Fast Response Copper Tip RTD Sensor

PR-25CU Series

- Element Located Inside Copper Alloy Tip for Improved Thermal Response
- 316L Stainless Steel Sheath and Housing
- Can be Used for Measuring Bearing Temperature and in Thermowells
- Operating Temperature Sensor: -50 to 250°C (-58 to 482°F); Connector: -50 to 85°C (-58 to 185°F)
- Response Time (Typical): 6 Seconds for 63.2%, 5 Seconds for 50%, 11 Seconds for 90% [Water at 0.91 m (3')/second]
- Vibration Tested at 3g’s Between 5 and 500 Hz for 3 Hours in the Axial Transverse Axes (150 mm or 6" Long or Shorter)

This RTD sensor incorporates a copper tip which provides an improved heat transfer path between the sensing element and the process conditions allowing for reduced response times and better temperature tracking. This becomes especially important in applications where the sensor has little exposure to the item being measured such as in thermowells and bearing temperatures.

The M12 connector provides a secure connection for all types of applications. The probe can be ordered straight or with mounting threads of 1/2, 3/8 or 1/4 NPT. The probe is also offered in a metric millimeter size and M8x1 and M10x1 mounting threads.

Optional

ACCURACY

IEC CLASS

A

(±0.15°C @ 0°C)

Probe Length

M12 “A-Coded” male connector.

Welded connection.

PR-25CUA-3-100-A-1/4-1200-M12 shown smaller than actual size. Also available with a variety of mounting threads.

Pt100

Copper tip silver brazed to sheath.

Optional

Pt100/ Pt1000

1.75”

M12CM-T24SSPC-SF-2 cable, sold separately.

1.25”

0.5”

1.125”

M12CM-T24SSPC-RF-2 cable, sold separately.

4-pin male M12 connector end shown larger than actual size.

Copper alloy tip for improved thermal response.
Copper 150 mm long, M12 male connector. Ordering Examples: PR-25CUE-3-100-A-1/4-0600-M12, no additional cost.

For 4.5 mm diameters, change Ø, 4.5 mm diameter, 150 mm long, straight sheath with M8x1 mounting thread, Class A, 100 to Metric (example: 18” = 1800).

For lengths other than 6", change “-6000” in model number to required length and add additional cost per inch greater than 6", (example: 18” = 1800).

For Class B Element, change the “-A" to “-B".

For ¼” probe diameters, change “-1/4" in model number to “-3/16", no additional cost.

Ordering Examples: PR-25CUC-3-100-A-1/4-0600-M12, ¼" diameter, 6" long, M12 male connector.

### Standard

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR-25CUA-3-100-A-1/4-0600-M12</td>
<td>Straight sheath, Class A, 100 Ω, ¼&quot; diameter, 6” long, M12 male connector</td>
</tr>
<tr>
<td>PR-25CUB-3-100-A-1/4-0600-M12</td>
<td>Straight sheath with ½ NPT mounting, Class A, 100 Ω, ¼&quot; diameter, 6” long, M12 male connector</td>
</tr>
<tr>
<td>PR-25CUC-3-100-A-1/4-0600-M12</td>
<td>Straight sheath with ⅜ NPT mounting, Class A, 100 Ω, ¼&quot; diameter, 6” long, M12 male connector</td>
</tr>
<tr>
<td>PR-25CUD-3-100-A-1/4-0600-M12</td>
<td>Straight sheath with ¼ NPT mounting, Class A, 100 Ω, ¼&quot; diameter, 6” long, M12 male connector</td>
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</tbody>
</table>

### Metric

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<tr>
<th>Model No.</th>
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<tbody>
<tr>
<td>PR-25CUE-3-100-A-M6-M150-M12</td>
<td>Straight sheath with M8x1 mounting thread, Class A, 100 Ω, 6 mm diameter, 150 mm long, M12 male connector</td>
</tr>
<tr>
<td>PR-25CUF-3-100-A-M6-M150-M12</td>
<td>Straight sheath with M10x1 mounting thread, Class A, 100 Ω, 6 mm diameter, 150 mm long, M12 male connector</td>
</tr>
<tr>
<td>PR-25CUG-3-100-A-M6-M150-M12</td>
<td>Straight sheath with G½ mounting thread, Class A, 100 Ω, 6 mm diameter, 150 mm long, M12 male connector</td>
</tr>
<tr>
<td>PR-25CUH-3-100-A-M6-M150-M12</td>
<td>Straight sheath with G¼ mounting thread, Class A, 100 Ω, 6 mm diameter, 150 mm long, M12 male connector</td>
</tr>
</tbody>
</table>

Ordering Examples: PR-25CUE-3-100-A-M6-M150-M12, straight sheath with M8x1 mounting thread, Class A, 100 Ω, 6 mm diameter, 150 mm long, M12 male connector.