Automation Components
a DwyerOmega brand

Transmitter Room Wall Mount



The Transmitter Room Series is a zone/space temperature sensor that outputs a 4-20mA signal, with an optional voltage signal output of 1-5 VDC or 2-10V DC signal to BAS or controller.



Key Benefits & Features

Accuracy

- ±0.2 % calibrated transmitter accuracy for reliable performance
- RTD Options, class A, 1K or 100 Ohm RTD for precise measurements.
- A/TTM Series Matched Transmitters: Best accuracy achieved with 3 or 5 Point NIST Calibration Certificate, ensuring the RTD and transmitter are calibrated together as a system for higher reliability.
- Foam pad reduces self-heating from the transmitter and minimizes thermal drafts within the wall, enhancing accuracy in varying conditions.

Easy Calibration & Adjustments

- Set Point, Override, and Loop Powered LCD Display for easy monitoring and control.
- Zero and Span adjustments included for flexible field calibration
- Ensures calibration accuracy using NIST Certified equipment for optimal performance.

Common Applications

- Space Temperature Sensing
- Office Buildings
- Schools
- Gyms
- Manufacturing Plants
- Pharmaceutical
- Hospitals
- Data Centers

Key Specifications

Transmitter Supply Voltage I Supply Current: +8.5 to 32 VDC (Reverse Polarity Protected) I 25 mA minimum 250 Ohm Load: +13.5 to 32 VDC I 500 Ohm Load: +18.5 to 32 VDC "-LCD" Loop Powered: Add +7 VDC to 250/500 Ohm Load Supply Voltage above

Maximum Load Resistance: (Terminal Voltage - 8.5 V) I 0.020 A

Output Signals: Current: 4-20 mA (2-Wire Loop Powered) I Voltage: 1-5 VDC or 2-10 VDC (3-Wires)

Calibrated Transmitter Accuracy I Linearity1: Temp. Spans < 500°F (260°C): ± 0.2 %

Temperature Drift²: Temp. Spans < 100 °F (38 °C): ± 0.04 % / °F Temp. Spans > 100 °F (38 °C): ± 0.02 %

TTM100/TTM1K Certification Points: 3 Point NIST: 20 %, 50 % & 80 % of span I 5 Point NIST: 20 %, 35 %, 50 %, 65 % & 80 % of span

Warm Up Time I Warm Up Drift: 10 minutes I ± 0.1 %

Calibration Temperature Spans ¹: Minimum Temp. Span: 50 °F (28 °C) I Maximum Temp. Span: 200 °F (93 °C)

Connections I Wire Size: Screw Terminal Blocks (Polarity Sensitive) I 16 AWG (1.31 mm 2) to 26 AWG (0.129 mm 2)

Terminal Block Torque Rating: 0.37 ft - lb (0.5 N-3 m) nominal

Override Contact Type I Contact Ratings: Dry Contact "N/O" Contact I Minimum: 10 uA @ 1 VDC Maximum: 50 mA @ 24 VDC

Set Point Accuracy: ± 10 % I 4-20 mA: 4 mA (Far Left) / 20 mA (Far Right)(DA-Direct Acting (Default)) 20 mA (Far Left) / 4 mA (Far Right)(RA-Reverse Acting (Optional))

Sensor Type I Sensor Curve I Sensing Points: Platinum RTD I PTC (Postive Temperature Coefficient) I One

Number Wires I Wire Colors (TTM Series only): Two I A/TTM100-R/R2: Brown/Brown I A/TTM1K-R/R2: Black/Black

Nominal Sensor Output @ 0° C (32° F): A/TT100/TTM100-R/R2: 100 Ohms I A/TT1K/TTM1K-R/R2: 1000 Ohms

RTD Tolerance Class I Sensor Accuracy: ± 0.06 % Class A I (Tolerance Formula: ± °C = (0.002 * ltl)) where ltl is the absolute valuse of temperature above or below 0 °C in °C

Din Standard | Temperature Coefficient: DIN EN 60751 (IEC 751) | 3850 ppm / °C

Sensor Stability: ± 0.03 % after 1000 hours @ 300 °C (572 °F)

LCD Display Input Signal: 4 to 20 mA Only (2-Wire Loop Powered)

LCD Display Accuracy: ± 1.0 % of Calibrated Temperature Span or ± Whichever is Greater

LCD Display Descriptor | Number of Digits: °F (Fahrenheit) or °C (Celsius) | 3 1/2 Segment Display

LCD Display Life Expectancy: 50,000 Hours Minimum

Operating Temperature Range[3]: 35 to 122 °F (1.5 to 50 °C)

Storage Temperature Range[3]: Non-LCD:-40 to 65 °C (-40 to 149 °F) | LCD Display: -10 to 65 °C (14 to 149 °F)

Operating Humitity Range: 5 to 95 % RH non-condensing

Enclosure Specifications (Material Type, Color, UL Flammability Range): "-R2" Enclosure: ABS Plastic | White | UL94-HB "-R" Enclosure: ABS Plastic | Beige | UL94-HB

Foam Pad Material | Flammability Rating (TTM Only): Neoprene/EPDM/SBR Polymer | UL94-HBD; FMVSS-302; MIL-R-6130C

Product Dimentions (L x W x H): 4.50 " (114.3 mm) x 2.78 " (70.6 mm) x 1.00" (25.4 mm)

Product Weight: "-R/RS/RO" Series: 0.17 lbs. (0.375 kg) | "-RSO" Series: 0.21 lbs. (0.46 kg) "-R2/R2S/R2O" Series: 0.19 lbs. (0.42 kg) | "-R2SO" Series: 0.23 lbs. (0.51 kg) All LCD Display Units: 0.174 lbs (0.079 kg)

Agency Approvals: RoHS2, WEEE

Note[1]: Transmitter's calibrated at 71 °F (22 °C) nominal | Note[2]: Temperature Drift is referenced to 71 °F (22 °C) nominal calibration temperature | Note[3]: Temperature spans may go outside of the operating temperature range but the unit must be used within the operating temperature limit

Ordering Information

The sensor must be ordered with a temperature span. This span is what the analog signal is based upon. Specify Span in °F or °C (Best Accuracy in 100 °F Increments).