

# 1T.51

DIGITAL TOUCH SCREEN THERMOSTAT





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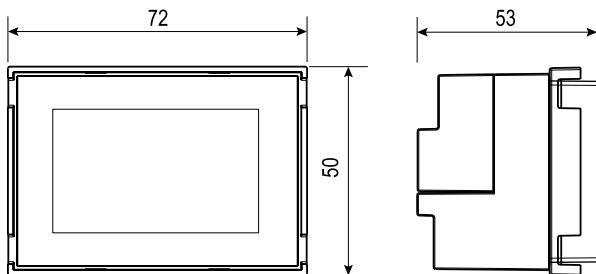
Power supply: **2 Alkaline Batteries 1.5 V AAA**  
 WINTER temperature range: **(+5...+37)°C**  
 SUMMER temperature range: **(+5...+37)°C**  
 FROST protection temperature range: **(+2...+8)°C**  
 Temperature differential  $\Delta T$ : **(0.1...0.9)°C**  
 Operating modes: **2 (day & night)**  
 Protection degree: **IP20**  
 PIN lock: **Yes**  
 Output: **relay 1 CO (voltage-free contact)**  
 Contact rating: **5 A 250 V AC**  
 Mounting: **recess mount in wall or box**

## ADDITIONAL NOTES

There are 3 audible alerts:

- **SHORT BEEP**: confirmation that key is pressed
- **3 LONG BEEPS**: confirmation that the information is saved
- **TRILL**: error

## DIMENSIONS



## SAFETY REQUIREMENTS

The installation of electrical equipment must be performed by experienced staff. Before connecting the thermostat, make sure that the load (heater, pump, etc.) is not connected to the supply and that the load is within the ratings marked on the thermostat.

## POSITIONING

Install the thermostat away from sources of heat (heaters, direct sunlight, kitchens) and away from doors/windows.

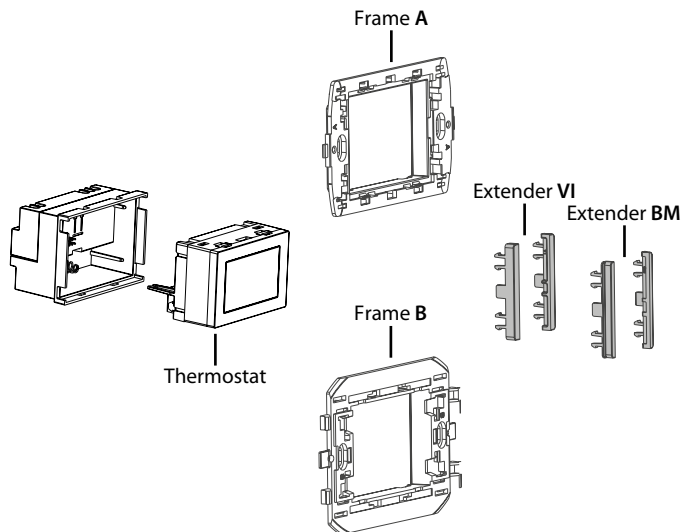
Mount at about 1.5 m above the floor.

## PREPARATION

Install the thermostat using the correct accessories (see the table in the following page).

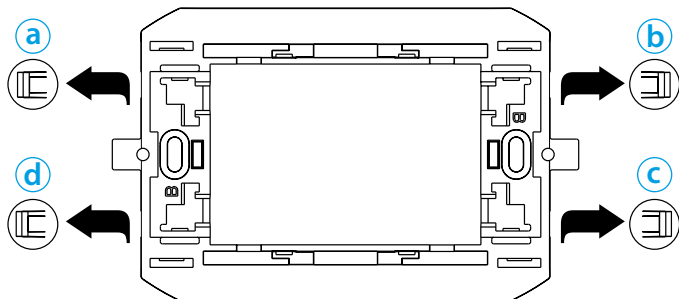
## CLEANING

For cleaning - use only a damp cloth.

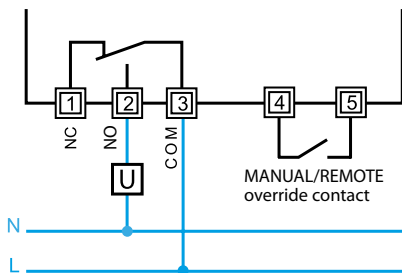


	Frame A	Frame B	Extender VI	Extender BM
<b>ABB:</b> Chiara				
<b>ABB:</b> Mylos				
<b>Ave:</b> Serie 44				
<b>Bticino:</b> Living, Light, Light Tech, Livinglight, Axolute				
<b>Bticino:</b> Matix		*		
<b>Gewiss:</b> Chorus		*		
<b>Vimar:</b> Arke				
<b>Vimar:</b> Eikon, Eikon Evo, Plana				
<b>Vimar:</b> Idea				
<b>Bticino:</b> Livinglight Air	with 01C.51			

\* = remove the side supports (a - b - c - d)



## WIRING DIAGRAM



Insert the batteries into the compartment, observing the indicated polarities.





## ATTENTION

- Incorrect placement of the batteries (reverse polarity) may damage the thermostat
- If the battery charge falls below the minimum level, the thermostat is placed in the OFF state and the output relay releases
- If the thermostat remains unused for long periods it is advisable to remove the batteries

The thermostat provides 3 different reports of battery condition:



- With the battery  **ON (STEADY)**, operation of the thermostat will soon be compromised
- With the battery  **FLASHING** imminent replacement of batteries is necessary
- With the **bAtt/OFF FLASHING** the thermostat is in the OFF state and the output relay releases

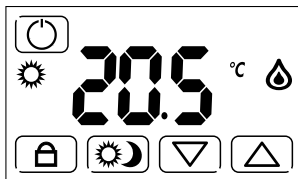
## NOTE

Replacing the batteries at the initial warning ON (STEADY) and taking no more than 40 seconds, the date and time will not be erased



Insert the batteries and the display will show all the symbols and the software version, for a few seconds.

After that, the main screen will be displayed



#### NOTE

Touch the display to illuminate the backlight.



Thermostat ON/OFF key



Selecting the temperature for night or for day



Pressed for 3 seconds - activates or deactivates the display lock function



Pressed for 3 seconds - enters the advanced menu



Changes the data displayed (increase)



Changes the data displayed (decrease)



Press to confirm the information displayed on the display



Returns to the previous setting  
Press for 3 seconds to exit the function



Returns to the previous setting (in the advanced menu)  
Press for 3 seconds to exit the advanced menu



Administrator set limits



Frost protection ON



Temperature differential



Remote control



Low battery



Display only, or full thermostat, locked



Day mode



Night mode








Heating ON (in WINTER mode)

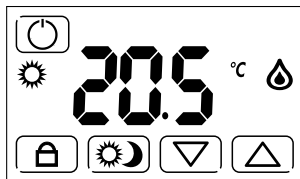



Cooling ON (in SUMMER mode)

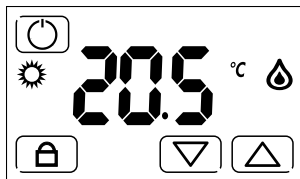
## MAIN SCREEN

The main screen showing the operational keys for everyday use. They are, the temperature control keys  , the  key (if enabled in the advanced menu), the  key to lock the product and the  key, to turn off.



with key 




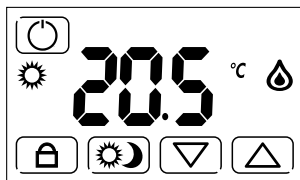
without key 




## DAY SETTING

The  key followed by the sun icon  allows the setting of the day temperature.



Within the main screen, using the   keys allows the desired temperature to be set






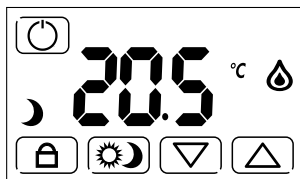
### NOTE

When switching from night to day with the  key (and vice versa), the set temperature will be displayed momentarily.


This is then followed by the current measured temperature.

The  key allows you to set a different temperature from the Day  temperature.

The the moon symbol  shows that the night temperature can now be set using the   keys.




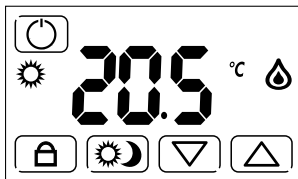
#### NOTE


When switching from day to night with the  key (and vice versa), the set temperature will be displayed momentarily.

This is then followed by the current measured temperature.


This function protects the thermostat from accidental touch, blocking ONLY the display.

To activate, press  for 3 seconds.



The  symbol will then appear on the display and 3 beeps will indicate its activation.






To deactivate, press  for 3 seconds.

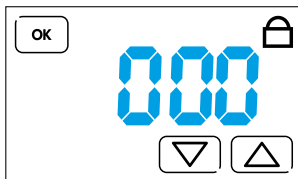
## NOTE






To use the DISPLAY LOCK function, the PIN set in the FULL LOCK MODE (with PIN) in the advanced menu, must be set to 000 (see page 19).

This advanced feature is used to lock the thermostat completely. To activate it, you must set a 3-digit PIN that will be required every time you want to lock or unlock the thermostat.

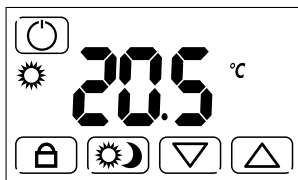
To set the PIN:


- Switch off the thermostat with the  key
- Press  for 3 seconds to access the ADVANCED MENU
- Press  until you see the screen **000** that will permit entry of the desired PIN code

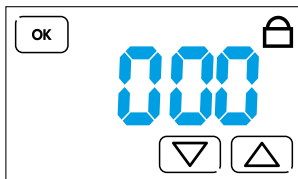





Then, press the  or  keys until the desired PIN number is reached and confirm with . It is now possible to exit the advanced menu by pressing  several times or by pressing  for 3 seconds until you hear three beeps confirming the PIN registration.

Turn on the thermostat, and the main screen will be displayed.





To activate the FULL LOCK MODE (with PIN), hold down the  key for 3 seconds. The following screen will appear.



Use the  or  keys to enter the PIN previously set in the advanced menu and press . 3 beeps will confirm the lock, and the display that will show the following screen:



To unlock the thermostat, hold down  for 3 seconds. The display will show **000**. Enter your PIN and confirm with . 3 beeps confirm that the device has been unlocked.

### CAUTION

After 3 failed attempts you will not be able to enter any further PIN for 20 seconds. **Err** will remain on the display.



### NOTE

By removing and inserting the batteries, the thermostat will remain with the display locked.


If you forget your PIN enter the **il codice di sblocco 513**.

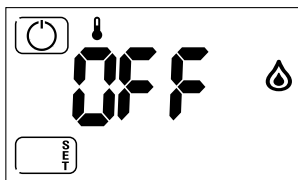
Once unlocked, it is recommended that you go back to the advanced menu to verify and/or modify your previously entered personal PIN.




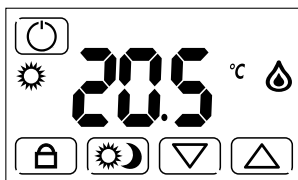
FROST PROTECTION function is active when the thermostat is set to WINTER and it is off.

It is used to protect plant and equipment from low temperatures.

When the set threshold is reached, the function will be activated and the display will show the  symbol.




At any time, press  to turn on the thermostat and for the main screen to appear.




## NOTE

When the thermostat is off and then turned OFF, you can:

- Press the  key for a few seconds to access the advanced menu
- By pressing the center of the display for 5 seconds, you enter the "ADMINISTRATOR" menu, through which you can enter values for the minimum and maximum temperature settings (see page 22).

The advanced settings are useful for customizing the thermostat.  
The settings are:

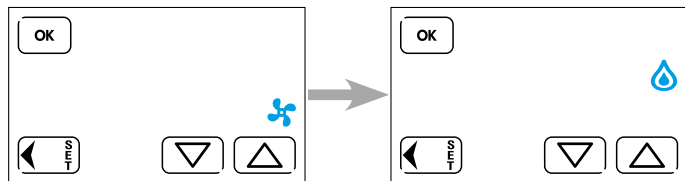
- 1 - SUMMER-WINTER MODE
- 2 - FROST PROTECTION FUNCTION
- 3 - TEMPERATURE DIFFERENTIAL
- 4 - ANTI-SEIZE PUMP FUNCTION
- 5 - FULL LOCK MODE (with PIN)
- 6 - EXTERNAL FORCING CONTACT
- 7 - ENERGY SAVING E1
- 8 - RESET



To enter the advanced menu, starting from the main screen, press  to turn off the thermostat.



Hold down  for 3 seconds.


## 1 - SUMMER-WINTER MODES



The display shows one of the following screens



The  symbol indicates the winter mode (heating) whilst  indicates summer mode (cooling).

You can set the desired mode using the  or  keys.

Confirm with  to proceed to the next menu.

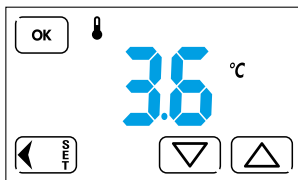
To exit the menu, press  or the  repeatedly until the OFF screen appears.

If something has been changed, 3 beeps will confirm the change.

## 2 - FROST PROTECTION FUNCTION

After setting the Summer or Winter mode, pressing **OK** will show the following screen.

With **▲** or **▼** it is possible to set the desired value, between 2°C and 8°C. Press **OK** to confirm and proceed to the next menu.

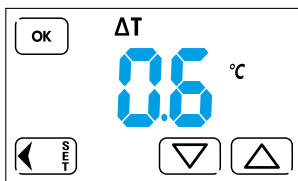


To step back in the menu, press **←**, whilst to exit the advance menu hold down **←** for 3 seconds, or press **OK** repeatedly until OFF appears on the screen.

If something has changed, 3 beeps will confirm the change.

## 3 - THERMAL DIFFERENTIAL

After confirming the desired frost protection value with **OK**, the following screen appears.



The thermal differential influences the way the thermostat regulates - according to the type of heating or cooling plant to be controlled.


Use **▲** or **▼** to set the desired thermal differential value between 0.1 and 0.9.

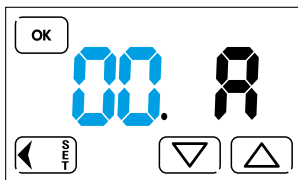
Confirm with **OK**, and proceed to the next menu.

To return to the previous menu, press  whilst to exit the advanced menu hold down  for 3 seconds, or press  repeatedly, until you see the OFF screen.

If something has changed, 3 beeps will confirm the change.

#### 4 - ANTI-SEIZE PUMP FUNCTION

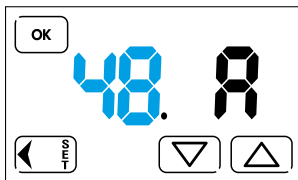
After programming the thermal differential, pressing  will bring up the following screen.






(Anti-seize function off)




The anti-seize pump function is a function that will configure the thermostat as an asymmetrical timer. By setting a value between 1 and 99 hours, the thermostat will close the output contact for 30 seconds, every time the set time value has elapsed.

Example:



By setting with keys  or  the value 48 (48 hours = 2 days) and confirming with , the thermostat will close the relay contact for 30 seconds, every 2 days.

After enabling the function in the menu, the count will start after the last switching off of the relay.

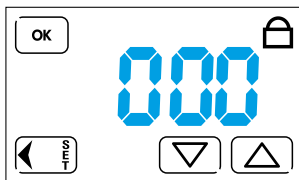
To step back in the menu press  whilst to exit the Advanced Menu, press and hold  for 3 seconds, or press  repeatedly, until the screen shows OFF.

If something has been changed, 3 beeps will confirm the successful change. Se qualcosa è stato modificato, 3 beep confermeranno l'avvenuta modifica.

## 5 - FULL LOCK MODE (with PIN)

With this mode it is possible to lock the display, using a PIN code - preventing tampering.

In the advanced menu, press **OK** until the following appears on the screen:



To lock the display only, you must set the PIN to 000 using the keys **▲** or **▼**. Whereas locking the entire thermostat (thus preventing tampering) you will have to enter a PIN number between 001 and 999.

Whenever you want to activate the display lock; on the main screen you will have to press **🔒** (see page 12) for 3 seconds.

Whereas, to activate the anti-tamper lock, you have to press the **🔒** key for 3 seconds, enter the PIN previously set, and confirm with **OK** (see page 13). You will have to repeat the same procedure, for the unlock phase.

### NOTE

If you forget the PIN, enter the **unlock code 513**.

Once unlocked, it is recommended that you go back to the advanced menu to verify and/or modify the personal PIN previously entered.

## 6 - EXTERNAL FORCING CONTACT

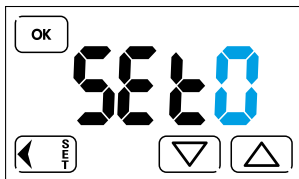
This setting allows you to force the thermostat by means of an external contact connected to terminals 4 and 5.

The function is useful for forcing the system off during certain hours (by using a time-switch) or for turning it OFF remotely.

SET= 0 Unlock the night button and the forcing can be done by a command External (eg: clock)




SET= 1 1 The night button is present and the forcing can be executed ONLY by the button on the display

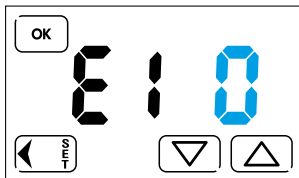
SET= 2 2 Remote On / Off Forcing (The night button is present).



## 7 - ENERGY SAVING E1

With the E1 (ECO1) energy saving function the thermostat automatically controls the ON/OFF cycle of the heating/cooling system through mathematical calculations to take into account the effects of thermal inertia - enhancing perceived comfort levels and feelings of well-being, while delivering remarkable energy savings.

Entering the advanced menu press  until you get to the function E1. Use the  and  to select the appropriate function.



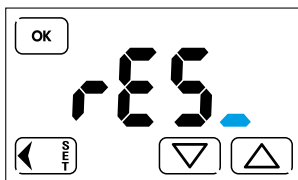
E1 = 0 Function off

E1 = 1 Function on

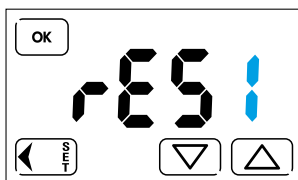
E1 = 2 Function on for heating system equipped with zone valves with opening times greater than 10sec and less than 90 sec


## 8 - RESET

This will restore all factory settings.





Using  or , set rES 1.



Confirming with  the thermostat will turn off completely and then turn back on showing first, the software version and then the screen main. The product will then be reset to the factory settings.

From the OFF position and while holding down the center of the display for about 1 second you can enter the "ADMINISTRATOR" configuration.

This is used to set the maximum and minimum user-adjustable temperature values that can be set for the selected season, ie WINTER  and SUMMER .

Setting the "ADMINISTRATOR" PIN can no longer be selected in Menu mode Summer or Winter mode, or use the function of calibration.

Log in for the first time in administrator setup NO code is requested input.

If a PIN is subsequently set (other than "000"), the code request.

Entering an incorrect code displays ERR for a few moments and returns to OFF.

After 3 failed attempts you will not be able to enter any PIN for 20 seconds.

Err will remain on the display.

### CAUTION

**The PIN code, if lost, can not be recovered even by performing a thermostat reset. It is advisable to write down the entered code.**

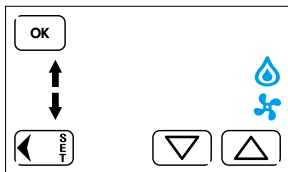
### NOTE

The RESET function, with ADMINISTRATOR PIN = 000, restores ALL data and factory setting, including maximum and minimum temperature values set within the ADMINISTRATOR function.

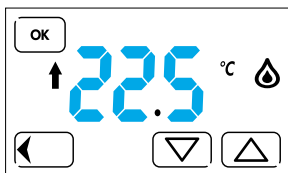
With ADMINISTRATOR PIN other than zero, ALL will be reset - except for the values set within the ADMINISTRATOR function.



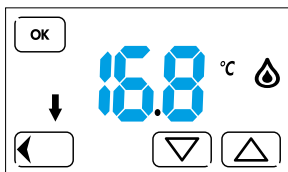
## ADMINISTRATOR PIN "000"



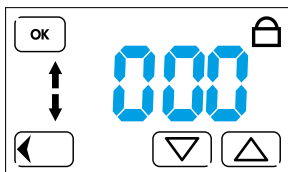
From the OFF position press and hold the center of the display for a few seconds. Then select SUMMER or WINTER mode. Confirm with **OK** and proceed to the next menu.



Set the maximum value of user-adjustable temperature. Confirm with **OK** and proceed to the next menu.

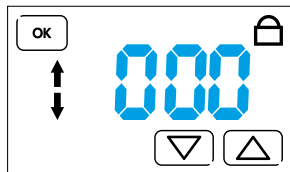


Set the minimum value of user-adjustable temperature. Confirm with **OK** and proceed to the next menu.

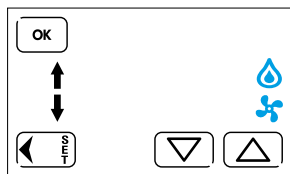


If you want, you can enter a lock code. Confirm with **OK** and proceed to the OFF screen.

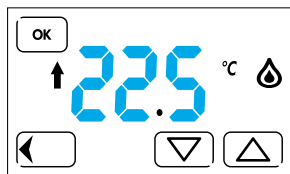
## ADMINISTRATOR PIN other than "000"



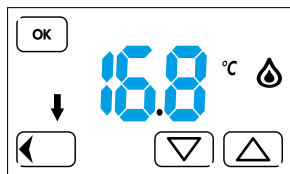
From the OFF position, hold down the center of the display for a few seconds. Set the code with the arrows (if previously entered) and press OK. Confirm with **OK** and proceed to the next menu.



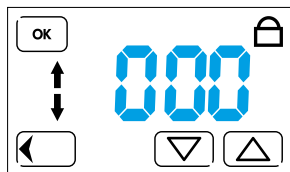
Select SUMMER or WINTER mode. Confirm with **OK** and proceed to the next menu.



Set the maximum value of user-adjustable temperature. Confirm with **OK** and proceed to the next menu.



Set the minimum value of user-adjustable temperature. Confirm with **OK** and proceed to the next menu.



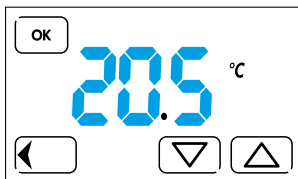
If you want, you can enter a lock code. Confirm with **OK** and proceed to the OFF screen.




The thermostat is supplied already calibrated by the factory.

If you want to change the measured temperature value as displayed on the display, proceed as follows.

Starting from the main screen, press the (OFF) button for 4 seconds,

On the **CAL** screen will appear and then



Use  or  to set the desired value and then press  to confirm the change and exit the calibration.

If you do not touch any key; after a few seconds the product will come out of the menu of its own accord - again displaying the main screen.

If you want to restore the factory settings, enter the advance menu and reset the thermostat.

[illegible]

## This image shows a full page of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page, providing a template for handwriting practice or general writing. There are no margins, text, or other markings on the page.

[illegible]



