

M12 Temperature Transmitter for 100Ω RTDs



M12TX-PT100 Series



- ✓ Programmable Transmitter
- ✓ Molded Connector (IP67)
- ✓ M12 Connection
- ✓ 4 to 20 mA Output
- ✓ -50 to 500°C (-58 to 932°F)

The M12TX transmitter is programmable by a computer. The configuration kit required for programming is M12TX-CONFIG-SET. This unique transmitter is ideal for areas with space limitations where traditional head connections are too large to fit. The M12 thread design offers a secure industrial connection. The integrated connection allows the transmitter to be mounted directly on to the sensor.

Specifications

Body: Thermoplastic material

Connection:

M12x1 Male: In accordance to VDE0627 (output connection)

M12x1 Female: In accordance to VDE0627 (input connection Pt100)

Sensor: RTD Pt100 (alpha symbol 0.00385) 3-wire connection

Range: -50 to 500°C (-58 to 932°F)

Sensor Break Monitoring:

Selectable: Upscale (>21.0 mA) or downscale (<3.6 mA) action

Sensor Short-Circuit: Fixed to downscale (<3.6 mA) action

Output

Signal: 4 to 20 mA

Factory Default: 4 to 20 mA = 0 to 150°C (32 to 302°F)

Permissible Load: 700 @ 24Vdc [RLo= (Vsupply-8,5)/0,020]

Response Time (90%): <50 ms

Isolation In-Out: Non-isolated

Power Supply: 8.5 to 32 Vdc (polarity protected)

Environment Conditions

Temperature: -40 to 80°C (-40 to 176°F) (for plastic body)

Relative Humidity: 0 to 100%

EMC: In accordance to EN 61326



M12TX-PT100 shown actual size.

Degree of Protection: IP65 and IP67 in accordance to IEC60529

Accuracy

Transmitter: Maximum of ±0,2°C or ±0.2% of span

Sensor: Class A in accordance to IEC751

Temperature Influence [Deviation from 20°C (68°F)]: Maximum of ±0.3°C/25°C (77°F) or ±0.3% of span/25°C (77°F)

Supply Voltage Influence: Negligible

Range Configurations: It is possible set the input temperature range (span) by the M12TX-CONFIG-SET configuration kit (PC with OS Windows® required)

Zero Adjustments: Any value between -50 to 50°C (-58 to 122°F)

Minimum Span: 50°C (122°F) [if the zero value is set between one of these values: -40°C (-40°F), -20°C (-4°F), 0°C (32°F), 20°C (68°F), 40°C (104°F), the minimum span is 20°C (68°F) rather than 50°C (122°F)]

Sensor Error Compensation: Over 2 points (maximum 1% of span)

Factory Setting: 0 to 150°C (32 to 302°F)/sensor break >21 mA (upscale)

M12TX-CONFIG-SET Specifications

Interface

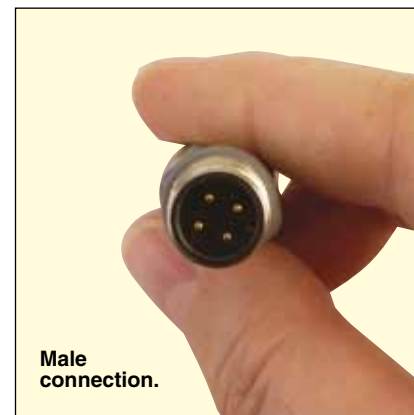
PC Connection: Through the USB port with connection cable included in the kit

M12TX + Connection: Through extension cable with M12 female connector included in the kit

Note: The transmitter is powered from the USB interface

Programming Software:

M12TX+Configurator for Windows® 10.0 or higher.



Male connection.



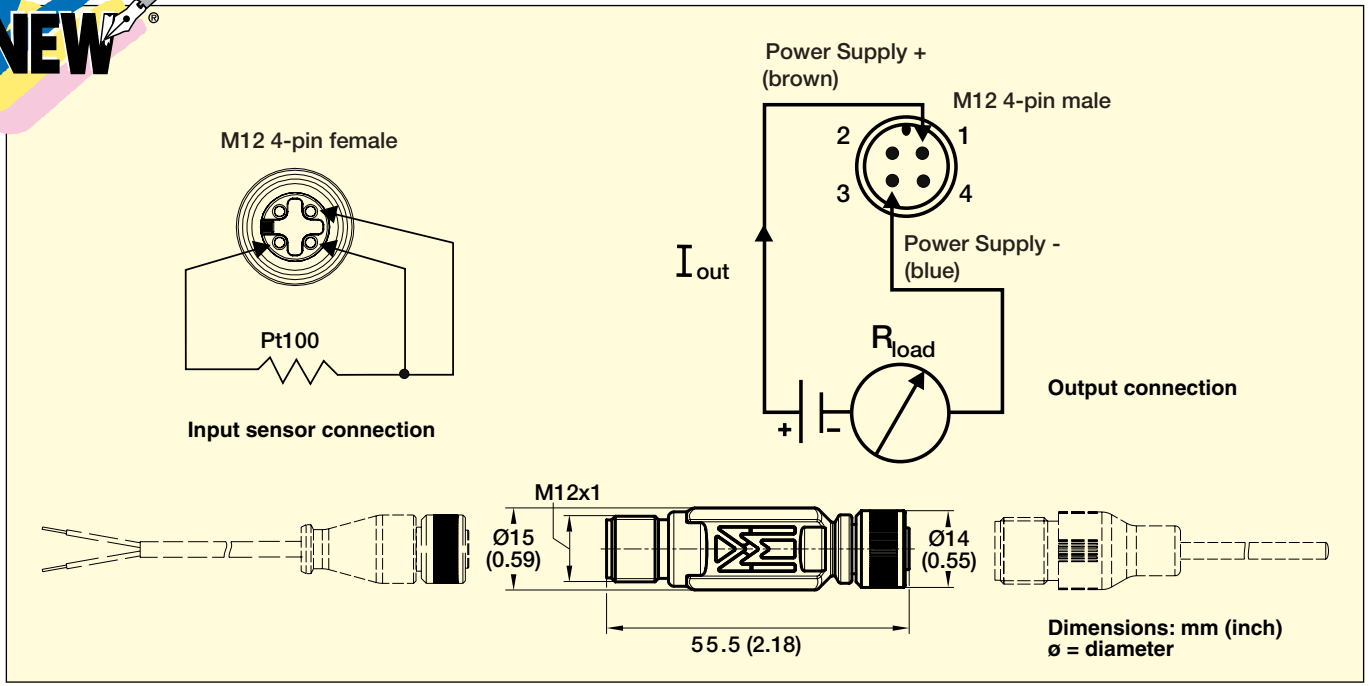
Female connection.

Configurable Parameters:

Temperature range [-50 to 800°C (-58 to 1472°F)], measurement unit (°C/°F/°K), sensor break monitoring (up scale/down scale), identifying name of the transmitter (16 alphanumeric characters), input sensor error compensation over one or two points

Supported Languages: Italian, English, French, German, Swedish

Packaging: Included in the kit—1x interface USB, 1x connection cable between USB port and interface, 1x connection cable between interface and M12TX + transmitter, 1x memory-stick USB with installation software, 1x introductory manual for software installation and USB



To Order	
Model No.	Description
M12TX-PT100	Temperature transmitter with M12 input connector for Pt100, output 4 to 20 mA (standard)

Comes complete with operator's manual.

Compatible with PR-21, PR-26, PR-31, -2 (wiring option), PR-22, P-L-M12.



PR-22-3-100-A-1/8-0600-M12 shown smaller than actual size.



M12TX-CONFIG-SET shown smaller than actual size.

Accessories

Model No.	Description—Metric Dimensions
M12TX-CONFIG-SET	Configuration kit for M12TX, USB serial interface, connection cables, programming software for Windows®
PR-22-3-100-A-1/8-0600-M12	100Ω RTD, 152 L x 3 mm diameter (6 x 1/8")
PR-22-3-100-A-1/4-0600-M12	100Ω RTD, 152 L x 6 mm diameter (6 x 1/4")