

TEMPERATURE TRANSMITTER

2-WIRE, LOOP POWER, 4-20mA

PERFORMANCE SPECIFICATIONS

Input Accuracy.	RTD: ±0.04% @ 77°F Thermocouple, Type E: ±0.022% of Conformance Range Thermocouple, Type J: ±0.03% of Conformance Range Thermocouple, Type K: ±0.02% of Conformance Range	<u>Conformance Range</u> -328°F to +1562°F -274°F to +1832°F -292°F to +1418°F -238°F to +2502°F
Output Accuracy.	RTD and Single Point Thermocouples: ±0.03% of Input Span Setting + Input Accuracy Multi-Point Thermocouples: ±0.03% of Input Span + Input Accuracy + Averaging Circuit Accuracy Averaging Circuit Accuracy (%): $\frac{.02 \times (\text{Temp Gradient } ^\circ\text{F})}{(\text{Transmitter Span } ^\circ\text{F})} \times 100$	
Cold Junction Reference Accuracy.	±0.045%	
Isolation.	1500 Vrms input to output to case (Isolated Model only).	
Linearity.	0.1% of span, within rated ranges.	
Over-Voltage Protection.	4V max (Input), 48V max (Output and Reverse Polarity protection on Output).	
Load Capability.	500Ω @ 24V, typical. Non-Isolated Model: $\frac{\text{Supply Voltage} - 7V}{.024A} = \Omega$ Isolated Model: $\frac{\text{Supply Voltage} - 10V}{.024A} = \Omega$	
Burnout Protection.	Total Sensor Diagnostics user-selected via Windows configuration software; upscale to 24mA (std) or downscale to 3.6mA. Applies when all sensors in the temperature probe are burned out.	
Output Current Limiting.	21.4mA for input over-range; 23.6mA for sensor failure or broken wire.	
RTD Lead Wire Resistance Maximum.	RTD Resistance + 2 times the lead wire resistance must be less than 4000Ω. Recommend <35Ω per wire for 3-wire RTD inputs.	

AMBIENT CONDITIONS

Operating and Storage Range.	-40°F to +185°F
Relative Humidity.	0-95%, non-condensing.
Effect of Ambient Temp on Accuracy.	±0.015% of span per °F change, max. (+0.001% of Ω reading for RTD inputs).
Effect of Ambient Temp on Cold Junction Compensation.	±0.015°F per °F change.

ADJUSTMENTS

All settings made using Windows based configuration program, then stored in non-volatile FRAM memory. Cable, software disk and instruction manual included with each transmitter.

OPTIONS

Transmitter Type. Non-Isolated (standard) Optically Isolated

