

PR-18-Series

RTD Probe with Aluminum Protection Head

Omega's PR-18 series probe with standard aluminum protection head and flip-top includes PT100 Ω platinum RTD element or PT1000 RTD element and 1/2" NPT mounting threads. The sheath is made of 316 stainless steel. These probes can be used alone or can be placed directly into a thermowell. The spring load option should not be ordered unless a thermowell is used. All probes include a screw terminal block for easy connection of insulated copper extension wire. Using our probe configurator, replacement probes (without protection head assembly) are available as well as a "spring-loading" option which allows for the probe to bottom out in a thermowell for quicker and more accurate response. This probe can be used in tanks, vessels, and large pipes for measurement of flow material.



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**
- **Aluminum Protection head with flip-top**
- **Choice of PT100 and PT1000 Ω element**
- **IP67 Ingress Protection**

Specifications

Model	PR-18L (Low)	PR-18H (High)	PR-18E (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	
Process Connection	1/2" NPT	1/2" NPT	1/2" NPT
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	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; number of sweep cycles 10 and acceleration 5g (15 probes tested together) Duration: 1 day	
Shock		IEC 60068-2-27; 50g/11ms (15 probes tested together) Duration: 1 day	