

HIGHLIGHTS

- ✓ Vertical Gradient Measurement of Dry Blocks/Dry Wells
- ✓ 6 mm Sensing Element
- ✓ Short Term Stability ± 0.003 °C at 0.01 °C
- ✓ Temperature Range: -200 °C to 670 °C

**OVERVIEW**

AM1758 is specifically designed to measure vertical gradients of dry blocks or dry wells. The length of the sensing element is only 6 mm, which allows AM1758 to measure the detailed temperature changes inside the dry wells with pin point precision.

The short sensing element has adopted many of AccuMac's PRT technologies to offer a high level of stability across the temperature range from -200 °C to 670 °C. A uniquely designed support structure and filling material provides excellent balance between the hysteresis effect, mechanical shock and thermal shock performance.

It has long been a challenge for temperature calibration labs across the world to measure gradient of a dry block. With a 6 mm sensing element AM1758 meets the challenge and requirement such as one from The Euramet Calibration Guide CG-13 Version 3.0 "CALIBRATION OF TEMPERATURE BLOCK CALIBRATORS".



Finally a solution for accurate dry block gradient measurements!

SPECIFICATIONS

Temperature Range	From -200°C to 670°C
Resistance at 0 °C	Nominal 25 Ω
Temperature Coefficient	0.003925 Ω/ Ω/°C
Short Term Stability ⁽¹⁾	±0.003°C at -196 °C; ±0.003°C at 0.01 °C ±0.004°C at 232 °C; ±0.005°C at 420 °C; ±0.006°C at 660 °C
Hysteresis	<=0.005°C
Self-heating	0.0015 °C at 1 mA current
Response Time	9 seconds for 63% response to step change in water moving at 3 feet per second
Measurement Current	1 mA
Sensor Length	6 mm
Sensor Location	3 mm from tip
Insulation Resistance	>1000 MΩ at room temperature
Sheath Material	Inconel™
Dimension	0.25 inch X 12 inch (6.35 mm X 305 mm)
External Leads	Teflon™-insulated copper wire, 4 leads, 2.5 meters
Handle Dimension	15mm (OD) X 65 mm (L)
Handle Temperature Range ⁽²⁾	-50°C to 180°C
Calibration Options	Optional: NIST Traceable Calibration and Data Ordering Model for Calibrations: 5007

(1) Maximum variation from PRT during gradient measurements up to 4 hours in the same heat source

(2) Handle temperature outside this range will cause damage to the probe.

COMPLEMENTARY ACCESSORIES

Model	Description
9001	Wooden Carrying Case included

Construction Drawings

