



# M12 Stainless Steel RTD Temperature Transmitters

## M12TXSS Series



- ✓ Programmable Transmitter
- ✓ M12 Connection
- ✓ 4 to 20 mA Output
- ✓ -50 to 120°C (-58 to 248°F)

RTD 100 Ω sensor with built-in transmitter is programmable by a computer. The configuration kit required for programming is M12TX-CONFIG-SET. This unique probe 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.

## Specifications

**Body:** Stainless steel AISI 316L  
**Probe Length:** 13 mm (0.51") and 24 mm (0.94")

**Diameter:** Ø3 mm (0.1")

**Probe Type:** Thermowell AISI 316L SS

**Probe Minimum Bending Radius:** Three-times the outer diameter [except the sensing tip which length is 30 mm (1.2")]

**Connection:** 1/8 NPT male thread

**Sensor:** RTD PT100 class A up to 300°C in accordance to IEC751

**Range:** -50 to 120°C (-58 to 248°F)

**Tmax. Electronic:** 80°C (176°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 100°C (32 to 212°F)

**Permissible Load:** 700 @ 24 Vdc [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



M12TXSS-PT100-13MM-1/8NPT



M12TXSS-PT100-24MM-1/8NPT

**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)

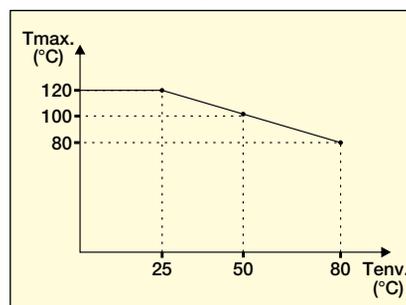
**Zero Adjustments:** Any value between -50 to 50°C

**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)]

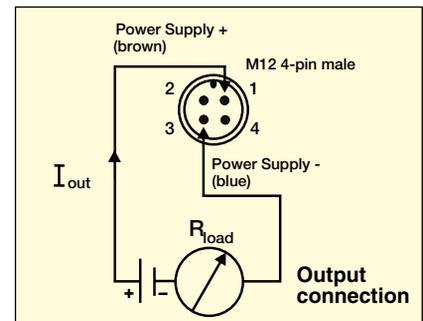
**Sensor Error Compensation:** Over 2 points (maximum 1% of span)

**Factory Setting:** 0 to 100°C/sensor break >21 mA (upscale)

**Response Time:** Diameter 3 mm <3.5 seconds, diameter 6 mm <13 seconds (test in water to IEC751- time for reaching 63.2% of instantaneous temperature change)



Both models shown actual size.



## 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.

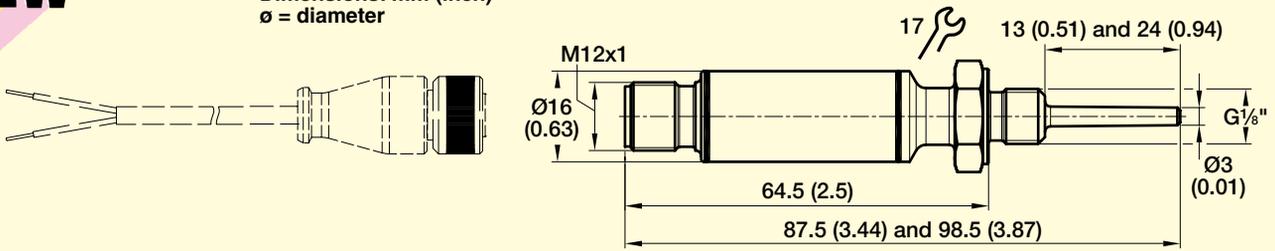
**Configurable Parameters:** Temperature range (-50 to 800°C), measurement unit (°C/°F/°K), sensor break monitoring (upscale/downscale), identifying name of the transmitter (16 alphanumeric characters), input sensor error compensation over one or two points

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

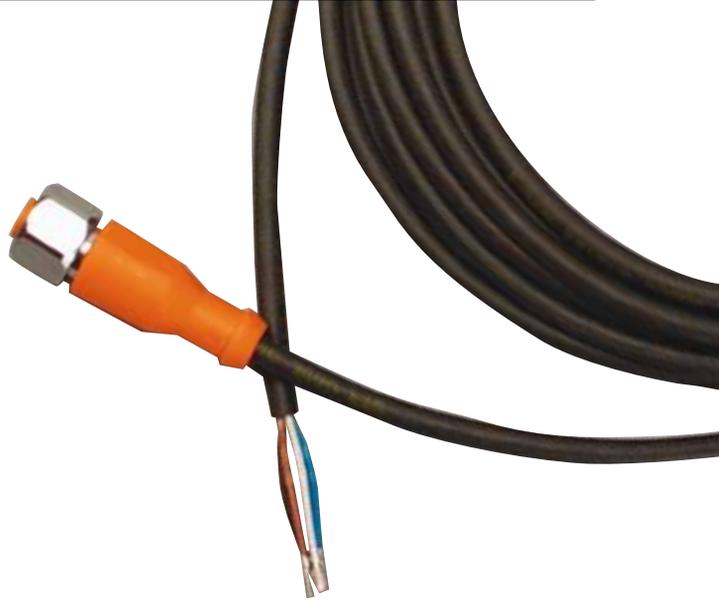
**Included in the Kit:** Interface USB, connection cable between USB port and interface, connection cable between interface and M12TX + transmitter, memory-stick USB with installation software, introductory manual for software installation and USB



Dimensions: mm (inch)  
 ø = diameter



M12TX-CONFIG-SET shown smaller than actual size.



M12C-PUR-4-S-F-5 shown smaller than actual size.

**Standard**

To Order	
Model No.	Description
M12TXSS-PT100-13MM-1/8NPT	Temperature transmitter with M12 input connector for Pt100, output 4 to 20 mA standard, 3 mm (0.118") diameter, 13 mm (0.51") long, 1/8 NPT
M12TXSS-PT100-24MM-1/8NPT	Temperature transmitter with M12 input connector for Pt100, output 4 to 20 mA standard, 3 mm (0.118") diameter, 24 mm (0.94") long, 1/8 NPT

**Metric**

Model No.	Description
M12TXSS-PT100-13MM-G1/8	Temperature transmitter with M12 input connector for Pt100, output 4 to 20 mA standard, 3 mm (0.118") diameter, 13 mm (0.51") long, G1/8 thread
M12TXSS-PT100-24MM-G1/8	Temperature transmitter with M12 input connector for Pt100, output 4 to 20 mA standard, 3 mm (0.118") diameter, 24 mm (0.94") long, G1/8 thread

*Comes complete with operator's manual.*

**Accessories**

Model No.	Description
M12C-PUR-4-S-F-10	Polyurethane cable, straight 4-pin M12 female connector one end, flying leads one end, 10 m (32.8') long
M12TX-CONFIG-SET	Configuration kit for M12TXSS, USB serial interface, connection cables, programming software for Windows®