AM1880 Metal-Sheath SPRT

AccuMac Technology Inc

FEATURES

"Birdcage" design of the sensing element provides strain-free support and shock resistance

Platinum capsule for protection from high temperature contamination

5.56mm Inconel™ sheath to withstand harsh environments and provide fast response times

Temperature range: -200°C to 670°C

Fully meets the ITS-90 criteria for standard thermometers

OVERVIEW

The AM1880 Standard Platinum Resistance Thermometer (SPRT) interpolates temperatures in the range from -200°C to 670°C on the International Temperature Scale of 1990 (ITS-90). It is designed as a primary or secondary standard thermometer, which can be used to calibrate other thermometers and to measure temperature precisely in primary and secondary laboratories.

The sensing element and sensor support utilize a "birdcage" design and are protected inside a platinum capsule. Compared to the traditional coil-wound method, the "birdcage" resists mechanical shocks much better and allows for high purity platinum wire to be wound strain-free. The platinum capsule protects the sensing element from contamination at high temperatures. The "birdcage" structure combined with a 5.56mm Inconel™ sheath makes this SPRT respond very quickly to temperature changes. All parts used in the SPRT are thoroughly cleaned before assembly, and the assembly process is well-controlled to protect the sensor from potential contamination. The gas mixture the thermometer is filled with makes the sensor wire oxidation effect as low as possible.

Every AM1880 SPRT is fully tested for stability after manufacture. This world-class probe fully meets the ITS-90 criteria for standard thermometers.

Address: 90 N William Dillard Drive C-107, Gilbert, AZ 85233
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SPECIFICATIONS

	1880
Temperature Range	-200°C to 670°C
Nominal Resistance at 0°C	25.5 Ω
Resistance Ratio	W(Ga) ≥ 1.11807 W(Hg) ≤ 0.844235
Repeatability	<0.001°C
Long Term Drift at 0.01°C*	<0.006°C/year, <0.003°C/year typical
Thermal Shock	<0.0015°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	Inconel™
Sheath Dimensions	5.56mm (OD) x 500mm (L)
External Leads	Insulated copper wire, 4 leads, 2.5 meters
Termination	Gold-plated spade
Handle Dimension	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.

ORDERING OPTIONS

Model	Description
9002	Wooden carrying case for 20” probe (included)
5033	ISO 17025 accredited calibration

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