# Silicone Rubber Surface RTD Sensor



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



## The Silicone Rubber Surface RTD

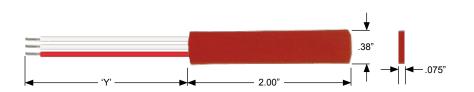
is a flat, flexible, rectangular sensor with a sensing element laminated in silicone rubber. They are used to monitor or measure temperature on round or uneven surfaces. For motor and generator applications, they are commonly used in the end turns of the windings. Silicone rubber surface RTD sensors 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**

- Electric Motors
- Generators
- HVAC
- Aerospace



dimensions

'Y' = Leadwire/Cable Length

## Silicone Rubber Surface RTD Sensor

## performance specifications

#### Time Constant:

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

#### **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 ± .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

#### 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

## ordering info

Silicone Rubber Surface RTD Sensor			
Model	Temperature Range	werature Range        trate Temperature: -50 to 220°C (-58 to 428°F)        ent      Accuracy      Temperature Coefficient        num      100 Ohm ±.12% at 0°C      .00385        num      100 Ohm ±.5% at 0°C      .00385        num      100 Ohm ±.5% at 0°C      .00392        er      10 Ohm ±.2% at 25°C      .00427        er      120 Ohm ±.2% at 0°C      .00672        wires, Element Configuration      Color Code        Wire, Single      Red/White        e Wire, Single      Red/White        wires, Single      Red/Red/White        wire, Single      Red/Red/White        e Wire, Single      Red/Red/White	
320M	Moderate Temperatur	e: -50 to 220°C (-58 to 428°F)	
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 ±.5% at 0°C	.00392
C1D	Copper	10 Ohm ±.2% at 25°C	.00427
N3C	Nickel	120 Ohm ±.5% at 0°C	.00672
Model	Leadwires, Element Configuration		Color Code
2S	Two Wire, Single		Red/White
3S			Red/White/White
4S			Red/Red/White/White
Model	Platinum      100 Ohm ±.5% at 0°C      .00385        Platinum      100 Ohm ±.5% at 0°C      .00392        Copper      10 Ohm ±.2% at 25°C      .00427        Nickel      120 Ohm ±.2% at 0°C      .00672        Leadwires, Element Configuration      Color Code        Two Wire, Single      Red/White        Three Wire, Single      Red/White        Y' Leadwire/Cable Options      Red/Red/White/White        Y' Leadwire Material      PTFE        PTFE      Mounting Options		
Model			
A	=		
Model			
1	Standard, No Adhesiv	100 Ohm ±.5% at 0°C    .00392      10 Ohm ±.2% at 25°C    .00427      120 Ohm ±.5% at 0°C    .00672      Idement Configuration    Color Code      ingle    Red/White      ingle    Red/White      ngle    Red/White/White      ingle    Red/White/White      ingle    Red/Red/White/White      terial    terial	

2 Adhesive Backing

### 联系方式



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