

Product Features

- *Linearized Output To Temperature*
- *High Quality*
- *Cold Junction Compensation for Thermocouples*
- *Factory Calibrated*
- *Protection against polarity inversion*

Description

The MP200 series is a 2-wire temperature transmitter. Micro-processor based, it was designed for flexibility, accepting mV, Pt100 and a variety of thermocouples as the input sensor. The MP200 delivers a scalable linear 4-20mA output current proportional to the sensor temperature. A user-friendly configuration software is provided for parameter setup, including sensor type, temperature range, filter, etc.

Specifications

Sensor input : User defined. The supported sensors are listed in table 1, along with their maximum ranges.

Thermocouples : Types J, K, R, S, T, N, E, according to IEC 60584 (ITS-90). Impedance >> 1MΩ

Pt100 : Excitation : 180 uA.
2 or 3-wire connection (for 2-wire sensors, tie terminals 2 and 3 together).
 $\alpha = 0.00385$, according to IEC 60751(ITS-90).

Voltage : 0 a 50mVdc. Impedance >> 1MΩ

Sensor Type	Range	Min. SPAN
Thermocouple K	0 to 1370°C (32 to 2500 °F)	100°C
Thermocouple J	0 to 760°C (32 to 1400 °F)	100°C
Thermocouple R	0 to 1760°C (32 to 3200 °F)	400°C
Thermocouple S	0 to 1760°C (32 to 3200 °F)	400°C
Thermocouple T	0 to 400°C (32 to 752 °F)	100°C
Thermocouple N	0 to 1300°C (32 to 2372 °F)	100°C
Thermocouple E	0 to 720°C (32 to 1328 °F)	100°C
Pt100	0 to 650°C (-32 to 1020 °F)	40°C
Voltage	0 to 50mV	5mV

Table 1 – MP200 series input sensor

Total accuracy : better than 0,3% of the maximum range for thermocouples and 0,2% for Pt100 and voltage;

Response Time : < 100ms;

Output : 2-wire 4-20mA, linear with respect to the measured temperature.

Resolution: 0,004mA (12 bits).

Power supply : 12 to 35Vdc, across the transmitter;

Maximum load (RL) : $RL (max.) = (V_{supply} - 12) / 0,02 [\Omega]$

Operating Temperature : -40 to 85°C

Humidity : 0 a 90% RH

Electromagnetic compatibility : EN 50081-2, EN 50082-2

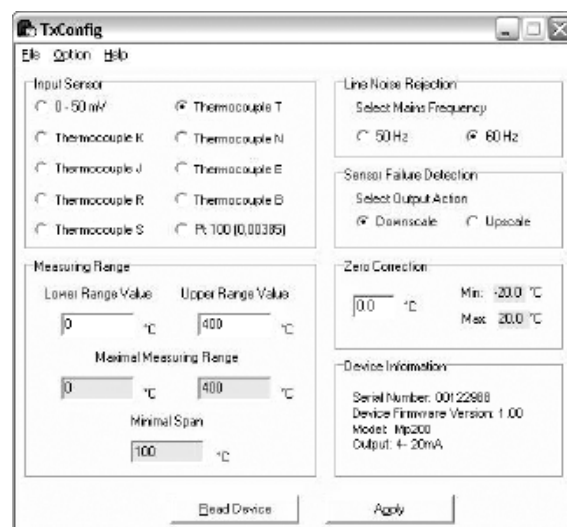
Cold Junction Compensation for Thermocouples

MP200



MP200D

Configuration from the PC*



* The TxConfig Interface and Software ordered separately

Ordering Information

Model	Input	Range
MP200	Pt100 (P), Voltage (V), K,J,R,S,T,N,E	(/)
MP200D	Pt100 (P), Voltage (V), K,J,R,S,T,N,E	(/)

Ex1 : **MP200-P (0/200)**
RTD Transmitter, Pt100, 0 -200°C

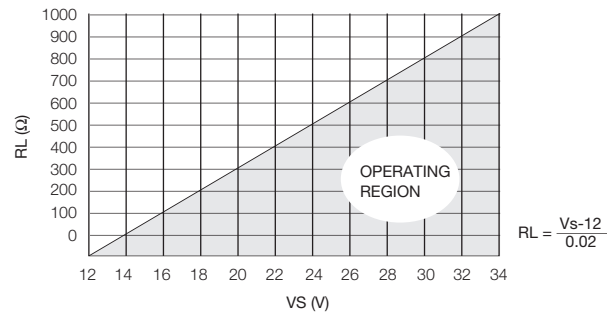
Ex2 : **MP200D-J (0/200)**
T/C transmitter, Type J, 0 -200°C

MP200 SERIES

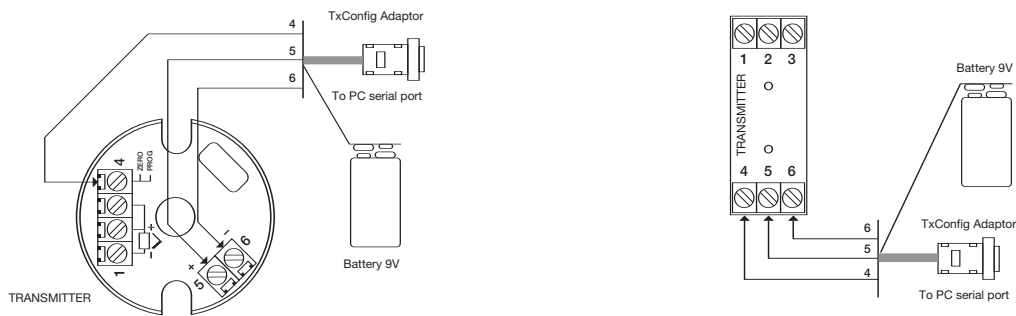
Programmable Temperature Transmitter
w/4-20mA Output



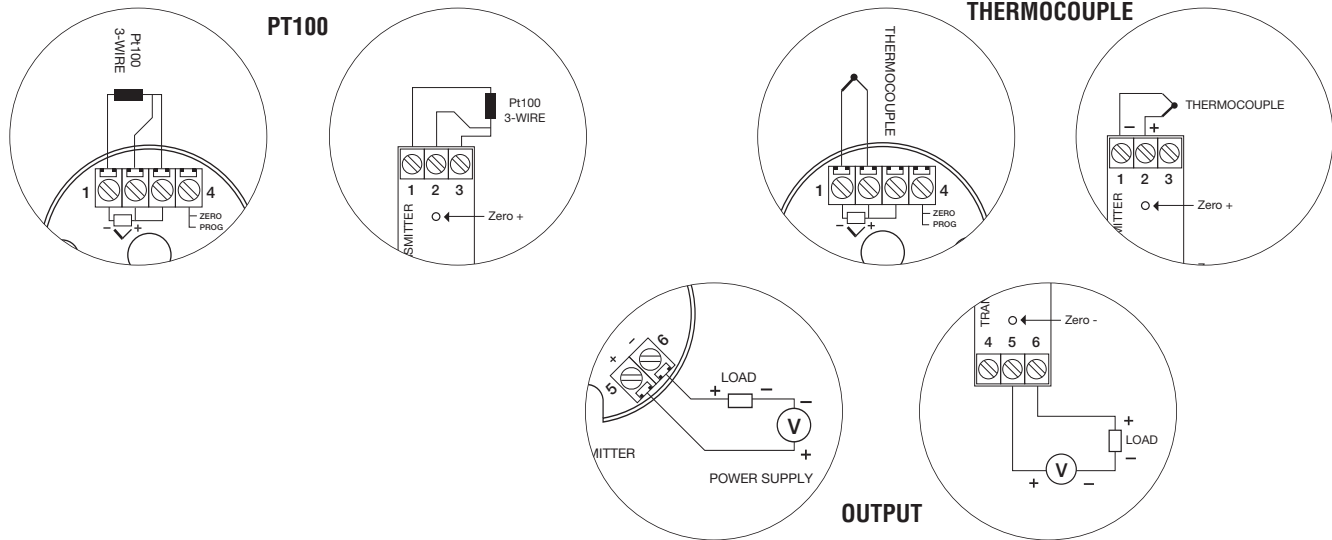
LOAD & POWER SUPPLY



TxConfig CONNECTIONS



ELECTRICAL CONNECTIONS



DIMENSIONS

