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# SA1-J, K, T, E

## Self-Adhesive Thermocouples

INSTRUCTION  
SHEET

M0503/1204

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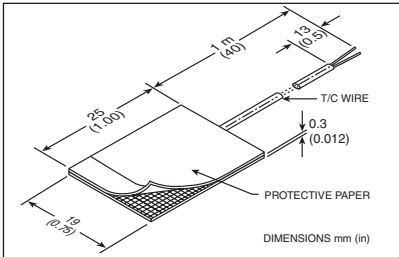
### GENERAL DESCRIPTION

The OMEGA<sup>®</sup> Self-Adhesive Thermocouples (T/C) are designed for fast surface temperature measurements up to 177°C (350°F). For easy installation (and removal), the probes have a self-adhesive backing; no epoxy or cement is required.

These SA-1 sensors are manufactured from 30 AWG Teflon<sup>®</sup> coated thermocouple wire. This "ribbon type" hot junction T/C is secured between a high temperature fiberglass cloth and a high temperature electrically insulating polyimide film. This type of T/C assembly provides good thermal conductivity and fast response, as well as excellent electrical insulating properties.

### OPERATING INSTRUCTIONS

1. Prepare the surface to be measured by cleaning it of oils and dirt. A general purpose solvent or alcohol will do. Doing this will allow for better surface adhesion.
2. Peel the protective tape from the underside of the polyimide film (see Figure 1).  
(Take care not to get finger oils on either surface.)

**Figure 1. Underside View**

3. Simply press the T/C probe onto the surface, and rub for maximum adhesion.
4. Connect the other end of the thermocouple wire to a temperature measuring device (red wire to negative terminal) and you are ready to begin taking temperature readings.

### REUSING THESE PROBES

The adhesive backing on the SA-1 probes was designed for easy removal, but not for repetitive reapplication.

### SPECIFICATIONS

#### T/C TYPES:

Thermocouples

J, K, T, E

#### WIRE:

30 AWG (0.010" dia), Teflon<sup>®</sup> coated,  
1 m (40") long  
2 m (80") lengths also available

#### TEMPERATURE RATINGS:

##### Pad/Adhesive Material Rating:

-60° to 177°C  
(-75° to 350°F)

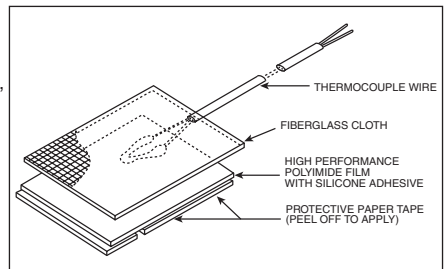
##### Thermocouple Wire:

Limited by the individual T/C rating (30 AWG type "T" thermocouple long term use is limited to 149°C [300°F])

#### PAD MATERIALS: (See Figure 2)

**Upper Pad:** Fiberglass Cloth  
**Lower Pad:** High Performance Polyimide Film  
**Adhesive Backing:** Silicone Polymer

#### DIMENSIONS:

**Pad:** 19 x 25 x 0.3 mm (0.75 x 1.00 x 0.012")**Wire Lengths Available:** 1 m (40"), 2 m (80") and 3 m (120") (5 probes per pack)**Figure 2. Top View (Exploded)**



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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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