



"Cement-On" Surface Sensing RTD Sensors

SRTD Series



Models SRTD-1 and SRTD-2 are polyimide insulated surface mount RTD temperature sensors designed to provide a practical method for measuring surface temperatures. These sensors are small and flexible, and their low mass has minimal thermal effect on the material being measured. They are ideally suited for applications where the sensor can be mounted to the surface being measured using adhesives (OMEGABOND® 101 and 200 epoxies can be used) or other mechanical mounting methods.

Features

- ✓ Ideal for Surface Temperature Measurement Applications
- ✓ Wire Wound 100 Ohm DIN Platinum (0.00385) Element
- ✓ Low Thermal Inertia Allows for Very Fast Response Times
- ✓ Usable Temperature Range: -200 to 260°C Continuous (290°C Short Term)
- ✓ Available in Two Standard Resistance Tolerances
- ✓ Sensors Can be Installed Using OMEGABOND® 101 and 200 Epoxies

Specifications

Usable Temperature Range: -200°C (-320°F) to 260°C (500°F) continuous, 290°C (550°F) short term

Sensing Element: 100 ohm platinum, $\alpha = 0.00385 \text{ ohm/ohm/}^\circ\text{C}$

Accuracy (Tolerance): see accuracy table below

Stability: <0.2°C drift per year at rated service temperature with proper mounting

Response Time: 70 msec to reach 63.2% of a step change in temperature in water flowing at 3 ft/sec transverse to the sensor

Self-Heating Effect: Bare sensor will rise less than 1°C while dissipating 3 milliwatts in still air

Insulation Resistance: 50 megohms minimum @ 50 Vdc (dry conditions at room temperature)

Thickness: Very thin polyimide-insulated, wire-wound sensor is 0.64 mm (0.025") thick over the sensor and 1.53 mm (0.060") thick over the cable (max)

Lead Wire: 1 m (40") long 3-conductor, #26 AWG stranded nickel-plated copper, PFA insulated ribbon cable (standard)

Minimum Bend Radius for Mounting: 3/8" transverse to element, 1-1/2" longitudinal to winding

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Model No.	Sensing Element	Accuracy	Description
SRTD-1	100.00 ±0.50 ohms at 0°C	±0.50% of temperature reading	Cement-On RTD with 36" of lead length, stripped end termination, ±0.50% accuracy
SRTD-2	100.00 ±0.22 ohms at 0°C	±0.25% of temperature reading	Cement-On RTD with 36" of lead length, stripped end termination, ±0.25% accuracy
OMEGABOND® Epoxy Adhesives			
OB-101-1/2			Epoxy adhesive 105°C (220°F); 1/2 oz. twin pack
OB-101-2			Epoxy adhesive 105°C (220°F); 2 oz. twin pack
OB-101-16			Epoxy adhesive 105°C (220°F); 1 lb. kit
OB-200-2			Epoxy adhesive 260°C (500°F); 2 oz. twin pack
OB-200-16			Epoxy adhesive 260°C (500°F); 1 lb. kit