



FEATURES

- Temperature range: -196°C to 160°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
- ISO/IEC 17025 accredited calibration included

OVERVIEW

The AM1612A 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. AM1612A PRTs include an ISO/IEC 17025 accredited calibration.

The AM1612A 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
1612A	2in	3mm	✓

SPECIFICATIONS

Model	AM1612A
Temperature Range	-196°C to 160°C
Nominal Resistance at 0°C	100 Ω
Temperature Coefficient	0.00385 Ω/Ω/°C
Calibration	ISO/IEC 17025 accredited calibration included
Accuracy	<0.05°C over full range
Long Term Drift at 0.01°C*	<0.04°C at 0°C 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	3mm (OD) x 2in (L)
External Leads	Enameled copper wire protected by high temperature Teflon tubing, 4 leads, 2 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

STANDARD ORDERING OPTION (Includes ISO/IEC 17025 accredited calibration)

AM1612A Full Immersion PRT, bare wire terminations

CUSTOM ORDERING OPTIONS (All Include ISO/IEC 17025 accredited calibration)

AM1612A-	ADT	ADT LEMO connector	Full Immersion PRT
	BJ	Banana plugs	
	SP	Gold-plated spade lugs	
	PIN	5-PIN connector (for AM8010 readout)	
	X	any other customizations	

Bare Wire (default)



ADT LEMO connector



Gold-plated spade lugs



5-PIN connector
(for AM8010 readout)

