# TEMPERATURE TRANSMITTER







#### 2-WIRE TEMPERATURE TRANSMITTER

The PTX-100 is excellent and cost-effective 2-Wire Temperature TRANSMITTER. The design is available in HEAD mounting and DINRAIL housing. The device generates 4-20mA current signal proportional to temperature. The TRANSMITTER operates on loop power supply. The current signal reduces wiring cost drastically. The effect of electrical noise is minimized and long runs of thermocouple wires is eliminated. The housing is shockproof and hermetically sealed.

- 2,3 wire R.T.D. (Pt-100)
- Wide range -200 to +800 °C 4-20mA DC current output
- Linearity better than ±1% 10V to 36V DC supply
- · Sturdy and accurate

### Specifications

Input	Pt-100 ( 2,3 wire ) R.T.D.		
Range	-200 to +800 °C, Zero/ Span User adjustable With trimmer potentiometer		
Output	4-20mA dc		
Accuracy	Better than ±1 %		
Ambient Conditions	-20 °C to +80 °C		
R.T.D. Break Protection	Provided, current goes to 34 mA if A is open, current goes to 3.6 mA if B or B1 is open.		
Maximum Load	Maximum loop resistance RL = [ (V+) - 9V ] $\div$ 20mA V+= Loop Power Supply		
Reverse Polarity	Protection Provided		
Surge Protection	Provided with Zener Clamp		
Housing	1) Head Mounting: DIA (d) 42 mm, HEIGHT (h) 27 mm without terminals		
	2) DIN RAIL Mounting: 75H x 22W x 92D in mm		
Application	<ul><li>Industrial Process Control</li><li>DCS, SCADA, DATA</li><li>Driving Recorders, Panel Indicators</li></ul>	<ul><li>Factory Automation</li><li>ACQUISITION</li><li>Signal to Computers</li></ul>	



#### **NOTES**

- Thermocouple Temperature Transmitters are available in model nipponTCTX.
- Input and Range are factory set
- $\bullet$  K type thermocouple 0 to +1200  $^{\circ}\text{C}$
- $\bullet$  J type thermocouple 0 to +400  $\,^{\circ}\text{C}$
- Humidity-Temperature Transmitters also available



#### MULTI INPUT TEMPERATURE TRANSMITTERS

The PTXM series is multiple input loop powered temperature transmitter. The device supports different input sensors RTD (Pt100 and Pt1000) and thermocouples (J type and K type). The selection of input sensor device can be configured through the RS485 link from the PC side application.

The PC side application would help the user to configure the device for particular range of input as well as range of current. The application reads the temperature from the device as well. The device transmits the read temperature and current output value to the application.

### Specifications

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Input	Pt100, Thermocouple J type, K Type	
Range	For Pt100 -200 to +800 °C, J type 0 to +600 °C K type 0 to +1200 °C	
Output	4-20mA DC current output	
Accuracy	Linearity better than ±1 %	1 SPAN  1 1
Supply	18V to 36V DC supply	
Design	Microcontroller Based , Sturdy and accurate	SMART ()
Operating Temperature	-40 °C to +85 °C	TX
Fault Detection	Configurable, Input short for RTD, Input open both for RTD and Thermocouple	ZERO ( ) ( ) ( ) ( )
Offset	User adjustable with trimmer potentiometer	
Auto Calibration and	D. I. I. D. D. I. J. J.	+
System Calibration	Provided from PC side application	
Protections	Reverse polarity and Surge with TVS diode clamp	



# 2-WIRE ISOLATED TEMPERATURE TRANSMITTER

- Isolated transmitters
- 1000/1500 VRMS isolation
- 12-36 VDC power supply
- True 2-wire transmitter
- Ground loop elimination
- DIN RAIL Mounting: 75H x 46W x 110D, mm





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