

### Thermistor Room Temperature Sensors

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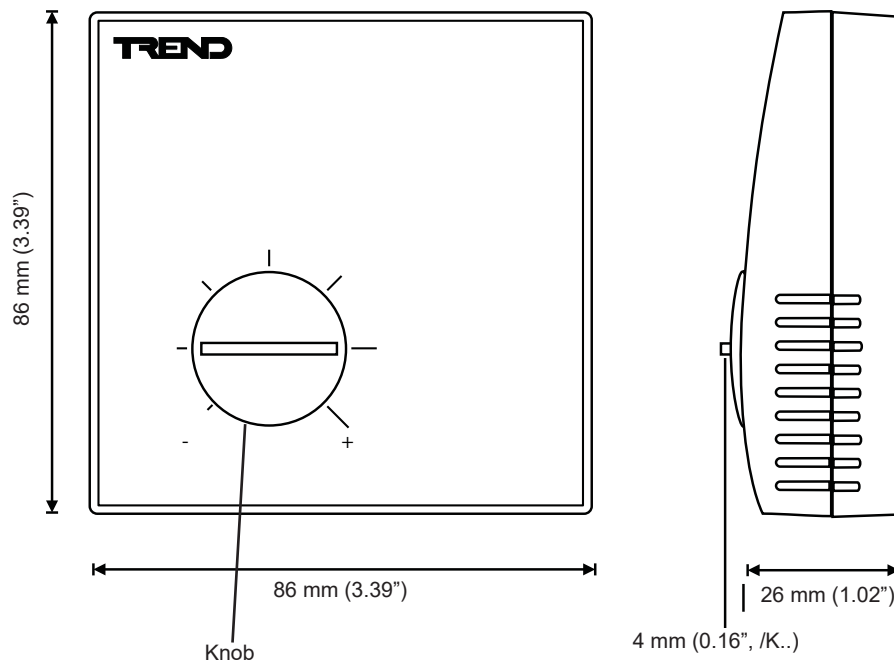
#### Description

The TB/TS Thermistor Temperature Sensor is a wall-mounted thermistor room temperature sensor in a low-profile enclosure designed for good thermal response. It has a low-profile adjustment knob option (e.g. setpoint trim).

#### Features

- Surface fitting or fits on standard electrical back box
- Optional low profile adjustment knob (1 to 11 k $\Omega$ )

#### Physical (TB/TS/K shown)



## FUNCTIONALITY

**Housing:** The TB/TS is suitable for mounting on a wall, and can either be mounted on a standard pattress or mounted on a flat surface.

**Sensor:** The basic TB/TS sensor provides a standard Trend thermistor sensing element (10 k $\Omega$  at 25 °C, 77°F) for space temperature measurement.

**Options:** There is an option for a Knob input.

**Knob option (/K):** This option gives a 1 to 11 k $\Omega$  potentiometer variable resistance. The minimum resistance of 1 k $\Omega$  eliminates the sensor module producing an 'Out of Limits' alarm as the controller thermistor input reads 0 V. (This is normally used to detect faulty thermistors).

## INPUT CHANNELS AND SENSOR SCALING

Appropriate sensor type scaling must be applied – see the TB/TS, TB/TS/K Installation Instructions (TG200607) for further details.


## INSTALLATION


- Choose location
- Mount sensor (via two screws - minimum)
- Connect terminals
- Assemble sensor unit
- Setup Strategy
- Test

For full installation details see TB/TS Installation Instructions (TG200604), or TB/TS/K Installation Instructions (TG200607).

## DISPOSAL

COSHH (Control of Substances Hazardous to Health - UK Government Regulations 2002) ASSESSMENT FOR DISPOSAL OF TB/TS.

**RECYCLING.**  All plastic and metal parts are recyclable. The printed circuit board may be sent to any PCB recovery contractor.



**WEEE Directive:**

At the end of their useful life the packaging, product, should be disposed of by a suitable recycling centre.

Do not dispose of with normal household waste.  
Do not burn.

## COMPATIBILITY

	TB/TS	TB/TS/K
IQ1	✓	✓
IQ2	✓	✓
IQ3	✓	✓
IQ4	✓	✓
IQeco31	✓	✓
IQeco35/38	✓	✓
IQeco VAV, 39	✓	✓
IQL11+	✓	✓
IQL13+	✓	✓
IQL15+	✓	✓

**ORDER CODES**

**TB/TS/[OPTION]** :Thermistor temperature sensor with option as shown in table. Consists of 2 parts (front panel and backplate) for either flush mounting or mounting on a standard pattress.

<b>[OPTION]</b>	<b>Description</b>
<b>blank</b>	Thermistor Temperature sensor only
<b>K</b>	1 to 11 kohm adjustment knob (e.g. setpoint trim)
<b>TB/TS/BOX 20</b>	Box of 20 sensors
<b>TB/TS/K/BOX20</b>	Box of 20 sensors

## SPECIFICATIONS

### ELECTRICAL

Connection	:1 part screw terminals for 0.5 to 2.5 mm <sup>2</sup> cross section area (14 to 20 AWG) cable. 2 terminals for TB/TS, 3 for TB/TS/K.
Thermistor	:10 k $\Omega$ @ 25 °C (77 °F)
Temperature range	:0 to +40 °C (recommended).
Temperature Accuracy	:of sensor, $\pm$ 0.44 °C, $\pm$ 0.79 °F (0 to +40 °C, 32 to 104 °F)
Potentiometer	:1 k $\Omega$ to 11 k $\Omega$ $\pm$ 20 %.

### MECHANICAL

Flush fitting	:86 mm (3.39") x 86 mm (3.39") x 26 mm (1.02") depth. Add 4 mm (0.16") for /K.
Enclosure Material	:Flame retardant (V0) ABS.

### ENVIRONMENTAL

EMC	:161326-1:2006
Ambient limits	
Operating Temp	:-10 °C (14 °F) to +50 °C (122 °F)
Operating Humidity	:0 to 90 %RH non-condensing.

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