



FEATURES

Temperature range: -196°C to 180°C

Accuracy: <0.05°C

Short term stability: <0.02°C

Transition junction and lead wires can withstand the full PRT temperature range

Widely used in climate/humidity chambers and freezers for validation/calibration

OVERVIEW

The AM1612 full immersion PRT is uniquely designed to provide users an excellent temperature probe that can expose the transition junction and the lead wires to an environment that covers the full PRT temperature range. The seal of the probe prevents the ingress of moisture so that the probe can work in humid conditions or even under full immersion in common heat transfer fluids such as ethanol, silicone oil and mineral oil. It has a wide application in freezers, temperature/humidity chambers and sterilizers.

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

Model	Sheath Length	OD	Full Immersion
1612	2in	0.125in	✓

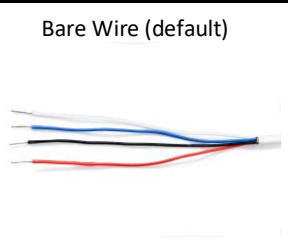
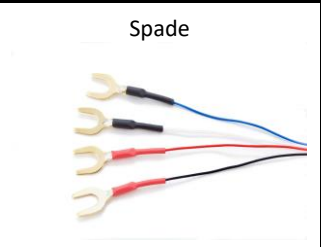

SPECIFICATIONS

	1612
Temperature Range	-196°C to 180°C
Nominal Resistance at 0°C	100 Ω
Temperature Coefficient	0.00385 Ω/Ω/°C
Accuracy	<0.05°C at 0°C
Long Term Drift at 0.01°C*	<0.04°C at TPW after 100 hours at 160°C
Short Term Stability	<0.02°C
Thermal Shock	<0.02°C after 10 thermal cycles from minimum to maximum temperatures
Hysteresis	≤0.01°C
Self-heating	75 mW/°C
Response Time**	4 seconds
Measurement Current	1 mA
Sensor Length	30 mm
Sensor Location	5 mm from tip
Insulation Resistance	>1000 MΩ at room temperature
Sheath Material	Stainless Steel
Sheath Dimensions	0.125in (OD) x 2in (L)
External Leads	Enameled copper wire protected by high temperature heat shrink tubing, 4 leads, 2.5 meters

*Long-term drift rate is for reference only. It could be affected by such facts as handling, application, and maintenance, etc.

**for 63% response to step change in water moving at 3 feet per second

ORDERING OPTIONS

Model	Description			
9001	Wooden carrying case for 12" and 9" probe			
5007	NIST traceable calibration			
5033	ISO 17025 accredited calibration			
Termination Options	Bare Wire (default) 	Spade 	8010 Connector 	ADT LEMO Connector 