

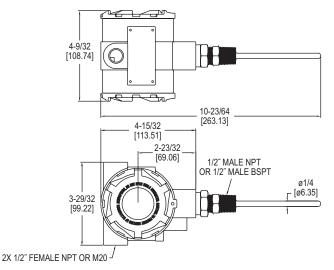




EXPLOSION-PROOF RTD TEMPERATURE TRANSMITTER

User Selectable Ranges, Optional LCD Display





The Series TTE Explosion-Proof RTD Temperature Transmitter is the ideal product for hazardous temperature measurement applications. The TTE series has seven preprogrammed temperature ranges that are selectable via an internal dip switch. For those applications that need a custom range, the transmitter can be easily configured for any range between -30 to 250°F with a minimum span of 40°F. The span and zero can be quickly adjusted with a simple push-button design. This unit has optional listings of FM for use in Class I, Division 1, Groups B, C and D, Class II, Division 1, Groups E, F and G and Class III atmospheres or ATEX (Directive 2014/34/EU) for €€ (-20°C ≤ Ta ≤ + 70°C) and IECEx for Ex db IIC T6...T4 Gb (-20°C ≤ Ta ≤ + 70°C), Ex ta IIIC T111°C Da (-20°C ≤ Ta ≤ + 70°C). The compact housing allows for the transmitter to be mounted in virtually any application.

FEATURES/BENEFITS

- FM approved for Class I, Groups B, C, D; Class II, Groups E, F, G classified explosive environments
- Optional LCD
- · Output span selected from seven common ranges or user determined

APPLICATIONS

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- Explosive process environments
- · Offshore HVAC monitoring

| MODEL CHART | | | | | | | |
|---|-----|----|----|----|-------|---|--|
| Example | TTE | -1 | 04 | -W | -LCD | TTE-104-W-LCD | |
| Series | TTE | | | | | Explosion-proof RTD temperature transmitter | |
| Agency | | 1 | | | | FM* | |
| | | 2 | | | | ATEX/IECEx flameproof | |
| Probe | | | 02 | | | 2" probe | |
| Length | | | 04 | | | 4" probe | |
| _ | | | 06 | | | 6" probe | |
| | | | 09 | | | 9" probe | |
| | | | 12 | | | 12" probe | |
| | | | 15 | | | 15" probe | |
| | | | 18 | | | 18" probe | |
| Construction | | | | W | | Well probe | |
| Options | | | | | Blank | No LCD display | |
| | | | | | BSPT | 1/2 male BSPT process connection | |
| | | | | | C5 | C5-M housing paint specification | |
| | | | | | LCD | LCD display | |
| | | | | | M20 | Female M20 thread electrical connection | |
| *Options that do not have ATEX and IECEx. | | | | | | | |

Attention: Units without the "2" suffix following "TTE" are not directive 2014/34/EU (ATEX) Complaint. These units are not intended for use in potentially hazardous atmospheres in the EU. These units may be CE marked for other directives of the

| ACCESSORIES | | | | |
|-------------|---|--|--|--|
| Model | Description | | | |
| | Mounting bracket for pipe or surface mounting (Includes bracket and two 2" U-bolts) | | | |

SPECIFICATIONS

Temperature Sensor: Pt1000, 0.00385 DIN.

Output Temperature Ranges: User selectable - any range between -30 to 250°F

with a minimum span of 40°F.

Temperature Limits: Ambient: -4 to 158°F (-20 to 70°C); Process: -30 to 250°F

(-34.4 to 120°C).

Accuracy: Transmitter ±0.1% FS; Probe ±0.3% FS.

Thermal Drift Effects: ±0.02%/°C max. Response Time: 250 ms

Wetted Materials: 316 SS

Process Connection: 1/2" male NPT or 1/2" male BSPT.

Conduit Connection: 1/2" female NPT or M20. Probe Length: 2" to 18" (depending on model). Pressure Limits: 2000 psi (137.9 bar). Power Requirements: 10 to 35 VDC.

Output Signal: 4 to 20 mA (two wire loop powered).

Optional Display: 2 lines X 8 character LCD.

Enclosure Rating: Weatherproof and Explosion-proof. Listed with FM for Class I, Division 1, Groups B, C and D, and dust-ignition proof for Class II, Division 1,

Groups E, F and G and Class III atmospheres.

ATEX Certified: (€ 0518 ⓒ II 2 G Ex db IIC T6...T4 Gb, C € ⓒ II 1 D Ex ta IIIC T111°C Da, T6 Process Temp ≤80°C, Temperature Class T5 Process Temp ≤95°C, Temperature Class T4 Process Temp ≤120°C as defined on nameplate. EU-type Cerificate No.: EMT17ATEX0021 X.

ATEX Standards: EN 60079-0:2012+A11:2013; EN 60079-1:2015; EN 60079-

31:2014.

IECEx Certified: For Ex db IIC T6...T4 Gb, Ex ta IIIC T111°C Da, T6 Process Temp ≤80°C, Temperature Class T5 Process Temp ≤95°C, Temperature Class T4 Process Temp ≤120°C as defined on nameplate.

IECEx Certificate of Conformity: Element IECEx EMT 17.0007X; IECEx Standards: IEC 60079-0:2011 (Edition 6); IEC 60079-1:2014 (Edition 7); IEC 60079-31:2013 (Edition 2).

Weight: 2 lb 8 oz (1134 g). Agency Approvals: FM, CE, ATEX/IECEx.

| THERMOWELLS - MACHINED® | | | | | |
|------------------------------------|--------------------------------------|-----------------------|--|--|--|
| Model | Material | Length | Connection (Internal/External) (NPT) | | |
| TE-TNS-N064N-12 TE-TNS-N094N-12 | 304 SS 304 SS 304 SS 304 SS | 4" 6" 9" 12" | 1/2" / 3/4" 1/2" / 3/4" 1/2" / 3/4" 1/2" / 3/4" | | |



Machined thermowell

| FIELD-SELECTABLE RANGES |
|---|
| 40 to 90°F (4.4 to 32.2°C) |
| -20 to 140°F (-28.9 to 60°C) |
| 0 to 100°F (-17.8 to 37.8°C) |
| 30 to 240°F (-1.1 to 115.6°C) |
| 32 to 212°F (0 to 100°C) |
| 32 to 122°F (0 to 50°C) |
| -30 to 65°C (-1.1 to 18.3°C) |
| Custom range between -30 to 250°F (-34.4 to 121.1°C |

Technical Specifications and Additional Thermowell Models: See page 147 (Series TE-TNS)