

## FEATURES

- Trace heating thermostat
- PTC offers high accuracy
- Membrane keypad for setting
- Alarms for high and low temperatures
- Alarm relay output means alarm can be set to trigger other switches
- Voltage rating of 110 V/240 V
- Current rating of 16 A
- IP65 rated dust and spray-tight
- Operating temperature range of -50°C to +150°C
- Maximum conductor size of 2.5 mm

## RS PRO Trace Heating Thermostat, -50 → +150 °C

RS Stock No.: 703-3202



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

### Product Description

This trace heating thermostat from the RS PRO range uses a PTC sensor for highly accurate temperature readings. Process parameters and settings can be adjusted via the membrane keypad and you can set alarms for both high and low temperature settings. An alarm relay output even allows you to set the system up so an alarm will trigger other devices or processes such as automatically shutting down a production line in the event of overheating.

### General Specifications

<b>Type</b>	Junction Box
<b>Enclosure Material</b>	ABS with Polycarbonate Lid

### Electrical Specifications

<b>Maximum Current Rating</b>	16A
<b>Maximum Voltage</b>	110V/240V

### Mechanical Specifications

<b>Dimensions</b>	200mm x 75mm x 150mm
<b>Height</b>	75mm
<b>Length</b>	200mm
<b>Width</b>	150mm

### Operation Environment Specifications

<b>Operating Temperature Range</b>	-50°C to 150°C
<b>Minimum Operating Temperature</b>	50°C
<b>Maximum Operating Temperature</b>	150°C

## Protection Category

IP Rating

IP66

## Approvals

Compliance/Certifications

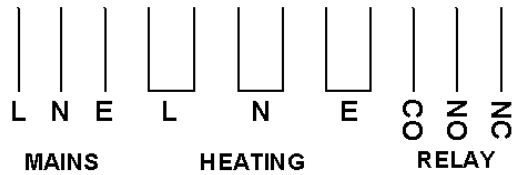
ANSI/ESD S20.20:2014 and BS EN 61340-5-1:2007



## Installation

1. Type DTC Thermostats are microprocessor based digital electro controller thermostat units suitable for use as temperature control unit for electric surface heating systems in non-hazardous areas.
2. Units may be used as either an air sensing or pipe sensing thermostat.
3. Maximum Current Rating : 16 amp
4. Maximum Voltage : 240V
5. Ingress Protection : 65
6. Ranges : Sensing range -50°C to +150°C.
7. Enclosure : ABS
8. Installation:
  - a. The thermostat unit should be mounted securely to a suitable flat surface or on a mounting plate securely fixed to the pipework.
  - b. Cover fixing screws should be tightened to ensure the lid is correctly fitted.
  - c. Flexing and bending of the sensor capillary tube should be kept to a minimum.
  - d. The sensing bulb when using in a pipe sensing role should be securely fixed in good contact with the surface of the pipe or vessel being controlled. This may be done using an adhesive tape or tension banding suitable for the maximum operating surface temperature of the pipe or vessel.
  - e. Surfaces should be clean and dry when using adhesive tape.
9. Thermostat Setting:
  - a. Press "**P**" and "**SP**" will flash for approximately 6 seconds and then display "**0**", use the up and down arrows to input the password "2495" and then press "**P**" to enter the setup mode.
  - b. Set point low level "**SPLL**" will now flash, press "**P**" to change the value, "**SPLL**" determines the lower range that the set point value "**SP**" can be altered to.
  - c. Press "**P**" and cycle to "**SP**" press "**P**" and use the arrows to set the required control temperature, press "**P**" when complete, this can be altered from the front in normal mode.
  - d. Cycle to "**LAL**" and press "**P**" use the arrows to select the difference in temperature from the set point the alarm is required to operate at ( SP 25°C, alarm required at 20°C, set "**LAL**" to 5°C) press "**P**" to return to menu.
  - e. Cycle to "**HAL**" and press "**P**" use the arrows to select the difference in temperature from the set point the alarm is required to operate at ( SP 25°C, alarm required at 30°C, set "**HAL**" to 5°C) press "**P**" to return to menu.
  - f. Cycle to "**SPHL**" and press "**P**" use the arrows to set the value of "**SPHL**" determines the upper range that the "**SP**" can be altered too press "**P**" to return to menu.
  - g. Once the above has been set the unit will return to its main temperature screen after 15sec if no buttons are pushed.
  - h. By setting the "**SPHL**" and "**SPLL**" to the same value as the "**SP**" this will prevent any unauthorised personnel altering the set point temperature.

10. Electrical:



- a. Cable entry to the enclosure should be via an appropriate rated gland.
- b. Maximum conductor size shall be 2.5mm<sup>2</sup>.
- c. Connect the incoming supply to Supply L (live) and N (neutral) E (earth).
- d. All conductors must be fully tightened down within the equipment terminals. It is important that the correct size of screwdriver is used as an oversized screwdriver may damage the terminal insulation.

11. Maintenance:

- a. Periodic inspection of the unit is necessary.
- b. Particular attention should be paid to: tightening of terminal screws, cover fixing screws and earthing assemblies. Only approved replacement parts should be used to avoid invalid certification.
- c. The thermostat settings and operation should be checked annually prior to commencement of winter for frost protection application.
- d. For process control temperature it is recommended that maintenance checks should be carried out at least in six month intervals.
- e. There are no maintainable parts within the thermostat unit.
- f. **CAUTION:** Removal of the cover and/or operation of the controller should only be carried out by correctly trained personnel.

12. Surrounding Area Conditions:

- a) The enclosure is manufactured from ABS, the PTC sensing tube is Stainless Steel.

The performance of these materials should be considered with respect to contact with aggressive substances with which the unit may come into contact.

- b) Dust or other material should not be allowed to accumulate on or cover the unit. The surface may be cleaned with a damp cloth.
- c) The thermostat unit is intended for use under normal industrial conditions and should not be installed in an area where extreme vibration may occur.

- 13) The installation of this product must be carried out by suitably trained and qualified personnel

## Mounting

