

# Tip Sensitive Bearing Thermocouple Probe



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



The **Tip Sensitive Bearing Thermocouple Probe** is a tubular sensors in which the sensing junction 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.

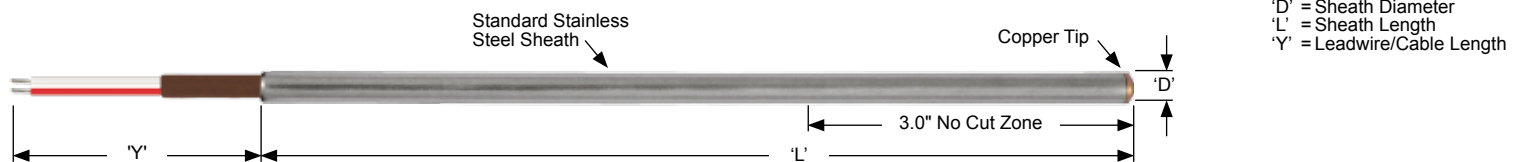
## FEATURES

- Sheath Styles:
  - » Stainless Steel, Isolated Stainless Steel, Insulated Epoxy Glass
  - » Copper Tip
- Junction Types, Single and Dual:
  - » J, K, T, E
  - » Grounded or Ungrounded
- 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 Thermocouple Probe

## performance specifications

### Insulation Resistance – Ungrounded Model:

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

### Pressure Rating:

Standard Stainless Steel Sheath: 100 psi (6.9 bar)

Isolated Stainless Steel Sheath: 100 psi (6.9 bar)

Insulated Epoxy Glass Sheath: 30 psi (2.1 bar)

Fluid Seal Holder: 50 psi

### Thermocouple Temperature Accuracy Specifications:

Type	Temp Range	Standard Limits of Error	Special Limits of Error
T	-200 to 0°C	±1°C or 1.5%	Not ASTM Defined
	0 to 350°C	±1°C or 0.75%	±0.5°C or 0.4%
J	0 to 750°C	±2.2°C or 0.75%	±1.1°C or 0.4%
E	-200 to 0°C	±1.7°C or 1%	Not ASTM Defined
	0 to 900°C	±1.7°C or 0.5%	±1°C or 0.4%
K	-200 to 0°C	±2.2°C or 2%	Not ASTM Defined
	0 to 1,250°C	±2.2°C or 0.75%	±1.1°C or 0.4%

## ordering info

### Tip Sensitive Bearing Thermocouple Probe

Model	Sheath Style	Temperature Range	
410A	Insulated Epoxy Glass	-50 to 155°C (-58 to 311°F)	
410B	Standard Stainless Steel	-50 to 250°C (-58 to 482°F)	
410C	Isolated Stainless Steel	-50 to 250°C (-58 to 482°F)	
Model	Thermocouple Type	Junction	Color Code
J	J	Single	Red/White [Constantan/Iron]
K	K	Single	Red/Yellow [Alumel/Chromel]
T	T	Single	Red/Blue [Constantan/Copper]
E	E	Single	Red/Purple [Constantan/Chromel]
JJ	JJ	Dual	Red/White // Red/White
KK	KK	Dual	Red/Yellow // Red/Yellow
TT	TT	Dual	Red/Blue // Red/Blue
EE	EE	Dual	Red/Purple // Red/Purple
Model	Junction Style		
G	Grounded Junction		
U	Ungrounded Junction		
Model	Limits of Error		
A	Standard Limits of Error		
B	Special Limits of Error		
'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, Solid TFE Leadwires (36.0" Standard)		
W	Leadwire Options		

## 联系方式



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