HIGHLIGHTS

- Vertical gradient measurement of dry block/dry Well
- ✓ 6 mm sensing element
- ✓ Temperature range: -200 °C to 670 °C
- ✓ Short term stability: ±0.003 °C at 0.01 °C



OVERVIEW

AM1758 is specifically designed to measure vertical gradients of dry block or dry well. The length of the sensing element is only 6 mm, which allows AM1758 to measure 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 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 measurement!



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 661 °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 tm |
| Dimension | 0.25 inch X 12 inch (6.35 mm X 305 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 ⁽²⁾ | -50 °C to 180 °C |
| Optional Calibration | NIST traceable calibration and data available per request: |
| | Ordering # 5007 |
| (1) Marine verietien from DDT during or | adjent measurements up to 4 hours in the same heat source |

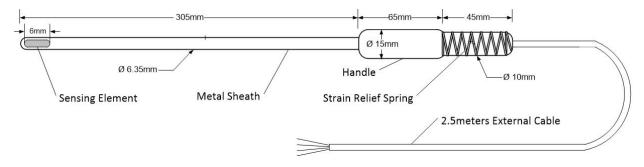
(1) Maximum variation from PRT during gradient measurements up to 4 hours in the same heat source

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

ACCESSORIES

| Model | Description |
|-------|-------------------------------|
| 9001 | Wooden Carrying Case included |

CONSTRUCTION DRAWING



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