

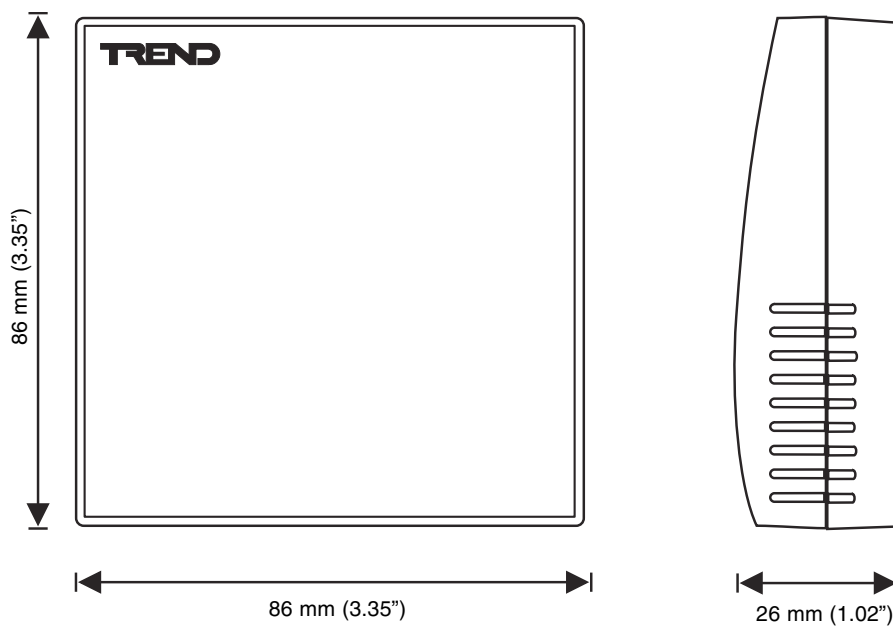
T/PS PRT Temperature Sensor

**Description**

The T/PS PRT Room Temperature sensor provides an accurate way of measuring room temperature, in a low profile enclosure designed for good thermal response. The electronics are fully enclosed in a well ventilated housing which clips onto a separate backplate for ease of installation.

Features

- Pt 100 accuracy.
- 4 to 20 mA output.
- Precalibrated for ease of commissioning.

Physical

FUNCTIONALITY

Housing

The T/PS is suitable for mounting on a wall, and can either be mounted on a standard pattress or mounted on a flat surface.

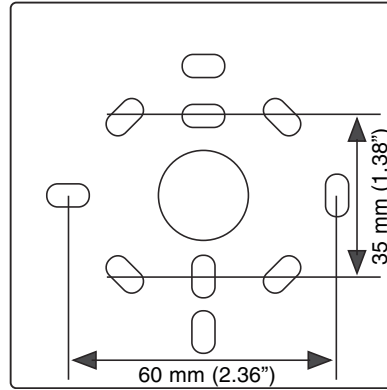
Sensor

The T/PS sensor provides a standard PRT sensing element ($100 \Omega \pm 0.1\% @ 0^\circ\text{C}$ (32°F)). The output requires a 24 Vdc supply and provides a 4 to 20 mA signal over the range -10°C to $+40^\circ\text{C}$ (14°F to 104°F).

INSTALLATION

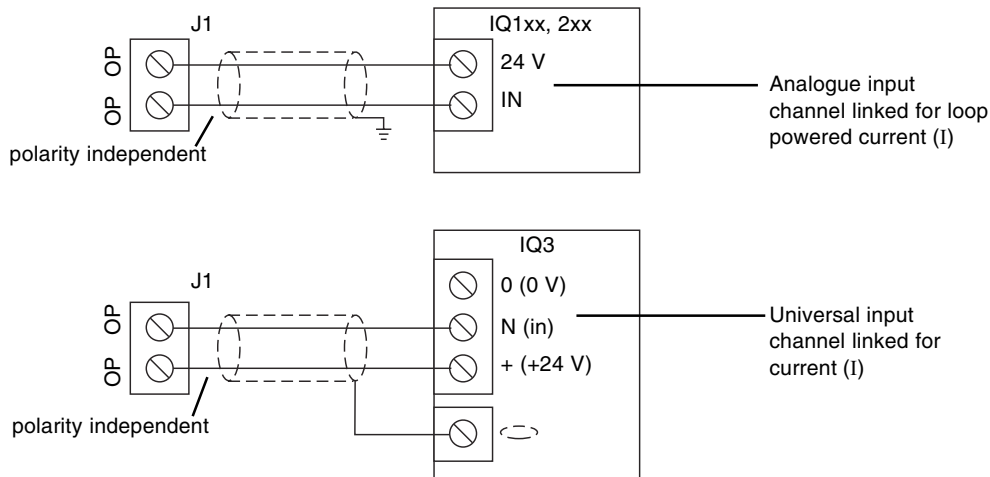
Choose an accessible location for the sensor where the surrounding air temperature is representative of the room. The backplate is designed so that it can be mounted on a recessed wiring box, or surface mounted with mini-trunking by knocking out a section of one side wall.

- Choose location
- Mount sensor (via two screws - minimum)
- Connect terminals
- Assemble sensor unit
- Set up strategy
- Test



For full installation details see T/PS Installation Instructions TG200760.

CONNECTIONS



ORDER CODE

T/PS PRT Space Temperature Sensor

SPECIFICATIONS

PRT range	: -10 (14°F) to +40 °C (104 °F)
Accuracy PRT element	: BS1904 -1980 Class B 100 Ω ±0.1% at 0 °C (32°F)
Accuracy transmitter	: 0.2 % span.
Output	: 4 to 20 mA 2 wire
Ambient limits :	: -10 °C (14 °F) to +50 °C (122 °F)
Enclosure material	: Flame retardant (V0) ABS
Dimensions	: 86 mm (3.35") x 86 mm (3.35") x 26 mm
Connections	: 1 part screw terminals for 0.5 to 2.5 mm ² (14 to 20 AWG) cable
Supply Voltage	: 24 Vdc ±15%
Current	: 4 to 20 mA

Input Channel and sensor scaling

The input channel should be linked for loop powered current, I.

The sensor type module must be set up with the correct scaling. The recommended method of setting the sensor type scaling is to use SET. For all IQ2 series controllers with firmware version 2.1 or greater, or IQ3 series controllers, the SET Unique Sensor Reference given below should be used

PRT I -10 to 40 (for °C only)


Alternatively enter scaling manually using sensor type scaling mode 5, characterise, with input type set to 2 (current) and table below.

Units		°C	°F
Y	Input type	2 (current)	
E	Exponent	3	
U	Upper	40	104
L	Lower	-10	14
P	Points	2	
x	Ix	Ox (°C)	Ox (°F)
1	4	-10	14
2	20	40	104

Both methods give System Accuracy (including controller)
: ±0.25 °C, ±0.45 °F (-10 °F to +40 °C, 14 °F to 104 °F)

For all other IQ controllers see the Sensor Scaling Reference Card, TB100521A, for scaling settings.

Trend Control Systems Ltd reserves the right to revise this publication from time to time and make changes to the content hereof without obligation to notify any person of such revisions or changes.

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