High Temperature Immersion Sensors

Features

- IP65 Housing
- High temperature range

Specification

Accuracy:		
	PT100a	±0.35°C (0°C to 100°C)
	PT1000a	±0.35°C (0°C to 100°C)
Temperature range:		
	Probe	-20°C to +400°C
	Housing	-20°C to +60°C
	Cable	-20°C to +200°C
Connection Housing:		
	Material	ABS (flame retardant)
	Dimensions	55mm x 90mm dia.
	Mounting holes	4mm spaced 85mm apart
	Protection	IP65
Probe:		
	Dimensions	150 or 250mm x 6mm dia.
	Cable length	1 Meters
	Housing	53 x 49mm dia.
PT100 accuracy		DIN Class A
Country of origin		UK

Product Codes

TT-542-D
PT100a , 150mm probe

TT-542-E
PT1000a, 150mm probe

Active output:

TT-542-CVO
4-20mA/0-10Vdc selectable output, 150mm probe

TT-542-CVO-C
4-20mA/0-10Vdc selectable output custom temp. scaling, 150mm probe

Suffix (at extra cost):

-250mm
250mm Probe length

Technical Overview

The TT-542 is an immersion sensor for use in high temperature applications such as boiler flues and on medium/high temperature hot water systems up to 400°C. The unit consists of a stainless steel probe fitted to an aluminium head. This is connected by a 1m cable to a plant sensor housing, where terminations and transmitters can be located.
The TT-CVO (active output), combines 4 preset ranges and selectable output mode, customised output range scaling enabling a choice of outputs and ranges on one unit.

Installation

1. It is recommended that the unit be mounted with the cable entry at the bottom.

2. If the cable is fed from above then into the cable gland at the bottom, it is recommended that a rain loop be placed in the cable before entry into the sensor.

3. Remove the front cover by twisting the lid and separating from the main body.

4. Using the base of the housing as a template mark the hole centres. Drill two pilot holes at 85mm centres in the surface to which the sensor is to be mounted (surface temp. must not exceed 60°C).

5. Fix the housing to the surface using appropriate screws.

6. The housing is designed to make it easy for an electrical screwdriver to be used if desired.

7. Insert the remote probe into the pocket and secure with the grub screw provided within the pocket or into a flange plate (TT-522-DFP).

8. Feed the cable through the waterproof gland and terminate at the terminal block. Leaving some slack inside the housing, tighten the cable gland onto the cable to ensure water tightness.

9. Replace the lid after the electrical connections have been made.

Connections

Direct Connection:

For direct connection, the 2 white wires can be connected together and the 2 red wires can be connected together (4-wire mode). Alternatively, just one white and one red can be used (2-wire mode). For runs of cable greater than 1 metre, 4 wire mode should be used. Connections are not polarity sensitive, and should be connected to a resistance input on the controller.

4-20mA/0-10Vdc:
For full connection and specification please refer to the TT-CVO datasheet.