Infresco Remote Temperature Sensor

AX-TE-OT range
Precise External Temperature Monitoring

CONTACT US:
📞 **0044 (0) 1704-516 501**
✉ **enquiries@united-automation.com**
🌐 **www.united-automation.com**

KEY FEATURES:

- ✓ **IP65 Housing (square and round options):** Provides complete protection against dust and low-pressure water jets.
- ✓ **Direct Fixing, No Extra Brackets Required:** Simplifies installation without the need for additional mounting hardware.
- ✓ **Large Range of Sensor Options:** Offers flexibility with various thermistor and PTC platinum elements.
- ✓ **Manufactured From Flame Retardant ABS:** Ensures durability and safety with VO-rated materials.
- ✓ **Accurate Sensing of External Temperature:** Delivers precise temperature measurements for reliable HVAC control.

APPLICATIONS:

The Infresco Remote Sensor is ideal for:

- ➤ **HVAC Systems:** Ensuring accurate monitoring and control of outside air temperature.
- ➤ **Industrial Facilities:** Providing reliable temperature readings in demanding environments.
- ➤ **Commercial Buildings:** Enhancing the efficiency of heating, ventilation, and air conditioning systems.

The **Infresco Remote Temperature Sensor** from the AX-TE-OT range is designed for precise and reliable monitoring of outside air temperature, seamlessly interfacing with a wide variety of HVAC control systems. Available with either a high-quality thermistor element or an active linear output, this sensor ensures accurate measurement of external conditions.

Housed in a robust, weatherproof enclosure, the Infresco Remote Sensor provides IP65 protection against water and particulate ingress. The sensor element is mounted within a thermally conductive bead, ensuring accurate temperature readings even in harsh outdoor environments. This sensor is an essential component for optimising HVAC performance and efficiency.

TECHNICAL SPECIFICATIONS

Output	
Passive	Range of two wire thermistors and PTC platinum elements providing variable resistance
Active - Current	4-20mA representing -10°C to 40°C (unless specified otherwise)
Accuracy	
Thermistor	+/- 0.2°C between 0°C and 70°C
Platinum	+/- 0.35°C between 0°C and 100°C (PT100a and PT1000a)
Active	+/-0.1% of range
Materials	VO Rated Flame Retardant ABS
Terminals	Rising Clamp for 0.5-2.5mm² Cable
Ambient Temp	-40°C to 60°C
Dimensions	80 x 80 x 52mm
Country of Origin	Canada

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INSTALLATION

The AX-TE-OT sensor should be installed by a qualified technician following the guidelines for the equipment it connects to. Field wiring must meet the manufacturer's requirements. Generally, screened cable should be used to connect the sensor to a BMS or other controller. **Note:** AX-TE-OT sensors are not suitable for use with mains voltage.

The AX-TE-OT-E is designed for direct wall mounting using the lugs on the housing sides. The type of fixing depends on the mounting material.

IMPORTANT NOTE: The AX-TE-OT-E **MUST** be installed out of direct sunlight. Installation on a north-facing wall provides the best results.

CONNECTIONS

Passive Sensors:

Passive sensors are polarity independent. Strip and screw wires into the two-way terminal block in the sensor housing. Avoid over-tightening the terminal screws to prevent damage.

When using screened cable, remove the shortest possible section of the outer sheath for wiring. Since the sensor lacks an earth connection, the screen must be connected to a functional earth elsewhere, often at the BMS or HVAC controller, following the equipment instructions.

Trend Sensor Scaling

For the AX-TE-OT-10K3A1 passive sensor, use the following scaling information. When using SET to configure the controller, the AX-TE-OT-10K3A1 matches the characteristics of a Trend Thermistor.

Before commissioning, ensure the universal input jumper is set to "T" to accept a thermistor input.

For manual scaling on IQ2xx controllers with firmware v2.1 and above and IQ3 series controllers, use the information below. For older controllers, refer to the engineering data in the Axio catalogue.

Sensor Type Module Settings

Set the sensor type scaling mode to 5 – characterise

Y=1	I1=2.641	O1=50
E=3	I2=3.47	O2=40
U=50	I3=4.46	O3=30
L=-5	I4=6.66	O4=10
P=6	I5=7.668	O5=0
	I6=8.102	O6=-5

RECOMMENDATION DOCUMENTS

Other documents, which may be appropriate for your applications, are available on request.

Code	Identity	Description
P01.1	COS	UAL Conditions of Sale

NOTE: It is recommended that installation and maintenance of this equipment should be carried out by suitably qualified personnel, with reference to the current edition of the I.E.T. Wiring Regulations BS7671. The regulations contain important requirements regarding the safety of electrical equipment.

OPTIONAL EXTRAS

Product Code	Product Description
A86393	Infresco Remote 4kW Variable Controller
A86395	Infresco Remote 6kW Variable Controller
A86394	Infresco Manual 4kW Variable Controller
A86396	Infresco Manual 6kW Variable Controller

PRODUCT CODE AND RELATED PRODUCT CODE

Product Code	Product Description
A86601	Infresco Remote Temperature Sensor