TT246 RTD Transmitters

Overview

Specify this rugged, accurate transmitter for process control and other industrial applications.
Model TT246 outputs 1 to 5 VDC proportional to temperature. It draws only 3 mA of quiescent current, making it ideal for solar or battery powered systems.

- 2 or 3-wire RTD input
- Ambient rated to 85°C (185°F)
- Fits DIN “B” style connection heads
- Optional high-accuracy calibration to Minco RTDs for improved accuracy; .

TT246 RTD Transmitter, voltage output

Specifications

Output: Linear with temperature over specified range.
TT246: 1 to 5 VDC

Calibration Accuracy: ±0.1% of span (0.2% of span for spans less than 10 Ω)

Linearity: 0.1% of span, referenced to actual sensor temperature

Adjustments: Zero and span, ±5% of span, non-interacting. Factory set.

Ambient temperature:
Operating: -40 to 85°C (-40 to 185°F)
Storage: -55 to 100°C (-67 to 212°F)

Ambient temperature effects:
±0.009% of span per °C
±0.014% of span per °C for spans less than 10 Ω

Warmup drift:
±0.1% of span max., with V_{supply} = 24 VDC and R_{loop} = 250 Ω. Stable within 15 minutes.

Supply voltage:
TT246: 7.5 to 35 VDC Voltage effect ±0.001% of span per volt. Reverse polarity protected.

Supply current: 3mA max. with no load.

Maximum load resistance: The maximum allowable resistance of the signal carrying loop is:

$$R_{loop\ max} = \frac{V\ supply - 10}{0.020\ amps}$$

Example: With supply voltage 24 VDC, maximum loop resistance is 700 Ω.

Minimum span: 10°C (18°F).

Minimum output current: 2.2 mA.
Maximum output current: 28 mA.

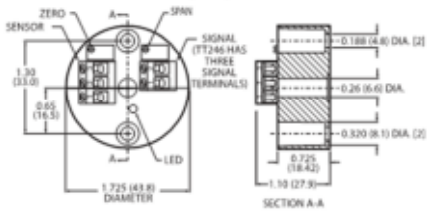
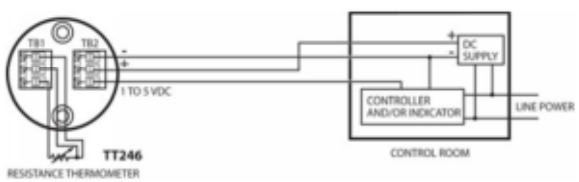
Leadwire compensation: (3-wire RTD) ±0.05% of span per Ω up to 25 Ω each leg.

Connections: Terminal block for wires AWG 22 to AWG 14.

Physical: Polycarbonate case, epoxy potted for moisture resistance.

Weight: 2.0 oz. (57 g)

Dimensions in inches (mm)



Wiring Diagram