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SA2-RTD

Molded Silicone Surface RTD Sensors

INSTRUCTION
SHEET

M0503D/0708

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GENERAL DESCRIPTION

The OMEGA SA2 Surface RTD (Resistance Temperature Detector) is manufactured with a flexible molded silicone sensor patch. This sensor design utilizes a silicone based self-adhesive aluminium foil backing usable at temperatures from -50 to 200°C (-58 to 392°F).

The SA2 sensors are manufactured in two styles. The SA2C for Curved surfaces and the SA2F for Flat surfaces. These sensors are manufactured with 100 ohm Class B thin film RTD elements whose resistance vs. temperature characteristics conform to the International Standard IEC 60751 (also known as DIN Platinum RTDs). The sensors also include four #26 AWG stranded nickel plated copper extension wires that are PFA insulated and jacketed. The RTD element is bonded to the inner surface of the shell adhesive foil backing to enhance thermal transfer for faster response times.

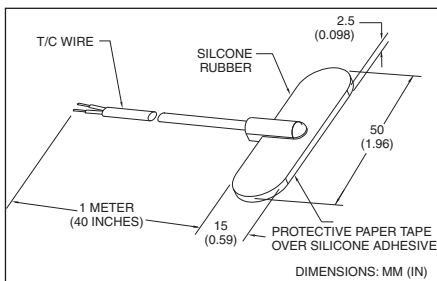


Figure 1. SA2C Pad

OPERATING INSTRUCTIONS:

1. Prepare the surface to be measured by cleaning it of oils and dirt. A general solvent or alcohol will do. Doing this will allow for better surface adhesion.
2. Peel the protective tape from the underside of the mounting surface (see Figure 1). (Take care not to get finger oils on the silicone adhesive or mounting surfaces.)
3. Simply press the sensor onto the surface and rub for maximum adhesion. It is

advised that the leads also be affixed to the mounting surface to reduce the pull forces on the wires and provide strain relief to the sensor

4. Connect the extension wires to a temperature measuring or controlling device and you are ready to begin taking temperature readings.

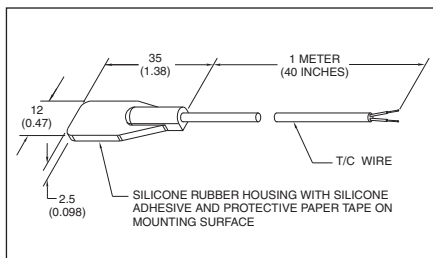


Figure 2. SA2F Pad

SPECIFICATIONS:

RTD Type: Platinum**Base Resistance:**

100 Ohms at 0°C

Tolerance:Class B = $\pm 0.30 + 0.005t$ (t=temperature in °C)**Temperature Rating:**

-50 to 200°C (-58 to 392°F)

Materials:**Pad:**

Molded silicone rubber over aluminum foil backing

Mounting Adhesive: silicone**Wire:** #26 AWG stranded nickel plated copper, PFA insulated and jacketed**Dimensions:****SA2C Pad:**

50 x 15 x 2.5 mm (1.96 x 0.59 x 0.098")

SA2F Pad:

35 x 12 x 2.5 mm (1.38 x 0.47 x 0.098")

Wire Lengths Available:

1 m (40"), 2 m (80") and 3 m (120")



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WARNING: These products are not designed for use in, and should not be used for, human applications.

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2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

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1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
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