



# SILICONE RUBBER SURFACE RTD Temperature Sensor

# Specifications

- Fast Response
- Surface Sensing
- Noninvasive, Simple Installation
- Flat, Flexible
- Custom Dimensions Available

The Silicone Rubber Surface RTD is a flat, flexible, rectangular sensor with a sensing element laminated in silicone rubber. They are used to monitor or measure temperature on round or uneven surfaces. For motor and generator applications, they are commonly used in the end turns of the windings. Silicone rubber surface RTD sensors are manufactured with plotted element style. A plotted element allows for measuring the average temperature over an extended area. Measurement Specialties has many sizes available from stock or we can customize to meet your specifications.

# Features

- Temperature Range:
  - » -50° to 220°C (-58° to 428°F)
- Elements:
  - » Platinum, Copper, Nickel» Style: Plotted
- Optional Adhesive Backing
- Leadwire/Cable Options

# Applications

- Industrial
- Electric Motors
- Generators
- HVACR
- Aerospace & Defense

**Temperature Sensor** 

# **Performance Specifications**

#### **Time Constant:**

Two seconds maximum for 63.2% response to change in temperature per ASTM E644

### **Repeatability:**

Less than ± .06% change in ice point resistance after 10 consecutive cycles between ice point and 250°C

## Long Term Stability:

Less than ± .2% ice point resistance shift after 1000 hours at 250°C

#### Self-Heating:

10 mW/C in water moving 3 feet/sec

#### Hysteresis:

± .15% of span temperature

### **Dielectric Strength:**

1,000 Volts RMS at 60 Hz, for one minute, element to outer surfaces, with 1 mA leakage current

.075"

### **Application Temperature Range:**

Plotted Element: -50 to 220°C (-58 to 428°F)

### Leadwires:

Three Wire: 26 AWG PTFE Insulated Four Wire: 26 AWG PTFE Insulated

# **Dimensions**



2.00" -

'Y' = Leadwire/Cable Length

**Temperature Sensor** 

### **Ordering Information**

Silicone Rubber Surface RTD Sensor				
Model	Temperature Range	Temperature Range		
320M	Moderate Temperature: -	Moderate Temperature: -50 to 220°C (-58 to 428°F)		
Model	Element	Accuracy	Temperature Coefficient	
P2B P2C G2C C1D N3C	Platinum Platinum Platinum Copper Nickel	100 Ohm ±.12% at 0°C 100 Ohm ±.5% at 0°C 100 Ohm ±.5% at 0°C 10 Ohm ±.2% at 25°C 120 Ohm ±.5% at 0°C	.00385 .00385 .00392 .00427 .00672	
Model	Leadwires, Element Co	Leadwires, Element Configuration Color Code		
2S 3S 4S	Two Wire, Single Three Wire, Single Four Wire, Single		Red/White Red/White/White Red/Red/White/White	
Model	'Y' Leadwire/Cable Opti	ions		
	Define 'Y' Length in Inche	Define 'Y' Length in Inches (120 = 120.0")		
Model	Leadwire Material			
Α	PTFE			
Model	Mounting Options			
1 2	Standard, No Adhesive Adhesive Backing			

#### **Stocked Part Numbers\***

Part Number	Model Number	
R-1630	320M C1D 3S 36 A 1	
R-2428	320M P2C 3S 96 A 1	
R-10224-16	320M P2C 3S 180 A 1	
R-10494-3	320M C1D 3S 96 A 1	

\* Please consult factory for availability.

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