

### Product overview

A range of high quality Duct Temperature Sensors to interface with a wide variety of HVAC control equipment. Units are available with a high quality thermistor element or with an active linear output (see the AX-TE-xTX-W datasheet, available separately).

The Sensor housing offers IP65 protection against water and particulate ingress and features a stainless steel 150mm probe with ventilated tip for fastest possible response and captive M20 gland.



### Products Features

- IP65 Housing
- Large range of sensor options
- Enclosure available in white
- Can be branded
- Direct fixing, no extra brackets required
- Flame retardant ABS plastic
- Stainless steel tip
- Ventilated probe for fast response time

### Product Specifications

|                            |   |
|----------------------------|---|
| Output:                    | Range of two 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 and Nickel)                         |
| Materials: Housing:        | Flame retardant ABS plastic   |
| Probe:                     | Stainless Steel   |
| Ambient Temperature Range: | -10°C to 70°C   |
| Terminals:                 | Rising Clamp for 0.5-1.5mm <sup>2</sup> Cable   |
| Housing Dimensions:        | 92mm diameter x 52mm height   |
| Fixing Holes:              | 2 off, 5mm holes on 92mm centres  |
| Probe Dimensions:          | 150mm x 6mm standard (see order codes for available probe lengths)                    |
| Protection:                | IP65  |
| Country of Origin:         | United Kingdom  |

### Product Order Codes

| Part number       | System examples               | Thermistor | Part number        | System examples | Thermistor           |
|-------------------|-------------------------------|------------|--------------------|-----------------|----------------------|
| <b>AX-TE-DT</b>   | Trend, Innotech, Priva, Trane | 10K3A1 NTC | <b>AX-TE-D50K</b>  | Priva           | 50K6A1 NTC           |
| <b>AX-TE-D3K</b>  | Alerton                       | 3K3A1 NTC  | <b>AX-TE-D2.2K</b> | Johnsons        | 2.2K NTC             |
| <b>AX-TE-DA</b>   | York, Alerton                 | 10K4A1 NTC | <b>AX-TE-D100</b>  | Serek           | PT100a Platinum      |
| <b>AX-TE-DH</b>   | Honeywell                     | 20K6A1 NTC | <b>AX-TE-D1K</b>   | Cylon           | PT1000a Platinum     |
| <b>AX-TE-DD</b>   | Drayton                       | 30K6A1 NTC | <b>AX-TE-DN1K</b>  | Siemens         | Ni1000a Nickel (TCR) |
| <b>AX-TE-DSAT</b> | Satchwell (SAT1)              | SAT1 NTC   | <b>AX-TE-DTAC</b>  | TAC             | 1K87A1 NTC           |

Add -x to the above part numbers for probe lengths other than 150mm

**-65** for 65mm probe length

**-300** for 300mm probe length

**-200** for 200mm probe length

**-400** for 400mm probe length

### Installation

The AX-TE-Dx 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-Dx sensors are suitable for use with mains voltage.

The AX-TE-Dx is designed to attach directly to the duct using self tapping screws and the lugs on the side of the housing. For optimum protection against water ingress, the sensor should be mounted with the cable gland pointing downward and the gasket sealed tight to the duct.

### Trend Sensor Scaling

The following sensor scaling is for the AX-TE-DT passive sensor. If using SET to configure the controller, the AX-TE-DT 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 and IQ3/IQ4 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 |

### Datasheet Contents

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