## PR-10-Series

### RTD Probe with Insulated Wire and Shrink-Tube Support

Omega's RTD probe with insulated lead wire has a shrink-tube strain relief support at the sheath/wire transition to provide wire flexibility and durability. This probe is offered in 2-, 3-, or 4-wire configuration. This is available in three temperature ranges covering -200°C to 600°C (-328 to 1112°F) to accommodate your specific temperature needs. Applications for this probe include liquid immersion, slurries and emulsions, granular material measurements, as well as temperature monitoring of heat bars, kilns, and pipes. This probe is suited for both process and laboratory temperature measurements.

*PR-10E Extreme* *PR-10L Low*

*PR-10H High*

### Features

- **Class A accuracy, conforming to IEC 60751**
- **Low temperature range: -50 to 250°C (-58 to 482°F)**
- **High temperature range: -50 to 450°C (-58 to 842°F)**
- **Extreme temperature range: -200 to 600°C (-328 to 1112°F)**
- **Standard probe lengths of 2, 3, 4, 6, 9, 12, 18, and 24”**
- **Resistance value: PT100 Ω or PT1000 Ω; 2, 3, or 4-wire**
- **Stripped-end standard; other terminations offered**
- **Dual element offered in both PT100 Ω and PT1000 Ω**
- **“H” probes in 1/8” diameter will have a metal barrel at transition**

### Specifications

| Model | PR-10L (Low) | PR-10H (High) | PR-10E (Extreme) |
|---|---|---|---|
| **Process Temperature Range** | -50 to 250°C (-58 to 482°F) | -50 to 450°C (-58 to 842°F) | -200 to 600°C (-328 to 1112°F) |
| **Accuracy** | Class A | Class A from -50 to 300°C (-58 to 572°F); or else Class B | Class A from -100 to 450°C (-148 to 842°F); or else Class B |
| **Nominal Resistance/Curve** | 100 Ω at 0°C standard; TCR = 0.00385 Ω/Ω/°C standard | | |
| **Wire Length** | 40” standard (longer lengths may be built using our configurator) | | |
| **Wire Material** | PFA | PFA | PFA |
| **Wire Termination Max Temp** | 100°C (212°F) | 250°C (482°F) | 250°C (482°F) |
| **Lead Wire Termination** | Stripped ends. Other terminations may be configured. | | |
| **Dimensions** | Diameters: 1/8, 3/16 and 1/4 inch.<br>Standard probe length of 2, 3, 4, 6, 12, 18 and 24 inch.<br>Other lengths may be built using our configurator. | | |
| **Ingress Protection** | IP67 | IP67 | IP67 |
| **Response time T90 (s)** | 1/8” 2.4 sec<br>3/16” 2.8 sec<br>1/4” 3.25 sec | 1/8” 2.8 sec<br>3/16” 4.11 sec<br>1/4” 5.41 sec | 1/8” 9 sec<br>3/16” 9.8 sec<br>1/4” 10.6 sec |
| **Vibration** | IEC 60068-2-6; 5 to 2000 Hz sweep rate, one active per minute;<br>10 sweep cycles; acceleration 5g (15 probes tested together) Duration: 1 day | | |
| **Shock** | IEC 60068-2-27; 50g/11ms (15 probes tested together) Duration: 1 day | | |

**Ordering Example: PR-10H-3-100-1/8-6:** 100 Ω, Class “A” RTD, “High” temp -50 to 450°C (-58 to 842°F), 1/8” probe diameter, 6 inch length, 40 inches of lead wire, stripped ends.