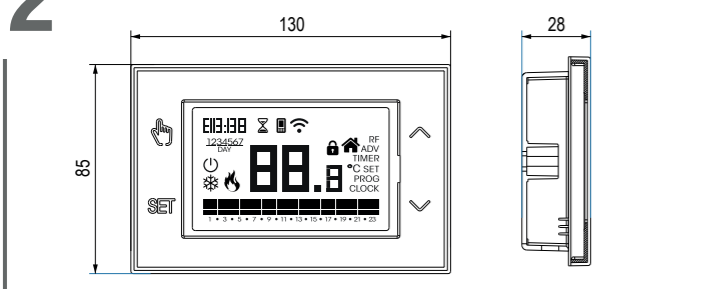




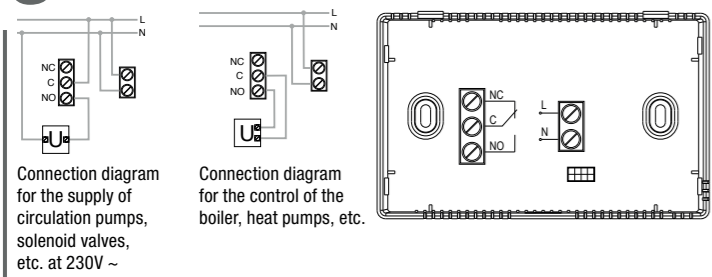
Vemer S.p.A.

I - 32032 Feltre (BL) • Via Camp Lonc, 16  
e-mail: info@vemer.it - web site: www.vemer.it

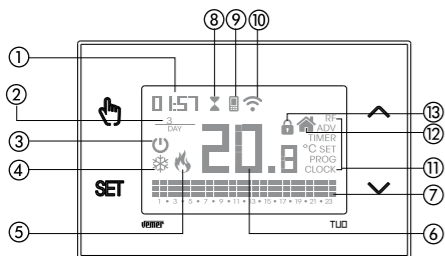
## 2 DIMENSIONS



## 3 CONNECTION DIAGRAM



## 4 DEVICE DESCRIPTION



- 1 Clock
- 2 Day of the week
- 3 Off operation
- 4 Active load (conditioning mode)
- 5 Active load (heating mode)
- 6 Measured temperature
- 7 Running daily program divided into 24 histograms, one for each hour of the day. Each hour is associated with one of the 3 temperatures:

■ Temperature T1 ■ Temperature T2 ■ Temperature T3

- 8 Active timed operation
- 9 Synchronization with settings on the Vemer Cloud in progress
- 10 Connection to the active Wi-Fi network
- 11 Configuration menu:
  - RF (not used)
  - ADV advanced parameters of the device
  - TIMER timings
  - SET automatic operating temperatures T1, T2, T3
  - PROG automatic operating programs
  - CLOCK date and time
- 12 Local active operation. In this state the device is disconnected from the Cloud Vemer and any change in operation must be made using the keys on the chronothermostat. Local operation can be disabled by the app
- 13 Active keypad lock

# 1 User Manual

## WALL-MOUNTING WI-FI CHRONOTHERMOSTAT

⚠ Read all instructions carefully

Wi-Fi wall-mounting chronothermostat powered by mains (230 V~), suitable for the control of heating and air-conditioning systems. The integrated Wi-Fi module allows the remote control of the device via your smartphone or tablet. It's necessary to connect the device to the home router and then install the appropriate app on your smartphone or tablet available free for iOS and Android devices.

Code	Model	Description
VE785700	Tuo Wi-Fi Lite	Weekly chronothermostat white colour

### SAFETY WARNINGS

During installation and operation of the device, it is necessary to comply with the following instructions:

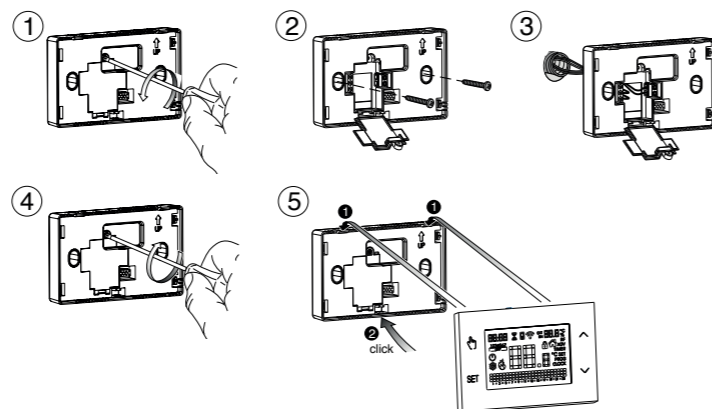
- 1) The device must be installed by a skilled person, in strict compliance with the connection diagrams.
- 2) Do not power on or connect the device if any part of it is damaged.
- 3) After installation, inaccessibility to the connection terminals without appropriate tools must be guaranteed
- 4) The device must be installed and activated in compliance with current electric systems standards.
- 5) Before accessing the connection terminals, verify that the leads are not live.
- 6) In the electrical system of the building where the device must be installed, a protection device from the overcurrents must be present.
- 7) The device performs actions of 1B type and is suitable for environments with pollution degree 2 and overvoltage category III (EN 60730-1).

### TECHNICAL CHARACTERISTICS

- Power supply: 230V AC  $\pm$  10% 50/60 Hz
- Output: bistable relay with changeover contact 5A / 250V AC
- Weekly programming with 3 settable temperatures: T1, T2, T3
- Daily resolution: 1h
- Switch-on delay set between 15, 30 or 45 minutes (independent for each hour)
- Measured temperature scale: 0°C  $\div$  + 50°C
- Measured and displayed temperature resolution: 0.1°C
- Temperature regulation range: 2.0°C  $\div$  + 50°C
- Measurement update: every 20 seconds
- Measurement accuracy:  $\pm$  0.5 °C
- Temperature regulation:
  - on/off with adjustable differential between 0.1°C and 1°C
  - proportional with settable band and regulation period
- Operating mode: heating (winter) or conditioning (summer)
- Display with blue backlighting
- Automatic winter time/summer time
- Keypad lock with password for installation in public places
- Wall installation (or covering the box 503)
- Terminal block for cables with section of 1.5 mm<sup>2</sup>
- Operating frequency band: 2.4 GHz IEEE 802.11 b/g/n
- Maximum power of transmitted radiofrequency: 18.3 dBm
- Operating temperature: 0°C  $\div$  +50°C
- Operating humidity: 20%  $\div$  90% non condensing
- Storage temperature: -20°C  $\div$  +65°C
- Degree of protection: IP: XXD

### INSTALLATION AND INITIAL CONFIGURATION

The device can be installed on the wall or to cover the 3-module flush-mounting box (type 503). We recommend positioning at a height of 1.5 meters from the floor, in an area that respects as much as possible the average temperature conditions of the entire environment. Make sure that the distance between the router and the device is such as to guarantee stable communication. Avoid installation near doors or windows, in niches, behind doors and curtains or in positions with excess or total lack of ventilation, to avoid that the reading of the temperature measured by the probe is in some way offset.



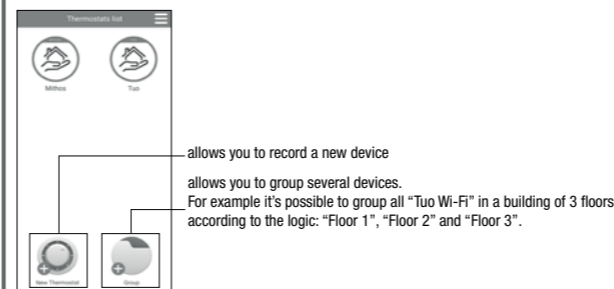
# 6 INITIAL CONFIGURATION

- 1) Install and connect the device according to the connection diagrams shown in this manual
- 2) Install and start the "Clima Wi-Fi Vemer" app on your smartphone (or tablet). Create a Vemer account with which to associate the device Tuo Wi-Fi (If you already have a Vemer account, go to step 3).
  - a. Choose "Register" and fill in the "e-mail" and "password" fields and confirm by choosing "Register". For security reasons it is recommended to choose a password different from the one used to access your e-mail box
  - b. Check your e-mail box: confirm the activation of the account by clicking on the link contained in the e-mail sent by the system
- 3) Enter the e-mail address and password of your Vemer account
- 4) Add Tuo Wi-Fi to your Vemer account
  - On the app... Choose "**New Thermostat**" and follow the guided procedure.
  - On Tuo Wi-Fi... Hold down the keys [ON] and [SET] simultaneously until the display shows CONF nEt
  - On the app... Choose the wi-fi network highlighted in green with the name "iwm..." On the next screen select the home wi-fi network to connect Tuo Wi-Fi. Enter a name that identifies Tuo Wi-Fi, the pin (4 digits shown on the display of Tuo Wi-Fi) and choose an icon that helps identify the device among those proposed. Confirm with "Save". The configuration procedure is finished. At this point:
    - the app displays the list of devices associated with your account among which also the newly associated device must appear.
    - Tuo Wi-Fi displays the main screen. Check that the icon is fixed and that the time shown at the top left is correct.

### APP DESCRIPTION

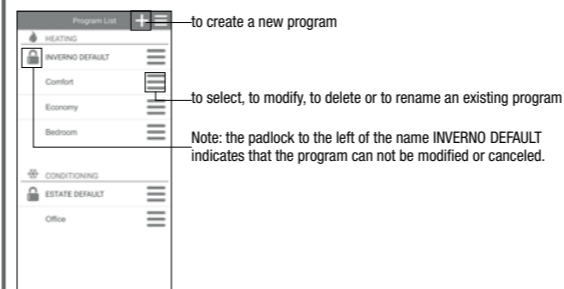
#### Page "Devices list"

From this screen it's possible to choose which device to control. The type of chronothermostat can be recognized by the name shown on the icon.



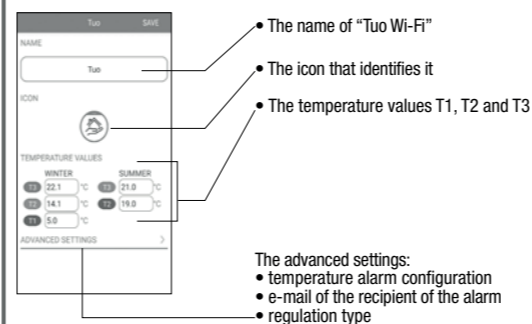
#### "Programs List" page

From the screen "Programs list" it's possible:



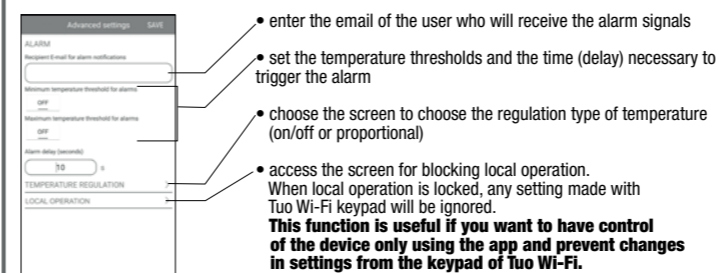
#### Tuo Wi-Fi Lite setting

From this screen it's possible to modify:



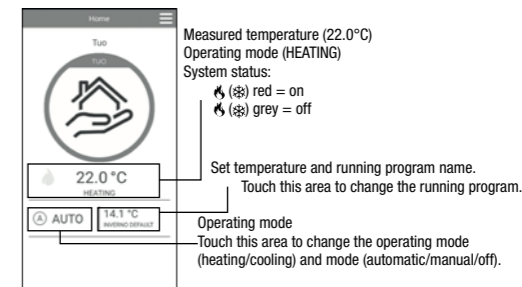
#### Advanced settings

From this screen you can:

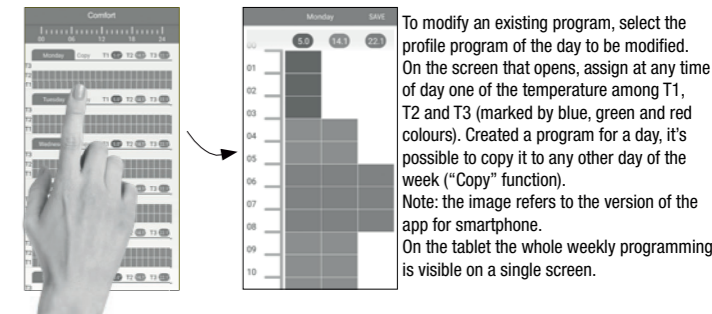


#### Main Page

This screen shows the status of "Tuo Wi-Fi":



#### Modify a program



### HOW TO DO IN CASE OF REPLACEMENT OF THE ROUTER

In case of replacement of the router of the home network, it is necessary to connect the device to the new wi-fi network. Proceed as follows:

1. On Tuo Wi-Fi:
  - a. Hold down the keys [ON] and [SET] simultaneously until the display shows "CONF nEt"
2. On the app:
  - b. Choose "Add Thermostat" → Tuo → "Next"
  - c. Choose the Wi-Fi network highlighted in green with the name "iwm..."
  - d. In the next screen select the new Wi-Fi network and enter the password
  - e. Exit the app **without entering** the name and PIN serial number

### HOW TO REMOVE THE DEVICE FROM YOUR ACCOUNT

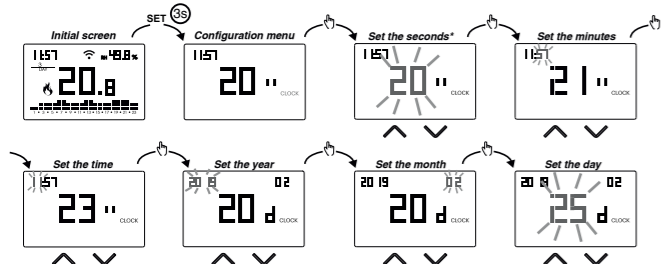
Sometimes it may be necessary to delete a device from a personal account to move it to another account, for example because the device is installed in a rented home and tenants change. Proceed as follows:

1. On the app of the previous tenant:
  - a. Access the "Devices list" page
  - b. Hold the device to be deleted for a long time until the request to confirm deletion appears
  - c. After confirming the deletion, the icon starts to flash
2. On the app of the new tenant:
  - If you already have a personal Vemer account:
    - d. Choose "Add Thermostat" → Tuo → "Already configured"
    - e. Enter the name, the pin (to know how to view the PIN), see ADV menu → Wi-Fi connection configuration) and an icon to help identify the device. Choose "Save"
  - If you do not have a personal Vemer account yet:
    - d. Follow the "Device configuration" procedure described in this manual.

# 7 PROGRAMMING

## CLOCK MENU - DATE AND TIME SETTING

When connected to the Wi-Fi network, the device acquires the date and time settings from the server and no settings are required. However, if you need to manually set the date and time values, proceed as follows:



To exit the date and time setting:

- press the key **SET** once to return to the configuration menu
- press the key **SET** twice to exit the menu and return to the initial screen
- to change the settings of the summer/winter time change, press and hold for a long time the key **Y** (see "Configuration of the summer/winter time change")

### Configuration of the summer / winter time change

You can configure the device to independently manage the summer time update.

The factory setting includes:

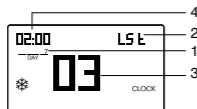
- the passage winter time → summer time (+1h) the last Sunday of March at 2:00 o'clock
- the passage summer time → winter time (-1h) the last Sunday of October at 3:00 o'clock

To change the configuration of the summer/winter time change:

- when changing any of the clock parameters (seconds, minutes, hour, year, month or day), keep the key **Y** pressed for a long time until the display shows AUTO

If the function is enabled (AUTO ON), it is necessary to set:

- 1 the day of the week (1= Monday...7= Sunday)
- 2 the week of the month (1st= first, 2nd= second,...LSt= last)
- 3 the month of the year
- 4 time



using the keys **Y** and **Y** to set the value and the key **Y** to confirm and move on to the next parameter.

To exit the summer/winter time change configuration:

- press the key **SET** once to return to the configuration menu
- press the key **SET** twice to exit the menu

Note: the winter time change → summer time is identified by the symbol the summer time change → winter time is identified by the symbol

For example, in Italy the summer time starts the last (LST) Sunday (7) of March (03) at 2:00 o'clock and the last (LST) Sunday (7) of October (10) at 3:00 o'clock.

## PROG MENU - PROGRAMS SETTING

Access the PROG menu to change the programming of the automatic operation.

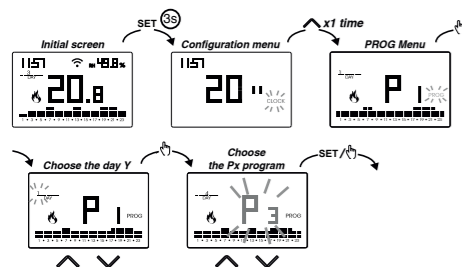
The factory setting includes:

- the P1 program from Monday to Friday
- the P2 program on Saturday and Sunday

If this program is not suitable for your needs, you can:

- assign a different program for one or more days of the week
- modify one or more existing programs by personalizing the profile, that is, assigning different temperature levels for one or more hours of the day.

### How to choose a different program for the day Y



If the program meets the needs:

- press the key **SET** once to confirm and choose another day to which to assign a different program
- press the key **SET** twice to return to the configuration menu
- press the key **SET** three times to exit the menu and return to the initial screen

If no program meets the needs:

- choose the one that is closest to you and press the key **Y** to customize the profile:
    - starting from midnight 00:00, press the keys **Y** and **Y** to assign to each hour of the day one of the 3 possible temperatures (T1, T2, T3) and the key **Y** to confirm and go to the next hour.
    - to enter a switching delay for the selected hour, press the key **Y** for a long time.
- For more information about switching delay, see "How the switching delay works".

When the profile program is suitable for your needs:

- press the key **SET** to exit the customization.

### How the switching delay works

Set a switching delay for a specific hour to maintain, for the duration of the delay, the temperature value assigned to the previous hour.

For example, if the program includes:

T2 from 12 to 13 and T3 from 13 to 14 pm with 30 minutes delay the chronothermostat adjusts the temperature based on the value of T2 from 12 to 13.30 and T3 from 13.30 to 14.00

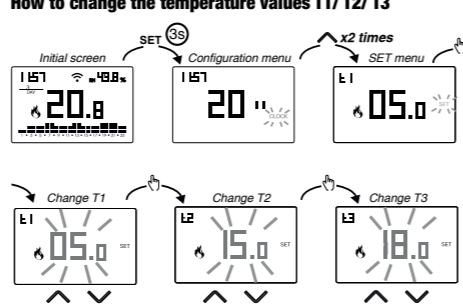
It is possible to set delays of 15, 30, 45 minutes, independent for every hour of the day.

## SET MENU - TEMPERATURES T1,T2,T3 SETTING

Access the SET menu to change the values of the 3 temperatures used in automatic operation. The factory setting includes:

- T1 = 5°C, T2 = 15°C, T3 = 18°C (heating/winter operation )
- T1 = off, T2 = 23°C, T3 = 25°C (conditioning/summer operation )

### How to change the temperature values T1/ T2/ T3



To exit the temperature change:

- press the key **SET** once to return to the configuration menu
- press the key **SET** twice to exit the menu and return to the initial screen

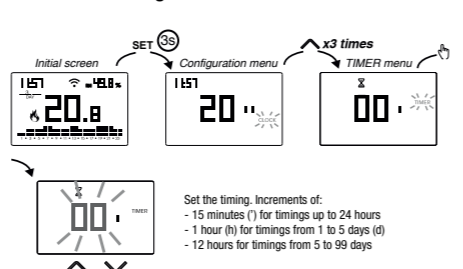
Note: temperature values between L D (minimum value) and H I (maximum value) are allowed. These factory values are: L D = 2°C, H I = 50°C but can be modified through the ADV menu. Note: the condition T1 ≤ T2 ≤ T3 must be respected.

## TIMER MENU - TIMING SETTING

Set a timing to prolong the current operation for the duration of the timing itself. There are 3 timings available:

- **Timed manual:** set a timing during manual operation to maintain this operation until timing has elapsed. At the end of the timing, the device activates the automatic operation.
- **Timed automatic:** set a timing during the automatic operation to maintain this operation until the timing has elapsed. At the end of the timing, the device activates the off operation
- **Off timed:** set a timing during off operation to maintain this operation until timing has elapsed. At the end of the timing, the device activates automatic or manual operation, depending on which operation was active before switching off.

### How to set a timing



To exit the timing change:

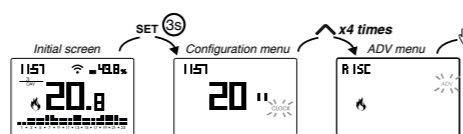
- press the key **SET** once to return to the configuration menu
- press the key **SET** twice to exit the menu and return to the initial screen

When a timing is in progress, the symbol is lit.

Note: to cancel a timing in progress or to exit without activating the timer, set 00'.

Note: the timing ends in the case of changes to the operating mode.

## ADV MENU - ADVANCED PARAMETERS SETTING



In the ADV menu, the parameters related to the advanced configuration of the device are proposed in sequence. Press:

- the keys **Y** and **Y** to change the value of the selected parameter
- the key **Y** to go to the next parameter
- the key **SET** to exit and confirm the changes

Note: the device exits the menu after about 40 seconds without any key being pressed.

### Operating mode

Setting up:

- **r ISC** se if the device is connected to a heating system (winter operation)
  - **cond** if the device is connected to an air conditioning system (summer operation)
- Factory value: **r ISC** (heating).

### Type of regulation

(this menu is active only if operating mode = heating)

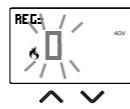
Setting up:

- **OFF** to choose on/off regulation.
- **P** to choose proportional regulation.

Factory value: **OFF** (on/off).

Note: the on/off regulation is suitable for most home situations.

Therefore it is advisable to modify this parameter only in case of real need.



## Parameters for the regulation type

(this menu varies depending on the chosen regulation type)

If the chosen regulation type is on/off, set the differential **d IF**.

Allowed values: 0.1°C ÷ 1°C Factory value: 0.3 °C

If the chosen regulation type is proportional,

set the band **band** and the period **PER**.

Allowed values: 0.5°C ÷ 5°C (band), 10, 20 or 30 minutes (period).

Factory value: 0.5 °C (band), 10 minutes (period).

## Antifreeze temperature

(this menu is active only if operating mode = heating)

The antifreeze temperature avoids the risk of freezing of the system when on the chronothermostat is set the off operation .

Allowed values: ---, 1°C ÷ 50°C Factory value: 6 °C.

Note: the "---" setting excludes the antifreeze function; in this case, when the device is off, no minimum temperature is guaranteed

## Adjustment of the measured temperature

In particular installation conditions, it can happen that the temperature measured by the device deviates from the average temperature present in the room. In this case, introduce an adjustment temperature with the ADJ menu.

Allowed values: -5°C ÷ 5°C Factory value: 0 °C.

Note: the temperature value shown on the display during normal operation is inclusive of any adjustment introduced.

## Wi-Fi connection configuration

This sub-menu consists of 3 different screens and described below.

To switch from one screen to another, use the keys **Y** and **Y**.

- the device PIN. It is a 4-digit number necessary to associate the device with your Vemer account.

This screen also shows:

- the status of the Wi-Fi connection:
  - on fixed: device connected to the home network
  - flashing: search for Wi-Fi network in progress

- the association between the device and Vemer account:

- on fixed: associated with a Vemer account
- flashing: not associated with any Vemer account

Note: during the first 20 seconds or so of this screen viewing the icon is always flashing.

- the MAC address of the device. It is a sequence of characters that identifies uniquely a device inside of a network of devices (reading must be done from left to right. In the example: C28d7b)

- the intensity of the signal between the device and the router (FLD).

For values:

- higher than -60dB: excellent signal quality
- between -60dB and -90dB: good signal quality
- lower than -90dB: poor signal quality that could compromise communication between device and router. In this case, bring the device closer to the router.

## Minimum/Maximum settable temperature

Under particular installation conditions, for example in public buildings, hotels, etc., it may be useful to limit the range of values that the temperatures T1/T2/T3 and Tm can assume, in order to prevent incorrect settings by the user.

- **L D** is the lower limit
- Allowed values: 2°C ÷ H I Factory value: 2°C

- **H I** is the upper limit
- Allowed values: L D ÷ 50°C Factory value: 50°C

## Password for key lock

Under particular installation conditions, for example in public buildings, hotels, etc., it may be necessary to lock the keypad to prevent changes to the settings by unauthorized persons.

To activate the keypad lock, set a password between 001 and 999.

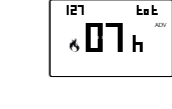
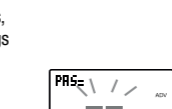
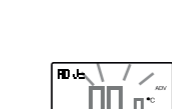
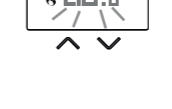
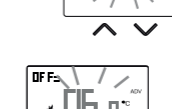
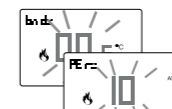
To deactivate the lock, press the key **Y** until you set "--". When the keypad lock is active, the symbol appears on the display and, after pressing a key, the word BLOC appears. To find out how to unlock the keypad, see "Keypad unlock"

## Hour meter of system operation

It displays the operating hours of the system (relay contacts on C-NA).

The device has two counters (5-digit) independent for heating operation and for the conditioning operation, but is displayed only the counter of the selected operation mode.

To reset the counter, press the key **Y** for a long time during the display. The maximum count is 65535h (about 7 years), when this digit is reached, the counter resumes the count from 0h.

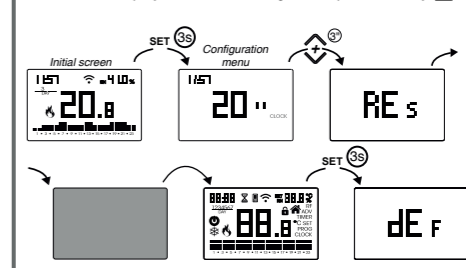


## DEVICE RESET

Perform a reset to cancel the settings made and bring the device back to the conditions in which it appears as soon as it has been removed from the packaging.

To reset:

1. from the initial screen, press the key **SET** to enter the configuration menu.
2. The CLOCK indication flashes.
3. press the keys **Y** and **Y** simultaneously until "rES" appears on the display.
4. when the display shows all the segments, press the key **SET** until "dEF" appears



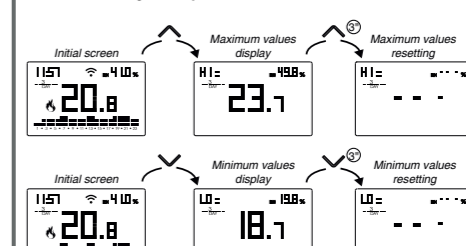
△ To reset if the key lock is active and you do not know the unlock password, you must remove and restore power and, when the display shows all the segments, press the key **SET** until "dEF" appears.

Operation mode	heating (winter)	Add. ADJ temperature	0 °C
Regulation type	on/off	Min. settable temperature	2 °C
Differential (on/off)	0.3 °C	Max. settable temperature	50 °C
Band (proportional)	0.5 °C	Hour meter operation	0 h
Period (proportional)	10 minutes	Automatic summer time change	active (according to EU rules)
Antifreeze temperature OFF	6 °C	Backlighting	active
		Key lock password	deactivated

## OTHER FUNCTIONS OF THE DEVICE

### Display of minimum/maximum daily temperature

The device stores the values of the temperature and of the minimum and maximum humidity measured during the day.



### Keypad unlock

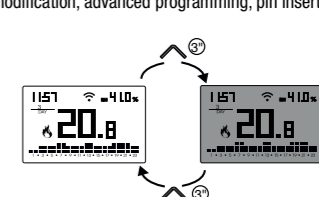
When the key lock is active, the device adjusts the temperature using the set programming. In this condition, after pressing a key, the display shows the writing "bL Dc"

To unlock the keypad:

1. While displaying the writing "bL Dc" press the key any of the 4 keys for a long time until the display show "--".
  2. Enter the correct password using the keys **Y** and **Y** and confirm with the key **Y**.
- The keypad remains unlocked for about 45 seconds from the last press of a key, after which the keypad reactivates the lock. To remove the key lock, see "Password for key lock".

### Display backlighting

The blue backlighting of the display during normal operation is on but can be turned off if the installation requires it (for example in bedrooms). In this condition, the thermostat continues to work normally and the backlighting turns on when you enter the setpoint modification, advanced programming, pin insertion.



## REFERENCE STANDARDS

EU Conformity Declaration  
 Vemer declares that the device complies with the Community Directive 2014/53/EU (RED) with reference to the following standards:  
 EN 60730-2-7, EN 60730-2-9, ETSI EN 300 328, ETSI EN 301 489-1, ETSI EN 301 489-17  
 The full text of the EU Conformity Declaration is available at [www.vemer.it](http://www.vemer.it) address.