



Product overview

The AX-TE-R range of space temperature sensors interface with a wide variety of HVAC control equipment. Units are available with high quality thermistor or platinum elements, or with an active linear output.

The enclosure allows for both direct surface mounting and with fixing holes for standard recessed patress and conduit boxes.

Ventilation slots provide for maximum air flow, thus providing fast response times and returning values indicative of the space in which it is installed.

Features

- Large range of sensor options
- Accurate sensing of room temperature
- Direct fixing, no extra brackets required
- 1-11K Ω setpoint Version Available (-SP)

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)
Setpoint Output:	(Option)	1 to 11K Ω
Material:		VO Rated flame retardant ABS
Terminals:		Rising clamp for 0.5-1.5mm ² cable
Ambient Temperature:		-10°C to 60°C
Dimensions:		85 x 85 x 26mm maximum
Country of Origin:		United Kingdom

Order codes

AX-TE-RT	10K3A1 NTC Thermistor	AX-TE-R100	PT100a Platinum Element
AX-TE-RA	10K4A1 NTC Thermistor	AX-TE-R1K	PT1000a Platinum Element
AX-TE-R3K	3K3A1 NTC Thermistor	AX-TE-RN1K	Ni1000a Nickel Element TCR curve
AX-TE-RH	20K6A1 NTC Thermistor	AX-TE-RTAC	1K87A1 NTC Thermistor
AX-TE-RD	30K6A1 NTC Thermistor	AX-TE-RST1	Staefa PTC Element
AX-TE-RSAT	SAT1 NTC Thermistor	AX-TE-RTX-W	Active Outputs (See separate Datasheet)
AX-TE-R2.2K	2.2K NTC Thermistor	AX-TE-R-x-SP	Thermistor + 1-11Kohm Setpoint
AX-TE-RTENC	Enclosure only		

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Installation

The AX-TE-Rxx 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-Rxx sensors are suitable for use with mains voltage. The AX-TE-Rxx is designed to be fixed directly to an internal wall using the lugs at the base of the housing. The type of fixing used will depend on the material that the sensor is being mounted on.

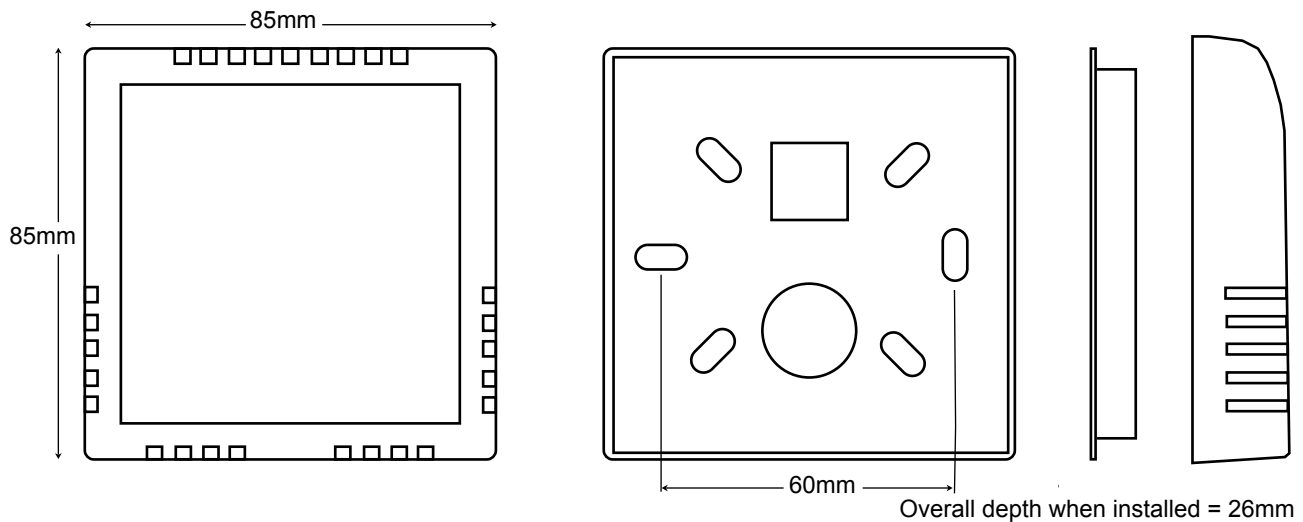
Connection

Passive Sensors:

Passive sensors are polarity independent. Wires should be stripped and screwed into the two 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-Rxx is to be connected to.

Dimensions



Connections

- 1 Thermistor
- 2 Thermistor
- 3 Setpoint CW (-SP Version)
- 4 Setpoint wiper (-SP Version)
- 5 Setpoint CCW (-SP Version)

Trend sensor scaling

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

If the sensor is being scaled manually the following information should be used for IQ2xx controllers with firmware v2.1 and above and IQ3 series controllers.

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

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