

## HIGHLIGHTS

- ✓ Affordable primary standards
- ✓ Extremely low drift rate
- ✓ Temperature range: -200 °C to 670 °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. AM1950 and AM1960 SPRTs are the crown jewels of AccuMac temperature probes. It takes decades of our scientific expertise and original craftsmanship to create these world class products. They feature a very low drift rate.

To reach the best performance in stability and repeatability, the sensing element and sensor support are specially designed. To protect the platinum sensing wire from contamination at high temperature, all parts used in the thermometer are extremely cleaned before assembly. The assembly process is well controlled to protect the sensor from contamination. The gas mixture filled in the thermometer makes the sensor wire oxidation effect as low as possible. Every SPRT is fully tested for stability after manufactured. This world class probe meets ITS-90 criteria of standard thermometer fully with a very competitive price.

AM1950 has a temperature range from -200 °C to 500 °C. AM1960 covers range from -200 °C to 670 °C.

## SPECIFICATIONS

<b>Temperature Range</b>	1950: -200 °C to 500 °C 1960: -200 °C to 670 °C
<b>R<sub>tpw</sub></b>	Nominal 25 Ω
<b>Resistance Ratio</b>	W(Ga) >= 1.11807 W(Hg) <= 0.844235
<b>Drift at 0.01 °C*</b>	1950 <0.002 °C after 100 hours at 500 °C, <0.004 °C/year typical 1960 <0.003 °C after 100 hours at 661 °C, <0.005 °C/year typical
<b>Repeatability</b>	±0.001 °C
<b>Thermal Shock</b>	±0.001 °C after 10 times thermal cycles from minimum to maximum temperatures
<b>Self-heating</b>	0.0015 °C at 1 mA current
<b>Measurement Current</b>	1 mA
<b>Sensor Length</b>	42 mm
<b>Insulation Resistance</b>	>1000 MΩ at room temperature
<b>Sheath Material</b>	Quartz
<b>Dimension</b>	1950: 7 mm (OD) X 480 mm (L) 1960: 7 mm (OD) X 500 mm (L)
<b>External Leads</b>	Insulated copper wire, 4 leads, 2.5 meters
<b>Termination</b>	Gold-plated Spade
<b>Handle Dimension</b>	21 mm (OD) X 80 mm (L)
<b>Optional Calibration</b>	NVLAP/ISO17025 accredited calibration and data available per request

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

## ACCESSORIES

Model	Description
9002	Wooden Carrying Case included