



## MEAS 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.

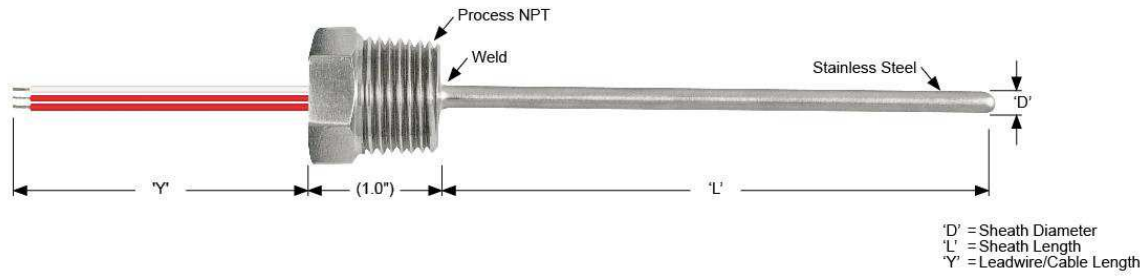
### Features

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

### Applications

- Process
- Aerospace
- Flow
- Hot Melt

**Dimensions**



**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

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## Ordering Information

DIRECT IMMERSION RTD PROBE-PROCESS THREADED FITTING			
<b>Model</b>	<b>Temperature Range</b>		
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)		
<b>Model</b>	<b>Element</b>	<b>Accuracy</b>	<b>Temperature Coefficient</b>
P2A	Platinum	100 Ohm ±.06% at 0°C	.00385
P2B	Platinum	100 Ohm ±.12% at 0°C	.00385
P2C	Platinum	100 Ohm ±.5% at 0°C	.00385
P6B	Platinum	1,000 Ohm ±.12% at 0°C	.00385
G2C	Platinum	100 Ohm ±.5% at 0°C	.00392
C1D	Copper	10 Ohm ±.2% at 25°C	.00427 (Model 111M Only)
N3C	Nickel	120 Ohm ±.5% at 0°C	.00672 (Model 111M Only)
<b>Model</b>	<b>Leadwires, Element Configuration</b>		<b>Typical Color Code</b>
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
<b>Model</b>	<b>'L' Sheath Length</b>		
---	Define 'L' Length in Inches Note: Minimum 1.5" / Maximum 96.0" Example: (12.0 = 12.0"; 6.75 = 6.75")		
<b>Model</b>	<b>'D' Sheath Diameter</b>		
A	.125" Diameter (Single Element Only) (M Only)		
B	.188" Diameter		
C	.250" Diameter		
<b>Model</b>	<b>Process Threads</b>		
1	1/8" NPT		
2	1/4" NPT		
3	3/8" NPT		
4	1/2" NPT		
5	3/4" NPT		
<b>Model</b>	<b>'Y' Leadwire/Cable Options</b>		
N	No Options, Stranded TFE Leadwires (36.0" Standard)		
W	Leadwire Options		
<b>Model</b>	<b>Additional Options (Leave Code Blank if Not Required)</b>		
R	Reverse Thread, Control Threaded Hex		

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