

AccuMac AM1760 & AM1762

Secondary SPRTs

- Reliable SPRT for Daily Use
- Rtpw Drift: <4mK after 100hrs at 661°C
- Short-term Stability : <0.002°C at 0.01°C
- Temperature Range: -200°C to 670°C
- Inconel™ Sheath to Withstand Harsh Environments
- Fully Meets the ITS-90 Criteria for Reference Thermometers



OVERVIEW

The AM1760 series Secondary SPRTs provides our customers with reliable secondary standards that can be used daily in their labs. These SPRTs feature an accuracy of <0.006°C at 0.01°C, a short term stability of <0.002°C and a very low drift rate of less than 0.004°C after 100 hours at 661°C. Two different lengths of these SPRTs are available at either 12 inches (305 mm) or 20 inches (508 mm).

The sensing element is designed to protect the platinum sensing wire from contamination at high temperatures, giving these SPRTs a high level of stability and repeatability in performance. A uniquely designed support structure and filling material provides excellent balance between 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 NIST-traceable certificate of calibration.

SPECIFICATIONS

	AM1760	AM1762	AM1760/AM1762-BEND
Temperature Range	-200°C to 670°C		
Nominal Resistance at 0.01°C	100 Ω	25 Ω	100 Ω / 25 Ω
Temperature Coefficient	0.003925 Ω/Ω/°C		
Calibrated Accuracy (k=2) ^{[1][2]}	±0.010°C at -196°C ±0.006°C at 0.01°C ±0.015°C at 420°C ±0.025°C at 661°C		
Long Term Drift at 0.01°C ^[3]	<0.004°C at TPW after 100 hours at 661°C		
Short Term Stability	<0.002°C		
Thermal Shock	<0.002°C after 10 thermal cycles from minimum to maximum temperatures		
Self-heating	0.0015°C at 0.5 mA current	0.0015°C at 1 mA	0.0015°C at 0.5 mA 0.0015°C at 1 mA
Response Time ^[4]	9 seconds		
Measurement Current	0.5 mA	1 mA	0.5 mA / 1 mA
Sensor Length	1.65 in (42 mm)		
Sensor Location	0.2 in (5 mm) from tip		
Insulation Resistance	>1000 MΩ at room temperature		
Sheath Material	Inconel™		
Sheath Dimensions	1760-20: 0.25 in (6.35 mm) (OD) x 20 in (508 mm) (L) 1760-12: 0.25 in (6.35 mm) (OD) x 12 in (305 mm) (L)	1762-20: 0.25 in (6.35 mm) (OD) x 20 in (508 mm) (L) 1762-12: 0.25 in (6.35 mm) (OD) x 12 in (305 mm) (L)	0.25 in (6.35 mm) (OD) x 9.75 in (247.65 mm) vertical x 4.5 in (114.3 mm) horizontal
External Leads	Teflon™ insulated copper wire, 4 leads, 3.5 feet (2 meters)		
Handle Dimension	0.59" (15 mm) (OD) x 2.56" (65 mm) (L)		
Handle Temperature Range	-50°C to 180°C		
Calibration	NIST-traceable calibration with data ^[5]		

[1] Includes calibration and 100 hour drift.

[2] Probe calibration ranges may differ from probe temperature ranges (see Calibrated Accuracy for calibration ranges).

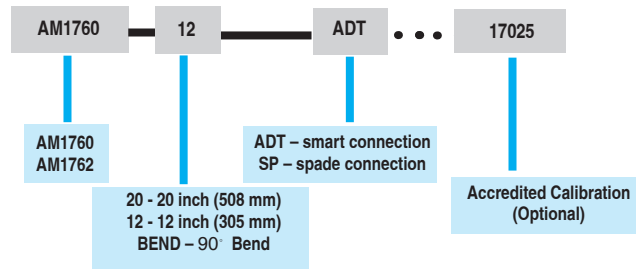
[3] Long-term drift rate is for reference only. It could be affected by such facts as handling, application, and maintenance, etc.

[4] For 63% response to step change in water moving at 1 meter per second.



[5] For 17025 accredited calibration, please contact Additel.

ORDERING INFORMATION

Model Number



Note: Carrying case included (excludes -BEND probes)

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	