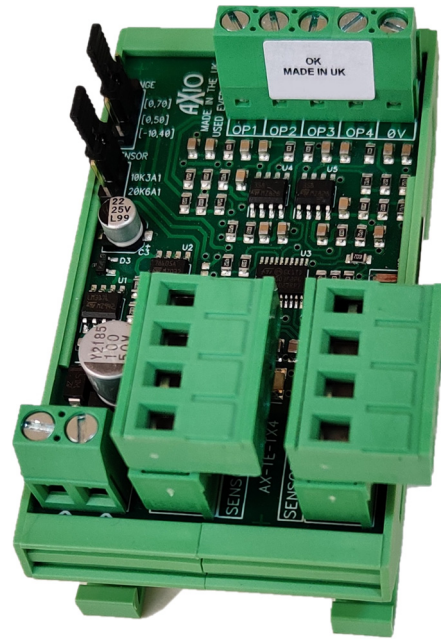# AX-TE-TX4
4 Channel temperature transmitter, voltage output

AXIO

Product overview

The AX-TE-TX4 is a four-channel temperature transmitter that can accept either 10K3A1 or 20K6A1 NTC thermistors as inputs and convert them to 0-10V/ 0-5V DC analogue voltage outputs proportional to temperature. On-board jumpers are used to select the type of sensors and the temperature scale of the outputs. Note that all four sensors need to be of the same type. Short-circuit and open-circuit of the sensors are indicated by the status LED. The corresponding output voltage will drop to 0V in case of sensor failure.

The unit is supplied in a DIN rail carrier suitable for mounting on TS35 section DIN rail and features high quality rising clamp terminals for ease of connection.

Products Features

● 24V AC/DC powered.

● Linear voltage output.

● Supports 10K3A1 / 20K6A1 sensors

● DIN rail mounting (TS35).

● Rising Clamp Terminals.

Product Specifications

Power Supply:	24 Vac ± 15% @ 45mA
	24 Vdc ± 15% @ 30mA
Input:	10K3A1 / 20K6A1 NTC Thermistors. Selectable using on-board jumper
Temperature Range :	–10 to 40 °C / 0 to 50 °C / 0 to 70 °C . Selectable using on-board jumper
Output:	0-10Vdc / 0-5Vdc . See order Codes
Output Current:	5mA max per channel
Output Accuracy:	+/- 0.2°C (Tested with AXIO sensors)
Ambient Temperature Range:	0°C to +50°C
Terminals:	Power supply and outputs: Rising clamp for 0.5-2.5mm^2 cable
	Sensors: Two part connectors. Rising clamp for 0.5-1.5mm² cable
Dimensions:	82 (H) x 45 (W) x 43 (D) mm
Weight:	70gms
Country of origin:	UK

Product Order codes

Order code	Description
AX-TE-TX410	4 Channel temperature transmitter with 0-10V DC output
AX-TE-TX45	4 Channel temperature transmitter with 0-5V DC output

Note that the product does not include temperature sensors. Contact Annicom Ltd if you wish to purchase sensors from us.

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Installation

The AX-TE-TX4 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 module is being connected to.

Jumpers

RANGE

The RANGE jumper sets the output temperature scale. Place the jumper on [-10,40] to get 0Vdc output for –10°C and 10Vdc for 40°C. 0-70°C and 0-50°C are the other available ranges.

SENSOR

This jumper should be selected appropriately depending on the type of temperature sensor connected to the inputs. 10K3A1 and 20K6A1 are the available types. Make sure that all sensors are of the same type. If the sensor selection is 10K3A1, all temperature sensors should be of type 10K3A1. Otherwise, it would lead to erroneous outputs.

Status LED

During normal operation, the LED flashes four times every two seconds. A brighter flash in the sequence indicates a fault (Short Circuit or Open Circuit), ordered as:
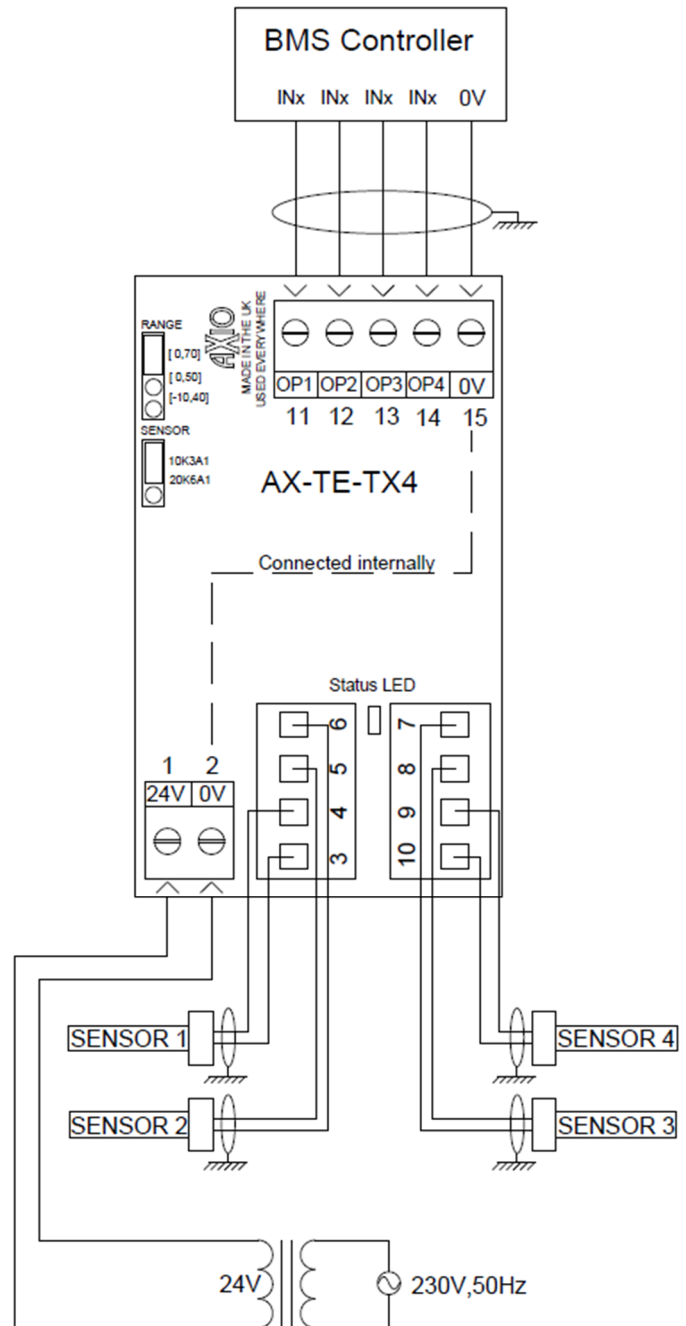
1. SC/OC of Sensor 1   3. SC/OC of Sensor 3

2. SC/OC of Sensor 2   4. SC/OC of Sensor 4

Connections

Refer typical wiring diagram for terminal numbers.

1	- 24 V ac/dc	11	- Output 1
2	- 0V	12	- Output 2
3,4	- Sensor 1	13	- Output 3
5,6	- Sensor 2	14	- Output 4
7,8	- Sensor 3	15	- 0V
9,10	- Sensor 4		

Typical wiring diagram

Datasheet Contents

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