Advanced-Design Surface-Mount RTD Provides Class A Accuracy
“Stick-On” or “Cement-On” to Target Device

260°C (500°F) Continuous Operation Self-Adhesive or Cement-On! Use on Flat or Curved Surfaces

SA1-RTD

- 100 Ω DIN Class A
  (±0.06 Ω or ±0.15°C at 0°C)
  Accuracy Standard

- Easy-Installation
  Silicone-Based,
  Self-Adhesive Backing
  Rated to 260°C (500°F)

- Sensor Can be Reapplied

- 290°C (554°F) Short-
  Term Operation When
  Used as a “Cement-On”
  (OMEGABOND® Air
  Set Cements)

- Stripped 3- or
  4-Wire Leads Standard
  (Connectors Optional)

- Stocked in 1 m
  (40") Lengths; Also
  Available in 2 and 3 m
  (80 and 120") and Custom
  Length Lead Wires

- Other Resistances/
  Accuracies Available
  on Request

The SA1-RTD surface-mount RTD temperature sensor mounts on flat or curved surfaces and provides Class A accuracy for critical temperature monitoring applications. Based on a 2 x 2 x 0.8 mm thin-film platinum RTD and supplied in PFA-insulated 3- or 4-wire configurations (connectors optional), it can be customized for use in a wide variety of applications. The sensor can be easily applied using its self-adhesive backing, or permanently mounted using OMEGABOND® cements.

Use the SA1-RTD to monitor chip, heat sink, and environmental temperatures in electronic devices; check piping or ducting temperatures; monitor motor and transformer core heat; test insulation capabilities; and check other applications in which surface and/or gradient temperatures need to be monitored or controlled.

Specifications
Minimum/Maximum Temperature:
-73°C to 260°C (-100°F to 500°F) continuous, 290°C (554°F) short-term (when cemented in place)

Sensing Element: 100 Ω at 0°C (32°F),
temp coefficient of 0.00385 Ω/Ω°C
(IEC60751)

Accuracy:
±0.06Ω at 0°C (DIN Class A)
Stability: Less than 0.2°C drift/year
Response Time: Less than 0.9 s (63% response time in water immersion), less than 2 s response time on a hot plate
Self-Heating Effect: 2.5 mW/°C
Lead Wire: 1 m (40"), 26 AWG stranded nickel-plated copper, PFA-insulated and jacketed cable

For applications where electrical noise is prevalent, or where the sensor lead wires may be routed around sharp objects, consider the stainless steel overbraid option. To specify this option, add “-SB” to the end of the model number for an additional cost per meter (foot). Ordering example: SA1-RTD-80-SB.
**OMEGABOND® for Permanent Mounting Options**

**IEC 751 Class A/B Standard Tolerances**

<table>
<thead>
<tr>
<th>Temp. in °C</th>
<th>Class A</th>
<th>Class B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>±°C</td>
<td>±°C</td>
</tr>
<tr>
<td>-200</td>
<td>0.55</td>
<td>0.24</td>
</tr>
<tr>
<td>-100</td>
<td>0.35</td>
<td>0.14</td>
</tr>
<tr>
<td>0.0</td>
<td>0.15</td>
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<tr>
<td>100</td>
<td>0.35</td>
<td>0.13</td>
</tr>
<tr>
<td>200</td>
<td>0.55</td>
<td>0.20</td>
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<tr>
<td>300</td>
<td>0.75</td>
<td>0.27</td>
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<tr>
<td>400</td>
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<td>0.33</td>
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<tr>
<td>500</td>
<td>1.15</td>
<td>0.38</td>
</tr>
<tr>
<td>600</td>
<td>1.35</td>
<td>0.43</td>
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</tbody>
</table>

The IEC-751/BS EN60751 1996 standard tolerances for Pt 100 Ω RTD elements. Class A devices have an accuracy of ±0.35° at 100°C.

**The Self-Adhesive Backing is Ideal for Targeted Class A Sensor Elements on Curved and Flat Surfaces.**

**Thin-Film RTDs Ensure Trouble-Free Connection to Flat or Curved Surfaces. Perfect for High-Vibration Environments!**

**OMEGABOND® Visit omega.com**

**To Order Visit omega.com/sa1-rtd for Pricing and Details**

**Model Number**  | **Description**          | **Cold End Termination** |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>SA1-RTD</td>
<td>3-wire</td>
<td>Stripped leads, 1½&quot; (1&quot; insulated, singles ½&quot; bare), 3 wires</td>
</tr>
<tr>
<td>SA1-RTD-80</td>
<td>3-wire</td>
<td>“MTP” style miniature flat 3-pin connector</td>
</tr>
<tr>
<td>SA1-RTD-120</td>
<td>3-wire</td>
<td>Stripped leads, 1½&quot; (1&quot; insulated, singles ½&quot; bare), 4 wires</td>
</tr>
<tr>
<td>SA1-RTD-MTP</td>
<td>3-wire</td>
<td>TA4F connector; pins 1 and 2, common 3 and 4 common</td>
</tr>
<tr>
<td>SA1-RTD-4W</td>
<td>4-wire</td>
<td>TA4F connector</td>
</tr>
<tr>
<td>SA1-RTD-4W-80</td>
<td>4-wire</td>
<td>TA4F connector</td>
</tr>
<tr>
<td>SA1-RTD-4W-120</td>
<td>4-wire</td>
<td>TA4F connector</td>
</tr>
<tr>
<td>SA1-RTD-4W-TA4F</td>
<td>4-wire</td>
<td>TA4F connector</td>
</tr>
</tbody>
</table>

Ordering Examples: SA1-RTD-80-MTP, Class A, surface-mount RTD sensor, 3-wire leads, 2 m (80") lead-wire length with a miniature 3-pin MTP connector. SA1-RTD-4W-80-TA4F, Class A, surface-mount RTD sensor, 4 wire leads, 2 m (80") lead-wire length with a 4-pin audio-style connector. For special lengths, add additional cost. For the “-SB” option, add additional cost.