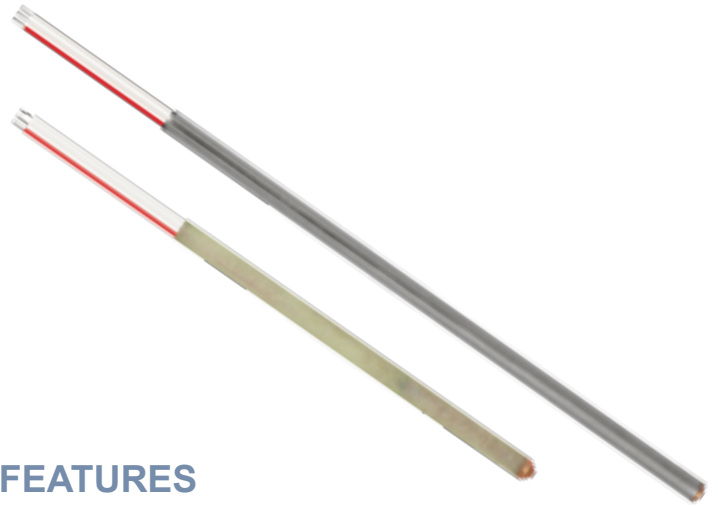


Tip Sensitive Bearing RTD Probe

Variety of Configurations
 Cut-To-Length
 Fast Response
 Tip Sensitive
 Single and Dual Elements
 Custom Designs Available



The **Tip Sensitive Bearing RTD Probe** is a tubular sensors in which the sensing element is encased in a copper alloy tip. This allows for increased accuracy and sensitivity to temperature changes at the point of contact in bearings. Inserted at an opening on the bearing housing, they are used in electric motors and generators for continuous sensing of the bearing's temperature.

Bearing sensors can be used with a fluid sealed adjustable spring loaded holder for proper loading in any depth hole to maintain contact with the bearing surface.

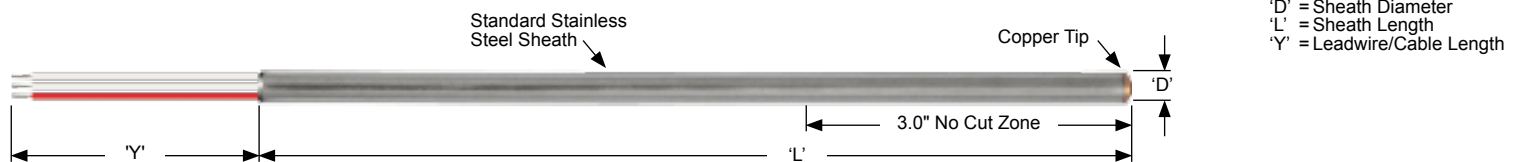
FEATURES

- Sheath Styles:
 - » Stainless Steel, Isolated Stainless Steel, Insulated Epoxy Glass
 - » Copper Tip
- Elements, Single and Dual:
 - » Platinum, Copper, Nickel
- Sheath Diameters:
 - » 0.188", 0.250", 0.215"
- Leadwire/Cable Options

APPLICATIONS

- Electric Motors
- Generators

dimensions



Isolated Stainless Steel Sheath



Insulated Epoxy Glass Sheath

Tip Sensitive Bearing RTD Probe

performance specifications

Insulation Resistance:

Single or Dual Elements:
1,000 megohms @ 500 VDC, leads to case
Dual Elements:
100 megohms @ 50 VDC between elements

Time Constant (typical in 3 ft/sec moving water):

Stainless Steel Sheath and Isolated Stainless Steel Sheath:
Single Element: 2.0 seconds
Dual Element: 3.0 seconds
Insulated Epoxy Glass Sheath: 2.5 seconds

Pressure Rating:

Standard Stainless Steel Sheath: 100 psi (6.9 bar)
Isolated Stainless Steel Sheath: 100 psi (69. bar)
Insulated Epoxy Glass Sheath: 30 psi (2.1 bar)
Fluid Seal Holder: 50 psi

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

RTD Temperature Accuracy Specifications:

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

ordering info

Tip Sensitive Bearing RTD Probe

Model	Sheath Style	Temperature Range	
310A	Insulated Epoxy Glass	-50 to 155°C (-58 to 311°F)	
310B	Standard Stainless Steel	-50 to 250°C (-58 to 482°F)	
310C	Isolated Stainless Steel	-50 to 250°C (-58 to 482°F)	
Model	Element	Accuracy	Temperature Coefficient
P2B	Platinum	100 Ohm $\pm 12\%$ at 0°C	.00385
P2C	Platinum	100 Ohm $\pm 5\%$ at 0°C	.00385
G2C	Platinum	100 Ohm $\pm 5\%$ at 0°C	.00392
C1D	Copper	10 Ohm $\pm 2\%$ at 25°C	.00427
N3C	Nickel	120 Ohm $\pm 5\%$ at 0°C	.00672
Model	Leadwires, Element Configuration	Typical Color Code	
3S	Three Wire, Single	Red/White/White	
3D	Three Wire, Dual	Red/White/White // Blue/Yellow/Yellow	
Model	'L' Sheath Length		
---	Define 'L' Length in Inches (12 = 12.0") Note: Minimum 1.5" / Maximum 36.0"		
Model	'D' Sheath Diameter		
B	.188" Diameter		
C	.250" Diameter (Standard SS and Isolated SS Only)		
D	.215" Diameter		
Model	'Y' Leadwire/Cable Options		
N	No Options, Stranded TFE Leadwires (36.0" Standard)		
W	Leadwire Options		

联系方式



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