AM1960/1950 Quartz-Sheath SPRTs

AccuMac Technology Inc

FEATURES

Affordable primary standards
Extremely low drift rate
AM1960 Temperature range: -200°C to 670°C
AM1950 Temperature range: -200°C to 500°C
W(Ga) ≥ 1.11807
W(Hg) ≤ 0.844235
Fully meets the ITS-90 criteria for standard thermometers
ISO/IEC 17025 accredited calibration included

MULTIPLE OPTIONS AVAILABLE

Model	Sheath Length	OD	Temp Range	Quartz Sheath
1960	500mm	7mm	-200°C to 670°C	✓
1950	480mm	7mm	-200°C to 500°C	✓

OVERVIEW

Standard Platinum Resistance Thermometers (SPRTs) are used to interpolate temperature in the range from -189.3442°C to 660.323°C on the International Temperature Scale of 1990 (ITS-90). They are widely used as standard or reference thermometers to calibrate other thermometers and to measure temperature precisely in primary and secondary laboratories. It's taken decades of our scientific expertise and original craftsmanship to create these world class products. They fully meet the ITS-90 criteria for standard thermometers, while offering a very competitive price.

Both of our quartz-sheath SPRTs feature a very low drift rate. The sensing element and sensor support have been specially designed to reach the best performance in stability and repeatability. To protect the platinum sensing wire from contamination at high temperatures, all parts used in the thermometer are cleaned extremely well before assembly. The assembly process is well controlled to protect the sensor from any potential contamination. The gas mixture the thermometers are filled with makes the sensor wire oxidation effect as low as possible. Every SPRT is fully tested for stability after manufacture. An ISO/IEC 17025 accredited calibration is included.

Address: 90 N William Dillard Drive C-107, Gilbert, AZ 85233
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For Technical Help: lab@accumac.com
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SPECIFICATIONS

Model	AM1960	AM1950
Temperature Range	-200°C to 670°C	-200°C to 500°C
Nominal Resistance at 0°C	25.5 Ω	
Resistance Ratio	W(Ga) ≥ 1.11807 W(Hg) ≤ 0.844235	
Calibration	ISO/IEC 17025 accredited calibration included	
Repeatability	<0.001°C	
Long Term Drift at 0.01°C*	<0.003°C at TPW after 100 hours at 661°C, <0.005°C/year typical	<0.002°C at TPW after 100 hours at 500°C, <0.004°C/year typical
Thermal Shock	<0.001°C after 10 thermal cycles from minimum to maximum temperatures	
Self-heating	0.0015°C at 1 mA current	
Measurement Current	1 mA	
Sensor Length	42 mm	
Insulation Resistance	>1000 MΩ at room temperature	
Sheath Material	Quartz	
Sheath Dimensions	7mm (OD) x 500mm (L)	7mm (OD) x 480mm (L)
External Leads	Insulated copper wire, 4 leads, 2 meters	
Termination	Gold-plated spade	
Handle Dimensions	21mm (OD) x 80mm (L)	

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

STANDARD ORDERING OPTIONS (All include ISO/IEC 17025 accredited calibration, gold plated spade terminations, and a 9002 wooden carrying case)

AM1960 500mm, quartz-sheath SPRT (Range: -200°C to 670°C)

AM1950 480mm, quart-sheath SPRT (Range: -200°C to 500°C)

CUSTOM ORDERING OPTIONS (All include gold plated spade terminations, 9002 wooden carrying case)

AM1960-NC 500mm, quartz-sheath SPRT, **No Calibration Included** (Range: -200°C to 670°C)

AM1950-NC 480mm, quart-sheath SPRT, **No Calibration Included** (Range: -200°C to 500°C)

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