Programmable Room Thermostat

User Guide UFHPROGB & UFHPROGRFB

Polypipe

Underfloor Heating

Overview

The Programmable Room Thermostats Range (UFHPROGB & UFHPROGRFB) provides time and temperature control for a space of up to 40m^2.

Both units are compatible with the Remote (wet room) sensor PB23020 and should be installed 1.2m above floor level and away from direct heat sources. Wiring Details are provided in the additional documentation.

The UFHPROGB and UFHPROGRFB units are designed to be used in conjunction with our range of hardwired and wireless Master Wiring Centres and Slave Units. Depending on the application, additional RF receivers (PB REC RF) may required.

Details on how to initiate communication with the receiver units in RF applications are provided in the additional RF documentation.

This user guide provides user settings and Programming details, these and the advanced settings can also be downloaded from **www.polypipeufh.com** in A4 format.

Please Read Before Programming Your Thermostat

Temperature settings

The Programmable Room Thermostats operates at 2 different temperatures:

Comfort - When the space is occupied - the desired temperature.

Setback - when the space is unoccupied - the temperature the room will not fall below.

This is to assist the response time of the heating system.

For solid floor systems it is recommended that the Setback temperature is set no more than 4°C lower than the Comfort temperature.

You may find that other systems can be set with a higher differential.

Time settings

The room thermostats are preset with a function called Optimum Start (ITCS In the menu function)

This means that you do not need to adjust each room for the warm up time from Setback to Comfort. The On Time in the pre-set programs, or the start time as defined by users in the User Defined programs, **is the time by which the room will be at the Comfort temperature by, not the time the heating will start to operate.**

Each thermostat will learn the warm up time of the room and start the heating at a time to achieve Comfort by the time required, this optimisation self adjust for changes in outside temperature.

When this function is operating, i.e. the thermostat is heating prior to the actual time setting, the will be displayed (flashing).

If required this function can be de-activated in the user menu so as the heating will actually switch on at the chosen pre-set time.

To do this you will need to access the hidden user menu by setting the thermostat operation to Auto and then holding down the **(OK)** button for 10 seconds. Then using the > navigation button scroll to menu 07 and press **(OK)** then use the (+) to choose no and press **(OK)**. Then using > scroll to End and press **(OK)**.

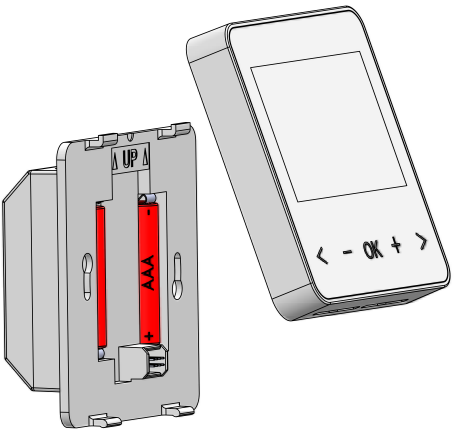
Contents

1 Battery Access and User Controls
1.1 Keyboard
1.2 Display
2 First Time Installation
2.1 Installing Batteries
2.2 Time and Date Adjustment
3 Selecting a Pre-set Program P1 - P9
4 User Defined Programs U1 - U4
4.1 Creating User Defined Program
5 Room Temperature Setting
5.1 Comfort Temperature Setting
5.2 Setback Temperature Setting

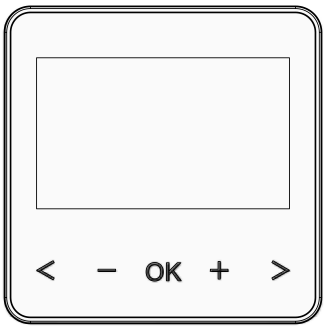
Contents

6 Operating Menus
6.1 RF Initiation
6.2 Automatic Mode
6.3 Off Mode
6.4 Holiday Mode
6.5 Boost Mode
6.6 Keyboard Lock Function
7 Sensor Connections
7.1 Settings for using the Remote Sensor
8 Pre-set Programs
9 Hidden Menus
10 Technical Specification
11 Fault Diagnostic

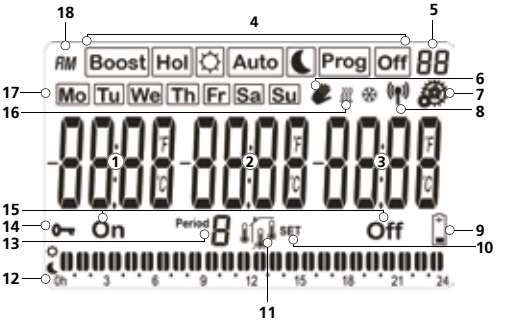
1 Battery Access and User Controls



1.1 Keyboard



1.2 Display



1-3 Setting or measured temperature/hour/text/indications

4 Operating mode menu (active mode is framed)

5 Program number or parameter number if "7" is displayed

6 Temporary override function activated

7 User/Installation parameter menu

8 RF transmission logo

9 Low batteries indicator

10 Modification of setting temperature

11 Type of used sensor and displayed temperature:

: Regulation Internal sensor

:Regulation External sensor

: Regulation Floor Sensor (only available with reciever)

: Regulation Internal Sensor with Floor limitation (only available with reciever)

12 Program of the current day (the current time bar blinks)

13 Period Number in the program of the current day

14 Key lock indicator

15 Program state in operation mode

16 Heating demand indication

17 Days of the week (current day is framed)

18 AM/PM

2 First Time Installation

This section will guide you to starting your thermostat for the first time.

2.1 Installing Batteries

- Lift the front panel off and insert the 2 x AAA alkaline batteries supplied (or remove the small protection sticker if the batteries are already installed in the compartment)
- Replace the front panel
- Your thermostat will ask you to set the time
- **Note:** The time and date setting can be set at any time by pressing the **(OK)** key for 3 seconds

2.2 Time and Date Adjustment

The valve to be adjusted will blink, and is adjusted with keys **(-)** and **(+)**. Once the adjustment is made, accept it with the **(OK)** key.

The thermostat will jump automatically to the next value.

Progress of the adjustments:

Time and day:
Hours setting
Minutes setting
Day of week setting

Date:
Day setting
Month setting
Year setting

You can access the time and date adjustment made by pressing **(OK)** key for 3 seconds at any time.

3 Selecting a Preset Program P1 to P9

There are 9 preset programs **P1-P9**.

The thermostat will default to **P1** (see programs pages 33 to 41).

To select a preset program use the navigation keys to move the cursor from **Auto** to **Prog**.

Press **OK** to make the P1/P9 adjustable.

Use the **(-)** or **(+)** keys to choose **P1** to **P9**, or **U1** to **U4** (User Defined Programs).

Select and validate with **(OK)** to return to **Auto**.

4 User Defined Programs U1 to U4

You set "on" and "off" times for each period, up to 3 periods per day eg. Morning, afternoon and evening. Between time periods temperature will default to "Setback".

If for example at a weekend you only need your heating to come "on" and "off" once, you only need to set period 1 and skip the others.

4.1 Creating User Defined Programs

Use the navigation keys to move from **Auto** to **Prog** as previous. Press **(OK)** to make **P1/P9** adjustable.

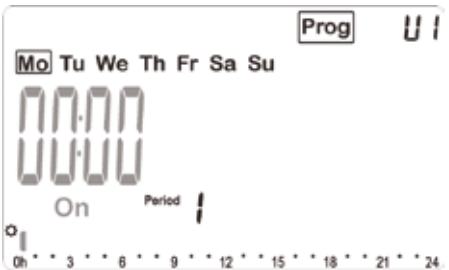
Use the **(-)** or **(+)** keys to choose **P1** to **P9**, or **U1** to **U4**.

Select any of **U1** to **U4** as this allows each thermostat to store up to 4 user defined programs in its memory.

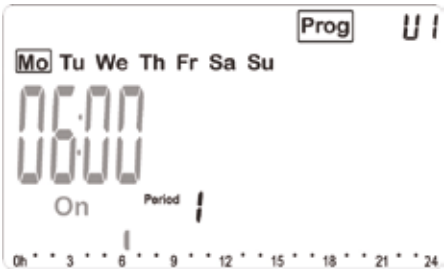
With **U1** to **U4** blinking press the **(OK)** key to access the program settings.

- The program creation will always start with the Monday.

Once you have pressed the **(OK)** key, the following display will appear:



Adjust the hour of the first step of the program with **(-)** or **(+)**.



Press **(OK)** to validate and jump to the following step.

You can set this temperature to run to the end of the day (midnight) by pressing **(OK)** or, use the **(+)** button to set the "off" time for this period.

You will then see the below screen

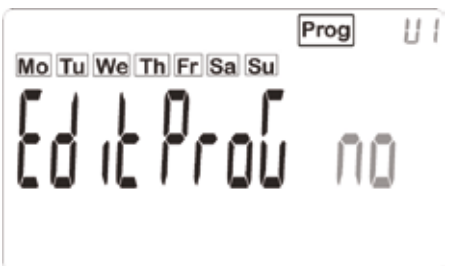
If all periods for this day are finished press **(OK)** to accept or press **(+)** button to set the start time for the next period.

Repeat previous steps until all periods are set and press **(OK)** to complete.

You then have the option to copy this period to other days, or create new programmes for each day.

You can scroll between “Yes” and “No” using the **(+)** and **(-)** keys. Pressing the **(OK)** button will accept you selection. You can copy to each day individually or scroll to “No” and create new programmes as previously.

To edit and existing user defined programme, select the existing programme in the **Prog** menu (U1 - U4) and press **(OK)** button. You will then be given the option “Edit Prog” “Yes” or “No”



Selecting “No” will take you back to **AUTO** mode, selecting “Yes” will give you the option to erase “Yes” or “No”. Selecting “Yes” will clear the previous programme and allow you to start from the begining. Selecting “No” will allow you to edit the existing programme, scroll through days with the **(-)** or **(+)** key, then press **(OK)** on the day you wish to edit. Once complete, press **(OK)** to accept the programme and return to **AUTO** mode

5 Room Temperature Settings

In order to set room temperatures to work with the program you have selected or created you will need to access the mode menu.

Use the navigation keys < or > to move the frame cursor over the required mode and **(OK)** to confirm your choice.

5.1 Comfort (On) Temperature Setting

With the cursor over the Comfort setting ☼ select and use the **(-)** or **(+)** keys to choose the Comfort temperature for the room. Validate with **(OK)**.

In the **Auto** mode this will be the temperature set for when the room is occupied only (On).

If the cursor remains positioned over ☼ the room will permanently be set at the Comfort temperature.

5.2 Setback (Off) Temperature Setting

With the cursor over the Setback setting ☾ select and use the **(-)** or **(+)** keys to choose the Setback temperature for the room. Validate with **(OK)**.

In the **Auto** mode this will be the temperature set for when the room is unoccupied (Off).

If the cursor remains positioned over ☾ the room will permanently be Setback temperature.

6 Operating Menus

6.1 RF Initiation

On RF installations the unit must first be paired to the corresponding RF Receiver. To do this set the receiver to pairing mode (see receiver installation guide). Access the hidden User Menu by following the steps as shown in the Hidden Menu section of this guide. The display should now show menu 00 and the code rf INI. Wait until the receiver acknowledges the signal. The transmitter and receiver are now paired.

6.2 Automatic Mode (Auto)

In this mode the thermostat will follow the chosen program (Built-in or User defined) according to the time and the Comfort and Setback temperature settings.

You can easily override the current temperature of the program by pressing on the **(-)** and **(+)** in Auto mode at any time. The current setting will blink to show you that you can change it. A small hand will be displayed to show you have overridden Auto function, however Auto timings will return at the next time change.

6.3 Off Mode (Off)

Use this mode if you wish to turn off your thermostat.

Frost protection is automatically provided as a minimum temperature of 7.0ºC will be maintained.

(This temperature can be changed, contact your installer or check advanced menu).

6.4 Holiday Mode (Hol)

The Holiday mode allows you to adjust the temperature for a period of days:

The display will show "no" press **(OK)**

- adjust the temperature setting (default value 5ºC) with **(-)** or **(+)**, press **(OK)** to accept.
- adjust the duration in days with **(-)** or **(+)** press **(OK)** to validate (adjustable 1 to 99 days).

The **(On)** icon will blink and the number of days remaining is displayed until the end of the period.

If you want to stop the holiday function before the end of the duration adjust the day period to 0 and scroll across back to **Auto**.

6.5 Boost Mode Boost

The Boost mode allows you to adjust the temperature and the duration for a particular time.

This function can be used should you need to override the set program for a short time.

Adjust the setting temperature with **(-)** or **(+)** press **(OK)** to accept the temperature.

Adjust hours with **(-)** or **(+)** after 24 hours adjustment will change to numbers of days. Press **(OK)** to accept and start countdown.

The **(On)** logo will blink and the number of hours/days left is displayed until the end of the period.

If you want to stop the timer function before the end of the duration adjust the period to 0 and scroll across to **(Auto)** mode.

6.6 Keyboard Lock Function

Use this function to prevent changes to the settings:

- To activate the key lock function, press the two arrow keys simultaneously.
- The logo will now be displayed on the screen.
- Repeat with the same procedure to unlock the keyboard.

7 Sensor Connections

If a remote sensor is installed you can display all measured values by pressing the **(OK)** key (Scroll function).

7.1 Settings for using the Remote (Wet Room) Sensor:

The connection of the wet room sensor allows adjacent wet rooms to be controlled from a thermostat positioned outside the room. However the sensor can also be used to control floor surface temperatures where sensitive floor coverings are installed.

In the installer settings menu the sensor(s) are referred to as follows:

Air = Measures room temperature.

SEN = Remote Sensor (used to measure air temperature)

FLr = Room temperature with floor regulation (both room thermostat and remote sensor used) NOTE: This function is only displayed when a Floor Low (menu 26) and a Floor High (menu 27) value is entered.

To access this menu set to the unit to the Off mode then hold down the **(OK)** key for 5 seconds.

You will then access the hidden installer menu.

Starting with menu 22, use the navigation keys to reach menu 23 REGU Air.

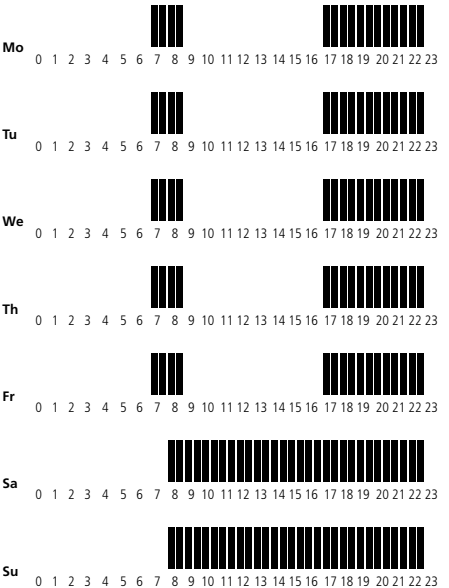
Press **(OK)** to toggle between the options with the **(-)** and **(+)** keys and verify with **(OK)**.

If you choose FLR or FL.1, use the navigation keys to reach Menu 26 (FL:Lo) and set the floor low value. Then scroll to menu 27 (FL:Hi) and set the floor high value.

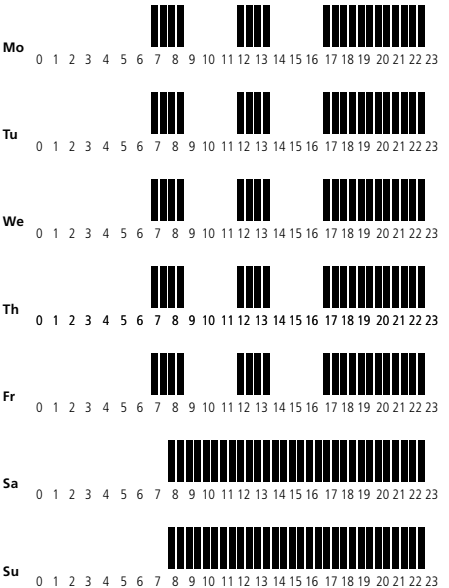
To exit the installer menu scroll to menu 37 **(End)** and press **(OK)**.

8 Pre-set Programs

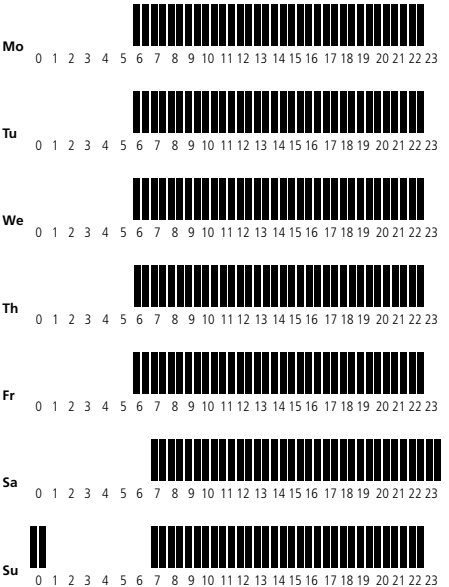
P1 Morning, Evening & Weekend



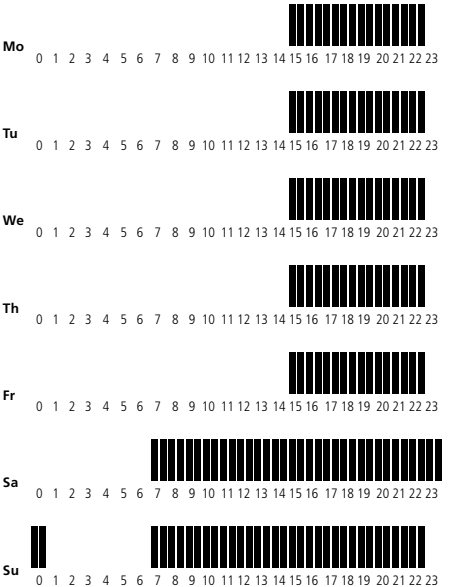
P2 Morning, Midday, Evening & Weekend



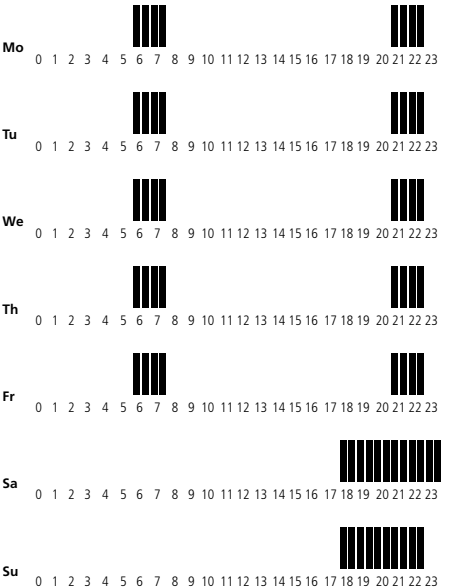
P3 Day & Weekend



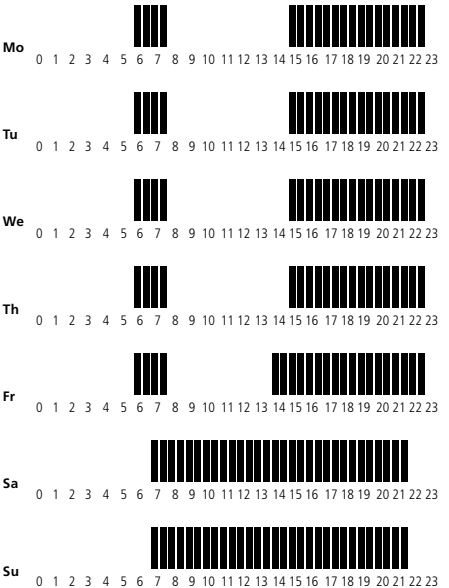
P4 Evening & Weekend



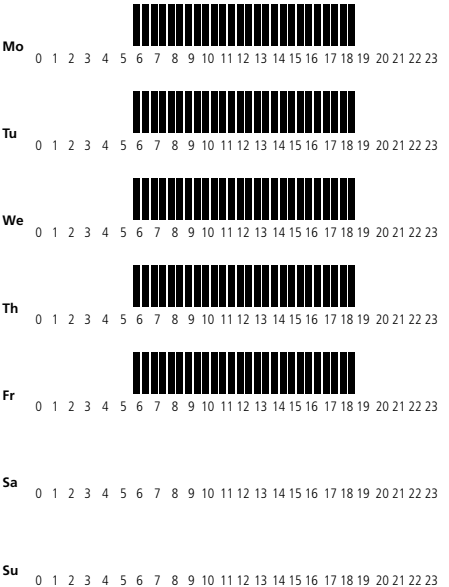
P5 Morning, Evening (Bathroom)



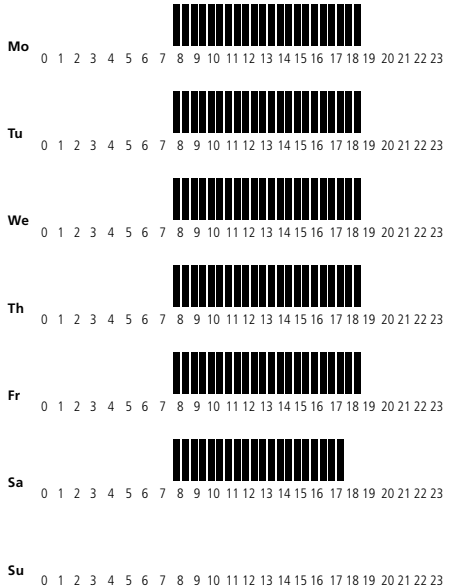
P6 Morning, Afternoon & Weekend



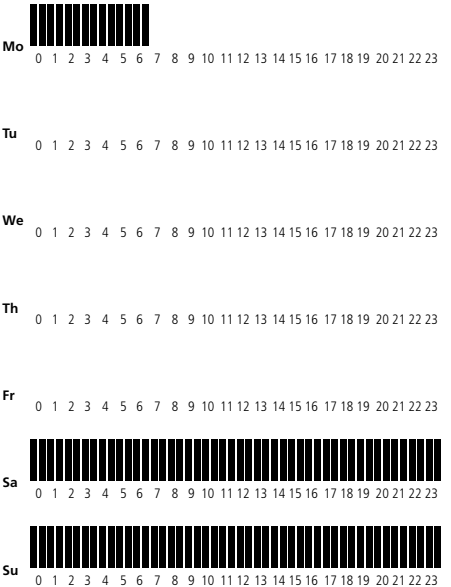
P7 7H - 19H (Office)



P8 8H - 19H & Saturday (Shop)



P9 Weekend (second house)



9 Hidden Menus:

There are 2 hidden menus which can be accessed by pressing and holding a combination of buttons.

The user menu can be used to set a number of user preference such as a 12 hour or 24 hour clock display, temperature readings in either degC or degF, etc and the installer menu can be used to adjust various operational settings of the unit.

The access the User menu set the unit to the **(AUTO)** setting and press and hold the **(OK)** button for 5 seconds.

To access the installer menu set the unit to the **(Off)** mode and press and hold the **(OK)** button for 5 seconds.

UFHPROGB & UFHPROGRFB User Menu

Menu No	Display	Description	Default	Option
00 (Available on RF versions only)	rf INIT	Initiates RF Connection		Refer to RF installer Leaflet
01	dEG	Temperature Display	Deg C	Deg F
02	Time 24H	Clock Display	24H	12H
03	dSt	Auto clock Forward/Back function	Yes	No
04	AirC	Calibration of temp reading	no	Displays Temp
05 (only with sensor fitted)	SEnC	Calibration of sensor temp reading	no	Displays Temp
06	HG	Holiday mode frost setting	10.0C	0.05C to 10.0C
07	ItCS	Optimized start mode	Yes	No
08	CLr ALL	Restore factory default settings		Press OK
09	UErS 202	Software Version		None
10	End	Return to main Screen		Press OK

UFHPROGB & UFHPROGRFB User Menu

Menu No	Display	Description	Default	Option
22	Pump Yes	Pump Exercise	Yes	No
23	rEGU Air See section 7.1	Measures Room Temp	Air	Sen Or Flr
24	Air t	Air Temp Reading		None
25	SEN t	Remote Sensor Temp Reading (only operative is remote sensor is used)		None (Note: If Err display shows check sensor connection)
26	FL:Lo	Low floor temp limit	no	Enter required low temp setting
27	FL:Hi	High floor temp limit	no	Enter required high temp setting
28	Type	Operating Mode	HYS	reG (proportional banding)
34	CLr EEP	Restore factory default settings		Press OK
35	End	Return to main screen		Press OK

10 Technical Specification

Measured Temperature Precision:	0.1°C
Enviromental Operating Temperature: Shipping and Storage Temperature:	0°C - 40°C -10°C to +50°C
Setting Temperature Range Comfort, Reduced: Anti freeze/OFF: Holiday: Timer:	5°C to 35°C by 0.5° step 7°C 0.5°C to 20°C 5°C to 35°C
Regulation Characteristics:	Hysteresis of 0.5°C
Electrical Protection:	Class II - IP30
Power Supply: **Operarting Life:**	2 AAA LR03 1.5V Alkaline 2 years
Output:	2 Points Contact (Free Contact) Relay 5 Amps 250Vac
Optional External Sensor:	10k ohms at 25°C

11 Fault Diagnostics

My thermostat doesn't start	
Battery Problem:	- Check if the protection sticker on the batteries is removed. - Check the orientation of the batteries. - Check the charge of the batteries
My themostat displays "err"	
Problem on Sensors:	The logo blinks (ambient sensor) - Contact your installer The logo blinks (floor sensor) - Check the connection of the sensor. - Disconnect the sensor, and check it with an ohmmeter (the value must be around 10kohms).
Battery level is low:	The logo blinks (batteries) - Replace the batteries
My thermostat seems work correctly but the temperature in the room was never in accordance with the program	
Program	- Check the clock. - Check the difference between Comfort and Setback temperature is not too high? - Contact your installer, to check and adjust the calibration.

Notes

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