

## EXTREME ENVIRONMENT, MINIATURE IMMERSION, TEMPERATURE PROBE SERIES



Paine Electronics **Miniature Immersion Temperature Probe Series** are designed for temperatures up to **+500°F (+260°C)** and are well suited for critical inflow/immersion temperature measurement of liquids and gases, providing fast response times, long term reliability, accuracy and performance.

Because the **Miniature Immersion Temperature Probe Series** have no moving parts, they never wear out, are hermetically sealed, don't need re-calibration and work in the toughest applications.

The **Miniature Immersion Temperature Probe Series** can be provided with alternate port fittings, pigtails and electrical connections to meet your specific requirements.

### Typical Applications:

Well bore fluid temperature in oil tools, engine in-line fluid or air/gas temperature sensing (heavy equipment, off-road, agricultural, military & aerospace), HVAC or refrigeration compressor monitoring, industrial process equipment and applications requiring critical temperature measurement.

### Specifications:

**Typical Performance:** The following parameters are established from production units.

**Calibration Data:** Calibration Certificates are supplied with each unit.

### Performance:\*

**Operating Temperature Range:** -25°F to +500°F (-31°C to +260°C).

**Temperature Coefficient:** Alpha = 0.00385 nominal per °F.

**Platinum Resistance Temperature Detector (RTD): Class A, Pt 1kΩ ± 0.06% @ 32°F (0°C).**

### Mechanical:\*

**Material:** Inconel 718, UNSN07718, solution annealed and aged to maximum hardness of Rockwell C40 maximum.

**Electrical Connections:** 12", 28 AWG teflon insulated wire, nickel coated copper per MIL-W-16878/24 or MIL-W-16878/23.

**External Pressure Rating From Hex Tip To Tip Of RTD:** 30,000 PSI maximum.

**Pressure Fitting:** 1/2-20 UNF 2A. Alternate options can be provided.

**Weight:** 5 ounces nominal (0.14 kg).

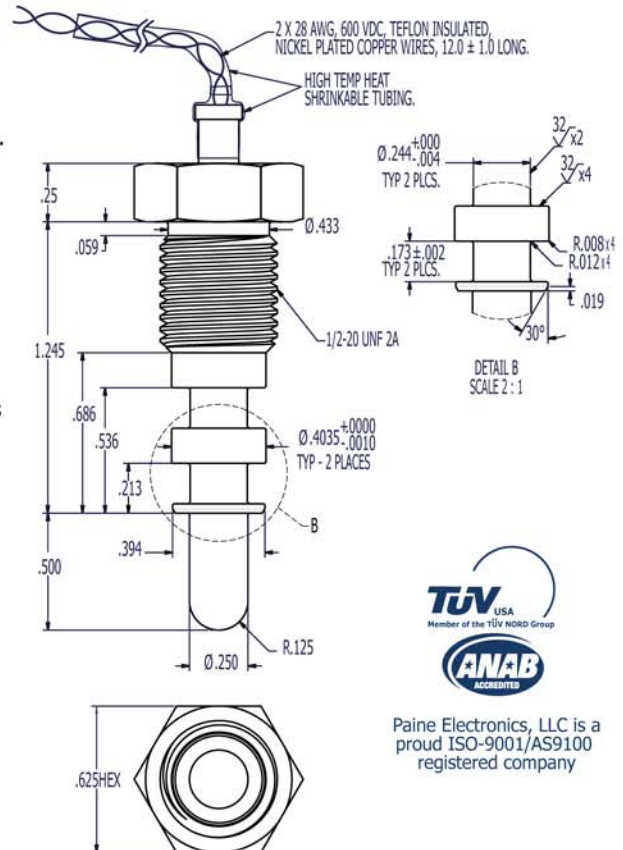
### Electrical:\*

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

**Electrical Connections:** White Wire= 1kΩ RTD, Red Wire= 1kΩ RTD.



215-01-120-XX



Paine Electronics, LLC is a proud ISO-9001/AS9100 registered company

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\* Contact us or your authorized Paine Electronics representative for many more standard and/or custom configurations or options.

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