



FEATURES

Reliable SPRT for daily use
Rtpw Drift: <4mK after 100hrs at 661°C
Temperature range: -200°C to 670°C
Short term stability: <0.002°C at 0.01°C
Inconel™ sheath to withstand harsh environments
Fully meets the ITS-90 criteria for reference thermometers

MULTIPLE SIZE OPTIONS AVAILABLE

| Model | Length | OD | Nominal Resistance at 0°C | Inconel™ |
|---------|--------|--------|---------------------------|----------|
| 1762-20 | 20in | 0.25in | 25Ω | ✓ |
| 1762-12 | 12in | 0.25in | 25Ω | ✓ |
| 1760-20 | 20in | 0.25in | 100Ω | ✓ |
| 1760-12 | 12in | 0.25in | 100Ω | ✓ |

OVERVIEW

The AM1760 series Secondary SPRTs provides our customers with reliable secondary standards that can be used daily in their labs. These SPRTs feature an accuracy of <0.006°C at 0.01°C, a short term stability of <0.002°C and a very low drift rate of less than 0.004°C after 100 hours at 661°C. Two different lengths of these SPRTs are available at either 12 inches or 20 inches.

The sensing element is designed to protect the platinum sensing wire from contamination at high temperatures, giving these SPRTs a high level of stability and repeatability in performance. A uniquely designed support structure and filling material provides an excellent balance between the hysteresis effect, mechanical shock and thermal shock performance. This high performance probe fully meets the ITS-90 criteria for reference thermometers.

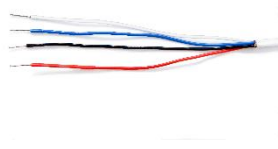



SPECIFICATIONS

| | 1762 | 1760 |
|----------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------|
| Temperature Range | -200°C to 670°C | |
| Nominal Resistance at 0°C | 25 Ω | 100 Ω |
| Temperature Coefficient | 0.003925 Ω/Ω/°C | |
| Accuracy | <0.006°C at 0.01°C | |
| Long Term Drift at 0.01°C* | <0.004°C at TPW after 100 hours at 661°C | |
| Short Term Stability | <0.002°C | |
| Thermal Shock | <0.002°C after 10 thermal cycles from minimum to maximum temperatures | |
| Hysteresis | ≤0.005°C | |
| Self-heating | 0.0015°C at 1 mA current | 0.0015°C at 0.5 mA current |
| Response Time** | 9 seconds | |
| Measurement Current | 0.5 mA or 1 mA | |
| Sensor Length | 42 mm | |
| Sensor Location | 5 mm from tip | |
| Insulation Resistance | >1000 MΩ at room temperature | |
| Sheath Material | Inconel™ | |
| Sheath Dimensions | 1762-20: 0.25in (OD) x 20in (L) 1762-12: 0.25in (OD) x 12in (L) | 1760-20: 0.25in (OD) x 20in (L) 1760-12: 0.25in (OD) x 12in (L) |
| External Leads | Teflon™ insulated copper wire, 4 leads, 2.5 meters | |
| Handle Dimension | 15mm (OD) x 65mm (L) | |
| Handle Temperature Range | -50°C to 180°C | |

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

**for 63% response to step change in water moving at 3 feet per second

ORDERING OPTIONS

| Model | Description | | | |
|---------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 9001 | Wooden carrying case for 12" probe (included with AM1762-12/AM1760-12) | | | |
| 9002 | Wooden carrying case for 20" probe (included with AM1762-20/AM1760-20) | | | |
| 5007 | NIST traceable calibration | | | |
| 5033 | ISO 17025 accredited calibration | | | |
| Termination Options | Bare Wire (default)  | Spade  | 8010 Connector  | ADT LEMO Connector  |