Datasheet

Stock No: 813-834

Temperature Sensor, RS Pro TT541/10K3A1, Pipe, Thermistor

Product Details

Temperature Sensors for Air Conditioning

- Thermistor and Pt100 type sensors in a variety of packages suitable for use with most air conditioning control systems.

Sensor Types:

Thermistor: direct thermistor (NTC) temperature (10kΩ at 25°C) versions. These are degradable components and should be replaced on a 2-3 year cycle.
Pt100 sensor: 2 wire sensors with brass probes providing a linear response and positive temperature coefficient.

Package Types:

- Space Air (813-806; 376-1477): a white ventilated unit for interior use, temperature range -10 to +60°C.
- Duct Air (813-862): an IP65 housing with 20mm conduit entry, 210x19mm dia. probe with fine mesh gauge for sensor protection, temperature range -10 to +60°C.
- Outside Air (813-828; 813-878): an IP65 enclosure with a small brass cap, 20mm conduit entry, temperature range -10 to +60°C.
- Liquid Immersion (813-834; 813-884): an IP65 enclosure with 20mm conduit entry, 130x6mm diameter brass probe which fits into a brass pocket (available separately) for a temperature range of -10 to +60°C
- Pipe-Clamp on (813-840; 813-890): a sensing element located in a lug which is fitted to the pipe via a stainless steel cable tie. IP65 terminal with 1m of cable, maximum temperature 110°C.
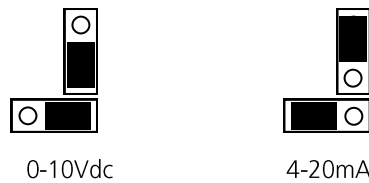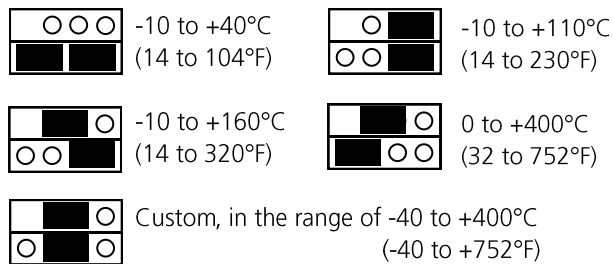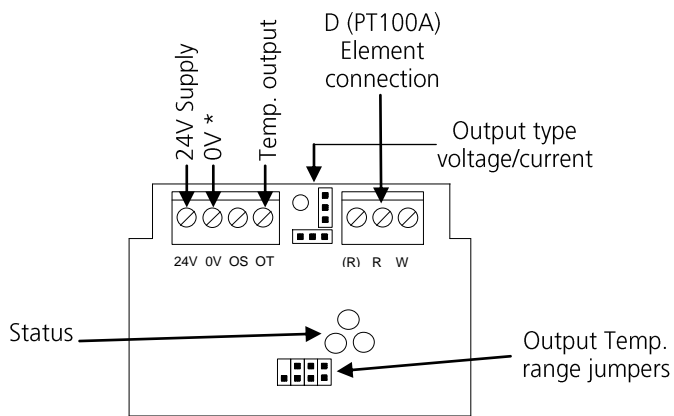
Note

The brass and steel pockets have grub screw probe fixing for easy replacement.

Specifications:

Application	Pipe
Sensing Element Type	Thermistor
Maximum Temperature Sensed	+40 °C, +110 °C
Minimum Temperature Sensed	-10°C
Range of Temperatures Sensed	-10 → +110 °C, -10 → +40 °C

Connections:

Active output:

D (PT100A)
Element
connection

24V Supply
0V *
Temp. output

Output type
voltage/current

24V 0V OS OT   (R) R W

Status

Output Temp.
range jumpers

* Not required with 4-20mA output

-10 to +40°C
(14 to 104°F)

-10 to +110°C
(14 to 230°F)

-10 to +160°C
(14 to 320°F)

0 to +400°C
(32 to 752°F)

Custom, in the range of -40 to +400°C
(-40 to +752°F)

0-10Vdc   4-20mA

Notes:

Voltage output   Nominal voltage 24Vac/dc.

Current output   If using in current output mode, the sensor must only be used with a 24Vdc supply. The sensor may be damaged if supplied with AC.

The selectable output temperature ranges are dependent on sensor type, ambient and application.

For full connection and specification please refer to the TT-CVO data sheet.