

Engine Oil Temperature (TEO) Sensor

DESCRIPTION

AMETEK introduces a highly reliable, and cost effective method of sensing the temperature of engine oil for GEAE CF6-80C FADEC engines.

The Temperature Engine Oil (TEO) Sensor (Model 8TC34ABV1) is comprised of a stainless steel flanged housing, Mil-C-83723 connector, and type K thermocouple wire sheathed in an MgO matrix inside a stainless steel tube. All components are welded to form a hermetically sealed unit. The dual element, enclosed thermocouple junction is precisely positioned in the engine oil line.

OTHER FLUID SYSTEM TEMPERATURE MEASUREMENT APPLICATIONS

While the TEO was developed for engine oil, AMETEK has successfully designed and developed temperature measurement devices for fuel and hydraulic systems on commercial and military aerospace applications. AMETEK's understanding of the environmental requirements for these systems provides highly reliable and cost effective solutions.

Temperature measurement can be accomplished using thermocouple or resistance temperature device (RTD) techniques depending upon system interface or accuracy considerations.

Mechanical interface options include flange mount or threaded fluid fitting mounting. Electrical connections can be accomplished using receptacle connector or integrated cable assembly with remote termination.



FEATURES

- ✓ Rugged, multi-purpose flange
- ✓ Larger pin contact size 16, rated for 60 Gs vibration
- ✓ Dual thermocouple elements for critical applications
- ✓ Special limits thermocouple wire for best accuracy
- ✓ Oversized thermocouple wire for long term stability
- ✓ Fully certified by OEM—PMA granted

Engine Oil Temperature (TEO) Sensor

SPECIFICATIONS

ENVIRONMENTAL CHARACTERISTICS

Fluid and Ambient Temperature Range:
-65° to 500°F (-54° to 260°C)

Accuracy:
±2°F (±1°C), per NIST monograph 175 special half-limits wire

Response Time:
10 seconds maximum, 212° to 32°F (100° to 0°C)

Endurance:
50,000 pressure cycles, 50,000 temperature cycles

Hermeticity: 1 x 10⁻⁸ std cc/sec helium

Fire Proof: 2000°F (1093°C) flame, 15 minutes

Vibrations: 25 Gs to 3000 Hz

Insulation Resistance:
100 megohms minimum at 400 VDC

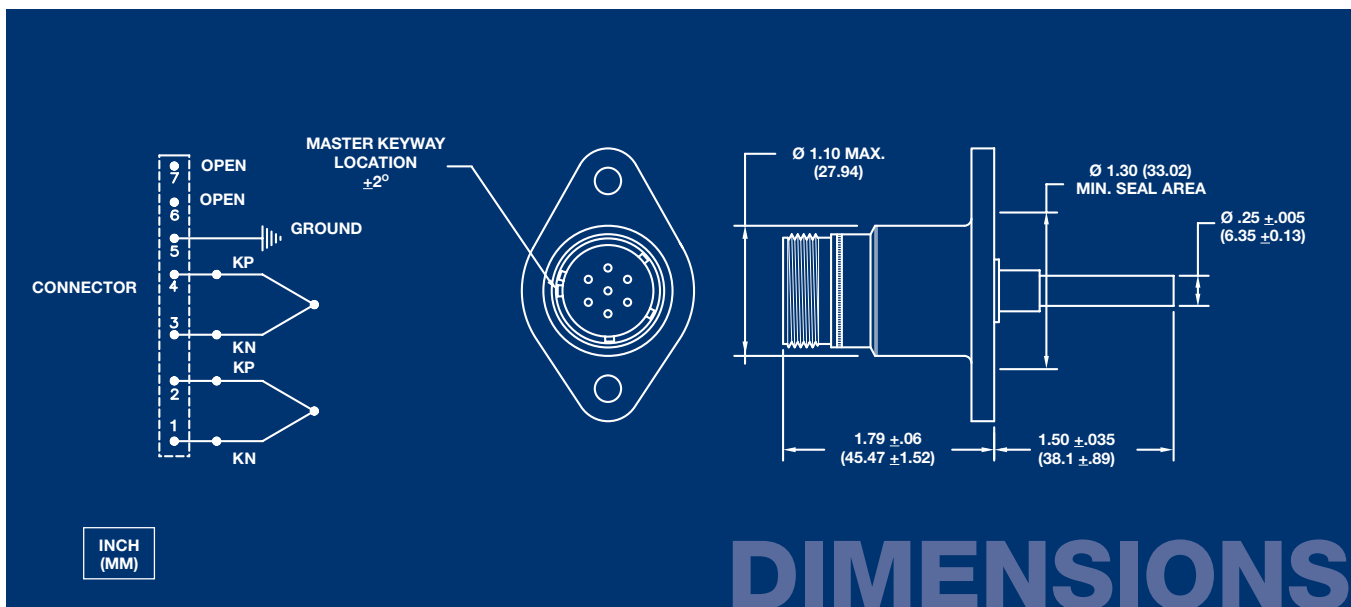
Dielectric Strength: 600 VAC

Estimated MTBF: 300,000 hours

PHYSICAL CHARACTERISTICS

Weight: 0.31 lb. (141 g)

	AMETEK PN	REPLACES
TEO Probe	GE 1963M64P01 8TC34ABV1	GE 1459M16P03
TEO Cable	GE 1853M64G09	GE 185M64G01



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