AccuMac AM1710
Secondary Reference PRT

Metrology Made Simple

- Temperature Range: -40°C to 160°C
- Accuracy: <0.012°C at 0.01°C
- Long Term Drift: <0.01°C
- Short-term Stability: <0.007°C
- Durable and Shock Resistant
- Temperature Coefficient 0.003925 Ω/ Ω/ °C
- Fully Meets the ITS-90 Criteria for Reference Thermometers
- Stainless Steel Sheath
- ISO 17025 Accredited Calibration Included



OVERVIEW

The AM1710 series of Secondary Reference PRTs offers affordable reference probes for precision temperature measurement and calibration both in the lab and in the field. These PRTs feature an accuracy of <0.012°C and a short term stability of <0.007°C.

To reach the best performance in stability and repeatability, the sensing element has been specially designed to protect the platinum sensing wire from contamination at high temperatures. A unique supporting structure and filling material provide the best balance among the hysteresis effect, mechanical shock and thermal shock performance. This high performance probe fully meets the ITS-90 criteria for reference thermometers. Each probe comes standard with an ISO 17025 accredited calibration.

SPECIFICATIONS

	AM1710-12	AM1710-BEND
Temperature Range	-40°C to 160°C	
Nominal Resistance at 0.01°C	100 Ω	
Temperature Coefficient	0.003925 Ω/Ω/°C	
Calibrated Accuracy (k=2)[1][2]	±0.025°C at -40°C ±0.015°C at 0.01°C ±0.025°C at 160°C	
Long Term Drift at 0.01°C[3]	<0.01°C at TPW after 100 hours at 160°C	
Short Term Stability	<0.007°C	
Thermal Shock	<0.005°C after 10 thermal cycles from minimum to maximum temperatures	
Hysteresis	≤0.005°C	
Self-heating	50 mW/°C	
Response Time[4]	9 seconds	
Sheath Length	12 in (305 mm)	7 in (178 mm) from tip to bend 4 in (101.6 mm) from bend to handle
Sheath Diameter	0.25 in (6.35 mm)	
Sensor Element Length	1.26 in (32 mm)	
Sensor Element Location	0.12 in (3 mm) from tip	
Insulation Resistance	>1000 MΩ at room temperature	
Sheath Material	Stainless steel	
External Leads	Teflon™ insulated copper wire, 4 leads, 6.5 feet (2 meters)	
Handle Dimension	0.59 in (15 mm) (OD) x 2.56 in (65 mm) (L)	0.59 in (15 mm) (OD) x 2.56 in (65 mm) (L)
Handle Temperature Range	-40°C to 160°C	
Calibration	ISO 17025 accredited calibration	

[1] Includes calibration and 100 hour drift.
[2] Probe calibration ranges may differ from probe temperature ranges (see Calibrated Accuracy for calibration ranges).
[3] Long-term drift rate is for reference only. It could be affected by such facts as handling, application, and maintenance, etc.
[4] For 63% response to step change in water moving at 1 meter per second.

Phone: 714-998-6899 Email: sales@additel.com
Rev # 20250226

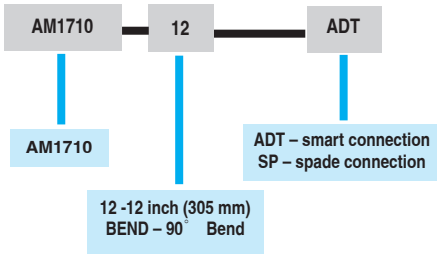
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Additel
Metrology Made Simple

ORDERING INFORMATION

Model Number



Optional Accessories			
Model	***Quantity***	***Description***	***Picture***
9070	1 pc	Smart connector for reference PRT for use with Additel temperature products	
9071	1 pc	Connector adapter from Additel smart connector to 4-wire with gold plated spades	
9072	1 pc	Connector adapter from Additel smart connector to 4-wire with clamps	

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