

## Datasheet

# Thermocouple In-head Temperature Transmitter

TX104TC – for Thermocouple Types K, J or T, 4-20mA output (default Type/range supplied - Type K, 0-1000°C)



Model TX104TC, 4 to 20 mA temperature transmitter for Thermocouple Types K, J or T, which can be fitted in a head mount DIN standard connector or housing. Default Type/range supplied is Type K, 0-1000°C but if necessary is field rangeable by links on the printed circuit board and adjustment of on board SPAN and ZERO potentiometers

- LOW COST
- USER RE-RANGEABLE
- THERMOCOUPLE INPUT K, J OR T
- TWO WIRE (4 TO 20) MA OUTPUT

### SPECIFICATIONS @ 20 °C

|                        |   |
|------------------------|---|
| Output                 | (4 to 20) mA loop powered,<br>maximum 30 mA                   |
| Loop Supply            | (10 to 30) VDC reverse<br>connection protected                |
| Max. Loop Load         | $\frac{(V. \text{ Supply } - 10)}{0.020}$                     |
| Loop Volts Sensitivity | 10 $\mu$ A/V  |
| Temp. Stability        | Drift type. 0.02 %/°C FRO                                     |
| Zero                   | Type. 0.005 %/C FRO   |
| Span                   |   |
| Ambient Temperature*   | (0 to 70) °C operating<br>(*at 24 V supply 250 $\Omega$ load) |
| Ambient RH             | (0 to 95) % RH non condensing                                 |
| EMC Compatibility      | BS EN61326  |

**TX104TC K, J OR T THERMOCOUPLE SENSOR**

(Isolated Junction)

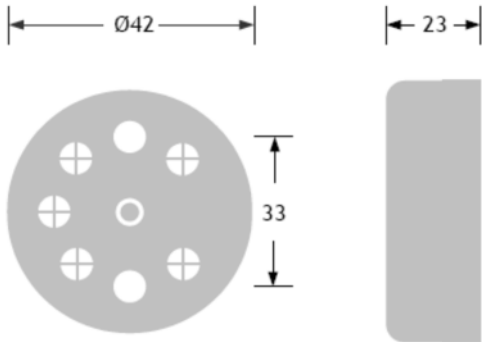
|                   |  |
|-------------------|--|
| Output            | (4 to 20) mA (directly proportional to mV input)                           |
| Accuracy          | ± 0.1 %FS plus cold junction errors non-linearised                         |
| Response          | 100 ms to reach 70 % of final value  |
| Offset Adjustment | ± 100 °C, solder link and potentiometer                                    |
| Span Adjustment   | (100 to 1000) °C   |
| Impedance         | > 1 M Ω  |
| Burn Out          | Upscale standard<br>Downscale by link                                      |
| Cold Junction     | Automatic (0 to 70) °C<br>Accuracy 0.2 °C @ 20 °C<br>Tracking + 0.05 °C/°C |

**Ordering Information:**

| Type | Operating Temperature | Supply Voltage | Output | Default input Type/Range | Model No. | Allied code | RS Order Number |
|------|-----------------------|----------------|--------|--------------------------|-----------|-------------|-----------------|
| TC   | 0°C to +70°C          | 10 – 30 Vdc    | 4-20mA | 'K' 0-1000°C             | TX104TC   | 70825786    | 363-0222        |

**Mechanical Details:**

(all dimensions in mm)



**Connections:**

