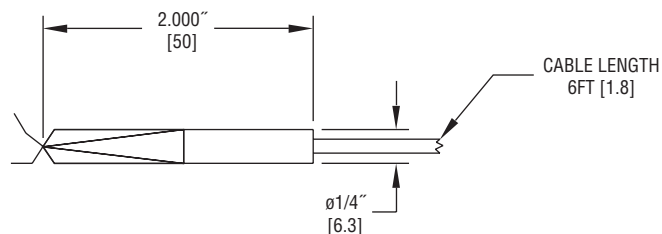




Series S Surface Mount Temperature Sensor

Specifications - Installation and Operating Instructions



The **Series S Surface Mount Temperature Sensors** provide a cost effective and reliable solution for surface contact temperature measurement of conditioned water pipes, low pressure steam or refrigerant lines. The sensors are ideal for applications where immersion wells are not practical to install. Models are constructed with a 2" (50 mm) 304 SS probe and a 6 ft (1.8 m) plenum rated cable. Nylon ties are included to secure the sensor to the pipe.

INSTALLATION

Before Installation

- Read these instructions carefully. Failure to do so can result in damage or electrical shock.
- Inspect packaging for signs of damage. If damaged, notify the carrier immediately.
- Verify that the sensor specifications are suitable for the particular application.
- Installers must be trained and qualified technicians.
- **Important:** All wiring must be compatible with applicable codes, ordinances, and instructions.

Installing the Series S Sensor

1. Scrape any rust or scale off the pipe surface.
2. Apply a thin layer of A-505 thermal compound to the sensor.
3. Position the sensor flat against the pipe and fasten with a hose clamp (not provided) or nylon ties. See Figure 1.
4. Make the wiring connections. Insulate around the sensor if necessary.

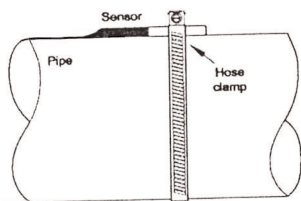


Figure 1. Installing the Series S Surface Mount Temperature Sensor

SPECIFICATIONS

Accuracy:

Platinum RTD: $\pm 0.1\%$ @ 32°F (0°C),
alpha 385 per DIN 43760.

Nickel RTD: $\pm 0.5^\circ\text{F}$ @ 70°F (21.1°C).

Balco: $\pm 0.5^\circ\text{F}$ @ 70°F (21.1°C).

Thermistor: $\pm 0.2^\circ\text{C}$ interchangeable @ 77°F (25°C).

Operating Temperature: -40 to 250°F (-40 to 125°C).

Probe Diameter: 1/4" (6.3 mm).

Probe Length: 2" (50 mm).

Probe Material: 304 SS.

Checkout

Allow the sensor to stabilize in (or against) the pipe for a minimum of five minutes before taking a resistance measurement.

1. Disconnect the sensor lead wires from the controller.
2. Connect an ohmmeter across the lead wires.
3. Ensure that nominal resistance measurements are in accordance with the resistance/temperature curves.
4. Reconnect sensor lead wires to the controller.
5. Check operation of the complete control system.

MAINTENANCE

The Series S Surface Mount Temperature Sensor is not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.