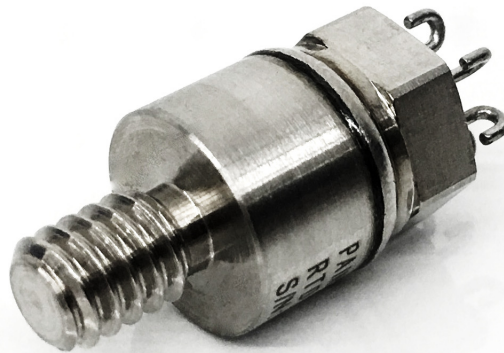


Paine 215-01-080 Series Temperature Sensor

Platinum RTD, Surface, High Temperature, +250 °C



The 215-01-080 Series surface platinum RTD temperature probes are designed for temperatures up to +482 °F (+250 °C) and well suited for critical surface temperature measurements of equipment, machinery, process equipment and more. Provides rapid response times, long term reliability, repeatability and performance.

Solutions

- Platinum RTD.
- Harsh/Extreme Environment Ready.
- 0.515-in. Diameter Package.
- Fast Response Times.
- Long Term Stability.

Potential Applications

- Oil and Gas Thermal Controls.
- Exhaust Gas and Manifold Analyzers.
- HVAC Temperature Controls.
- Industrial/Production Process Equipment.
- Heavy Equipment/Transportation.
- Engine Temperature Monitoring.
- Equipment Calibration.

Features

- **Operating Temperature:** -4 °F to +482 °F (-20 °C to +150 °C).
- **Temperature Coefficient:** Alpha = 0.00385 per °C.
- **Platinum Resistance Temperature Detector (RTD):**
Class A, Pt 1 kΩ ± 0.06% @ 32 °F (0 °C).
- **Material:**
 - **Hex Header:** Inconel X750.
 - **Case:** Inconel 718, UNSN07718, solution annealed and aged to Rockwell C40 maximum.
- **External Pressure Rating:** 20,000 psi (1378 bar) maximum.
- **Vibration:** 20 to 2000 Hz, 10 g sinusoidal scan, 1 hour/axis.

Specifications

Calibration: Calibration Certificates are supplied with each unit and available on-line.

Performance

Temperature Coefficient: Alpha = 0.00385 nominal per °C.

Platinum Resistance Temperature Detector (RTD):

Class A, Pt 1 kΩ ± 0.06% @ 32 °F (0 °C).

Environmental

Operating Temperature Range: -4 °F to +482 °F
(-20 °C to +250 °C).

Mechanical

Material:

Hex Header: Inconel X750.

Case: Inconel 718, UNSN07718, solution annealed and aged to Rockwell C40 = maximum.

External Pressure Rating: 20,000 psi (1378 bar) maximum.

Vibration: 20 to 2000 Hz, 10 g sinusoidal scan, 1 hour/axis.

Shock: 75 G's peak, 3.5 to 5 milliseconds, 6 shocks each of 6 directions. (No pin is electrically connected to the case).

Pressure Fitting: 1/4 × 20 UNC-2A.

Weight: 2 ounces maximum (0.05 kg).

Installation Information: Manifold/flush mount.

Electrical

Insulation Resistance: 5,000 MΩ minimum at 50 VDC @ 75 °F (23 °C) all pins to case.

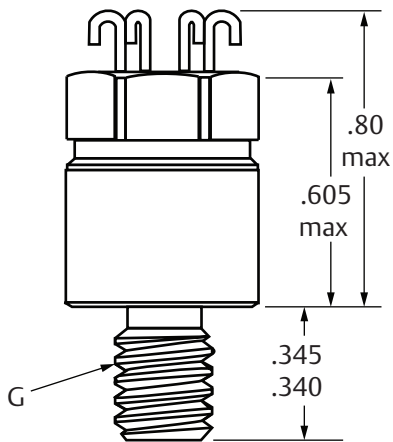
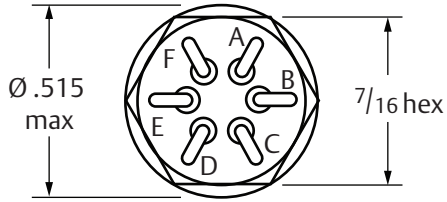
Electrical Connections: Available with pin connectors, lead wires and j-hooks.

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Dimensional Drawings

Figure 1. 215-01-080 Series



Connections	
PIN	Function
A	1 k Ω RTD
B	Do not connect
C	Do not connect
D	Do not connect
E	Do not connect
F	1 k Ω RTD




A-F. See Connections table
 G. $1/4 \times 20 \text{ UNC-2A}$ thread


Dimensions are inches.

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