



INTEMPCO TMR 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. Fittings, 1/4" and 1/2" NPT welded to tube, are available for mounting purposes.

An adjustable bore-through compression fitting option is also available. This allows for easy adjustment of desired immersion depth. The unit is factory calibrated to customer temperature requirements. Re-calibration via zero and span potentiometers, at the connector, is possible.

**FEATURES:**

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

Shown with PIR Indicator  
Sold Separately

**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: 100bar (1500 PSIG)

Wetted Parts: 316 SS

Fittings: 1/4", 1/2" NPT Welded or Adjustable  
compression fitting

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:  $\pm 0.1\%$  of Span

Zero/Span Drift:  $\pm 0.025\%/^{\circ}\text{F}$

Environmental

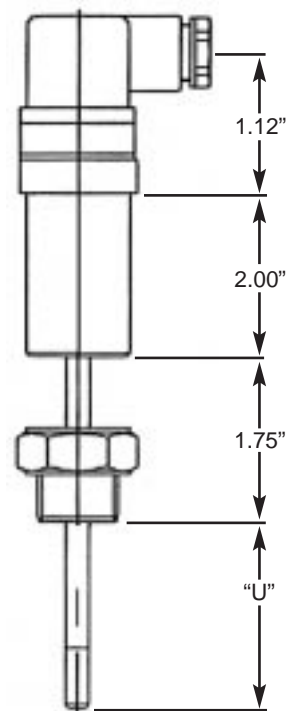
Protection: NEMA 4X / IP65

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

**Order Numbers for RTD Transmitters**

U Dim.	1/4 Welded	1/2 Welded	1/4 Adjustable	1/2 Adjustable
2 1/2"	TMR25F14S025xx	TMR25F12S025xx	TMR25A14S025xx	TMR25A12S025xx
4 1/2"	TMR25F14S045xx	TMR25F12S045xx	TMR25A14S045xx	TMR25A12S045xx
7 1/2"	TMR25F14S075xx	TMR25F12S075xx	TMR25A14S075xx	TMR25A12S075xx
10 1/2"	TMR25F14S105xx	TMR25F12S105xx	TMR25A14S105xx	TMR25A12S105xx
12"	TMR25F14S120xx	TMR25F12S120xx	TMR25A14S120xx	TMR25A12S120xx

**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.

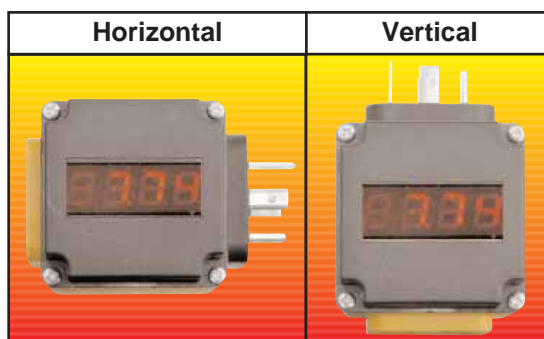
## Specifications

<b>Range:</b>	–1999 to 9999
<b>Error Signals</b>	
“HI”:	over-range
“LO”:	under-range
<b>Display:</b>	4-digit red LED 5/16" tall
<b>Accuracy:</b>	±0.2% of full scale ±1 digit
<b>Power Supply:</b>	loop powered via 4–20 mA input line
<b>Voltage Load:</b>	5 volts
<b>Ambient Operating Temperature Range:</b>	0°C / +60°C (32°F / +140°F)
<b>Connection:</b>	DIN 43 650 plug (eg. Hirschmann®)
<b>Sampling Rate:</b>	adjustable from once per 3 sec. to once per 25.5 sec.
<b>Programming Information</b>	
<b>Input Mechanism:</b>	2 button, menu driven
<b>Parameters:</b>	scaling, sample rate, error status, switchpoint
<b>Data Stability:</b>	non-volatile EEPROM maintains memory 10 years without power
<b>Construction Information</b>	
<b>Housing:</b>	Nylon®, plexiglas
<b>Protection:</b>	NEMA 4
<b>Alarm Switch:</b>	open collector
<b>Max. Current:</b>	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



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