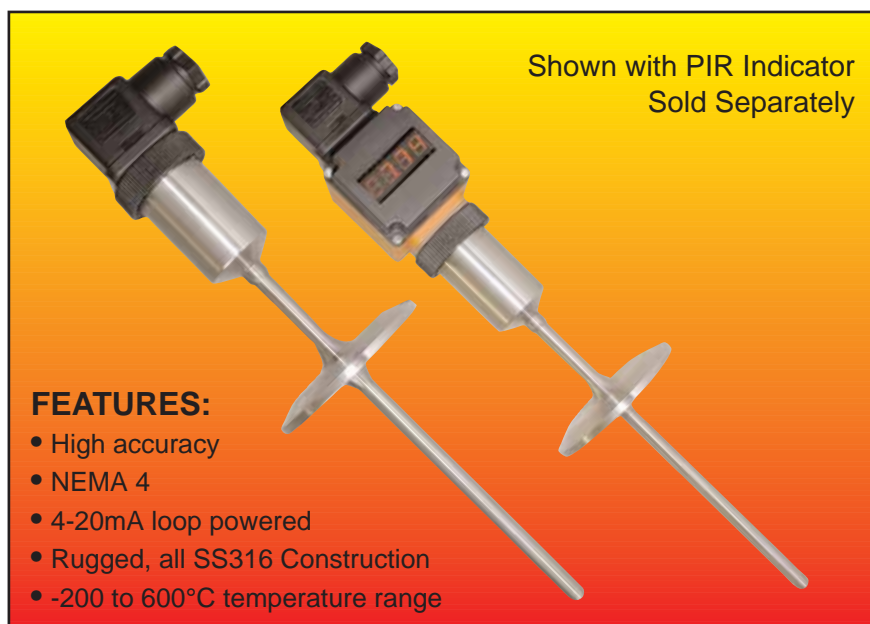INTEMPCO TMR sanitary temperature sensor employs a Pt100 Class A resistance temperature detector (RTD) combined with an integrated loop powered 4-20mA output transmitter. Optional digital indicator, model PIR, plugs directly to the TMR Hirschmann (DIN 43650) plug. This sensor is rugged and all SS316 construction. The standard sanitary tri-clamp is welded to the sheath and then ground and polished to a high finish. The process contact surfaces are free of pits, and crevices thus preventing corrosion and bacterial growth.

TMR is factory calibrated to customer temperature requirements. Re-calibration via zero and span potentiometers, at the connector, is possible.

Shown with PIR Indicator Sold Separately

FEATURES:
- High accuracy
- NEMA 4
- 4-20mA loop powered
- Rugged, all SS316 Construction
- -200 to 600°C temperature range

Technical Specifications

Temperature Sensor

Operating Temperature Range:	-200°C / +600°C (-328°F / +1112°F)
Ambient Operating Temperature Range:	-40°C / +70°C (-40°F / +158°F)
Sensing element	Pt100 Class B per DIN 43670
Pmax:	33 bar (500 PSIG)
Wetted Parts:	316 SS
Sanitary Cap Style:	Tri-Clamp (16AMP)
Connector:	Hirschmann plug per (DIN 43650)

Electrical Data

Output:	4–20 mA 2-wire
Supply Voltage:	TMR 9-36 VDC
	TMR & PIR 12-36 VDC
Load Capability:	TMR $R_{max.}=(V_{supply} - 9) / .02$
	TMR & PIR $R_{max.}=(V_{supply} - 12) / .02$
Accuracy:	±0.1% of Span
Zero/Span Drift:	±0.025%/°F
Environmental Protection:	NEMA 4X / IP65
Fault:	Reverse polarity protected
Digital Display:	See PIR series

Temperature Range Ordering Information

Temperature Range	CODE xx
0 to 50°C	05
0 to 100°C	10
0 to 150°C	15
0 to 200°C	20
0 to 400°C	40
0 to 600°C	60
-50 to 50°C	55
-50 to 150°C	51
-200 to 400°C	24
-200 to 600°C	26

1.12"
2.00"
1.75"
"U"
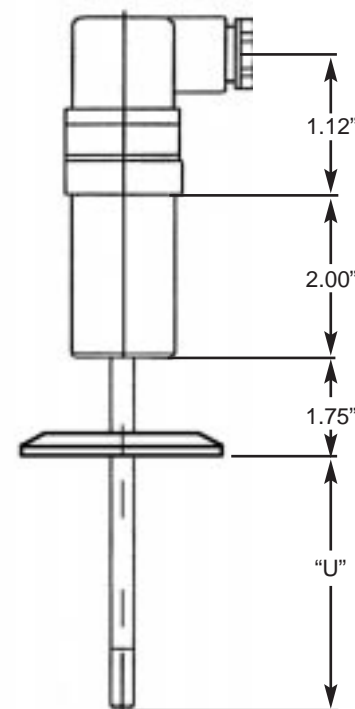
Order Numbers for RTD Transmitters

U Dim.	1.5'' Tri-Clamp	2'' Tri-Clamp	2.5'' Tri-Clamp	3'' Tri-Clamp
2 1/2"	TMR25T15S025xx	TMR25T20S025xx	TMR25T25S025xx	TMR25T30S025xx
4 1/2"	TMR25T15S045xx	TMR25T20S045xx	TMR25T25S045xx	TMR25T30S045xx
7 1/2"	TMR25T15S075xx	TMR25T20S075xx	TMR25T25S075xx	TMR25T30S075xx
10 1/2"	TMR25T15S105xx	TMR25T20S105xx	TMR25T25S105xx	TMR25T30S105xx
12"	TMR25T15S120xx	TMR25T20S120xx	TMR25T25S120xx	TMR25T30S120xx

PIR Ordering Information

Description	Model No.
Standard Unit	PIR-01
With Alarm	PIR-02

The PIR is a universal display unit usable in all 4-20 mA transmission circuits. Assembled directly between a standard DIN 43650 (Hirschmann style) plug and socket assembly, the PIR is the easiest of displays to install. The PIR is fully scalable through two control buttons. Programming capabilities include scaling, decimal point location, damping and, for units with a switch, setpoint value.

Power is provided to the PIR directly via the 4–20 mA loop, so no additional power supply is required. The programming information resides inside the PIR's EEPROM memory, making the unit immune to power failures up to ten years in duration.

Small, easily installed the PIR is the ideal way to get more from your 4-20mA transmitter.

Specifications

Range:	–1999 to 9999
Error Signals	
"HI":	over-range
"LO":	under-range
Display:	4-digit red LED 5/16" tall
Accuracy:	±0.2% of full scale ±1 digit
Power Supply:	loop powered via 4–20 mA input line
Voltage Load:	5 volts
Ambient Operating Temperature Range:	0°C / +60°C (32°F / +140°F)
Connection:	DIN 43 650 plug (eg. Hirschmann®)
Sampling Rate:	adjustable from once per 3 sec. to once per 25.5 sec.

Programming Information

Input Mechanism:	2 button, menu driven
Parameters:	scaling, sample rate, error status, switchpoint
Data Stability:	non-volatile EEPROM maintains memory 10 years without power

Construction Information

Housing:	Nylon®, plexiglas
Protection:	NEMA 4
Alarm Switch:	open collector
Max. Current:	60 mA

INTEMPCO PIR Compact Display

- Local indication for transmitters
- 4-20 mA loop-power driven
- Works with Hirschmann® plug
- 4 digit accuracy
- Switch available

Horizontal	Vertical
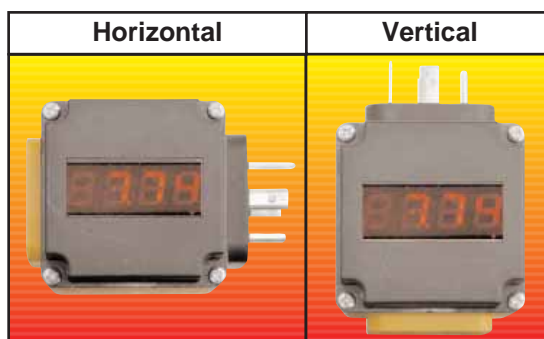
Users can change the orientation of the display to suit their application.
Simply remove the 4 screws, lift, and turn into one of 4 orientations.

INTEMPCO MODEL		ALARM OPTION
PIR	-	___

ALARM	CODE
Standard Unit	01
With Alarm	02