M5 DIGITAL MANUAL THERMOSTAT:

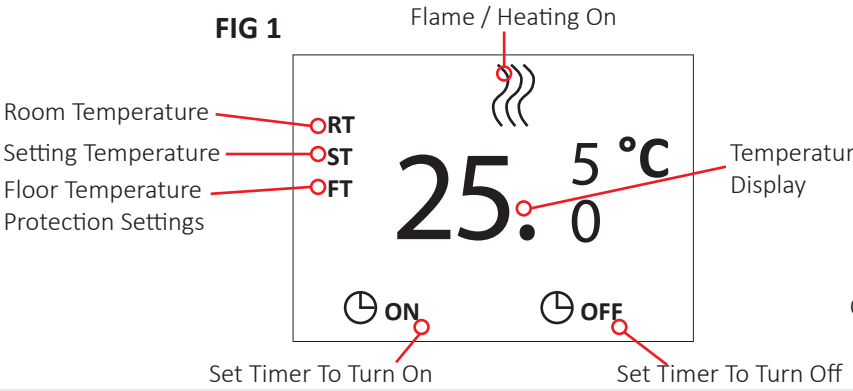
Digital thermostat with Clear LCD display, floor and air temperature sensors and easy push button operation. Designed to regulate either air or floor temperature by automatically switching heating system, (water or electric) on and off to maintain a set temperature..

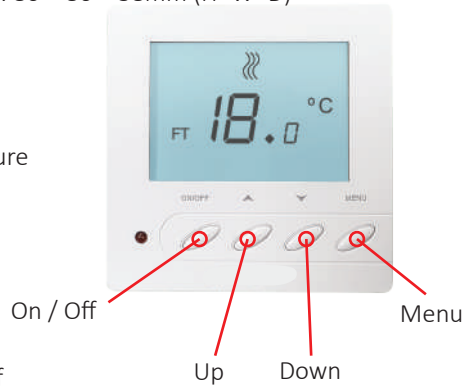
Technical Data:

Power Supply: AC24V or AC220V, 50/60HZ
Load Current: 3A(Water Heating);16A (Electric Heating)
Accuracy: +1ºC

Set-point Temperature Range: 10ºC- 40ºC
Consumption: <1W
Temperature Sensor: NTC
Size: 86 * 86 * 38mm (H*W*D)

FIG 1





Keys:

(1: On/Off button = Press button once to turn thermostat ON. Press again to turn thermostat OFF.
2: Up / Down buttons = Use these buttons to increase or decrees the set temperature of change the menu settings.
3: Menu button = Use this button to enter the various menu settings and timer settings, (further explained under Function Instructions next).

Thermostat Functions:

1: Changing set temperature:

When the thermostat is ON the up and down buttons can be used to change the desired set temperature. Please note if the temperature is changed then the screen will display the new set temperature (ST) for a short period of time before reverting back to the current actual floor (FT) or air (RT) temperature. The thermostat will then turn the heating on or off automatically to try and achieve your new set temperature. If you wish to check what the current set temperature is click the up or down button once and the current set temperature (ST) will show for a short period.

You can see if the thermostat is sending power to the heating by looking for the flame symbol. If the flame symbol is showing the thermostat has the heating turned on. If the flame symbol is not showing the thermostat has the heating turned off as the current set temperature has been reached.

2: Set Timer:

This thermostat has a timer function to allow the user to set a time after which the heating can be turned on or off to a set temperature.

A: Set timer to turn heating on to as set temperature.
-Turn the thermostat on and set the temperature to the temperature you would like the heating to turn up to when the thermostat tuns on after you have set the timer. Once this temperature is set turn the thermostat off.
-With the thermostat off click the MENU button once. This will bring the timer screen up with the set timer to turn off symbol, (see FIG 1) and the clock set at 00.0. You can now use the up and down keys to set the timer, (in 0.5h intervals) for when the thermostat will next turn on. Once you have set the timer l eave the unit alone and the timer will count down in 0.5h intervals. When the timer reaches 00.0 the thermostat will turn back on at the temperature you have already set.

B: Set timer to turn thermostat off.
Make sure the thermostat is tuned on and click menu button once, (please note if the thermostat is set to regulate both air and floor temperatures you will need to click the menu button twice). This will bring up the timer screen with set timer to turn on symbol, (see FIG 1) and the clock set at 00.0. You can now use the up and down keys to set the timer, (in 0.5h intervals) for when you want the thermostat to turn off. Once you have set the timer leave the thermostat alone and the screen will revert back to the standard on screen with a clock symbol and OFF in the bottom right hand corner. Once the timer expires the thermostat will turn off.

You can still change the temperature during the countdown period. If you need to check how long is left on the timer click the menu button once, (or twice if both air and floor temperature is being regulated together) and the countdown clock will show the remaining time left. You can either change this or leave the unit alone and the unit will revert back to the standard on screen.

Advanced Settings: 1-6

To enter the Advanced settings, make sure the unit is turned off and then hold down the Menu button for 10 seconds until the unit turns back on with only a temperature is showing on the screen (this is likely to be 0.o°c). The Menu key can then be clicked repeatedly to move through the 6 advanced settings / screens and the up and down buttons used to change the values on each screen. Once the Menu button is clicked for the 7th time the thermostat will save the new settings and turn the unit off.

Note: Once the user enters the advanced settings screen the thermostat will not stay in this setting indefinitely. The unit will revert back to the off screen if the thermostat is left alone for 10 seconds.

1: Room temperature RT switching differential. This is recommended to be set to 2°c
This is the air temperature differential between the thermostat turning off and on. If the RT temperature is set to 10°c and the RT switching differential is set to 2°c then the thermostat will allow the heating to rise up to 12°c (10+2) before the heating is turned off until the temperature falls back to 10°c and turns back on to repeat the cycle.
-This is screen one, (first screen when entering advanced settings). Use up and down keys to change values, then click Menu Key to confirm and contine.

2: Floor temperature FT switching differential. This is recommended to be set to 2°c
This is the floor temperature differential between the thermostat turning off and on. If the FT temperature is set to 10°c and the FT switching differential is set to 2°c then the thermostat will allow the heating to rise up to 12°c (10+2) before the heating is turned off until the temperature falls back to 10°c and turns back on to repeat the cycle.
-This is screen two, use up and down keys to change values, then click Menu Key to confirm and contine.

3: Air / Floor / Air & Floor temperature regulation.
This thermostat can be used to regulate RT, Air temperature only – FT, Floor temperature only – or RT & FT, Air and Floor temperature together. Please note when regulating underfloor heating this thermostat should be set to FT, Floor only.
-This is screen three, use up and down keys to change values, then click Menu Key to confirm and contine.
-Note: when (FT & RT) are selected together only RT will show on the screen but by clicking menu once the thermostat will show FT for 10 seconds before reverting back to the RT temperature.

4: Frost protection.
The thermostat has the ability to turn the heating on if the ambient temperature drops below 5°c at any time even if the thermostat is in the off position. This function can be tuned on or off on screen 4.

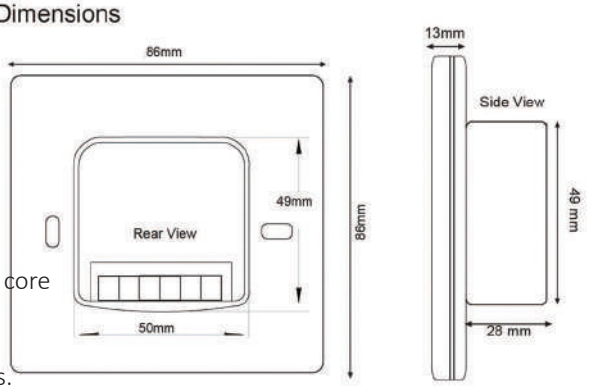
5: Data Save.
The thermostat has the ability to save the users settings for several days should power be cut/disconnected. This setting can be turned on or off on screen 5.

6: Rest Thermostat to default settings.
The thermostat can be reset to its default factory settings by reducing L8 down to L0 on Advanced setting screen 6.

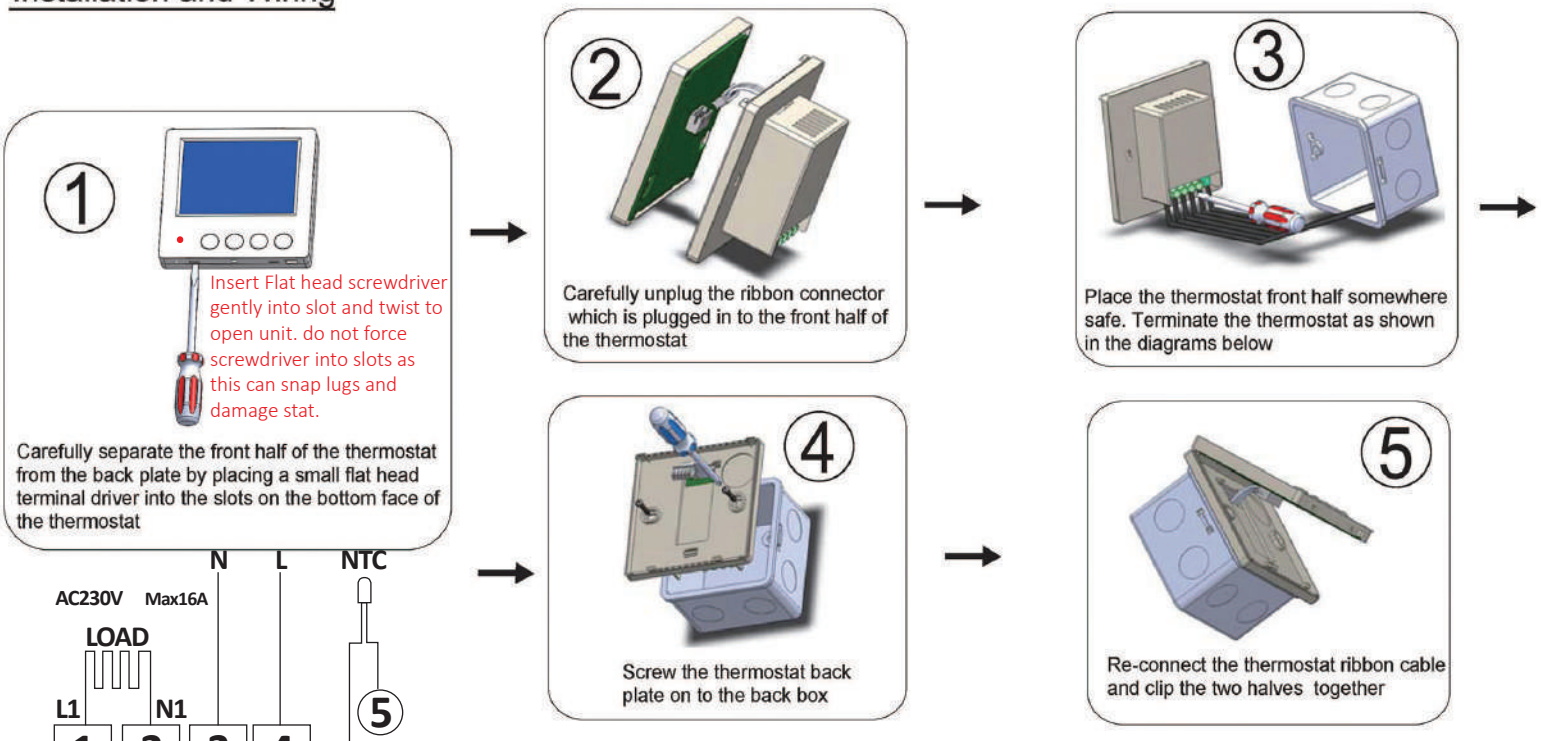
Fitting / Specifictaions

(1)Temperature display range:0~60ºC,accuracy 0.5ºC
(2)Room temperature setting range:10~40ºC
(3)Floor temperature setting range:10~60ºC
(4)Room temperature difference value setting range:1~5ºC
(5)Floor temperature difference value setting range:1~8ºC
(7)Fixed timing on and off time setting range:0-15 hours in 0.5 hours intervals
Note: Installation / Power cable used to wire thermostat must be a suitablee sized solid core hard wire, (NOT- multi strand flex or braded cable).
- Do not allow water, liquids or any other debris into the thermostat.
- Be careful when opening up the thermostat so not to damage the retaining plastic lugs.

Dimensions



Installation and Wiring



230V heating wiring diagram