AX-TE-T
Thimble Temperature Sensor

AXIO

Product Overview

The AX-TE-T range of thimble temperature sensors are designed for fitting into a false ceiling or other such surfaces for a discreet temperature sensing solution, whilst retaining good response characteristics. Designed to interface with a wide variety of HVAC control equipment. Units are available with a high quality thermistor or platinum or nickel element. Active Output versions are available, (see datasheet AX-TE-*TX-W)

The sensor provides a cost effective solution for use in ceiling plates or other applications. Ships complete with a black plastic nut.

Features

- Plastic Thimble as standard (Flame retardant acetyl resin)
- Large range of thermistor or platinum options
- Active Output Version Available (see AX-TE-*TX-W)
- Aluminium, brass or stainless steel variants
- RAL / Pantone Colours available
- Ships complete with black plastic nut

Product Specifications

Output:	Passive	Range of 2-wire thermistor and PTC platinum elements providing variable resistance
Accuracy:	Thermistor	±0.2˚C between 0˚C and 70˚C
	Platinum	±0.35˚C between 0˚C and 100˚C (PT100a and PT1000a)
Materials:		ABS plastic
Ambient Temperature:		-10˚C to 60˚C
Cutout Size:		16.3mm diameter
Dimensions:		See Page 2 - Dimensions
Thread Size		M16

Order Codes

AX-TE-T3K	Thimble Temperature Sensor - 3K3A1 NTC
AX-TE-TT	Thimble Temperature Sensor - 10K3A1 NTC
AX-TE-TA	Thimble Temperature Sensor - 10K4A1 NTC
AX-TE-TH	Thimble Temperature Sensor - 20K6A1 NTC
AX-TE-TD	Thimble Temperature Sensor - 30K6A1 NTC
AX-TE-TSAT	Thimble Temperature Sensor - SAT1 NTC
AX-TE-T2.2K	Thimble Temperature Sensor - 2.2K NTC
AX-TE-TTAC	Thimble Temperature Sensor - 1K87A1 NTC
AX-TE-T100	PT100a Platinum Element
AX-TE-T1K	PT1000a Platinum Element
AX-TE-TN1K	Ni1000a Nickel Element TCR curve
AX-TE-TKNX	TNX Compatible 6K8 NTC Thermistor

Suffixes

Add these to the end of your part number for special button finishes

-AL	Aluminium Thimble
-SS	Stainless Steel Thimble
-BR	Brass Thimble
-RAL*	RAL Colour, Please Specify (*)
-PAN*	Pantone Colour, Please Specify (*)

Dimensions

Plastic Finishes eg. White ABS — 16mm, M16 thread, 25mm, 28.5mm, 45mm, 21.75mm

Metal Finishes eg. Stainless Steel, Aluminium, Brass — 16mm, M16 thread, 10mm, 13.5mm, 30mm, 19mm
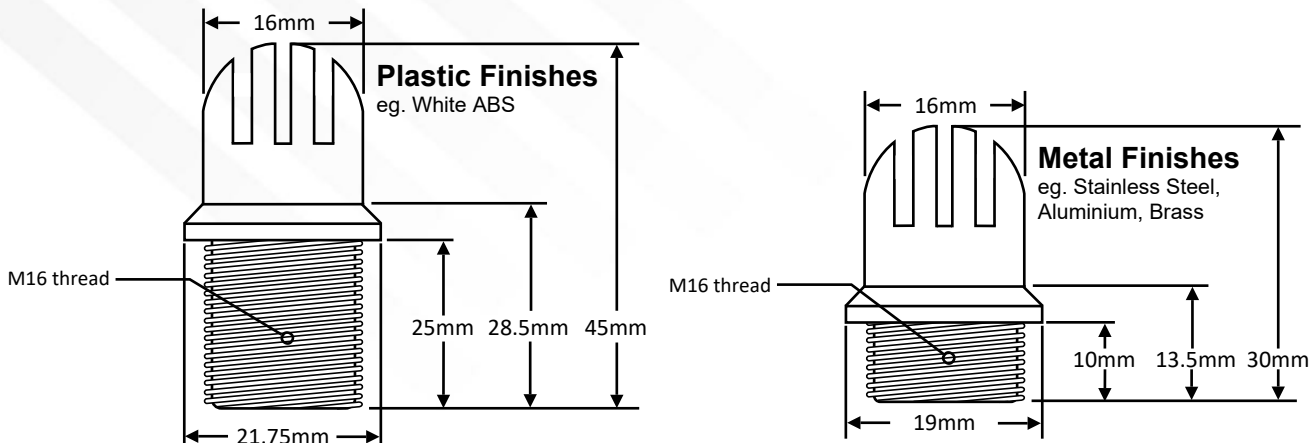
Installation

The AX-TE-T sensor should be installed by a suitably qualified technician in conjunction with any guidelines for the equipment which it is to be connected to. 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-T sensors are suitable for use with mains voltage.

1. Drill a suitable hole.
2. Pass the cable through the hole, secure with the fixing nut provided.
3. Terminate the cable as required.

Connection

Passive sensors are polarity independent. Wires should be stripped and screwed into the 2 way terminal block in the main body of the sensor housing. Do not over-tighten the terminal screws as excessive force can cause damage to the terminal block and housing.

If screened cable is used, the shortest possible section of outer sheath should be removed to effect wiring. As there is no earth connection in the sensor, the screen must be connected to a functional earth elsewhere (often provided at the BMS or HVAC controller) in accordance with the instructions for the equipment that the AX-TE-T is to be connected to.

Trend sensor scaling

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

Prior to commissioning, ensure 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 firmwire v2.1 and above and IQ3 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	11 = 2.641	O1 = 50
E = 3	12 = 3.47	O2 = 40
U = 50	13 = 4.46	O3 = 30
L = -5	14 = 6.66	O4 = 10
P = 6	15 = 7.668	O5 = 0
	16 = 8.102	O6 = -5