Data Sheet

# T/TS
# Space Temperature Sensor

## Space Temperature Sensor

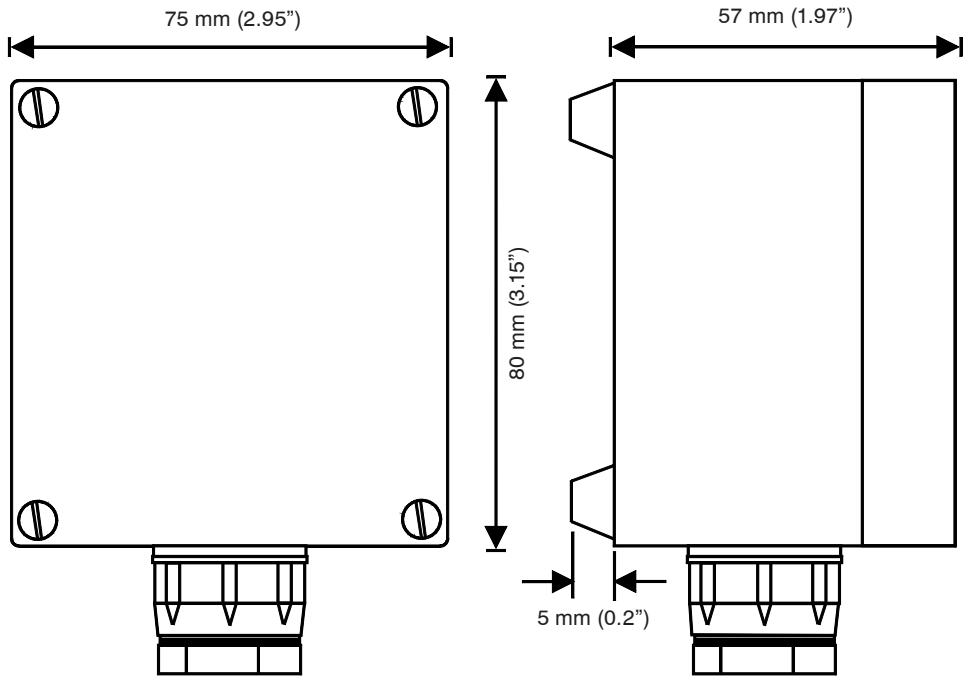
## Description

Low cost thermistor for measurement of air temperature. Suitable for radiant heat measurement. Robust aluminium enclosure rated to IP65. Vandal proof.

## Features

- Low cost.
- High quality thermistor.
- IP65 housing.
- Robust enclosure.
- Suitable for radiant heating applications.
- Vandal proof.

## Physical



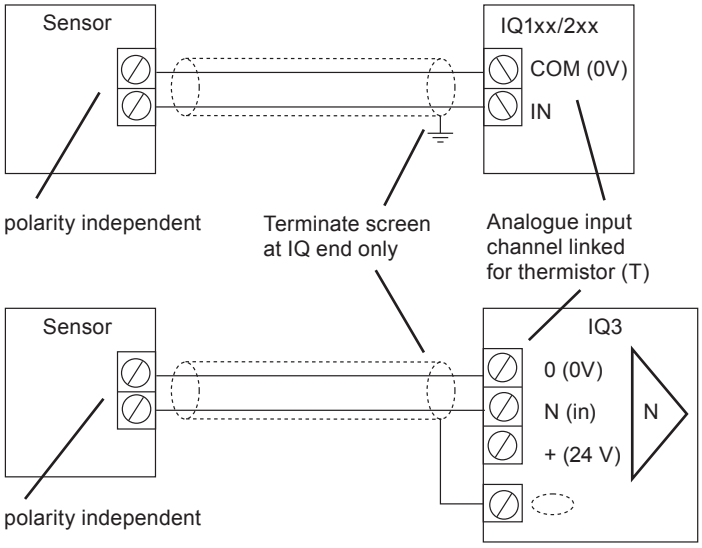
## INSTALLATION

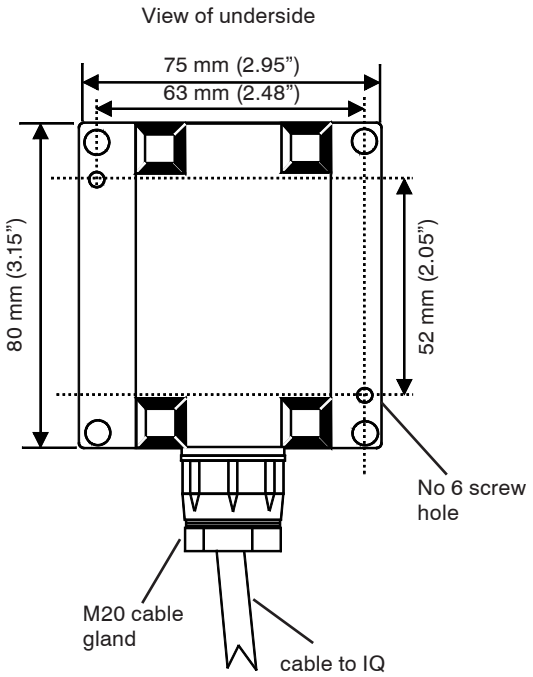
(1) The sensor should be mounted on a wall, away from sources of heat and out of direct sunlight.

(2) Remove cover by unscrewing 4 retaining screws.

(3) Fix to wall using no.6 screws, through holes in back of sensor box.

(4) Insert cable through cable gland and connect to terminals as shown below.




(5) Replace cover and tighten screws.

(6) Link IQ input channel for thermistor input.

*Note: This sensor can also be used to measure radiant heat. Ensure the sensor is mounted in a position where a good representation of the radiant heat can be measured.*

## DISPOSAL

COSHH (Control of Substances Hazardous to Health - UK Government Regulations 2002) ASSESSMENT FOR DISPOSAL OF IQ CONTROLLER. No parts affected.

RECYCLING .
All plastic and metal parts are recyclable. The printed circuit board may be sent to any PCB recovery contractor to recover some of the components for any metals such as gold and silver.

**WEEE Directive:**

At the end of their useful life the packaging and product should be disposed of by a suitable recycling centre.
Do not dispose of with normal household waste.
Do not burn.

## ORDER CODES

**T/TS Space Temperature Sensor**

## SPECIFICATIONS

Thermistor :10kΩ at 25 °C (77 °F)
Range :-10 °C to 40 °C (14°F to 104 °F)
Accuracy :±1 °C (±1.8 °F)
Dimensions :80 mm x 75 mm x 62 mm (3.15” x 2.95” x 2.44”)
Enclosure Material :Diecast Aluminium
Environmental Protection:IP65
Connections :1 part screw terminals for 0.5 to 2.5 $mm^2$ cross section area (20 to 14 AWG) cable.

IQ Scaling

**Input channels and sensor scaling**

For IQ controllers link input channel for thermistor, T, and set up the sensor type scaling; the recommended method of setting the sensor type scaling is to use SET.

For all IQ2 series controllers with firmware of version 2.1 or greater, or IQ3 series controllers, one of the following SET Unique Sensor References should be used:

**Thermistor TBTO** (-10 °C to +40 °C)
**Thermistor TBTO F** (+14°F to +104 °F)

Alternatively use sensor scaling mode 5, characterise, and enter the scaling manually as defined in the table below.

*Note that for IQ3 the scaling mode and exponent (E) don’t need to be set up.*

| **Units** | | °C | °F |
|---|---|---|---|
| **Y** | Input type | 1 (Thermistor Volts) | |
| **E** | Exponent | 3 | |
| **U** | Upper | 45 | 113 |
| **L** | Lower | -15 | -5 |
| **P** | Points | 6 | |
| **x** | **Ix** | **Ox (°C)** | **Ox (°F)** |
| **1** | 3.470 | 40 | 104 |
| **2** | 4.460 | 30 | 86 |
| **3** | 6.663 | 10 | 50 |
| **4** | 7.668 | 0 | 32 |
| **5** | 8.102 | -5 | 23 |
| **6** | 8.482 | -10 | 14 |

For all other IQ controllers see the Sensor Scaling ReferenceCard, TB100521A.

Please send any comments about this or any other Trend technical publication to techpubs@trendcontrols.com



**Trend Control Systems Limited**
P.O. Box 34, Horsham, West Sussex, RH12 2YF, UK. Tel:+44 (0)1403 211888 Fax:+44 (0)1403 241608 www.trendcontrols.com
**Trend Control System USA**
6670 185th Avenue NE, Redmond, Washington 98052, USA. Tel:(425) 869-3900 Fax:(425) 869-8445 www.trendcontrols.com