

PR-11 Series

RTD Probe with Insulated Wire and Metal Strain Relief

Omega's RTD probe with insulated wire and metal 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 °F 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.

Features

- Class A accuracy, conforming to IEC 60751
- Low temperature range: -50 °C to 250 °C (-58 °F to 482 °F)
- High temperature range: -50 °C to 450 °C (-58 °F to 842 °F)
- Extreme temperature range: -200 °C to 600 °C (-328 °F 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 (PT1000 is not available with the Extreme series)
- Stripped-end standard; other terminations offered
- Dual element offered in both PT100 Ω and PT1000 Ω. ¼ " Diameter Only.



Ordering Example

PR-11H-3-100-1/8-6: 100 Ω, Class "A" RTD, "High" temp -50 °C to 450 °C (-58 °F to 842 °F), ⅛ " probe diameter, 6 " length, 40 " of lead wire, stripped ends.

Specifications Model	PR-11L (Low)	PR-11H (High)	PR-11E (Extreme)
Process Temperature Range	-50 °C to 250 °C (-58 °F to 482 °F)	-50 °C to 450 °C (-58 °F to 842 °F)	-200 °C to 600 °C (-328 °F to 1112 °F)
Accuracy	Class A	Class A from -50 °C to 300 °C (-58 °F to 572 °F); or else Class B	Class A from -100 °C to 450 °C (-148 °F 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: ⅛ ", ⅜ " and ¼ " Standard probe length of 2 ", 3 ", 4 ", 6 ", 12 ", 18 " and 24 " Other lengths may be built using our configurator		
Ingress Protection	IP67	IP67	IP67
Response time T90 (s)	⅛ " 2.4 s ⅜ " 2.8 s ¼ " 3.25 s	⅛ " 2.8 s ⅜ " 4.11 s ¼ " 5.41 s	⅛ " 9 s ⅜ " 9.8 s ¼ " 10.6 s
Vibration	IEC 60068-2-6; 5 Hz to 2000 Hz sweep rate, one active per minute; 10 sweep cycles; acceleration 5 g (15 probes tested together) Duration: 1 day		
Shock	IEC 60068-2-27; 50 g/11 ms (15 probes tested together) Duration: 1 day		

PR-11 BX and PR-11-SB 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 continuously. 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.



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 °C to 250 °C (-58 °F to 482 °F)
- High temperature range: -50 °C to 450 °C (-58 °F to 842 °F)
- Extreme temperature range: -200 °C to 600°C (-328 °F 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 (PT1000 is not available with the Extreme series)
- Stripped-end standard; other terminations offered
- Choice of PT100 Ω and PT1000 Ω element. 1/4 " Diameter Only

Specifications Model	PR-11L (Low)	PR-11H (High)	PR-11E (Extreme)
Process Temperature Range	-50 °C to 250 °C (-58 °F to 482 °F)	-50 °C to 450 °C (-58 °F to 842 °F)	-200 °C to 600 °C (-328 °F to 1112 °F)
Accuracy	Class A	Class A from -50 °C to 300 °C (-58 °F to 572 °F); or else Class B	Class A from -100 °C to 450 °C (-148 °F to 842 °F); or else Class B
Nominal Resistance/Curve	100 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	PFA 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 " Standard probe length of 2 ", 3 ", 4 ", 6 ", 12 ", 18 " and 24 " Other lengths may be built using our configurator		
Ingress Protection	IP67	IP67	IP67
Response time T90 (s)	1/8 " 2.4 s 3/16 " 2.8 s 1/4 " 3.25 s	1/8 " 2.8 s 3/16 " 4.11 s 1/4 " 5.41 s	1/8 " 9 s 3/16 " 9.8 s 1/4 " 10.6 s
Vibration	IEC 60068-2-6; 5 Hz to 2000 Hz sweep rate, one active per minute; 10 sweep cycles; acceleration 5 g (15 probes tested together) Duration: 1 day		
Shock	IEC 60068-2-27; 50 g/11 ms (15 probes tested together) Duration: 1 day		

