



TPS Thermostat



Heat Mat

Underfloor Heating

Call 01444 247020
to find out more or
visit our website at
www.heatmat.co.uk

TPS Features

- Easy to use, digital display
- User friendly temperature settings and buttons
- Monitors air and floor temperature
- Stylish gloss ivory frame
- Infra-red version available
- Supplied with extendable floor sensor (50m)
- Controls up to 16 Amp / 3,600W of underfloor heating directly without the need for a contactor
- Includes built-in interrupter
- Covered by a three year warranty for peace of mind
- Can be used to control any other main voltage UFH
- Made in Denmark by OJ Electronics

TPS Manual Thermostat

Simple electronic on/off thermostat/timer

Heat Mat's TPS thermostat is a simple to use electric underfloor heating thermostat, perfect for controlling any of Heat Mat's electric underfloor heating systems.

The ivory TPS features straightforward temperature buttons concealed behind a door, a digital display showing the current temperature reading and a clear manual on/off button.

The temperature is easily adjusted and increased using the red arrow or decreased using the blue arrow while an LED light indicates when the heating is active.



The TPS thermostat monitors ambient room and floor temperatures, and you can choose which of these is your target temperature. When you choose the ambient temperature the floor sensor still ensures the floor doesn't overheat.

This simple thermostat is ideal for use when a programmable timer thermostat is not required; for instance in rooms that are used on an ad-hoc basis.

The TPS has 'setback' and 'frost protection' features which can be operated remotely to lower the target temperature. An infrared version of the TPS, which does not require the installation of a floor sensor, is also available.

The floor sensor can be extended by up to 100m if required allowing the thermostat to be mounted remotely from the area to be heated. The thermostat is suitable for directly controlling any brand of mains-voltage underfloor heating and can also be used with other types of electric heaters of up to 3,600W.



The TPS is simple to install and designed for UK back boxes.

Compatible with



Heating mats



Undertile heating cables



FlexHeat cables



6mm heating cables



Underlamine heating mats



Mirror heaters



TPS Thermostat Modes

Setback mode

The thermostat includes a setback mode that automatically drops the systems target temperature when it is activated. As standard this function drops the temperature by 5°C, but it can be set to anywhere between 2-8°C.

In most circumstances this feature is used to lower the room temperature at certain times to save on running costs; for instance when a room will be unoccupied in a hotel. The signal is usually sent from an external timer or building management system (BMS), but in the case of hotels, can be a signal sent from reception when the room is unoccupied.

The mode is activated when a 230/240V signal is registered on terminal S of the thermostat.

Frost protection mode

The frost protection mode turns off the heating but protects the floor from freezing, by ensuring the floor maintains a temperature of 5°C to prevent risk of frost damage. This mode can be used in hotels to effectively turn off the rooms heating.

Frost protection mode is activated when a 230/240V signal is sent to terminal S of the thermostat via a rectifier diode. This signal can be sent from an external timer, a BMS or simple wired switch.

TPS with infra-red sensor

The TPS infra-red thermostat is unique, as rather than sensing the temperature below the floor surface, it senses the temperature of the floor surface itself.

This is particularly useful with thick floors, where a wired floor sensor could be 20mm or so below the floor surface, and would not necessarily provide an accurate floor temperature reading.

The thermostat uses a wired sensor to measure the temperature of the floor surface via an infra-red beam as well as using a conventional sensor to measure ambient air temperature.

The sensor must be placed on the wall 1.5m above the floor surface. It measures the average temperature of the surface of the floor in a circle 80cm wide, starting 20cm away from the wall. It is important that the sensor has a clear view of the floor unobstructed by furniture.



TPS Thermostat Technical Specification

Supply Voltage	230V AC + 10% 50/60Hz
Output relay	SPST 16A, resistive load or 1A inductive load
Interrupter	2-pole, 16A
Temperature range	+0/+40°C
Floor limit range	+5/+40°C
On/Off differential	0.4°C
Regulation principle	PWM
IP Rating	IP21
Output relay	16A, 3600W
Floor sensor	NTC 3m (extends to 50m)
Dimensions (H/W/D)	84/84/40mm
Display	Digital display
Warranty	3 years
Product code	TPS-345-0030

Wiring

Heating systems must always be controlled by a suitable electric underfloor heating thermostat with floor temperature limitation. Heat Mat thermostats are rated to 16 Amps, and if a system exceeds this loading a suitably rated contactor should be used. The circuit must be protected by a 30mA RCD and suitably rated fuse or circuit breaker.



About Heat Mat

With more than 1,200,000m² of underfloor heating installed, 19 years' experience of the UK underfloor heating market and a wealth of knowledge on Scandinavian ice and snow melting systems, you can rely on Heat Mat to understand your needs and supply the products to satisfy your requirements.

This is why we are the Professional's Choice, the number one supplier of electric underfloor heating and ice and snow melting systems to the UK's professional installation market.



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