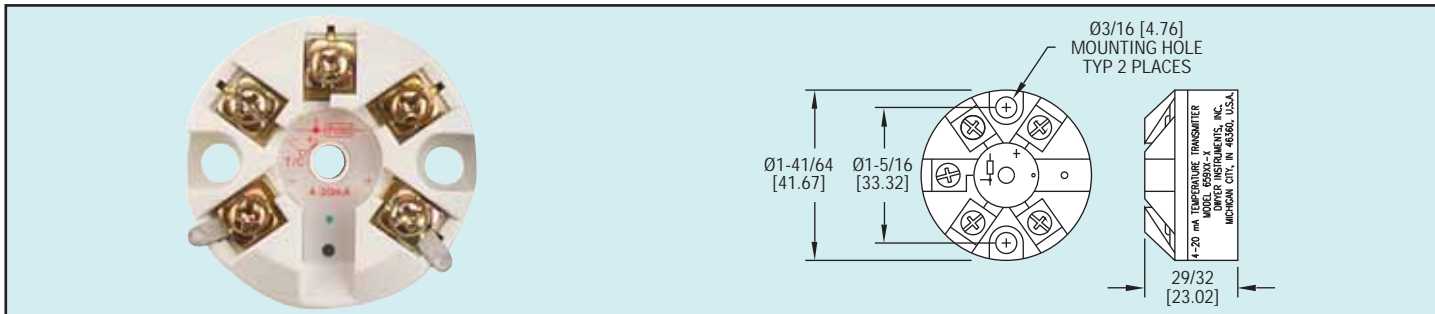




Series  
659

# Push-Button Temperature Transmitter

Programmable, RTD, Thermistor or Thermocouple Input, In-Head Mounting



**Series 659 Push-Button Temperature Transmitters** accept thermocouple (J, K, T), RTD (Pt100 $\Omega$ ) or thermistor input and provide a linearized 4 to 20 mA output. The transmitter is quickly ranged and calibrated by using a single on-board switch. An LED provides visual indication of sensor fault and programming mode. Models feature reverse polarity protection. Thermocouple models are also galvanically isolated and cold junction compensated.

The compact transmitter can be mounted directly within any standard thermal head for connection to the sensor. The Series 659 Transmitters are ideal for temperature measurement in boilers, burners, ducts, furnaces, refrigeration systems, food processing, tanks, chemical processing, steam generators or any other process application.

Model	Input
659TC-1	Thermocouple (Type J, K, T)
659RTD-1	3-wire (RTD Pt100)
659TH-1	Thermistor (2252 $\Omega$ )

## SPECIFICATIONS

**Input Range:** Type J T/C: -328 to 2192°F (-200 to 1200°C); Type K T/C: -328 to 2498°F (-200 to 1370°C); Type T T/C: -328 to 752°F (-200 to 400°C); Pt100 $\Omega$  RTD: -328 to 1562°F (-200 to 850°C); Thermistor: -13 to 257°F.

**Accuracy:** T/C models:  $\pm 0.04\%$  F.S.,  $\pm 0.04\%$  of reading or  $\pm 0.5^\circ\text{C}$  whichever is greater; RTD:  $\pm 0.2^\circ\text{C}$   $\pm 0.1\%$  of rdg; Thermistor:  $\pm 0.25^\circ\text{F}$  ( $\pm 0.1^\circ\text{C}$ ).

**Output:** Linearized 4 to 20 mA, 2-wire loop powered.

**Sample Rate:** 500 ms.

**Loop Resistance:** T/C: 700 $\Omega$  @ 24 VDC; RTD: 800 $\Omega$  @ 24 VDC; Thermistor: 24 VDC.

**Output Thermal Drift:** Zero: 0.2 $\mu\text{A}/^\circ\text{C}$ ; Span: 0.5 $\mu\text{A}/^\circ\text{C}$ .

**Temperature Limits:** Ambient: -4 to 158°F (-20 to 70°C), 80% RH max.

**Ambient Storage Temperature:** -40 to 158°F (-40 to 70°C), 95% RH max.

**Burnout:** Upscale 22 mA.

**Weight:** 0.92 oz (26 g).