

# Miniature Embedment RTD Probe

Single and Dual Elements  
 Miniature Design  
 Four Case Styles  
 Simple installation  
 Custom Designs Available



The **Miniature Embedment RTD Probe** is a miniature sensor designed to be embedded into areas where space is limited. They are commonly installed in bearings and housings of rotating machinery. They are used to detect temperature changes at the point of contact in bearings, oil, air, water and other process control applications.

The sensing element is installed in a small metal case. This allows for increased accuracy and sensitivity to temperature changes at the point of contact in bearings. These miniature sensors are easy to install where space is limited and a hole can be drilled for placement. We offer a variety of custom options for Embedment RTD probes to suit any application. Feedthroughs provide a fluid seal where the cable exits the installation. Leadwire and cable seals allow position adjustment while protecting your application from leakage. Elastomer filled cable is also available.

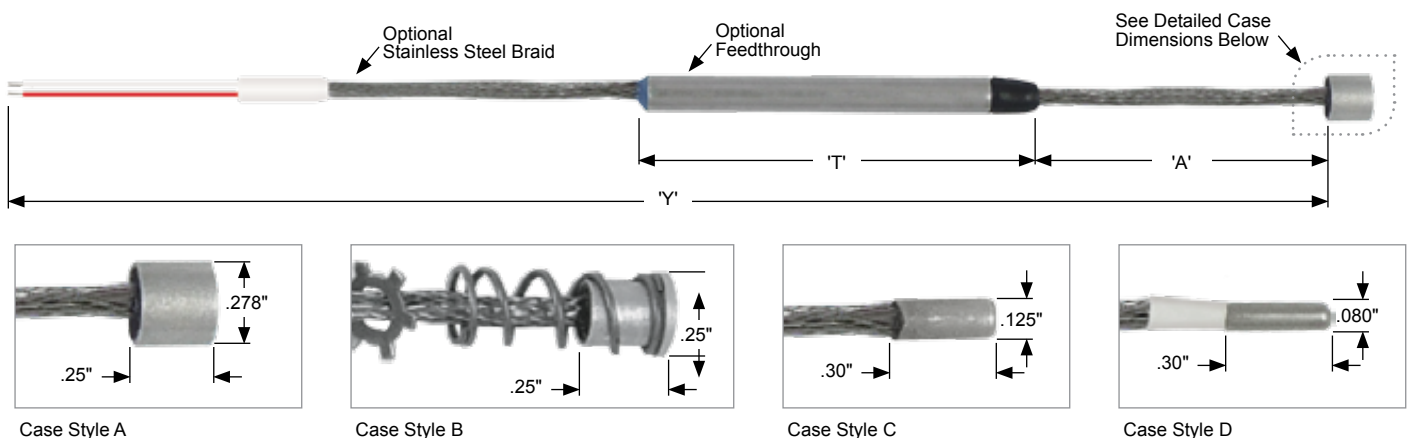
## FEATURES

- Case Material:
  - » Stainless Steel or Tin Plated Copper
- Elements, Single and Dual:
  - » Platinum, Nickel
- Leadwire/Cable Options
- Feedthrough Option

## APPLICATIONS

- Aerospace
- Motors
- Generators

## dimensions



'T' = Feedthrough Length  
 'Y' = Leadwire/Cable Length

# Miniature Embedment RTD Probe

## performance specifications

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

Case Style A: 3.0 seconds  
Case Style B: 2.0 seconds  
Case Style C: 1.5 seconds  
Case Style D: 1.5 seconds

### Temperature Range:

-50 to 250°C (-58 to 482°F)

### Case Material:

Tin Plated Copper Alloy or Stainless Steel

### Leadwires and Elements:

Single elements can have up to three leadwires, Case Styles A and B can accommodate dual elements with up to six leadwires

### Insulation Resistance:

Minimum 100 Megohms @ 500 VDC, leads to case  
Min. 10 Megohms @ 50 VDC, between elements

### 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

### Leadwire Size (AWG):

Case Style	2 Leads	3 Leads	4 Leads	6 Leads
A	24	24	24	26
B	24	24	28	28
C	24	26	---	---
D	30	30	---	---

## ordering info

### Miniature Embedment RTD Probe

Model	Case Style		
315	Case Style A, .278" Diameter x .25" Overall Length, Tin Plated		
316	Case Style B, .250" Diameter x Top Hat, Spring / Retaining Ring Included, Tin Plated		
317	Case Style C, .125" Diameter x .30" Overall Length, Tin Plated or Stainless Steel		
318	Case Style D, .080" Diameter x .30" Overall Length, Stainless Steel (Model P2B and P2C Only)		
Model	Element	Accuracy	Temperature Coefficient
P2B	Platinum	100 Ohm +/- .12% at 0°C	.00385
P2C	Platinum	100 Ohm +/- .5% at 0°C	.00385
G2C	Platinum	100 Ohm +/- .36% at 0°C	.00392
P6B	Platinum	1,000 Ohm +/- .12% at 0°C	.00385
N3C	Nickel	120 Ohm +/- .5% at 0°C	.00672 (Model 315 and 316 Only)
Model	Leadwires, Element Configuration	Typical Color Code	Applicable Case Styles
2S	Two Wire, Single	Red/White	315, 316, 317, 318
3S	Three Wire, Single	Red/White/White	315, 316, 317*, 318*
3D	Three Wire, Dual	Red/White/White // Blue/Yellow/Yellow	315, 316
Model	'Y' Leadwire/Cable Options		
N	No Options, Stranded TFE Leadwires		
W	Leadwire Options		
S	Stainless Steel Braid Overall		
T	TFE Jacket Overall		
Model	'Y' Leadwire Length		
---	Define 'Y' Length in Inches (12 = 12.0")		
Model	Optional Feedthrough		
N	No Feedthrough (Leave Remaining Codes Blank)		
F	Feedthrough (Specify Dimensions Below)		
Model	'L' Feedthrough Length		
---	Define 'L' Length in Inches (12 = 12.0")		
Model	Feedthrough Diameter		
B	.188"		
C	.250"		
D	.215"		
Model	'A' Length		
---	Define 'A' Feedthrough Length in Inches (12 = 12.0")		

## 联系方式



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