

Immersion Temperature Sensor with Terminal Head

Product overview

A range of high quality Immersion Temperature Sensors to interface with a wide variety of HVAC control equipment. Units are available with thermistor or PTC elements.

A range of custom length probes and pockets are also available. The sensor housing offers IP65 protection against water and particulate ingress and features a stainless steel 150mm probe. An M20 gland enables simple cable entry.



Products Features

- Large range of mounting & sensor options
- Direct fixing, no extra brackets required
- 150mm (standard) & custom Probe Lengths
- UK Made, 3 year warranty
- Accurate, high quality elements

Product Specifications

Output:	Range of 2 wire thermistor and PTC platinum elements providing variable resistance.
Accuracy:	Thermistor: $\pm 0.2^{\circ}\text{C}$ between 0°C and 70°C Platinum: $\pm 0.35^{\circ}\text{C}$ between 0°C and 100°C (PT100a and PT1000a and Nickel)
Materials:	Housing: Alloy-Aluminium Probe: Stainless Steel Gland: Plated brass
Ambient Temperature Range:	-20°C to 125°C . 0-95% RH
Terminals:	Screw terminals for $0.5\text{-}1.5\text{mm}^2$ Cable
Cable Entry:	M20 x 1.5
Housing Dimensions:	See page 2 for dimensions.
Probe Length:	150mm standard, 65, 200, 300, 400, 500, 1000mm (please enquire for other probe lengths)
Ingress Protection:	IP65
Country of Origin:	United Kingdom

Order Codes

AX-TE-Ix-HT Immersion Temperature Sensor with Terminal Head. 150mm probe (See element table below for more)

AX-TE-ISP 316 Stainless Steel Pocket for 150mm probe
- Add suffix "-length" for probe lengths other than 150mm. Available lengths are 65, 200, 300, 400, 500, 1000mm.
e.g. AX-TE-IT-HT-200 for 10K3A1 NTC element and 200mm probe length.

Thermistor/Element Codes. Replace 'x' in AX-TE-Ix-HT with bold code below

Code	System Examples	Element	Code	System Examples	Element
T	Trend, Innotech, Priva, Trane	10K3A1 NTC	50K	Priva	50K6A1 NTC
3K	Alerton	3K3A1 NTC	J	Johnsons	2.2K NTC
A	York, Alerton	10K4A1 NTC	100	Serek	PT100a Platinum
H	Honeywell	20K6A1 NTC	1K	Cylon	PT1000a Platinum
D	Drayton	30K6A1 NTC	N1K	Siemens	Ni1000a Nickel (TCR)
SAT	Satchwell (SAT1)	SAT1 NTC	TAC	TAC	1K87A1 NTC
ST1	Staefa (ST1)	ST1 PTC			

Immersion Temperature Sensor with Terminal Head

Installation:

The sensor should be installed by a suitably qualified technician in conjunction with any guidelines for the equipment it is to be connected to and any local regulations. Field wiring should be installed to satisfy the requirements set out by the manufacturer of the equipment that the sensor is being connected to. As a general rule, screened cable should be used to connect the sensor to a BMS or other controller. Please note that none of the AX-TE-I-HT sensors are suitable for use with mains voltage.

The AX-TE-I-HT is designed to be installed in conjunction with the Axio range of 316 stainless steel immersion sensor pockets. The sensor probe should be inserted as far as it will go into the sensor pocket and then secured using the grub screw on the pocket. Care should be taken when tightening the retaining screw as excessive force can damage the pocket and the sensor probe.

PLEASE NOTE: The AX-TE-I-HT is not designed for direct immersion in fluids. Always use a suitable immersion pocket.

Trend Sensor Scaling:

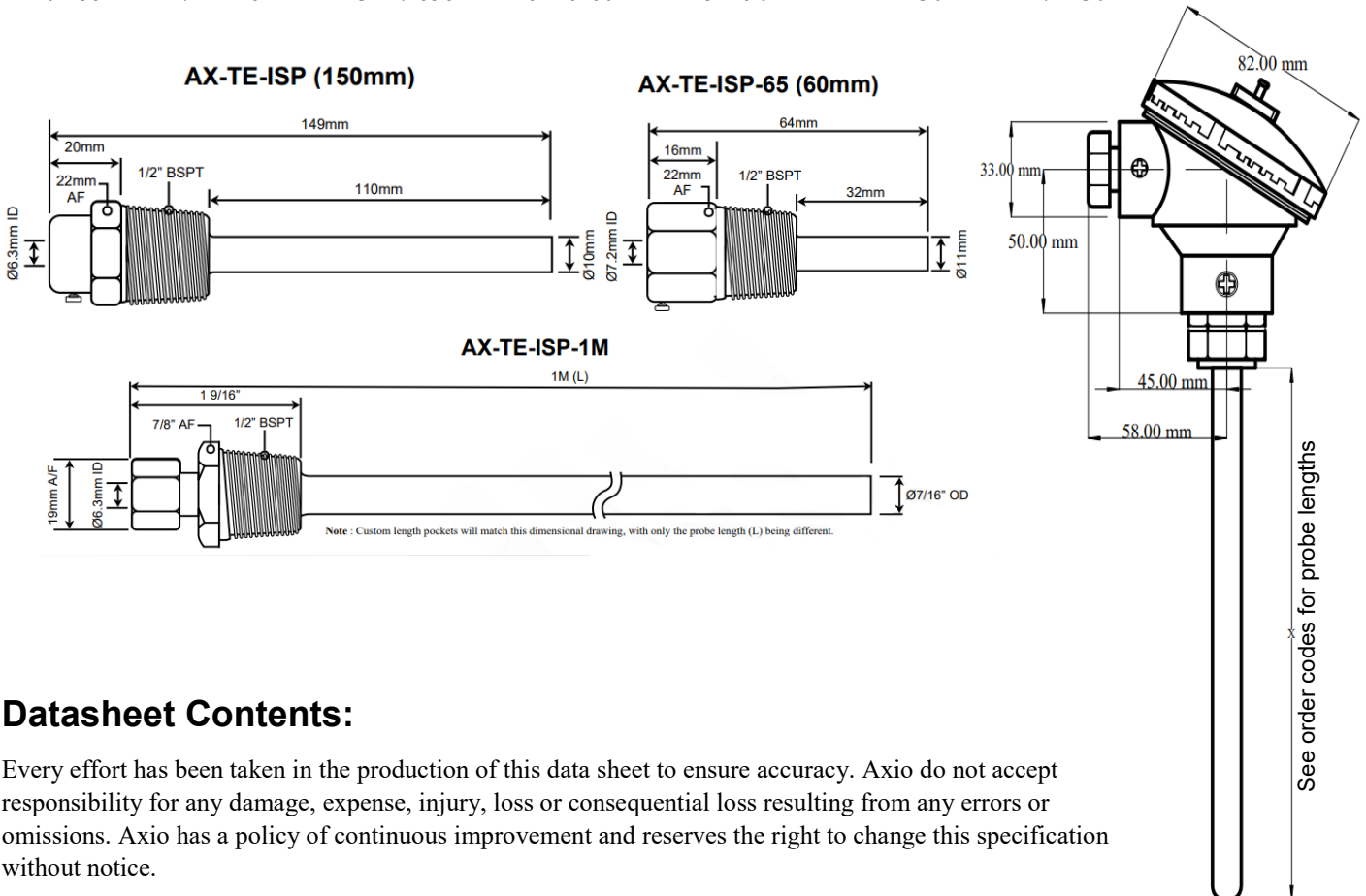
The following sensor scaling is for the AX-TE-IT-HT passive sensor. If using SET to configure the controller, the AX-TE-IT-HT has the same characteristics as a Trend Thermistor.

Prior to commissioning, ensure that the universal input jumper is set to T to accept a thermistor input. If the sensor is being scaled manually the following information should be used for IQ2xx controllers with firmware V2.1 and above, IQ3 and IQ4 series controllers. For scaling on older controllers, please refer to the engineering data in the AXIO catalogue.

Sensor Type Module Settings

Set the sensor type scaling mode to 5 - characterise

Y = 1	I2 = 0.555	I8 = 1.992	I14 = 8.33	I20 = 9.711	O6 = 79.8	O12 = 79.8	O18 = 79.8
E = 3	I3 = 0.636	I9 = 2.648	I15 = 8.795	O1 = 110	O7 = 69.8	O13 = 69.8	O19 = 69.8
U = 115	I4 = 0.73	I10 = 3.475	I16 = 9.066	O2 = 105	O8 = 59.8	O14 = 59.8	O20 = 59.8
L = -35	I5 = 0.839	I11 = 4.462	I17 = 9.288	O3 = 100	O9 = 49.9	O15 = 49.9	
P = 20	I6 = 1.116	I12 = 6.656	I18 = 9.465	O4 = 95	O10 = 39.9	O16 = 39.9	
I1 = 0.486	I7 = 1.49	I13 = 7.656	I19 = 9.604	O5 = 90	O11 = 30	O17 = 30	



Datasheet Contents:

Every effort has been taken in the production of this data sheet to ensure accuracy. Axio do not accept responsibility for any damage, expense, injury, loss or consequential loss resulting from any errors or omissions. Axio has a policy of continuous improvement and reserves the right to change this specification without notice.