

AM1660/1640/1620 PRECISION INDUSTRIAL PRT

HIGHLIGHTS

- ✓ Accuracy $\pm 0.035^{\circ}\text{C}$ at 0°C
- ✓ Temperature range: -200°C to 670°C
- ✓ Durable and shock resistance
- ✓ Customized dimensions available



OVERVIEW

AM1620/1640/1660 series precision industrial PRTs are top choices when price-to-performance is considered. They cover a wide range of temperature from -200°C to 670°C with amazing accuracy of $\pm 0.035^{\circ}\text{C}$ at 0°C , short term stability of $\pm 0.01^{\circ}\text{C}$ and fast response time of 5 seconds. These industrial PRTs come with standard length 12-inch but customized dimensions are available per request.

To reach the best performance in stability and repeatability, the wire-wound sensing elements are specially designed to protect the platinum sensing wire from contamination at high temperature. A unique support structure and filling material provide the best balance among the hysteresis effect, mechanical shock and thermal shock performance. All of these probes conform to the standard 385 curve so the resistance ratio of the PRT follow DIN/IEC-751 curve precisely.

FEATURES

- Temperature range: -200°C to 670°C
- Accuracy: $\pm 0.035^{\circ}\text{C}$ at 0°C
- Long term drift: $\pm 0.04^{\circ}\text{C}$
- Short term stability: 0.01°C
- Durable and shock resistance
- Temperature Coefficient 0.00385
- Follow DIN/IEC-751 precisely
- Inconel[™] sheath
- Quick response time
- Customized dimensions available

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SPECIFICATIONS

Temperature Range	1660: -200°C to 670°C 1640: -200°C to 420°C 1620: -60°C to 300°C
Resistance at 0 °C	Nominal 100 Ω
Temperature Coefficient	0.00385 Ω/ Ω/°C
Accuracy	±0.04°C at -200°C ±0.035°C at 0°C ±0.05°C at 200°C ±0.09°C at 420°C ±0.15°C at 660°C
Drift	±0.04°C at 0 °C after 100 hours at 420 °C
Short Term Stability	±0.01°C
Thermal Shock	±0.007°C after 10 times thermal cycles from minimum to maximum temperatures
Hysteresis	≤0.01°C
Self-heating	50 mW/°C
Response Time	5 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	1660/1640: Inconel™ 1620: 316 Stainless Steel
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*	-50°C to 180°C
Calibration Options	1660-12-T, PRT with NIST traceable calibration and data 1640-12-T, PRT with NIST traceable calibration and data 1620-12-T, PRT with NIST traceable calibration and data NVLAP - Accredited Calibrations available per request

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

OPTIONAL ACCESSORIES

Model	Description
9001	Wooden Carrying Case