



## MEAS 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.

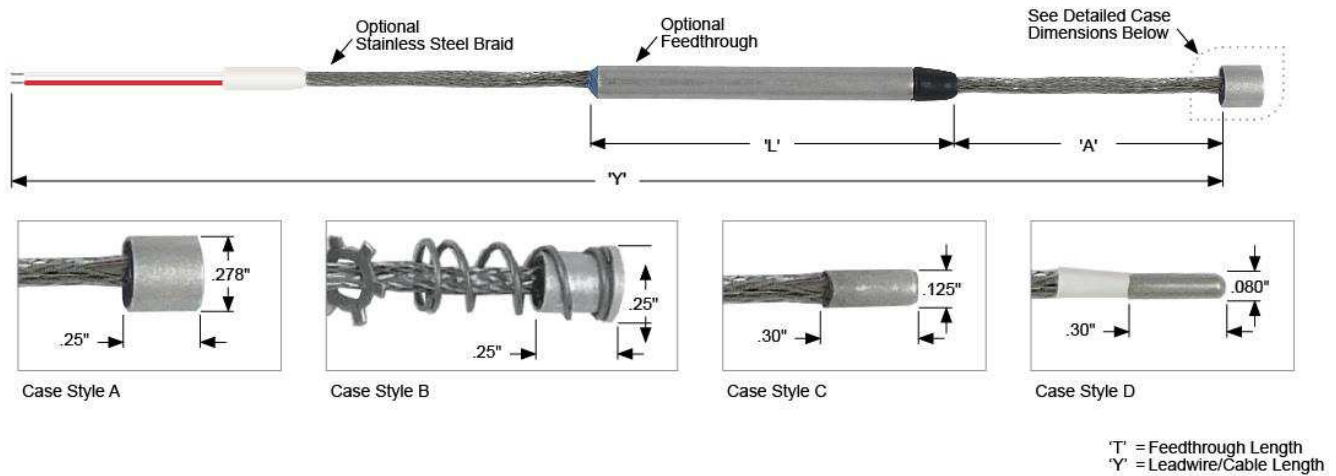
### Features

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

### Applications

- Aerospace
- Industrial
- Motors
- Generators

## Dimensions



## 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 Information

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 Config.		Typical Color Code
2S	Two Wire, Single		Red/White
3S	Three Wire, Single		Red/White/White
3D	Three Wire, Dual		Red/White/White // Blue/Yellow/Yellow
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 Whole Inches (120 = 120.0"; 036 = 36.0")		
Model	Optional Feedthrough		
N	No Feedthrough (Leave Remaining Codes Blank)		
F	Feedthrough (Specify Dimensions Below)		
Model	'L' Feedthrough Length		
---	Define 'L' Length in Inches Note: Minimum 1.5" / Maximum 6.0" Example: (1.5 = 1.5"; 4.0 = 4.0")		
Model	Feedthrough Diameter		
B	.188"		
C	.250"		
D	.215"		
Model	'A' Length		
---	Define 'A' Length in Inches Example: (12.0 = 12.0"; 6.5 = 6.5")		

STOCKED PART NUMBERS*	
Part Number	Model Number
R-10545-31	315 P2B 3S S 96 N
R-10545-32	315 G2C 3S S 96 N
R-11540-14	316 P2B 3S S 96 N
R-11540-7	316 P2B 3S N 96 N
R-11277-1	317 P2B 3S N 72 N
R-11277-31	317 P2B 3S S 120 N

\*Please consult factory for availability

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