

RTD Probe with Insulated Wire and Stainless Steel Overbraid

This Omega RTD probe features stainless steel overbraid over PFA-coated wires, to provide resistance to abrasion, along with transition-style junction. This is ideal for environments where the wire is going to be moved continually, or where the wire may come in contact with sharp, potentially damaging objects. This can be ordered with PT100 Ω or PT1000 Ω RTD element. 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.



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
- Stripped-end standard; other terminations offered
- Choice of PT100 and PT1000 Ω element

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	Class A from -100 to 450°C (-148 to 842°F); or else Class B
Nominal Resistance and Curve	100 Ω and 1000 Ω at 0°C standard; TCR = 0.00385 $\Omega/\Omega/^\circ\text{C}$ standard		
Wire Length	40" standard (longer lengths may be built using our configurator)		
Wire Material	PFA with Stainless Steel Overbraid	Fiberglass with Stainless Steel Overbraid	PFA with Stainless Steel Overbraid
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. Standard probe length of 2, 3, 4, 6, 12, 18 and 24 inch. Other lengths may be built using our configurator.		
Ingress Protection	IP67	None	IP67
Response time T90 (s)	1/8" 0.75 sec 3/16" 0.975 sec 1/4" 1.2 sec	1/8" 1.00 sec 3/16" 1.55 sec 1/4" 2.10 sec	1/8" 1.5 sec 3/16" 1.95 sec 1/4" 2.4 sec
Vibration	IEC 60068-2-6; 5 to 2000 Hz sweep rate, one active per minute; 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.