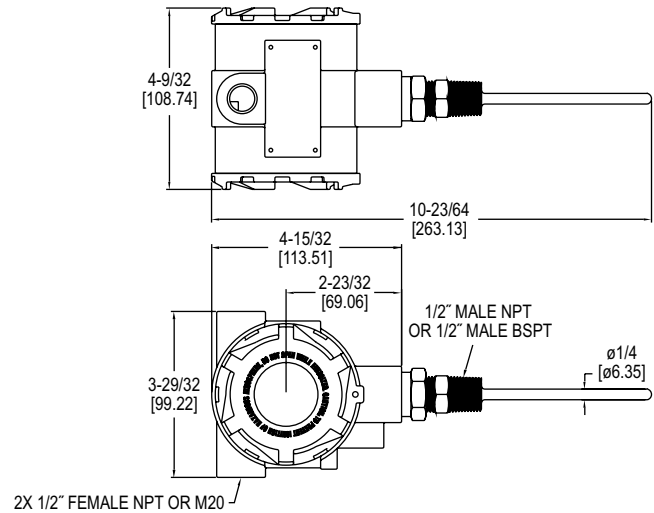


# EXPLOSION-PROOF RTD TEMPERATURE TRANSMITTER

User Selectable Ranges, Optional LCD Display



\*Shown with 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 pre-programmed 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  $\text{CE}$  2813 II 2 G Ex db IIC T6...T4 Gb (-20°C ≤ Ta ≤ +70°C),  $\text{CE}$  2813 II 1 D Ex ta IIC T111°C Da (-20°C ≤ Ta ≤ +70°C) and IECEx for Ex db IIC T6...T4 Gb (-20°C ≤ Ta ≤ +70°C), Ex ta IIC 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

- 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 Length			02			2" probe
			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) Compliant. 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 EU.

### ACCESSORIES

Model	Description
A-287	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:** 10-35 VDC.

**Output Signal:** 4-20 mA (2-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-ignitionproof for Class II, Division 1, Groups E, F and G and Class III atmospheres.

**ATEX Certified:**  $\text{CE}$  2813 II 2 G Ex db IIC T6...T4 Gb,  $\text{CE}$  2813 II 1 D Ex ta IIC 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 Certificate 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 IIC 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-N044N-12	304 SS	4"	1/2" / 3/4"
TE-TNS-N064N-12	304 SS	6"	1/2" / 3/4"
TE-TNS-N094N-12	304 SS	9"	1/2" / 3/4"
TE-TNS-N124N-12	304 SS	12"	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)