

PR-10-BX-Series

RTD Probe with Insulated Wire and BX Armored Cable

Omega's "BX" armor PT100 or PT1000 RTD probe is designed for resistance to abrasion and snagging in processes where the lead wire is subject to sharp objects, or where the lead wire is being moved continually moving. The BX armored cable is placed over PFA wire for all three temperature ranges of this probe. 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. *Probe shown is with -MTP mini connector.* Various connector terminations available using our configurator.



Shown with mini MTP Connector Option

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"**
- **Stripped-end standard; other terminations offered**
- **Choice of PT100 and PT1000 Ω element 2, 3, or 4-wire**

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 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 Armor	PFA with Armor	PFA with Armor
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.		
Ingress Protection	IP67	IP67	IP67
Response time T90 (s)	1/8" 2.4 sec 3/16" 2.8 sec 1/4" 3.25 sec	1/8" 2.8 sec 3/16" 4.11 sec 1/4" 5.41 sec	1/8" 9 sec 3/16" 9.8 sec 1/4" 10.6 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-10E-3-100-E/16-12-BX-MTP: 100 Ω , Class "A" RTD, "Extreme" temp -50 to 450°C (-58 to 842°F), 1/8" probe diameter, 6 inch length, 40 inches of lead wire, with MTP mini connector