

Total Temperature and Pressure Probes

DESCRIPTION

AMETEK provides aircraft engine total temperature probes certified for turbine engines.

AMETEK Aerospace and Defense has employed years as an industry leader in on-engine and airframe pressure and temperature sensing experience to design and manufacture our new line of Total Temperature & Pressure Probes.

In addition to engine inlet temperatures, AMETEK supplies sensors for turbine 2 through 5 locations, also. These applications include:

- ✓ Pratt 4000 (temperature and pressure)
- ✓ Pratt 6000 (temperature and pressure)
- ✓ CF34-10 (temperature)
- ✓ GP7200 (temperature and pressure)

AMETEK Aerospace and Defense has the design resources, CAE and CFD analyses, wind tunnel test equipment, and, most importantly, experience to be the total temperature and total pressure probe supplier.

The AMETEK probe for the FJ44-3 has a combined total temperature/total pressure probe with pressure transducer in one package, now certified for -121° to 257°F (-85° to 125°C) temperatures, vibration to 8000 Hz, and the latest icing condition requirements. The internal temperature sensor die is lighter, more reliable and more responsive than old fashioned wire wound types.

Air data systems benefit from AMETEK's experience on engines. AMETEK already provides air data systems signal processing for the Dassault Falcon, Pilatus and others with the latest capabilities: Separation Minimums (RVSM) and Terrain Avoidance Warning (TAWS).

AMETEK can provide the system.

- ✓ Electronics in the probe? AMETEK can do it.
- ✓ Heated probe? AMETEK can do it.
- ✓ Temperature and pressure? AMETEK can combine it.
- ✓ Custom mechanical packaging? AMETEK does it routinely.



Total Temperature and Pressure Probes

SPECIFICATIONS

ENVIRONMENTAL CHARACTERISTICS (vary with the application)

Ambient Temperature Range: -65° to 300°F (-53° to 149°C)

Accuracy: ±2°F (±1°C)

Response Time: 8.5 sec

Hermeticity: 1x10⁻⁶ std cc/sec helium

Vibrations: 40 Gs up to 8,000 Hz

Insulation Resistance: 100 Ω minimum at 500 VDC

Dielectric Strength: 600 VAC

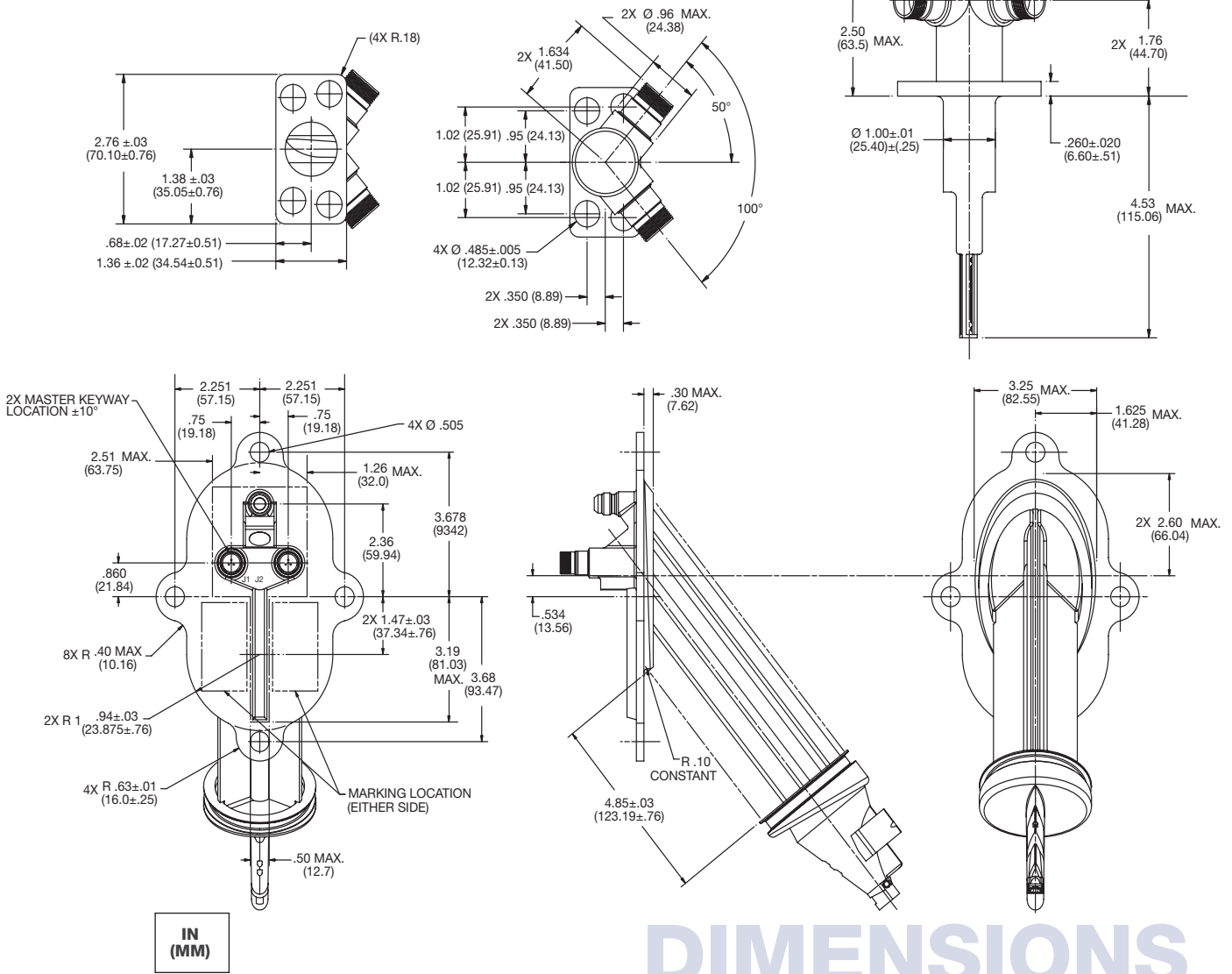
Estimated MTBF: > 500,000 hours proven field experience

Recovery Coefficient: 99% @ Mach 0.3

Angle of Attack Sensitivity: <0.5°F (<0.3°C) at 5° AOA

Un-heated units maintain temperature control during icing events

Heated units remain ice free in icing environment



DIMENSIONS

AMETEK®
AEROSPACE & DEFENSE
www.ametekaerodefense.com
HEADQUARTERS
 50 Fordham Road • Wilmington, MA 01887 U.S.A.
 E-mail: aerosales@ametek.com

SALES:
North America
 Tel: +1 978-988-4771 • Fax: +1 215-293-8995
Europe
 Tel: +49 8145 951767 • Fax: +49 8145 951768
Asia Pacific
 Tel: +65 6484 2388 (ext 118) • Fax: +65 6481 6588