



FCI Aerospace's AS-TE Temperature Elements For Flight-Critical Equipment and System Applications

Suitable for Monitoring Environmental Cooling Systems, Coolant, Bleed & PACK Air, Hydraulic Oil, Transmissions & Gear Boxes, Fuel, Cabin Air Thermostat and More



San Marcos, CA — Design engineers will find the highly reliable, rugged, precision Model AS-TE Temperature Element Series from FCI Aerospace offers a compact, light-weight sensor that meets the requirements of commercial and military aircraft including fixed wing or rotary aircraft, as well as spacecraft, vehicles and shipboard/marine vessels.

FCI Aerospace's AS-TE sensors utilize precision resistance temperature detectors (RTDs). They provide superior

accuracy, repeatability and long-life, making them the ideal design choice for demanding aerospace applications. The AS-TE sensors are typically designed with Platinum RTD or MIL-T-7990 Nickel RTD sensors. The Platinum RTDs are available in several Ro (ice point resistance) values and in either two-, three- or four-wire configurations to ensure optimal performance and system compatibility.

Based on decades of aircraft flight and vehicle service experience and extensive real world testing, the AS-TE Series sensors are fully qualified to comply with high vibration, severe shock, and high acceleration environments and specifications. They have been tested to perform after exposure to more than 100,000 temperature cycles from -40°F to +300 °F [-40 °C to +150 °C]. The standard temperature measuring ranges are -80 °F to 450 °F [-62 °C to 232 °C] and high temperature elements are available up to 800 °F [427 °C].

The AS-TE temperature element can be tailored to meet a variety of insertion lengths and applications. The temperature elements are typically packaged in AISI 300 series stainless steel bodies with either single or dual elements, and can be designed to support a variety of installation techniques. Sensors made from Titanium or other thermally conductive materials are also available.

These versatile temperature elements can be provided with a flange or threaded mounting connection. The threaded mounting connection includes straight military or aerospace style fittings that seal with O-rings or gaskets. The flanged mounting is available in a number of configurations that will mate with virtually any system's process connection.

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FCI Aerospace's engineering team utilizes the latest tools in CAD and fluid dynamics

modeling, RFI and EMI testing, and temperature test chambers to test and validate both design and

production products. The AS-TE sensors are manufactured to strict materials, manufacturing and Qualifications available include MIL-STD-130 standards. Markings, MIL-STD-810

Environmental Testing, and MIL-STD-7990 Temperature Transmitter.

Testing of the AS-TE sensors is performed to rigorous standards in FCI's world-class, fully

NIST traceable flow calibration laboratories to ensure instrument accuracy with the customers' actual

fluid and process conditions. They are ISO9001:2015 certified and AS9100:2016 compliant. The

laboratories also meet MIL-STD-45662A and ANSI/NCSL-Z-540 requirements. The company's

advanced technologies also include mechanical design, advanced materials, metallurgy, electronics,

communications and more.

FCI Aerospace is a business unit of Fluid Components International. The FCI Aerospace

Division is a world leading manufacturer of built-to-specification flow, level, temperature and pressure

sensors designed for mission-critical performance and reliability. Whether military or civilian fixed wing

or rotary aircraft, FCI Aerospace has for nearly 30 years designed and manufactured qualified, flight-

worthy sensor systems to meet a broad range of military and commercial applications.

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