



Trace Heating Thermostat

# Heat Mat

## Trace Heating

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## Heat Mat 20Amp Trace Heating Controller

An industrial level 20Amp trace heating thermostat housed in an IP67 enclosure.

The 20Amp Trace Heating controller provides straight forward control for up to 20Amps of 240V trace heating in a simple to install package. The controller can be mounted on a wall or on a bracket above pipes and it is supplied with a pipe temperature sensor suitable for most applications.

This UK manufactured control offers a very wide variety of programming options and can be used for frost protection as well as temperature maintenance applications. If desired the controller can also operate cooling circuits and can be used with alternative temperature probes.



TRA-20A-STAT

### 20A Trace Heating Thermostat Features

- An industrial trace heating thermostat offering reliable control of frost protection and temperature maintenance systems.
- Control up to 20Amp of trace heating directly through the thermostat; for larger systems use additional contactors.
- Use the supplied 10K0hm NTC temperature probe or utilise a 9900hm PTC temperature probe if preferred.
- Supplied fully protected in an IP67 rated enclosure with clear lid.
- Set temperature range -50°C to +109°C.
- Large red LED display to facilitate easy monitoring of the system.
- 110V version available if required.

### Compatible with:

-  Ice & Snow protection systems
-  Self-limiting heating cable

## ADVANCED SETTINGS

The default values listed in the table below are pre-set on the unit, however all values can be changed to suit your requirements. These settings are for guidance.

Settings Code	Description	Range	Factory default settings	Suggested pipe settings for frost protection		Suggested settings for hot water maintenance
				When sensing pipe temperature	When sensing air temperature	
1 LS	Minimum temperature setting	-58 to HS	-50	0 °C	0 °C	55 °C
2 HS	Maximum temperature setting	LS to 199	109	10 °C	10 °C	65 °C
3 SE	Probe type – (unit is supplied with NTC as standard)	Pt - nt	nt	nt	nt	nt
4 ru	Unit of measurement	°C - °F	°C	°C	°C	°C
5 d	Increase/decrease in temperature before system switches off - hysteresis	0 to 30°C/°F	2°C	2 °C	2°C	2 °C
6 t1	Activation time of output if probe is damaged	0F to 99 mins.	0F	0F	0F	0F
7 HC	Function either heating or cooling	H - C	H	H	H	H
8 SP	Set point/desired temperature	LS to HS	0.0	5 °C	3 °C	60 °C

### TECHNICAL DATA

**Display:** Red 15mm high LED

**Set Range:** NTC -50 °C to 109 °C

**Operating temp:** -10 to +60 °C

**Accuracy:** 1 degree

**Resolution:** 0.1 degree C

**Enclosures:** IP67, polycarbonate box with clear lid

**Dimensions:** 125mm x 125mm x 100mm

**Cable Entries:** 6 x 16mm/20mm dual size knockouts

**Power Rating:** 20 amp 230 vac

**Consumption:** 2va

**Probe Length:** 1.5 m

**Sensor Type:** NTC 10k ohms @ 25 °C IP68 sealed

### ELECTRICAL DATA

**Power supply:** 230 VAC +/- 10%

**Frequency AC:** 50/60 Hz

**Power consumption:** 3 VA approx.

**Input/s:** 1 input for temperature probes:

PTC (KTY 81-121, 990W @ 25 °C) or NTC (103AT-2, 10KW @ 25 °C)

**Output/s:** 1 relay output SPDT

**Electrical life of outputs:** 50000 op. (om. VDE)

**Action type:** type 1.B (EN 60730-1)

**Overvoltage category:** II

**Protection class:** Class I

### MECHANICAL DATA

**Housing:** Self-extinguishing plastic, UL 94 V0

**Pollution situation:** 2

**Operating temperature:** 0 T 50 °C

**Operating humidity:** < 95 RH% without condensation

**Storage temperature:** -10 T +60 °C

### FUNCTIONAL FEATURES

**Temperature Control:** ON/OFF mode

**Measurement range:** PTC: -50 T 150 °C / -58 T 199 °F;

NTC: -50 T 109 °C / -58 T 199 °F

**Display resolution:** 1 ° or 0,1° (range -19.9 ...19.9 °)

**Overall accuracy:** +/- (0,5 % fs + 1 digit)

**Sampling rate:** 130 ms.

**Display:** 2 ½ Digit Red h 14 mm

**Software class and structure :** Class A

**Compliance:** ECC directive 89/336 (EN55022: class B; EN61000-4-2:

8KV air, 4KV cont.; EN61000-4-3: 10V/m; EN61000-4-4: 2KV supply,

inputs, outputs; EN61000-4-5: supply 2KV com. mode, 1 KV diff.

mode; EN61000-4-6: 3V)

2006/95/CE (EN 60730-1, EN 60730-2-7, EN 60730-2-9)

## About Heat Mat

With more than 1,400,000m<sup>2</sup> of underfloor heating installed, 22 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 Professionals' Choice, the number one supplier of electric underfloor heating and ice and snow melting systems to the UK's professional installation market.



## Contact Us

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