

Aerospace Temperature Probes

Models 44, 54, and 56



Scientific Instruments deliver precision and reliability where it matters most. Our highly customizable Aerospace Temperature Probes, the Series 44, 54, and 56 are engineered for demanding aerospace applications and can be tailored to meet your exact specifications.

Key Features

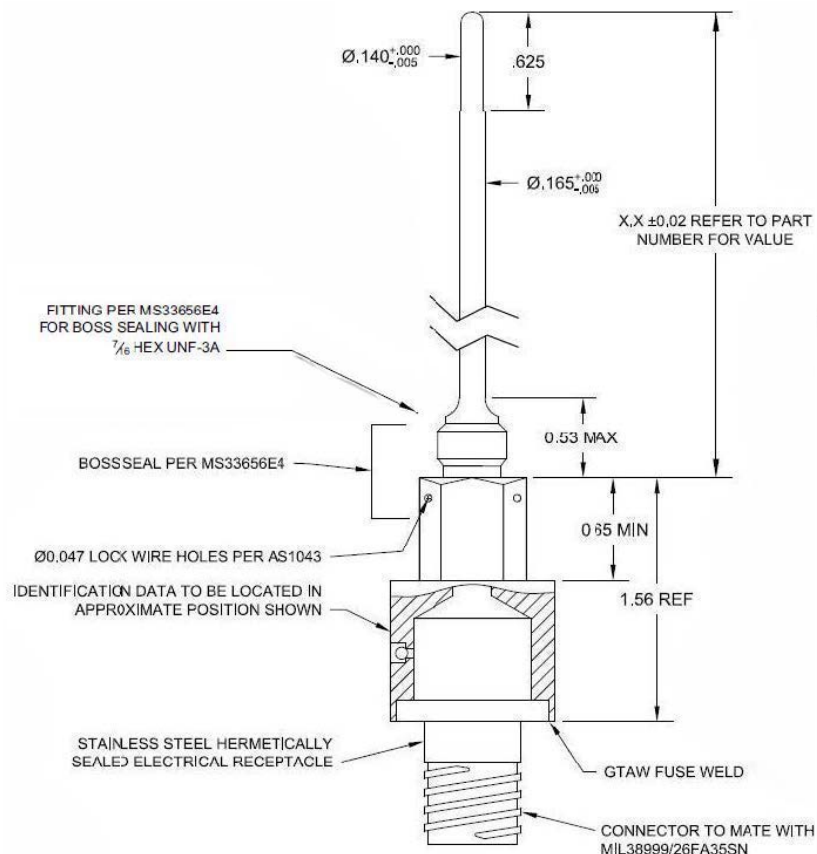
- Crafted from high-grade 316 stainless steel
- Hermetically sealed to ensure exceptional durability and performance in even the harshest environments
- Designed to withstand high vibration and wide temperature ranges
- Delivers consistent, repeatable accuracy from 1.5K to 400K
- Configured with a rugged silicon diode or a pure annealed platinum resistance element for unmatched stability and precision
- Engineered for seamless interchangeability within the same sensor type for effortless integration



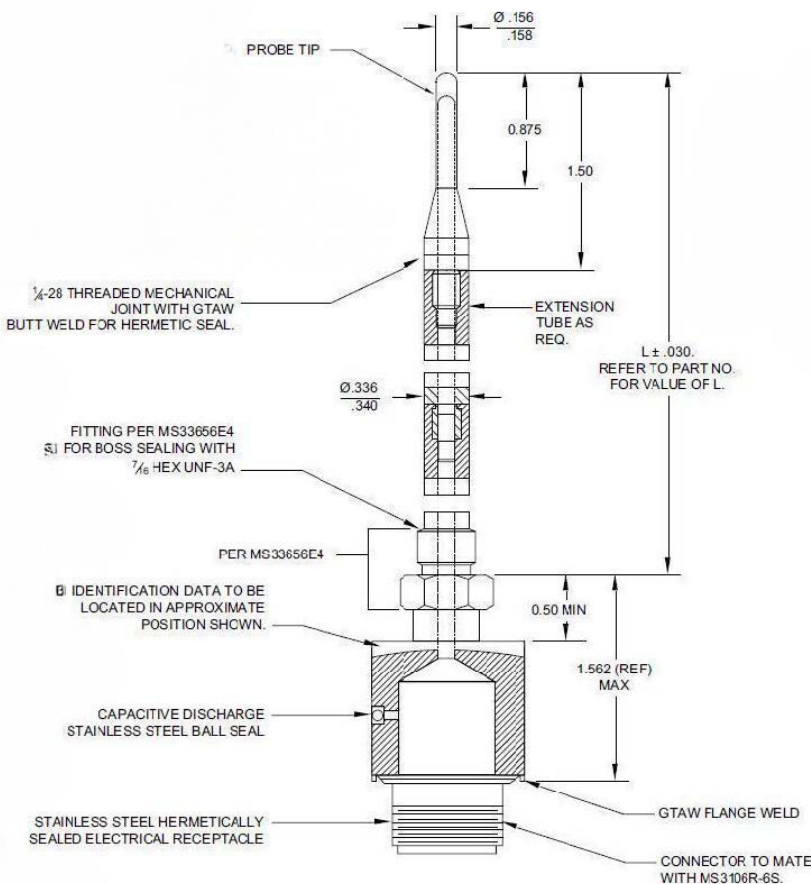
Standard Body Styles

* Custom Body Styles Available Upon Request

Series 46/56



Series 44/54



Aerospace Temperature Probes

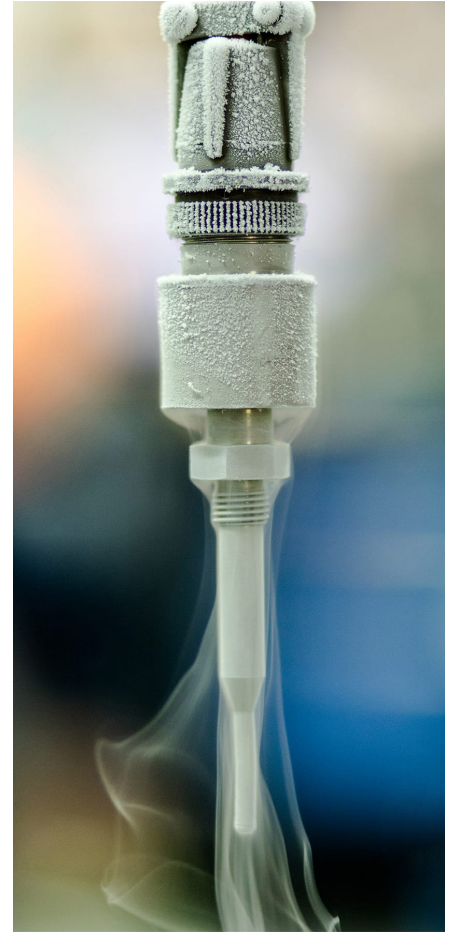
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The aerospace probes can be configured for either 1uA, 100uA, 1mA, 100ohm, 200ohm, or 1000ohm within the following temperature range as follows:

Unit	Sensing Element	Operating Current
44B	200 Ω Wire Wound Platinum RTD	1mA
44C	1000 Ω Wire Wound Platinum RTD	1mA
54C	Thin Film Platinum RTD	1mA
54D	Silicon Diode	10uA
56C	1000 Ω Thin Film Platinum RTD	1mA
56D	Silicon Diode	10uA
56DX1	Silicon Diode	100uA

Pressure Rating	MEOP	Proof	Burst
1.5x Applications	2000 psi	3000 psi	4000 psi
1.2x Applications	2500 psi	3000 psi	4000 psi



Units will operate in the following gaseous or liquid media where compatible with the sheath-housing material and within the temperature range of the unit:

- Alcohol
- Ammonia (NH₃)
- Helium (He)
- Hydrogen (H₂)
- Hydrazine (N₂H₄)
- Monomethylhydrazine (MMH)
- Neon
- Nitrogen (N₂)
- Nitrogen Tetroxide (N₂O₄)
- Oxygen (O₂)
- Unsymmetrical dimethylhydrazine (UDMH)
- Water (H₂O)

Part Number	Standard Accuracy Tolerance	Operational Temperature Range
54C-XXX	+/- 1K from 73K to 400K	73K (-200.15°C) to 400K (126.85°C)
54D-XXX	+/- 0.5K (+/- 12.8 mVDC) from 1.5K to 25K and within +/- 0.5K (1.2 mVDC) from 25K to 400K	1.5K (-271.65°C) to 400K (126.85°C)
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- * XXX Indicates The Insertion Length (Ex .56D-015. 1.5" Insertion Length)
- * Probe Insertion Length Configurable starting at 1"
- * Custom Accuracy Tolerances Available - Consult with Factory

* The unit shall respond within 63.2 percent of the total temperature change, for a step change in temperature from 293.15 K to 77.35 K to 3K, within 15 seconds.