HIGHLIGHTS

- ✓ **Affordable reference probe**
- ✓ **Accuracy ±0.015 °C at 0.01 °C**
- ✓ **Temperature range: -200 °C to 670 °C**
- ✓ **Customized dimensions available**

OVERVIEW

AM1751 Secondary Reference PRT provides our customers an affordable reference probe for precision temperature measurement and calibration. This PRT features accuracy of ±0.015 °C at 0.01 °C and short term stability of ±0.007 °C. Two different lengths of PRTs are available at 12-inch and 20-inch.

The sensing element is designed to protect the platinum sensing wire from contamination at high temperatures, giving the device 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 ITS-90 criteria for reference thermometers.

FEATURES

- Temperature range: -200 °C to 670 °C
- Accuracy: ±0.015 °C at 0.01 °C
- Long term drift: ±0.01 °C
- Short term stability: 0.007 °C
- Durable and shock resistance
- Temperature Coefficient 0.003925 Ω/ Ω/°C
- W(Ga)>=1.11807
- Inconel^{tm} sheath
- Customized dimensions available

Address: 90 N William Dillard Drive C-107, Gilbert, AZ 85233
Phone: 480-634-0603
For Technical Help: info@accumac.com
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SPECIFICATIONS

Temperature Range	1751-12: -200 °C to 670 °C 1751-20: -200 °C to 670 °C
Resistance at 0 °C	Nominal 100 Ω
Temperature Coefficient	0.003925 Ω/ Ω/°C
Accuracy	±0.025 °C at -196 °C ±0.015 °C at 0.01 °C ±0.035 °C at 420 °C ±0.05 °C at 661 °C
Drift	±0.01 °C at TPW after 100 hours at 661 °C
Short Term Stability	±0.007 °C
Thermal Shock	±0.005 °C after 10 times thermal cycles from minimum to maximum temperatures
Hysteresis	<=0.005 °C
Self-heating	50 mW/°C
Response Time	9 seconds for 63% response to step change in water moving at 3 feet per second
Measurement Current	0.5 mA or 1 mA
Sensor Length	32 mm
Sensor Location	5 mm from tip
Insulation Resistance	>1000 MΩ at room temperature
Sheath Material	Inconel[tm]
Dimension	1751-12: 0.25 inch X 12 inch (6.35 mm X 305 mm) 1751-20: 0.25 inch X 20 inch (6.35 mm X 500 mm)
External Leads	Teflon[tm] –insulated copper wire, 4 leads, 2.5 meters
Handle Dimension	15 mm (OD) X 65 mm (L)
Handle Temperature Range*	-50 °C to 180 °C
Optional Calibration	NIST traceable calibration and data available per request, Ordering # 5007

*Handle temperature outside this range will cause damage to the probe.

OPTIONAL ACCESSORIES

Model	Description
9001	Wooden Carrying Case for 1751-12
9002	Wooden Carrying Case for 1751-20