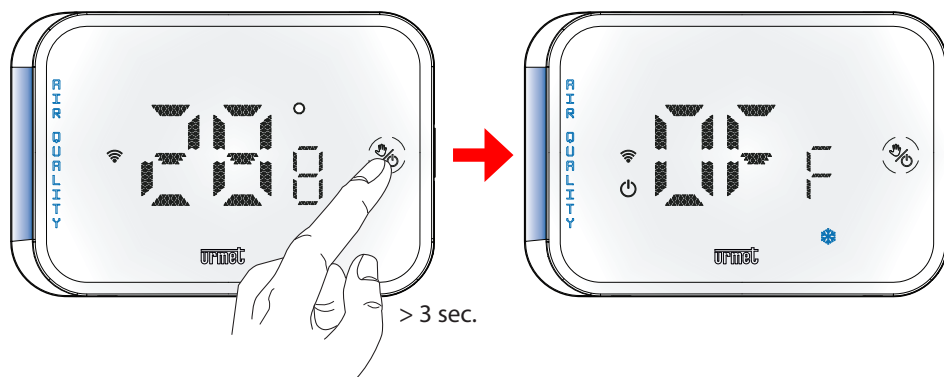
- 1A. If the “**Touch screen**” parameter is **enabled** in the configuration menu (refer to chap. “[Touch Screen](#)”), on the thermostat press the button  once, the button icon lights up  and the operating program and mode with which the device is configured is displayed (in this example: program “**Automatic (Aut)**” and operating mode “**Winter**” ❄️).




- 1B. If the **"Touch screen"** parameter is **disabled** in the configuration menu (refer to chap. ["Touch Screen"](#)), on the thermostat press the side button, the button icon lights up , and the operating program and mode with which the device is configured is displayed (in this example: program **"Automatic (AUT)"** and operating mode **"Winter"** .




2. Then to enable the off mode, press and hold the , button for more than 3 seconds, the following screen appears.




3. On the device's display, the icon  lights up steadily to indicate the activation of the off mode.



4. To deactivate the off mode, simply repeat the procedure described for activation.  
5. After switching off the off mode, the icon  goes off in the device's display.

## 5.5 Automatic program

The automatic program allows the thermostat to adjust the temperature using one of the 3 reference temperatures **T1**, **T2** and **T3** as a setpoint, depending on the day and time.

 *The automatic program is set by default on the device.*


On the app, the user interface shows the temperature values used in each time slot for the current day. In the following example, on the current day at 11:00 the setpoint is configured to **T2**.



The weekly programming of automatic operation and the values of the 3 reference temperatures (T1, T2 and T3) can be set in the setting menu (for more details refer to the chapters “[TEMPERATURE](#)” and “[PROGRAMMING](#)”),

## 5.6 Manual program



The manual program allows the device to be used as a normal thermostat, adjusting the temperature regardless of the day or time.

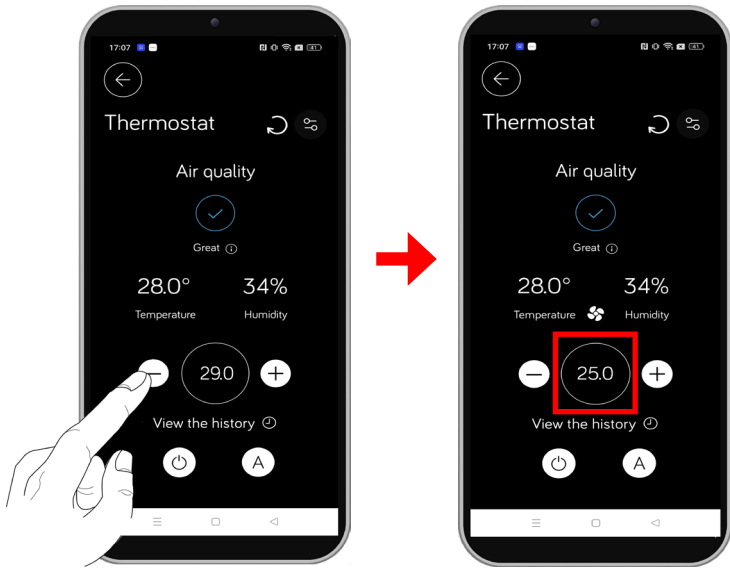
Activation of the manual program is signalled by the switching on of the following icon  on the device display.



You can adjust the temperature (Setpoint) from the app in the user interface or directly on the thermostat.




TEMPERATURE CONTROL VIA URMETON APP

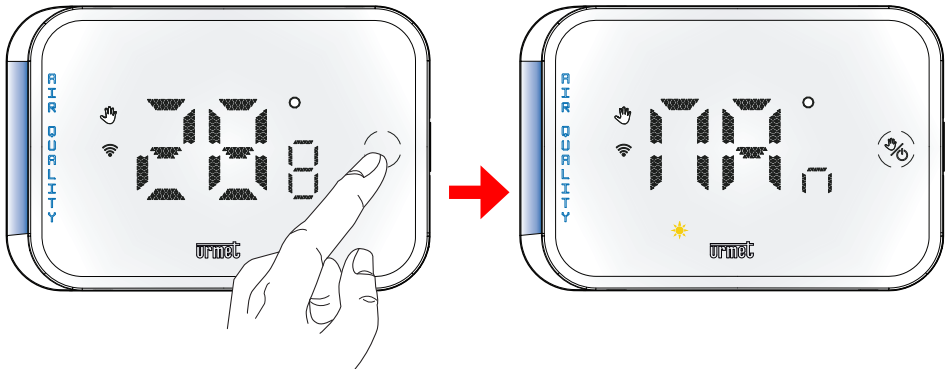
To adjust the temperature, press the buttons  or  in the app's user interface.





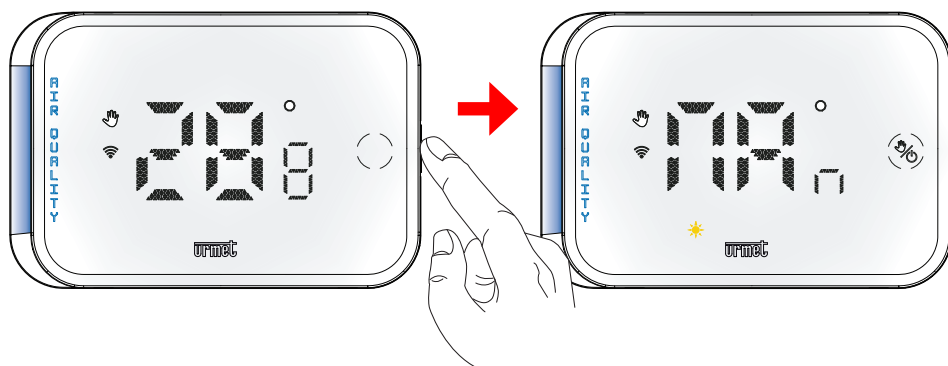
Each press of either button changes the temperature by **0.5°C**



TEMPERATURE CONTROL VIA THERMOSTAT

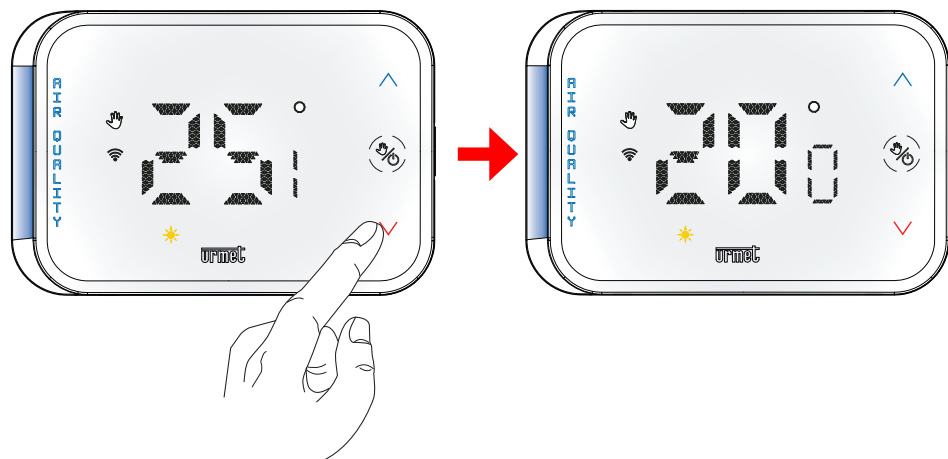
1A. If the **"Touch screen"** parameter is **enabled** in the configuration menu (for more details refer to Chap. ["Touch Screen"](#)), on the thermostat press the button  once, the button icon lights up  and the operating program and mode with which the device is configured is displayed (in this example: program **"Manual" (MAn)** and operating mode **"Summer"**  ).



- 1B. If the **"Touch screen"** parameter is **disabled** in the configuration menu (refer to chap. ["Touch Screen"](#)), on the thermostat press the side button, the button icon lights up  and the operating program and mode with which the device is configured is displayed (in this example: program **"Manual"** (MAN) and operating mode **"Summer"** ).



2. On the display of the device, the temperature control buttons and the icon indicating the active program light up with a steady light. Press  or  to adjust the temperature.




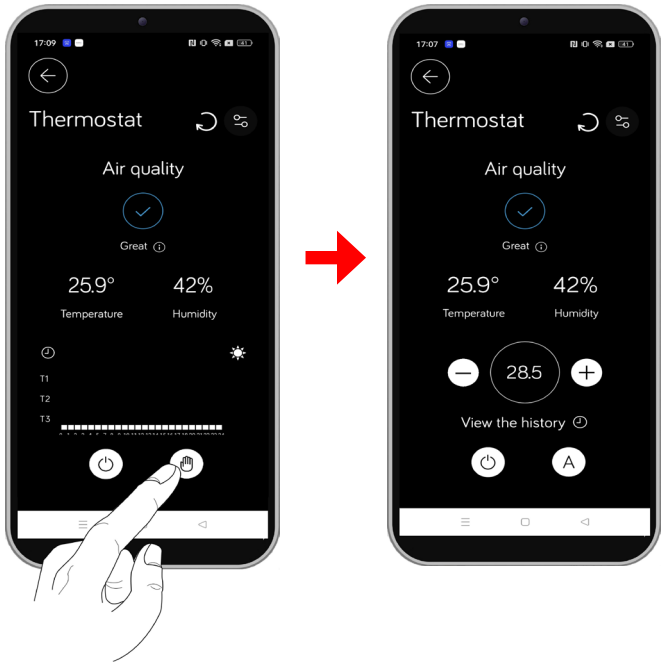
Short presses of either button effect a temperature change of **0.2°C** while long touch makes a temperature change of **1°C**



## 5.7 Switching from automatic to manual program and vice versa


It is possible to switch from the automatic to the manual program and vice versa, either via the app or the thermostat.

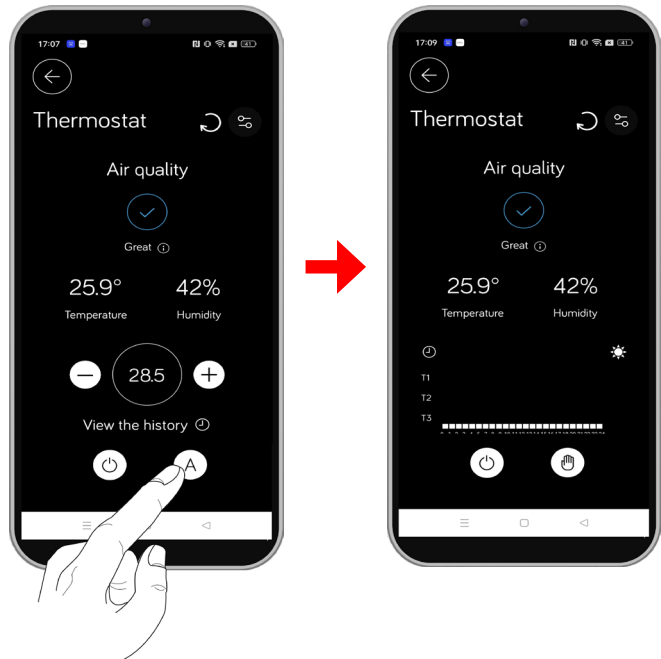
### VIA URMETON APP

In the user interface on the app, press the  button to switch from the automatic to the manual program.





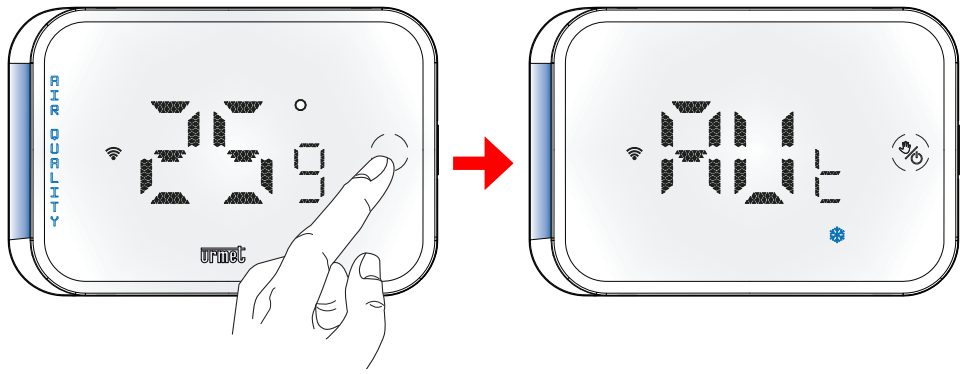
 Activation of the manual program is signalled by the lighting up of the following icon  on the thermostat display.



To switch between manual and automatic programs, press the  button in the device's user interface.

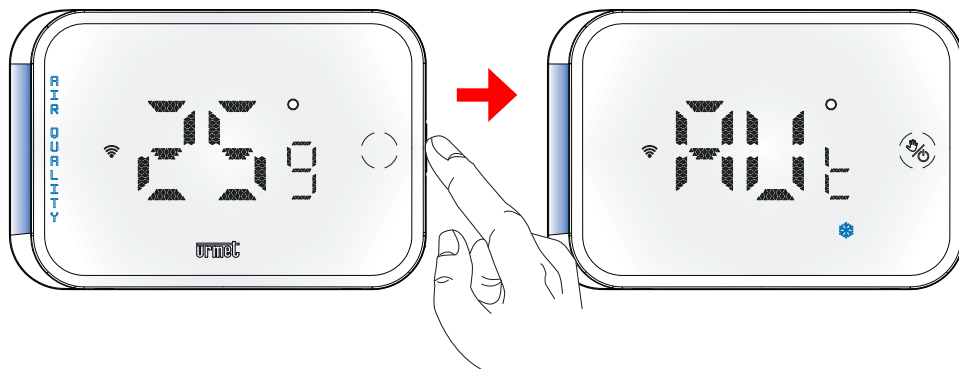



VIA THERMOSTAT

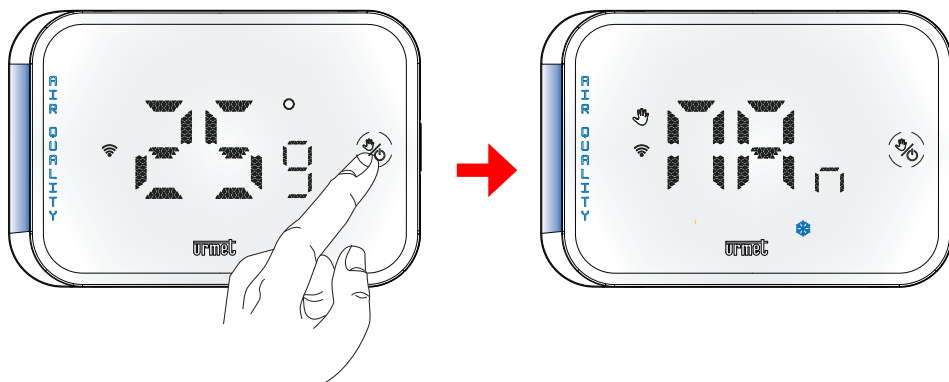
1A. If the “Touch screen” parameter is **enabled** in the configuration menu (refer to chap. ["Touch Screen"](#)), on the thermostat press the button  once, the button icon lights up  and the operating program and mode with which the device is configured is displayed (in this example: program “**Automatic (Aut)**” and operating mode “**Winter**” ❄️).



- 1B. If the “**Touch screen**” parameter is **disabled** in the configuration menu (refer to chap. “[Touch Screen](#)”), on the thermostat press the side button, the button icon lights up  and the operating program and mode with which the device is configured is displayed (in this example: program “**Automatic (AUt)**” and operating mode “**Winter**” .



2. Then to switch to the manual program(**MAN**) press the button , the following screen appears.





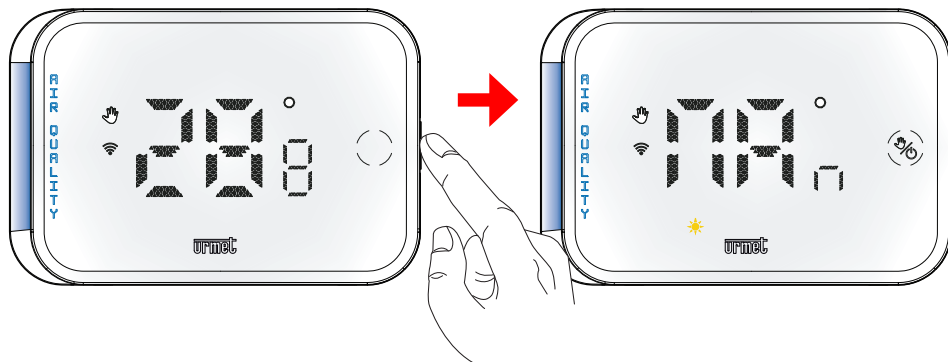
3. To return to the automatic program(**AUt**) repeat the steps described above from step 1.



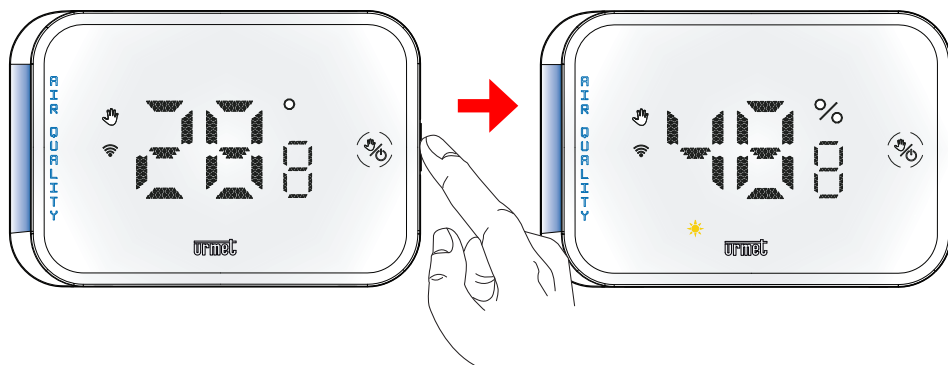
## 5.8 Display of measured temperature or humidity

The display of the thermostat shows the detected temperature (default display) or the degree of humidity in the room.

On the thermostat, press the side button once, the button icon lights up  and the operating program and mode with which the device is configured is displayed (in this example: program "**Manual**" (**MAN**) and operating mode "**Summer**" ).



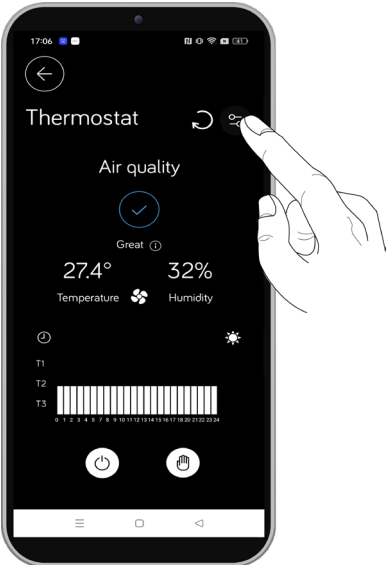
Then press the side button again to display the degree of humidity detected.



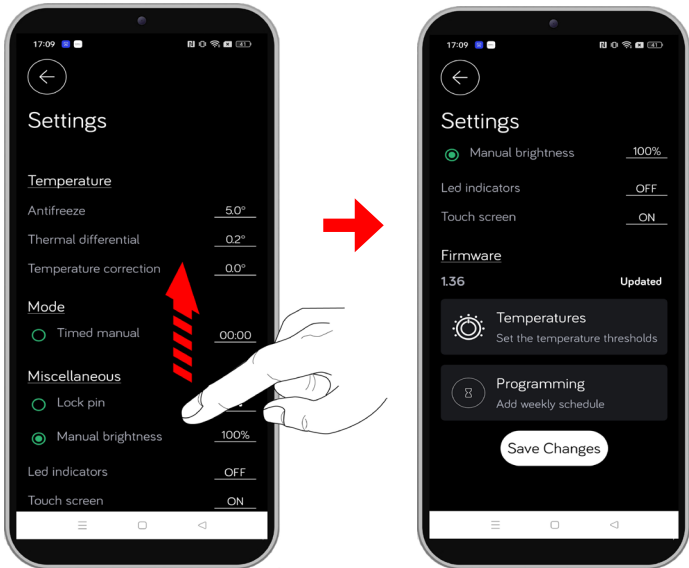
# 6. THERMOSTAT CONFIGURATION

Via the **UrmetON** app, the device can be configured.

To access the configuration menu, press the  button on the thermostat's user interface.



The screen with the configuration menu appears, and by scrolling down the page you can view all configurable parameters.



The following configuration parameters can be configured via the configuration menu.

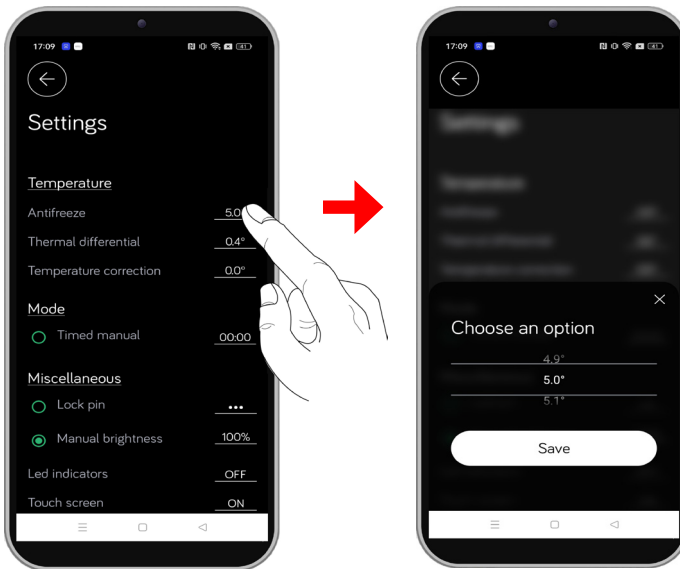
- [Temperature](#)
  - [Antifreeze](#)
  - [Thermal differential](#)
  - [Temperature correction](#)
- [Mode](#)
  - [Timed manual](#)
- [Miscellaneous](#)
  - [Lock pin](#)
  - [Manual brightness](#)
  - [Indication LED](#)
  - [Touch Screen](#)
- [Firmware](#)
- [Temperature](#)
- [Programming](#)

## 6.1 Temperature

### 6.1.1 Antifreeze

For the “**Winter**” mode ❄️ it is possible to set a safety temperature called “**Antifreeze Temperature**“. When the room temperature falls below the set “**Antifreeze Temperature**“, the thermostat will start the heating system 🔥 (even if the thermostat is set to OFF mode).

To configure the “**Antifreeze Temperature**“, press on the icon displaying the degrees for the parameter. The following screen appears where you can configure the temperature.



The parameter can be configured from a minimum of **1.0°C** to a maximum of **7.0° C**.  
Configuring the value to **OFF** deactivates the function.

After selecting the desired value, press the “**Save**” button, the configured value is saved.


The configuration menu is displayed, where other device parameters can be configured.

If no further configuration is desired, press the “**Save Changes**” button at the bottom of the configuration menu to send the new configuration to the thermostat.

### 6.1.2 Thermal differential

The “**Thermal differential**” is the parameter that regulates the intervention of the thermostat according to the configured temperature to be reached.

#### - WINTER MODE

In “**Winter**” mode  the thermostat activates the heating system when the following temperature is detected in the room:

$$\text{DETECTED THERMAL} = \text{SET THERMAL} - \text{SEMI THERMAL DIFFERENTIAL}$$

Instead, the heating system is switched off when the following temperature is detected in the room:

$$\text{DETECTED THERMAL} = \text{SET THERMAL} + \text{SEMI THERMAL DIFFERENTIAL}$$

Below is an example of use with the following configuration values:

- SET THERMAL = **20.0°C**
- THERMAL DIFFERENTIAL = **0.4°C**
- SEMI THERMAL DIFFERENTIAL = **+/- 0.2°C**


The heating system is switched on when the thermostat detects the temperature at **19.8°C**

$$\text{MEASURED THERMAL} = 20.0 - 0.2^\circ\text{C} = 19.8^\circ\text{C} \text{ ---> HEATING SYSTEM ON}$$

Instead, the heating system is switched off when the thermostat detects the temperature at **20.2°C**

$$\text{MEASURED THERMAL} = 20.0 + 0.2^\circ\text{C} = 20.2^\circ\text{C} \text{ ---> HEATING SYSTEM OFF}$$

#### - SUMMER MODE

In “**Summer**” mode  the thermostat activates the air conditioning system when the following temperature is detected in the room:

$$\text{DETECTED THERMAL} = \text{SET THERMAL} + \text{SEMI THERMAL DIFFERENTIAL}$$

Instead, the air conditioning system is switched off, when the following temperature is detected in the room:

$$\text{DETECTED THERMAL} = \text{SET THERMAL} - \text{SEMI THERMAL DIFFERENTIAL}$$

Below is an example of use with the following configuration values:

- SET THERMAL = **20.0°C**
- THERMAL DIFFERENTIAL = **2.0°C**
- SEMI THERMAL DIFFERENTIAL = **+/- 1.0°C**

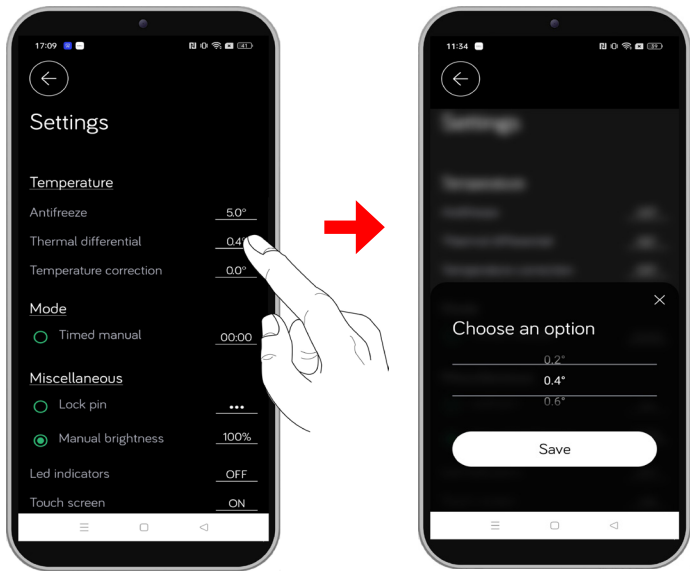
The air-conditioning system is switched on when the thermostat detects the temperature at **21.0°C**

$$\text{DETECTED THERMAL} = 20.0 + 1.0^\circ\text{C} = 21.0^\circ\text{C} \text{ ---> AIR CONDITIONING SYSTEM ON}$$

Instead, the air-conditioning system is switched off when the thermostat detects the temperature at **19.0°C**

$$\text{DETECTED THERMAL} = 20.0 - 1.0^\circ\text{C} = 19.0^\circ\text{C} \text{ ---> AIR CONDITIONING SYSTEM OFF}$$

To configure the “**Thermal differential**” parameter, press on the icon where the degrees for the parameter are displayed. The following screen appears where you can configure the temperature.



The parameter can be configured from a minimum of **0.2°C** to a maximum of **2.0°C**. After selecting the desired value, press the “**Save**” button, the configured value is saved. The configuration menu is displayed, where other device parameters can be configured. If no further configuration is desired, press the “**Save Changes**” button at the bottom of the configuration menu to send the new configuration to the thermostat.

### 6.1.3 Temperature correction

The “**Temperature correction**” parameter is useful in cases where there is a distorted temperature measurement in the room due to disturbing elements such as heaters, chillers and similar devices.

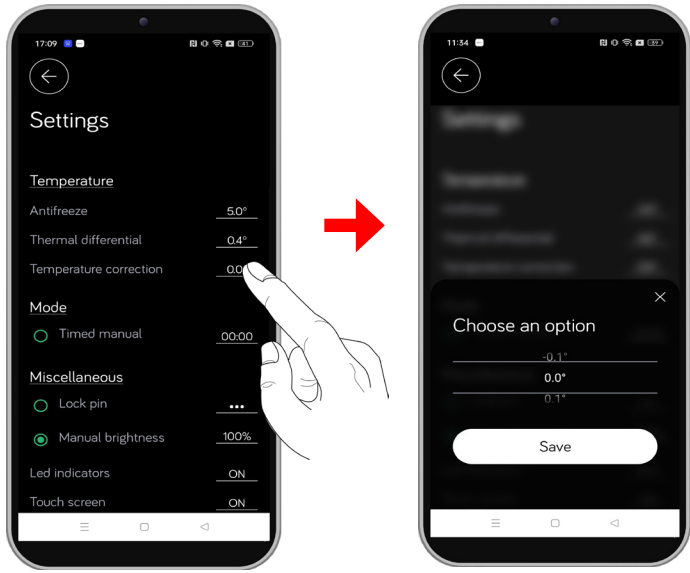
Below is an example of use with the following configuration values.

- MEASURED TEMPERATURE = **20.0°C**
- TEMPERATURE CORRECTION = **2.5°C**
- ACTUAL TEMPERATURE = **22.5°C**

In this example, the thermostat reveals a temperature of **20.0°C** compared to a real temperature of **22.5°C** in the room. By setting the parameter “**Temperature correction = 2.5°C**”, the thermostat adds the parameter value to the detected temperature and the display shows the actual temperature in the room.

$$20.0^{\circ}\text{C} + 2.5^{\circ}\text{C} = 22.5^{\circ}\text{C}$$

To configure the “**Temperature correction**” parameter, press on the icon where the degrees for the parameter are displayed. The following screen appears where you can configure the temperature.



The parameter can be configured from a minimum of -5.0°C to a maximum of 5.0°C.

After selecting the desired value, press the “**Save**” button, the configured value is saved.

The configuration menu is displayed, where other device parameters can be configured.

If no further configuration is desired, press the “**Save Changes**” button at the bottom of the configuration menu to send the new configuration to the thermostat.

6.2

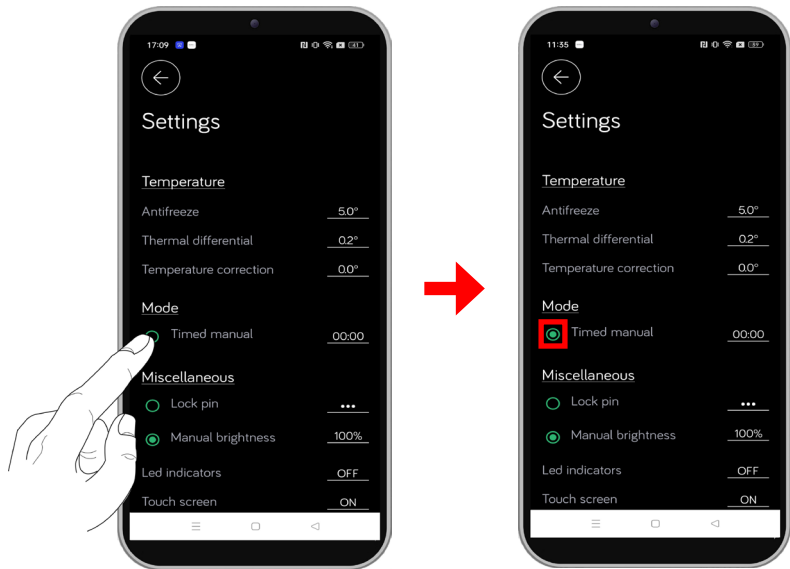
Mode

6.2.1

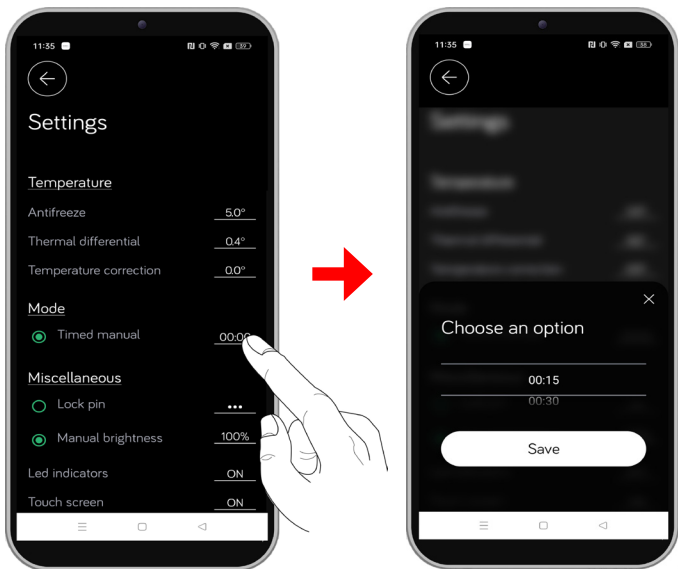
Timed manual

The “**Timed manual**” parameter allows the **Manual** program to be activated (refer to chap. [MANUAL PROGRAM](#)) for a specific period of time.

To enable the “**Timed manual**” parameter, press on the relevant green box to the left of the parameter.



Then press on the icon where the time indicator for the parameter is displayed. The following screen appears in which you can configure the time period for activating the **Manual** program.



The parameter can be configured from a minimum of **15 minutes** to a maximum of **16 hours and 45 minutes**. After selecting the desired value, press the **“Save”** button, the configured value is saved. The configuration menu is displayed, where other device parameters can be configured. If no further configuration is desired, press the **“Save Changes”** button at the bottom of the configuration menu to send the new configuration to the thermostat.

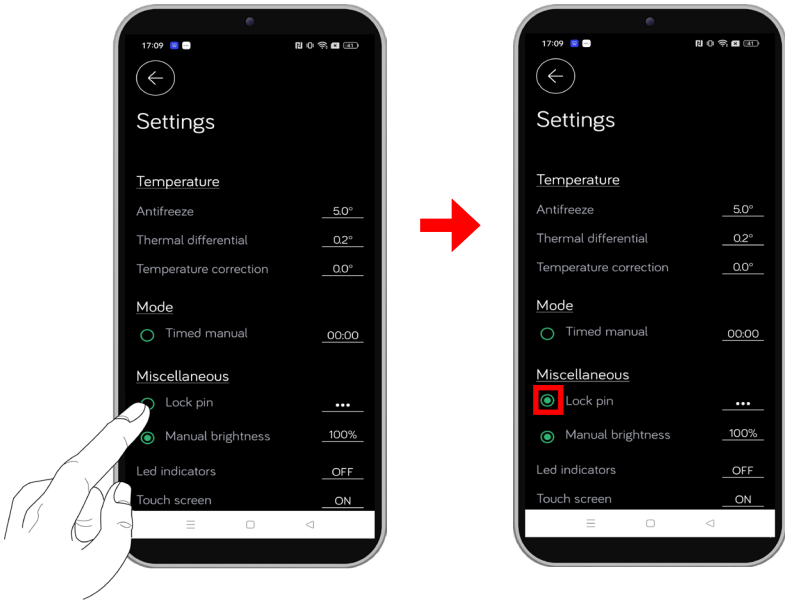
## 6.3 Miscellaneous

### 6.3.1 Lock pin

The **“Lock pin”** parameter enables a key lock on the thermostat in case it is installed in public places or if it is desired to inhibit the possibility of making adjustments or changing the program of use.

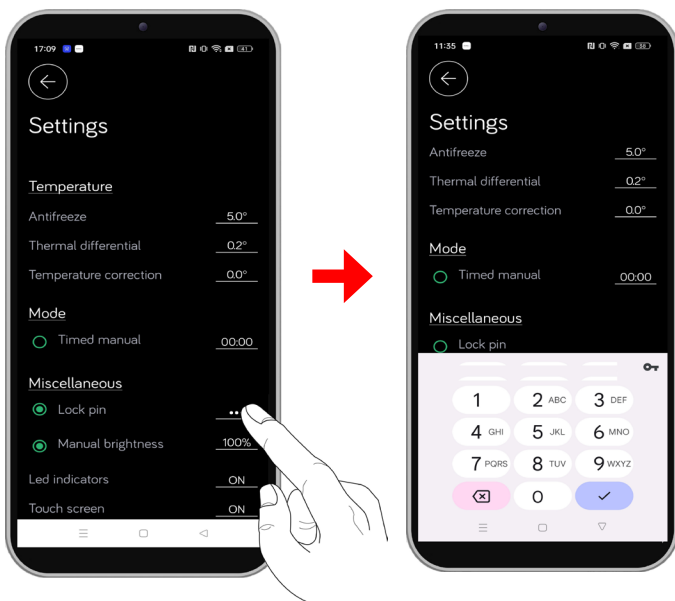
The locking pin consists of 3 digits.

To enable the **“Lock pin”** parameter, press the corresponding green circle to the left of the parameter.



Then press on the icon where the parameter indicator is displayed, to carry out the pin code configuration.







The digital keyboard of the smartphone is displayed, enter 3 digits and press the dial key. The pin is saved and the keyboard closes.

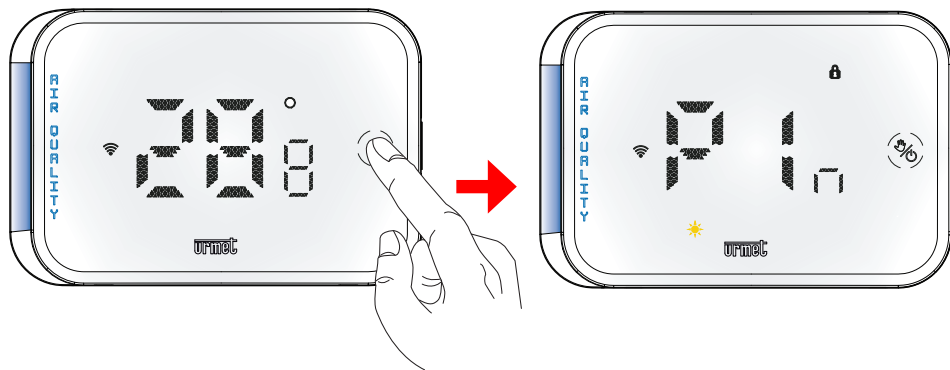
The configuration menu is displayed, where other device parameters can be configured.



If no further configuration is desired, press the “**Save Changes**” button at the bottom of the configuration menu to send the new configuration to the thermostat.

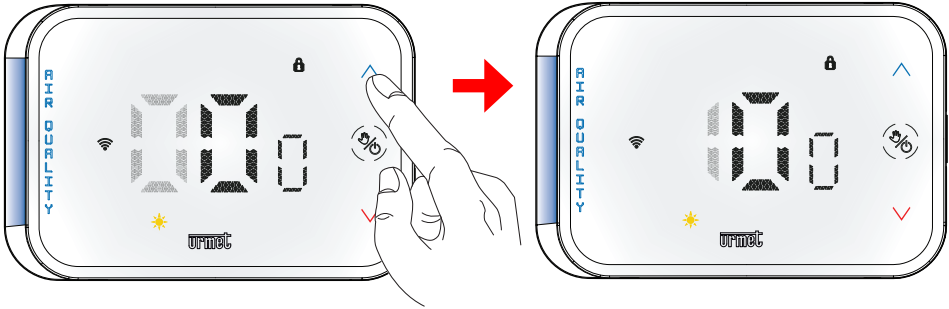
When the keypad is locked, the thermostat performs all its functions using the set control parameters.


 The following icon  lights up on the thermostat display to indicate that the key lock is active.

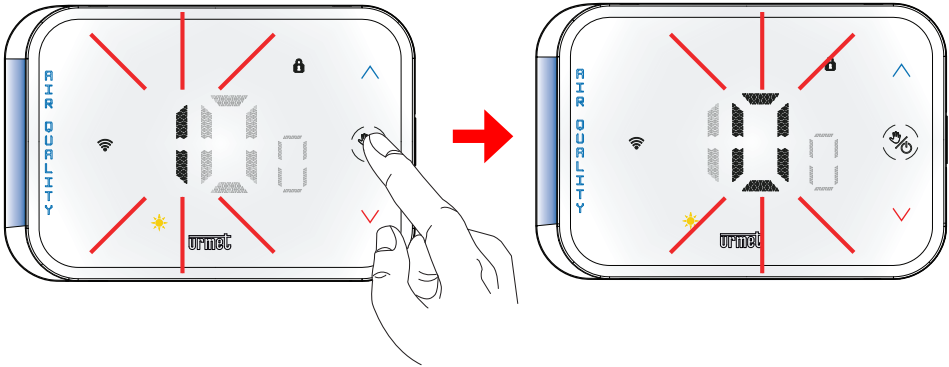
If the key lock is active and a  button or the side button is pressed, the button icon lights up  and the display shows the following screen with the indication **Pin**.



On the display, the first digit displayed starts flashing. Press the  or  button to enter the first number that makes up the unlocking PIN.




After entering the first digit, press  to confirm the selection and move on to the second digit.



Repeat the number selection operation for the second and third digits as well.

If the Pin entered is correct, unlocking takes place and adjustments can be made again directly on the thermostat.

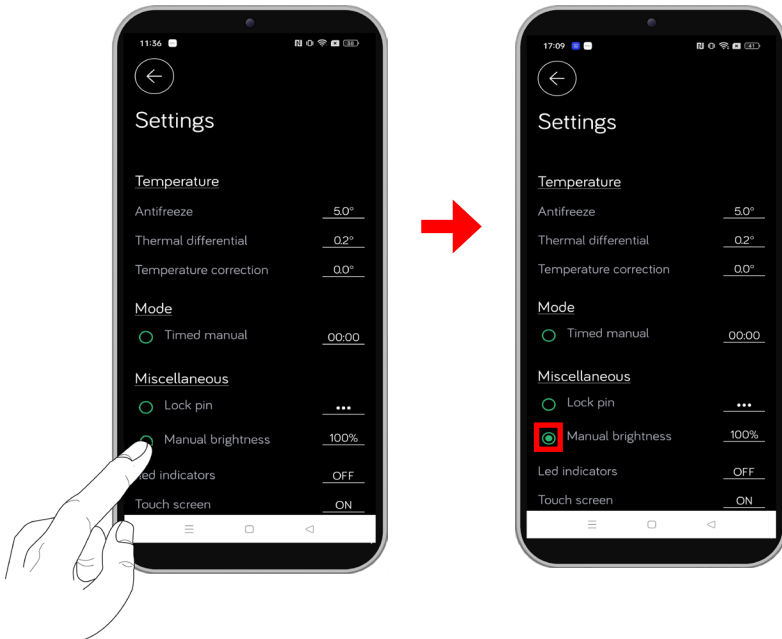
 The thermostat display shows the following icon , indicating that the key lock has been deactivated.

To set the device locking pin again, the “**Lock pin**” parameter must be enabled again in the settings menu on the UrmetON app.

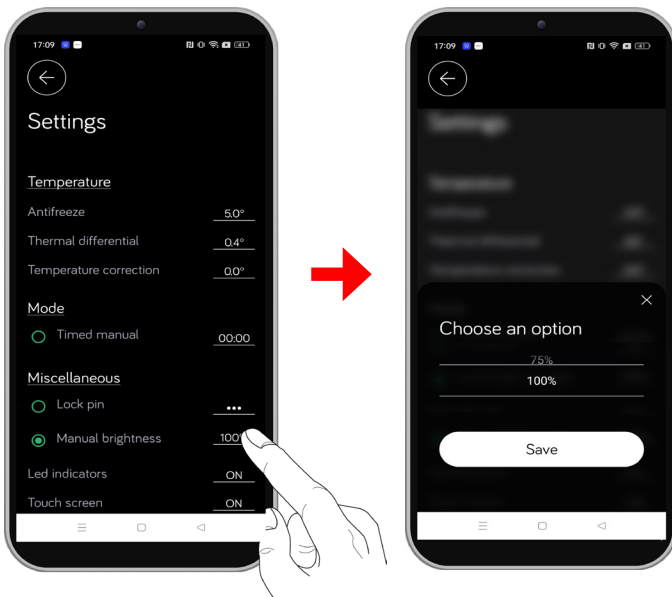
### 6.3.2 Manual brightness

The “**Manual brightness**” parameter allows you to set a customised brightness on the thermostat display. By default, the parameter is disabled as the brightness of the thermostat display is self-adjusting according to the changing brightness of the room in which it is positioned.

To enable the “**Manual brightness**” parameter, press on the relevant green box to the left of the parameter.



Then press on the icon displaying the brightness percentage indicator. The following screen appears where the display brightness can be configured.



The parameter can be configured from a minimum of **0%** (minimum brightness ) to a maximum of **100%** (maximum brightness).

After selecting the desired value, press the **“Save”** button, the configured value is saved.

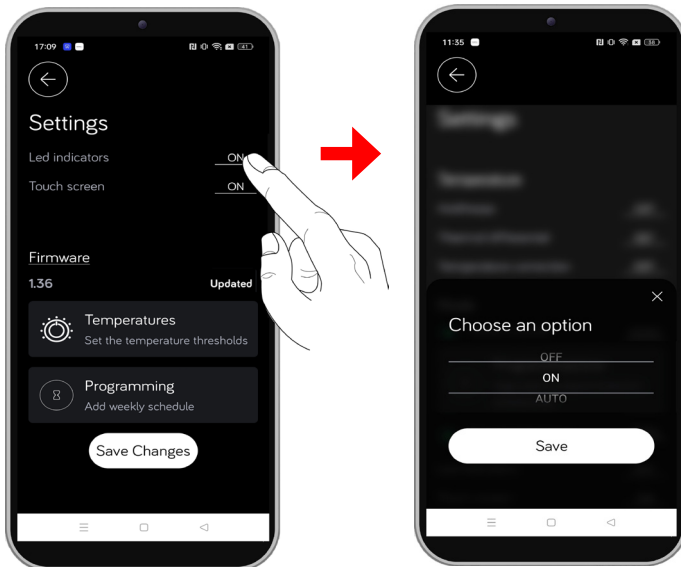
The configuration menu is displayed, where other device parameters can be configured.

If no further configuration is desired, press the **“Save Changes”** button at the bottom of the configuration menu to send the new configuration to the thermostat

### 6.3.3 LED indicators

The **“LED indicators”** parameter configures the switching on or off of the icons and LED on the thermostat.

To configure the **“LED indicators”** parameter, press on the icon where the parameter status is displayed. The following screen appears in which you can configure the status of the IAQ air quality indicator LED.



The parameter can be configured in the following states:

- **ON:** LED always on
- **OFF:** LED always off
- **AUTO:** LED only lit when the thermostat detects a change

After the configuration has been made, press the **“Save”** button, the configured value is saved.

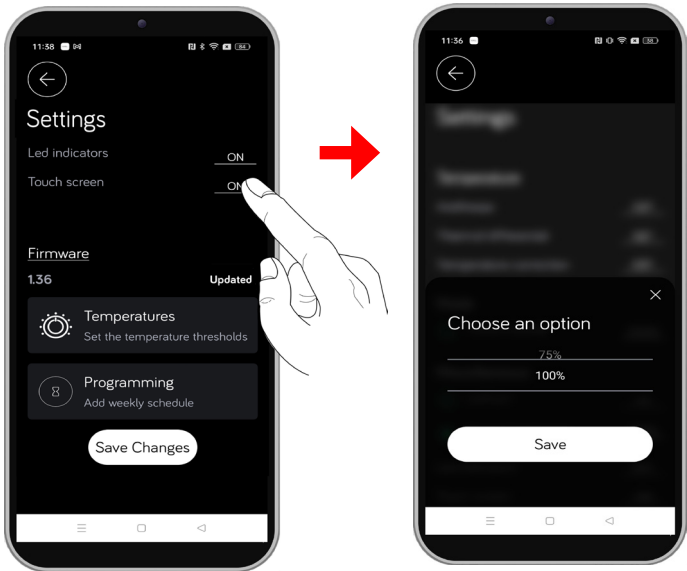
The configuration menu is displayed, where other device parameters can be configured.

If no further configuration is desired, press the **“Save Changes”** button at the bottom of the configuration menu to send the new configuration to the thermostat.

### 6.3.4 Touch screen

The “**Touch screen**” parameter enables or disables the buttons on the thermostat display. The function is useful, for example, when you want to clean the device or to prevent inappropriate use by children or to avoid unintentional pressure on the thermostat.

To configure the “**Touch screen**” parameter, press on the icon where the parameter status is displayed. The following screen is displayed where configuration can be carried out.



The parameter can be configured in the following states:

- **ON**: keys enabled
- **OFF**: keys disabled

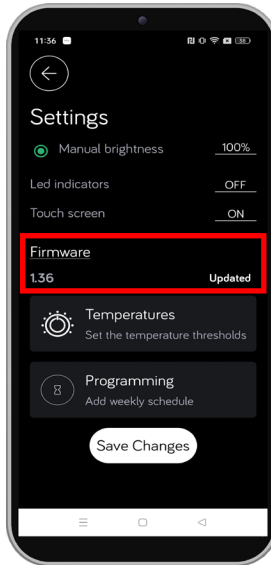
After the configuration has been made, press the “**Save**” button, the configured value is saved.

The configuration menu is displayed, where other device parameters can be configured.

If no further configuration is desired, press the “**Save Changes**” button at the bottom of the configuration menu to send the new configuration to the thermostat.

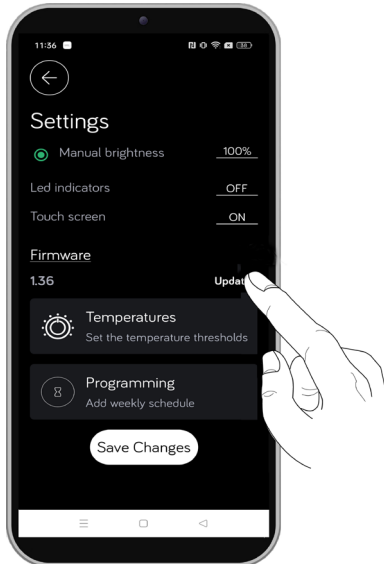
## 6.4 Firmware

In the "**Firmware**" section it is possible to view the firmware version present on the device and possibly upgrade to the latest version available on the Urmet Cloud.



If "**Updated**" is displayed, this means that the device has the latest firmware version available.

If, on the other hand, the word "**Update**" is present, this means that a new firmware version of the device is available. Press on "**Update**" to start the update.




The app starts downloading the latest firmware version and upon its completion, the update takes place on the device. The thermostat display shows the following screen.



Upon completion of the update, the device performs a reboot and after a few seconds returns to normal operation.

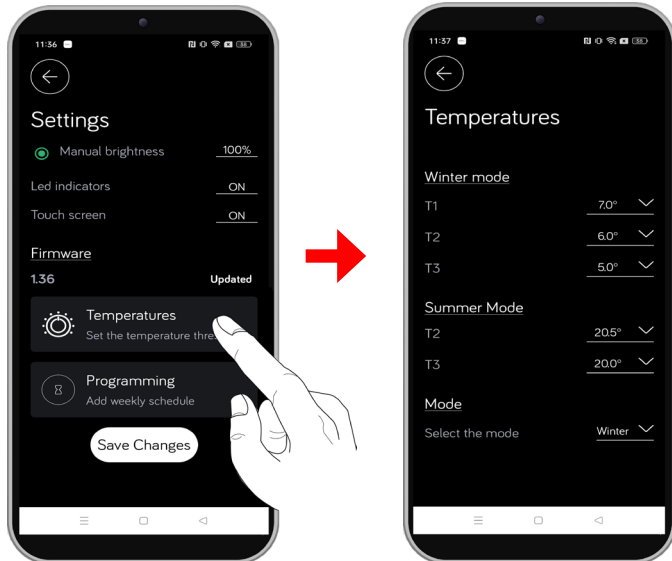
The new firmware version of the thermostat will be visible on the app in the appropriate section.

 During the entire update procedure, it is very important to avoid switching off the device or disconnecting it from the network, in order to avoid even irreversible damage to the device. The update phase may lead to temporary slight overheating of the device, which may reveal non-compliant temperature levels for some time after the update.

## 6.5 Temperature

The "**Temperature**" section allows the 3 temperatures to be configured: T1, T2, T3 (only T2 and T3 for Summer mode) of the automatic program and to select the thermostat operating mode: "**Winter**" ❄️ or "**Summer**" ☀️.

Press the "**Temperature**" button to display the temperature configuration screen.




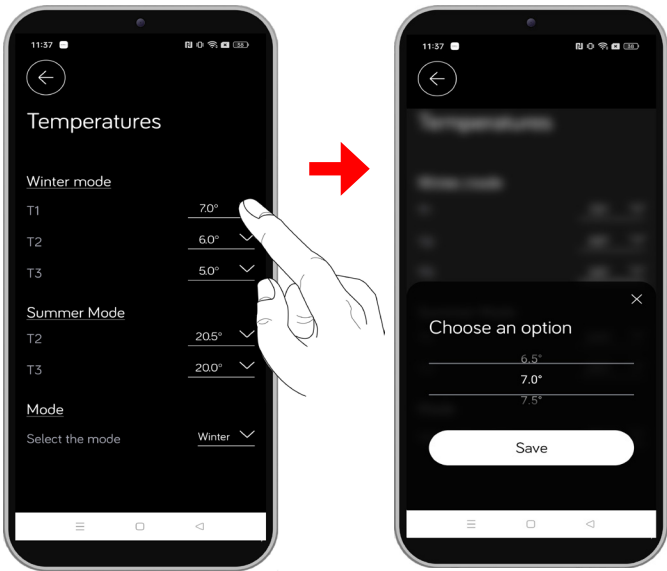
It is possible to configure the operating temperatures for both operating modes: "**Winter**" ❄️ or "**Summer**" ☀️.

**ATTENTION!** In the summer operating mode, T1 cannot be configured.

The set temperature values must comply with the condition :  $T1 > T2 > T3$ .

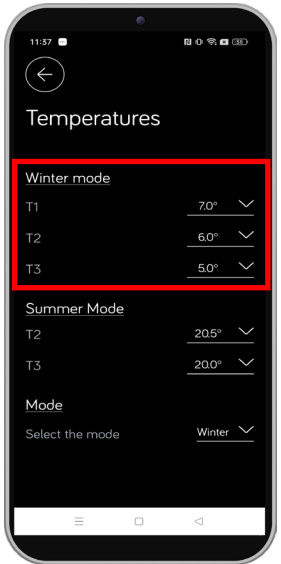
WINTER MODE

To carry out the configuration, press on the following icon  relating to the parameter (T1 or T2 or T3) you wish to configure. The following screen appears where you can select the temperature to be configured.



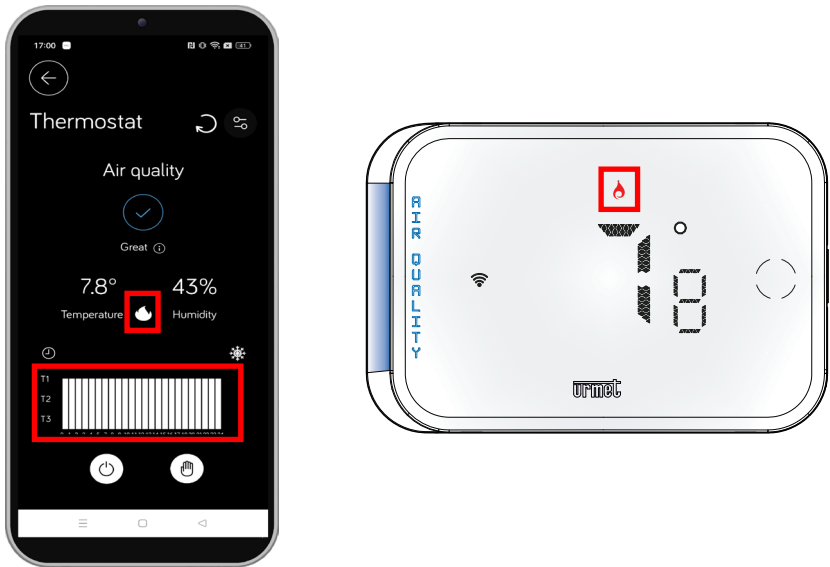
In winter mode, temperatures T1,T2 and T3 are distinguished as follows:

- **T1** is the highest temperature and is considered the temperature of maximum comfort to be used as the peak temperature. According to WHO and national regulations, the ideal temperature to be maintained in rooms when they are inhabited is **20°** with an upper and lower tolerance of  $\pm 2^{\circ}$ .
- **T2** is the ordinary comfort temperature.
- **T3** is the lowest temperature (ECO) to be considered as that of minimum comfort and low consumption, to be used e.g. during non-occupied hours or at night.





In the **Winter** ❄️ operating mode, if the measured temperature is lower than the temperature configured as setpoint (in this example **T1**), also taking into account any configured temperature differential, the load is activated by switching the relay (e.g. activation of any heating system). On the app and on the device display, the relevant icons light up as an indication.

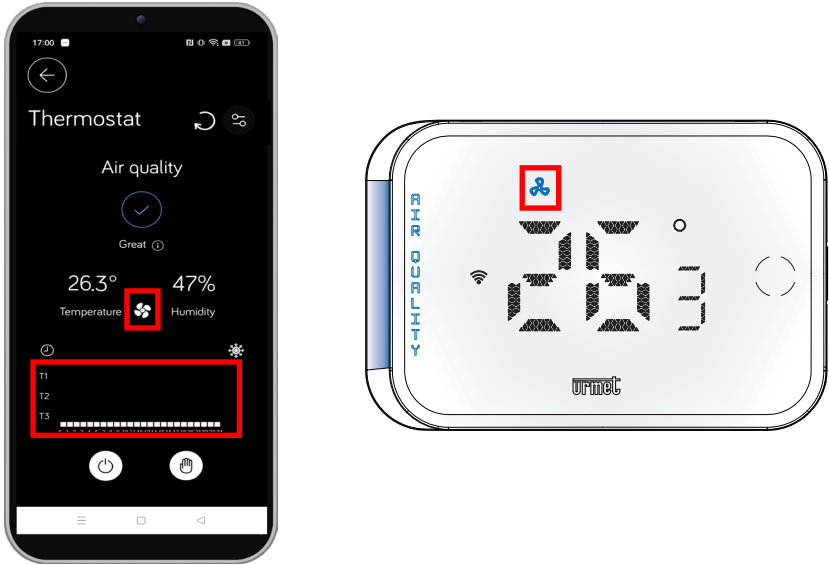



In summer mode, only temperatures T2 and T3 can be configured, and they are characterised as follows:

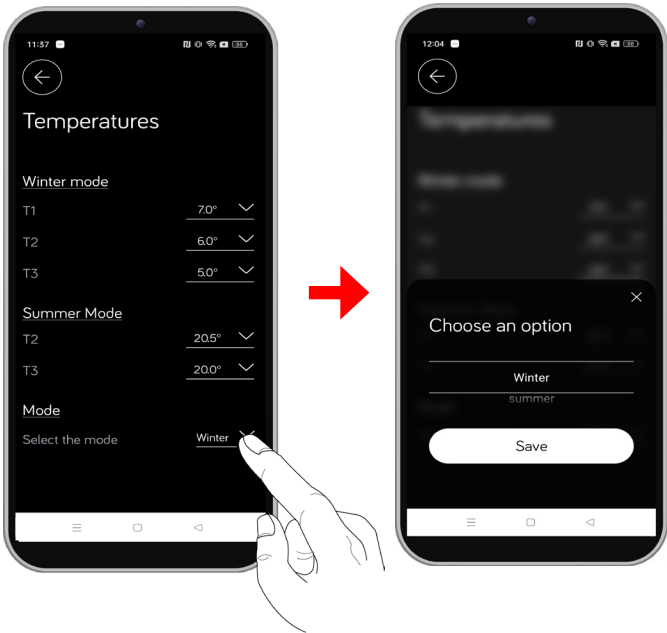
- **T2** is the highest temperature to be considered as ECO and lowest consumption, to be used when the room is not inhabited or at night.
- **T3** is the comfort temperature to be used as the ordinary temperature.




In the **summer** ☀ operating mode, if the measured temperature is higher than the temperature configured as setpoint (in this example **T3**), also evaluating any configured temperature differential, the load is activated by switching the relay (e.g. activation of any air conditioning system). On the app and on the device display, the relevant icons light up as an indication.



The **“Select Mode”** parameter allows you to configure the operating mode of the thermostat. Press on the following icon  related to the parameter to perform the configuration. A screen appears where you can select the operating mode.



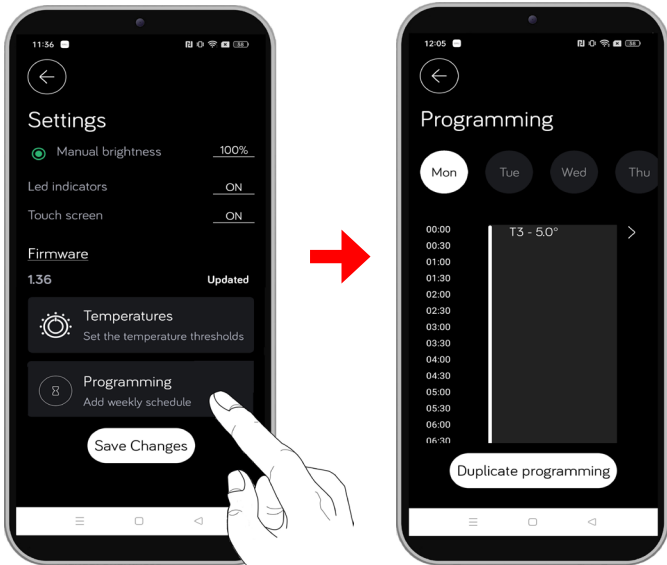
After the configuration has been made, press the “**Save**” button, the selected mode is saved.

Press  to return to the parameter configuration menu.

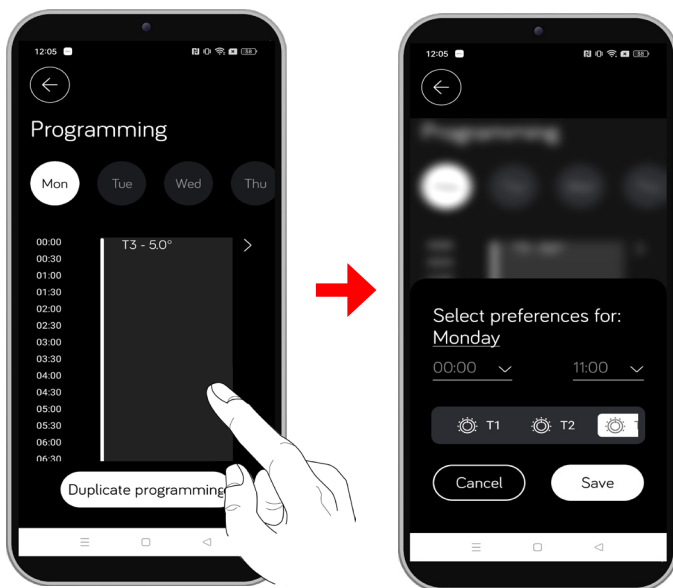
## 6.6 Programming

The “**Programming**” section allows you to program the temperature of the day for all days of the week. To carry out programming, the setpoint reference temperatures **T1**, **T2** and **T3** must have been configured (for all information on temperature configuration, please refer to chap. [TEMPERATURE](#)).

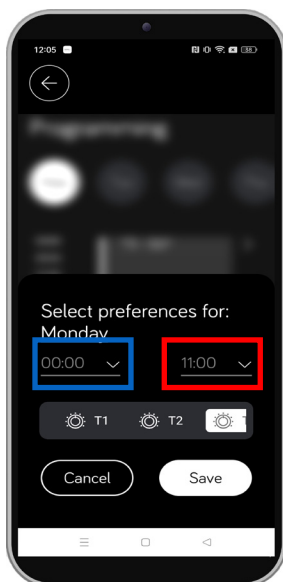
Press the “**Programming**” button to display the weekday temperature programming screen.



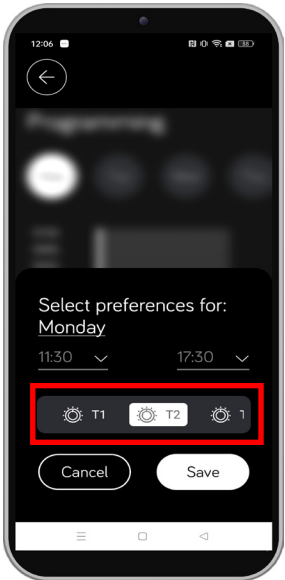
At the top of the screen, select the day of the week you wish to schedule, then click on the time table in the centre of the screen. The following screen is displayed where programming can be carried out for the selected day.



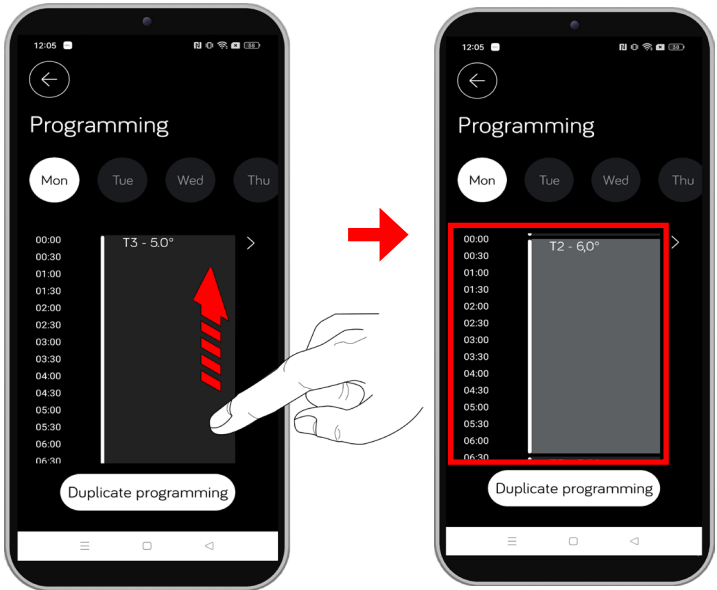
Press on the relevant boxes to select the start time (blue box) and end time (red box) of the program.



Then select the temperature(T1 or T2 or T3) to be set for the previously selected time slot. In the following example in the time slot **11:30 a.m. - 5:30 p.m.** the temperature **T2** was selected as the setpoint.

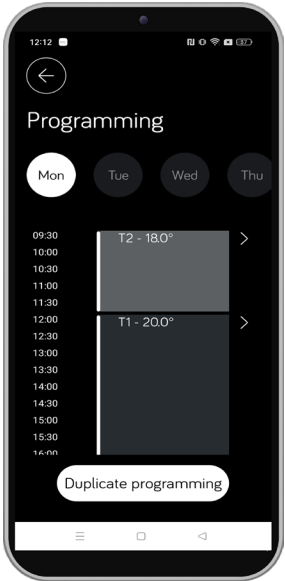


After the configuration has been made, press the **“Save”** button, the configuration is saved. By scrolling through the time indicators, the temperatures set on the selected day can be displayed.

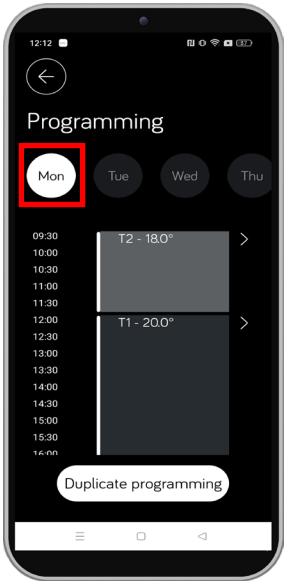


Several temperatures can be set on the same day at different times. To set a new temperature, select on the time display the time interval in which you want to enter a schedule.

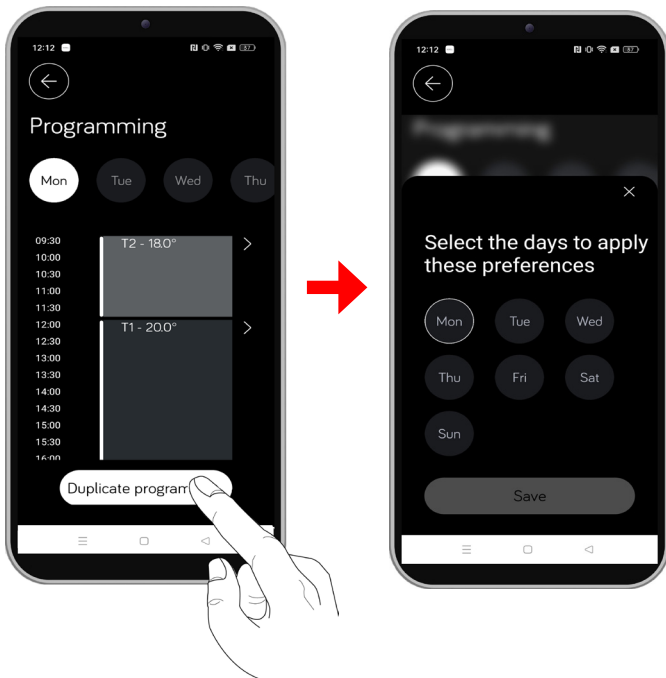
In the following example on **Monday**, the temperature **T2 (18.0°)** was configured as the setpoint in the time slot **9:30 am - 11:30 am**, then the temperature **T1 (20.0°)** was configured in the time slot **12:00 pm - 5:30 pm**, and finally the temperature **T3 (16.0°)** was configured at other times of the day.



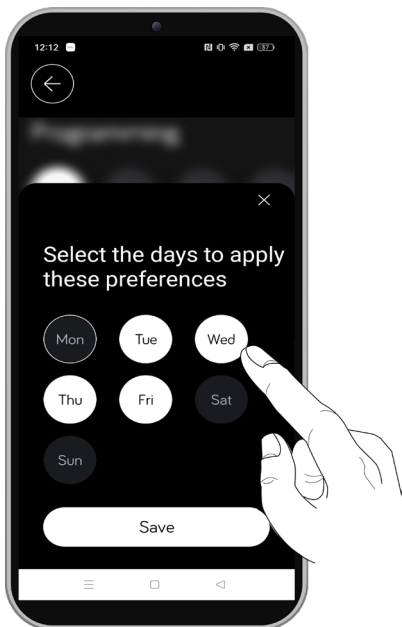
It is possible to duplicate the daily schedule of the selected day and apply it to another day. At the top of the screen, select the day on which the schedule to be duplicated is present. In the following example, **Monday** was selected.



Press the “**Duplicate Programming**” button to select the days on which the programming is to be duplicated.

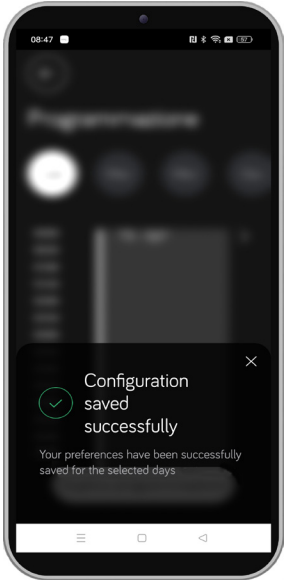


Select the days on which you wish to duplicate the schedule. in the example below, the days “**Tuesday**” to “**Friday**” are selected.



 Several days can be selected at the same time to which the programming applies.

Press the “**Save**” button to duplicate the schedule to the selected days, the following screen is displayed to confirm the completion of duplication.



## 6.7 Default values

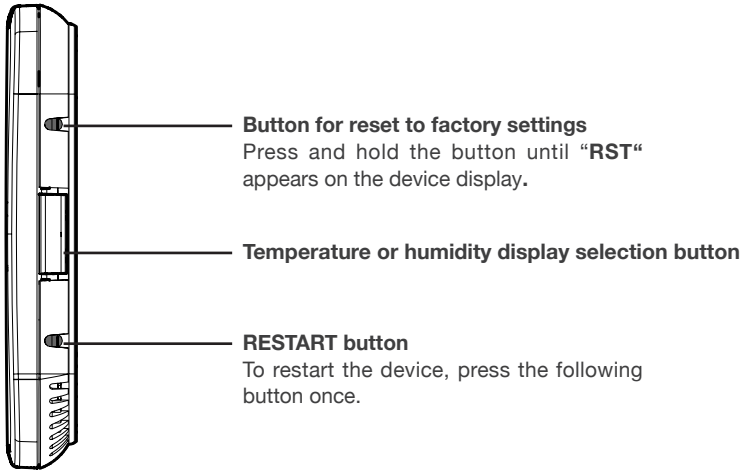
The thermostat is factory-configured with the following settings:

Active program	<b>Automatic</b>
How to use	<b>Winter</b>
Antifreeze temperature	<b>5.0°C</b>
Temperature differential	<b>0.4°C</b>
Temperature correction	<b>0.0°C</b>
Timed manual	<b>Disabled</b>
Locking pin	<b>Disabled</b>
Manual brightness	<b>Disabled</b>
LED indicators	<b>ON</b>
Touch screen	<b>ON</b>
Temperature T1	<b>5.0°C</b>
Temperature T2 (winter)	<b>6.0°C</b>
Temperature T3 (winter)	<b>7.0°C</b>
Temperature T2 (summer)	<b>25.0°C</b>
Temperature T3 (summer)	<b>20.0°C</b>



## 7. RESET TO DEVICE FACTORY PARAMETERS

To reset the device to its factory settings (including disconnection from the WiFi network), it is necessary to press, with a pointed object, the relevant button on the right side of the device and simultaneously hold down the centre button(Temperature or Humidity display selection button) for about 3 seconds.






**ATTENTION!:** A reset to factory parameters will reset all parameters to default. The operation is irreversible. Historical data (for viewing graphs) will only be deleted if the user removes the association with their device from the app

After resetting to factory parameters, the display must be calibrated. The procedure is started automatically by the thermostat by displaying “**CAL**” on the product display. The user simply has to touch (with a long press) the flashing icons.

## 8. TROUBLESHOOTING

Solutions to the most common problems in using the device are described below.

PROBLEM	SOLUTION
During pairing, there is no communication between the smartphone/tablet and the thermostat.	Press the <b>RESTART</b> button on the thermostat, the display shows “ <b>RST</b> ”. Deactivate and reactivate the network on the smartphone and then repeat the <a href="#">PAIRING AND CONFIGURATION OF THE WIFI THERMOSTAT</a> procedure.
No WiFi signal (icon  flashing) at the router to which the thermostat is connected.	Check WiFi network coverage. When the network is restored, the thermostat automatically reconnects and the icon  lights up steadily
Absence of WiFi signal (icon  flashing) and display of “ <b>Er3</b> ” on the thermostat display.	Press the <b>RESTART</b> button on the thermostat, the display shows “ <b>RST</b> ”. Repeat the procedure <a href="#">PAIRING AND CONFIGURING THE WIFI THERMOSTAT</a> and ensuring that you have entered the password for connecting to the WiFi router correctly.
After the pairing phase, “ <b>Er4</b> ” appears on the display.	Check that the IP address being paired is correct, then check that the router has access to the Internet and that there is no firewall blocking the device. UDP communication ports 50001 and 53030 must be open). Repeat the <a href="#">THERMOSTAT WIFI PAIRING AND CONFIGURATION</a> procedure.

## 9. TECHNICAL SPECIFICATIONS

Supply voltage:	110 ÷ 260V~ - 50/60 Hz
Maximum power consumption:	7VA
WiFi frequency bands:	2400 ÷ 2483.5 MHz
WiFi standard:	IEEE 802.11 b/g/n
Output power (Max) WiFi:	20 dBm
Contact rating:	250 V~ - 6A (resistive load)
Temperature control device:	class 1
Weight:	180 g
Dimensions (WxHxD):	130 x 87 x 42.5 mm
Operating temperature:	-9.9° to 45°C
Humidity:	100%RH
Accuracy of Temperature (°C) / Humidity (%):	0.2°C / 3%
Resolution of Temperature (°C) / Humidity (%):	0.2°C / 1%RH

**Contribution of temperature controller to seasonal room heating performance: 1%. (in accordance with Council Directive 2010/30/EC Regulation 811/2013/EU).**



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