

Direct Immersion RTD Probe— Process Threaded Fitting



- Variety of Configurations
- Single and Dual Elements
- Stainless Steel Case
- Oil Resistant
- Pressure Resistant
- Custom Designs Available



The **Direct Immersion RTD Probe—Process Threaded Fitting** is constructed with a stainless steel sheath and a welded connection. The welded connection is available in 1/8" NPT, 1/4" NPT, 3/8" NPT, 1/2" NPT or 3/4" NPT. The standard connection has a single process thread hex fitting. A reverse thread option is available, with a single control thread hex fitting. The sensors are available with single or dual elements. These sensors are ideal for the process industry where immersion in the application is essential.

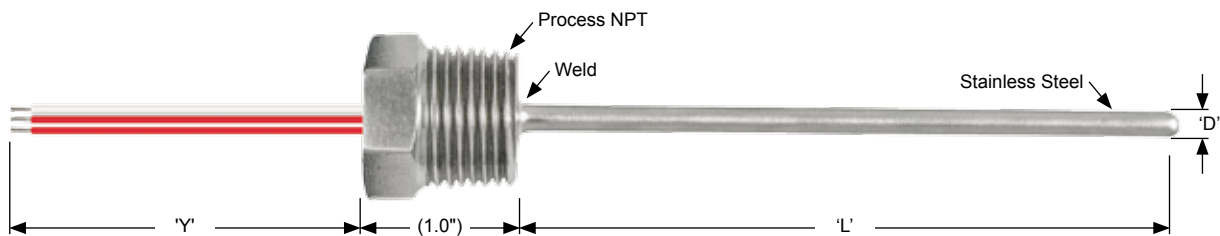
FEATURES

- Sheath Styles:
 - » Stainless Steel
- Elements, Single and Dual:
 - » Platinum, Copper, Nickel
- Sheath Diameters:
 - » 0.125", 0.188", 0.250"
- Leadwire/Cable Options

APPLICATIONS

- Process
- Aerospace
- Flow
- Hot Melt

dimensions



'D' = Sheath Diameter
'L' = Sheath Length
'Y' = Leadwire/Cable Length

Direct Immersion RTD Probe— Process Threaded Fitting

performance specifications

Repeatability:

Less than $\pm .06\%$ change in ice point resistance after 10 consecutive cycles between ice point and 250°C

Long Term Stability:

Less than $\pm .2\%$ ice point resistance shift after 1,000 hours at 250°C

Self Heating:

10 mW/C in water moving 3 feet/sec

Pressure Rating:

1,500 psi

Insulation Resistance:

1,000 megohms @ 500 V, leads to case

Vibration:

Withstands 5 to 500 Hz at 3 g-level peak for 3 hours. Per ASTM E 644, Sec. 10.

Shock:

Withstands 50 g-level peak sine wave shock of 11 milliseconds duration. Per ASTM E 644, Sec. 11

RTD Temperature Accuracy Specifications:

Element Material	TCR	Standard Tolerances at 0°C			
		$\pm .06\%$	$\pm .12\%$	$\pm .2\%$	$\pm .5\%$
Platinum	0.00385	0.15°C, 0.06Ω	0.30°C, 0.12Ω	0.50°C, 0.19Ω	1.20°C, 0.46Ω
Platinum	0.00392	N/A	N/A	N/A	1.20°C, 0.46Ω
Copper	0.00427	N/A	N/A	0.71°C, 0.028Ω	1.49°C, 0.058Ω
Nickel	0.00672	N/A	N/A	N/A	0.85°C, 0.68Ω

ordering info

Direct Immersion RTD Probe—Process Threaded Fitting

Model	Temperature Range		
111M	Moderate: -50 to 250°C (-58 to 482°F)		
111H	High: -50 to 500°C (-58 to 932°F)		
111F	Full: -200 to 500°C (-328 to 932°F)		
Model	Element	Accuracy	Temperature Coefficient
P2A	Platinum	100 Ohm $\pm .06\%$ at 0°C	.00385
P2B	Platinum	100 Ohm $\pm .12\%$ at 0°C	.00385
P2C	Platinum	100 Ohm $\pm .5\%$ at 0°C	.00385
P6B	Platinum	1,000 Ohm $\pm .12\%$ at 0°C	.00385
G2C	Platinum	100 Ohm $\pm .5\%$ at 0°C	.00392
C1D	Copper	10 Ohm $\pm .2\%$ at 25°C	.00427 (Model 111M Only)
N3C	Nickel	120 Ohm $\pm .5\%$ at 0°C	.00672 (Model 111M Only)
Model	Leadwires, Element Configuration	Typical Color Code	
3S	Three Wire, Single	Red/Red/White	
4S	Four Wire, Single	Red/Red/White/White	
3D	Three Wire, Dual	Red/Red/White // Black/Green/Green	
Model	'L' Sheath Length		
---	Define 'L' Length in Inches (12 = 12.0") Note: Minimum 1.5" / Maximum 36.0"		
Model	'D' Sheath Diameter		
A	.125" Diameter (Single Element Only) (M Only)		
B	.188" Diameter		
C	.250" Diameter		
Model	Process Threads		
1	1/8" NPT		
2	1/4" NPT		
3	3/8" NPT		
4	1/2" NPT		
5	3/4" NPT		
Model	'Y' Leadwire/Cable Options		
N	No Options, Stranded TFE Leadwires (36.0" Standard)		
W	Leadwire Options		
Model	Additional Options (Leave Code Blank if Not Required)		
R	Reverse Thread, Control Threaded Hex		

联系方式



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