

HIGHLIGHTS

- ✓ **Temperature Range: -196°C to 180°C**
- ✓ **Accuracy $\pm 0.05^\circ\text{C}$**
- ✓ **Transition junction and lead wires can withstand full PRT temperature range**

**OVERVIEW**

AM1612 full immersion PRT is uniquely designed to provide users an excellence temperature probe that can expose the transition junction and lead wires to an environment that covers the full PRT temperature range. The seal of probe prevents the ingress of moisture so that the probe can work in a humid condition or even under full immersion in common heat transfer fluids such as ethanol, silicone oil and mineral oil.

AM1612 is small in size with probe length of 50 mm and diameter of 3 mm. A unique assembly procedure provides the best balance among the hysteresis effect, mechanical shock and thermal shock performance.

FEATURES

- Temperature range: -196 °C to 180 °C
- Probe Length: 50 mm
- Accuracy: $\pm 0.05^\circ\text{C}$ at 0 °C
- Long term drift: $\pm 0.04^\circ\text{C}$
- Short term stability: 0.02 °C
- Durable and shock resistance
- Temperature Coefficient 0.00385
- SST sheath

SPECIFICATIONS

Temperature Range	-196°C to 180°C
Resistance at 0 °C	Nominal 100 Ω
Temperature Coefficient	0.00385 Ω/ Ω/°C
Accuracy	±0.05°C at 0 °C
Drift	±0.04°C at 0 °C after 100 hours at 160 °C
Short Term Stability	±0.02°C
Thermal Shock	±0.01°C after 10 times thermal cycles from minimum to maximum temperatures
Hysteresis	≤0.01°C
Self-heating	75 mW/°C
Response Time	4 seconds for 63% response to step change in water moving at 3 feet per second
Measurement Current	1 mA
Sensor Length	30 mm
Insulation Resistance	>1000 MΩ at room temperature
Sheath Material	Stainless Steel 316L
Dimension	0.125 inch X 2 inch (3 mm X 50 mm)
External Leads	Enameled copper wire protected by high temperature heat shrink tubing, 4 leads, 2.5 meters
Calibration Options	1612-T, PRT with NIST traceable calibration and data

OPTIONAL ACCESSORIES

Model	Description
9001	Wooden Carrying Case