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

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

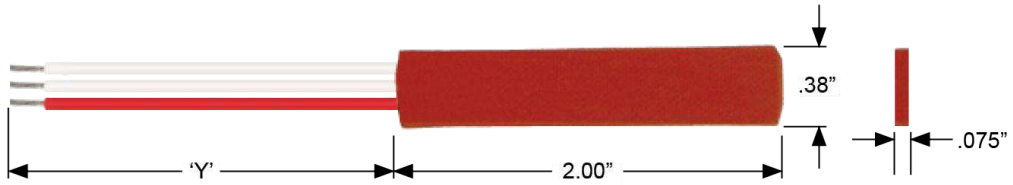
Hysteresis:
± .15% of span temperature

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

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



‘Y’ = Leadwire/Cable Length

Ordering Information

Silicone Rubber Surface RTD Sensor			
Model	**Temperature Range**		
320M	Moderate Temperature: -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	Three Wire, Single		Red/White/White
4S	Four Wire, Single		Red/Red/White/White
Model	**'Y' Leadwire/Cable Options**		
----	Define 'Y' Length in Inches (120 = 120.0")		
Model	**Leadwire Material**		
A	PTFE		
Model	**Mounting Options**		
1	Standard, No Adhesive		
2	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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