

# ISOLATED TRANSMITTERS

## Specifications

Pt100	3, 4 wire	-200 to +1000°C -328 to +1832°F
Pt1000	3, 4 wire	-200 to +200°C -328 to +392°F
Ni100	3, 4 wire	-60 to +250°C -76 to +482°F
Ni1000	3, 4 wire	-60 to +150°C -76 to +302°F
Potentiometer	3, 4 wire	0 - 2000Ω
Sensor Current	approx. 0.4mA	
mAx. Permissible Lead Resistance	25 Ω/lead	

T/ C	B, E, J, K, L, N, R, S, T, U
Voltage Input	-10 -500 mV
Input Resistance	>10 Mohm
Total permissible lead resistance for both input leads	500 ohms

	User definable settings
Sensor break detection	3.5 - 22.8 mA
TempIRsense, sensor isolation monitoring	3.5 - 22.8 mA

Zero adjustments	no limitation	
Minimum ranges	Pt100, Pt1000	
	Ni100, Ni1000	10°C, 18°F
	Potentiometer	10Ω
	T/C, mV	2 mV

Straight, reversed or any intermediate value	4 - 20 mA
Resolution	5μA
Min output signal	appr. 3.5mA
Max output signal	appr. 23 mA

Selectable filter time for low pass filter	0-60 s
Scan time	appr. 0.5 s
Rise time 10 -90 %	appr. 0.3 s
Transformer Isolation In- Out	1500 VAC 1 min

Power supply polarity protected	6.5-36 VDC 10-36 VDC
---------------------------------	-------------------------

Linearity	RTD, mV T/C	0.05% <sup>1</sup> 0.1% <sup>1</sup>
Calibration	Pt100, Pt1000 Ni100, Ni1000 Potentiometer  mV, T/C	The larger of 0.1°C 0.2°F or 0.05% <sup>1</sup> The larger of 0.1Ω or 0.5% <sup>1</sup> The larger of 20μV or 0.05% <sup>1</sup>
Cold Junction Compensation	T/C	0.5°C, 0.9°F
Temperature Drift		The larger of 0.005 °C/°C, 0.005 °F/°F or 0.005 %/°C, 0.003%/°F
Cold Junction Compensation	T/C	0.02°C/°C, 0.02°F/°F

Lead Wire Resistance Influence:		
RTD 3-wire		See Table 1
RTD 4-wire		negligible
Thermocouple		negligible
Load influence		negligible
Power supply influence		negligible
Long term drift, 25°C, 77°F		typ 0.1%/year

Ambient Temperature	-40 to +85°C -40 to +185°C
---------------------	-------------------------------

Emission, EN 50081-2 Industrial Environment	30-230 MHz, 30dB (μV/m) 230-1000MHz, 37dB (μV/m)
Immunity, EN50082-2 Industrial Environment	RF, air, 80-1000MHz, AM RF, air, 900 MHz, pulse modulated (GSM cellular telephone) RF, cables, 0.15-80 MHz, ESD 4kV contact, 8kV contact, 8kV air discharge Fast transients, cables, 2kV
HF immunity tested for 10v/m	up to 1000MHz

Material	PC +ABS, UL V0
Mounting	DIN B-head or larger
Weight	appr. 50g

<sup>1</sup> selected maximum signal