Installation Manual HVAC CONTROLS PRODUCTS

Touch Screen Weekly Programmable Underfloor Heating Thermostat Model No - E91.716

This thermostat is designed for the control of electric underfloor heating systems. The weekly programming function allows 6 time periods to be set per day, each at a specific temperature. Alternatively this model can be operated in manual mode.

Temperature Sensors

Sensor Selection

To alter the sensor selection from the factory preset setting refer to the advanced settings section.

Sensor Display		
IN	Internal Air Sensor ONLY	Heating will be switched on by the thermostat when the room temperature falls below the programmed temperature. There is NO LIMIT on the temperature the floor can reach.
OUT	Floor Sensor	Heating will be switched on by the thermostat when the floor temperature falls below the programmed temperature.
ALL (Factory Preset)	Air and Floor Sensor	Heating will be switched on by the thermostat when the room air temperature falls below the programmed temperature. The thermostat will cut the power to the heating if the floor temperature rises above the temperature limit set. The value of this limit can be set within the advanced settings (factory set at 35°C)

If this thermostat is to be used with any under floor heating system designed for floor coverings other than ceramic, porcelain or stone floor tiles, ensure the limitation temperature value is set in accordance with the value recommended by your floor covering supplier.

Sensor Error Indicator

Display symbols

Please select the correct mode of internal, external sensor. The display will show Er0 or Er1 if the wrong mode is selected or there is sensor failure. Er0 means there is no internal sensor or there is internal sensor failure. Er1 means there is no external sensor or external sensor failure. The thermostat must not be used until the error has been resolved.

Operating Instructions

Menu key 1-6 event UP Clock-controlled programme mode Manual mode Room temperature Day number Set value/Time display DOWN Heating on Sensor On/off Clock key

Technical Data

Power Supply AC230V
Max Load 16A
Power Consumption 2W
Setting Range 5 - 90°C

Limitation Range $5-60 \,^{\circ}\text{C}$ (Factory set @ 35 $^{\circ}\text{C}$) Switching Differential $0.5-10\,^{\circ}\text{C}$ (Factory set @ $1.0\,^{\circ}\text{C}$)

Ambient Temperature -5 - 50°C Protective Housing IP20

Housing Material ABS & PC Fire-resistant

Certification CE & ROHS

Floor Sensor Rubber-thermoplastic NTC 10K

Internal Air Sensor NTC 10K

User's Daily Operation

- 1. To switch on or off press ⁽¹⁾
- 2. To temporarily change the operating temperature when in program controlled mode, press ▲ or ▼ The temperature will revert back to pre programmed value at the next change of event.
- 3. To adjust the current time, hold or 5 seconds. Press again to select the required object. Press the ▲ or ▼ keys to adjust time & day, then switch off thermostat for confirmation.
- 4. To change between manual mode & program controlled mode, press
- 5. To lock and unlock hold both the ▲ and ▼ keys together for 5 seconds. The ⓑ symbol will appear when locked.
- 6. The large central temperature displayed is the measured temperature. The smaller value underneath which alternates with the time, is the target set temperature.
- 7. To enter advanced settings turn the thermostat off, then hold the key down and press simultaneously.

Thermostat Programming

Periods Programming

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Hold the key for 5 seconds to begin programming. When finished press the key to exit.

Key	Eve	nt	Symbol	Time	Modify	Temp.	Modify
\bigcap	Day 1-5	1	\$	06: 00	Δ	20°C	Δ
		2	□ +	08: 00	∇	15°C	∀ Temp.
		3	€4	11: 30		15℃	
(m)		4	€	12: 30	Event	15℃	
		5	1 04	17: 00	Time	22 ℃	
		6	D	22: 00		15℃	
	Day 6-7	1	₩	08: 00		22 ℃	
		2	J	23: 00		15℃	

Function:

O Clock-controlled programme mode

Heating on

→ Wake-up,event 1

△ Leave(am), event 2

Return(am), event 3

Leave(pm), event 4

(Sleep, event 6

Advanced Settings

Extreme care MUST be taken when adjusting the technical parameters found within the advanced settings. Operation of these functions should only be undertaken by competent people and the following details should be read carefully.

To enter advanced settings turn the thermostat off, then hold the key down and press simultaneously.

-1ADJ:Temperature calibration Press ▲ or ▼ key to adjust present checked value,adjustable scale:9.9 ℃.

Re-press menu key to enter to next step.

2SEN:Sensor mode
Press ▲ or ▼ key to choose senor working mode
IN:built-in, OUT:floor sensor,
ALL:both sensors,floor sensor is the limit sensor
Re-press menu key to enter to next step.

3LIT: Modify limition value
Press ▲ or ▼ key to modify the temp.
Limit valuelimition range: 5~60
Re-press menu key to enter to next step.

4DIF:Switch differential setting
Press ▲ or ▼ key to change switch defferential
Setting range:0.5~10
Re-press menu key to enter to next step.

5LTP:Start anti-frozen function in power off Press Å or ▼ key to change the present anti-frozen function Re-press menu key to enter to next step.

ey down and press simultaneously.

6PRG:Set day off mode

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Press + or - to choose day off 5/2 day mode,6/1day mode,7 day mode Re-press menu key to enter to next step.

7RLE:Potential-free output and main power output in same/different way.

Press ▲ or ▼ key to change the present linkage state.

00:in same way, 01:in defferent way?

Re-press menu key to enter to next step.

8DLY:Delay time of potential-free output Press ▲ or ▼ key to change linkage delay time Range:0-5min.

9HIT:Max. Temperature setting
Press≜ or ▼ key to change the Max.value

Re-press menu key to enter to next step.

Range:35-90?
Re-press menu key to enter to next step.









