



**FCI FLUID COMPONENTS
INTERNATIONAL LLC**

Mission Critical Flight Monitoring Applications Rely On FCI Aerospace's Qualified AS-FT Flow Transmitter

Suitable for Monitoring Fuel, Hydraulics, Bleed Air, Coolant, ECS, PACK, Lubrication



San Marcos, CA — Aerospace flight system design engineers will find the [AS-FT Flow Transmitter](#) from [FCI Aerospace](#) features a rugged, highly reliable thermal dispersion technology sensor that is ideal for mission-critical air, gas and fluid monitoring systems on both commercial and military aircraft.

The AS-FT Flow Transmitters from FCI Aerospace meet the demand for full qualification compliance with the performance and measurement capability necessary to serve a wide variety of aircraft air/gas/fluid flow applications. With their 100:1 turndown capability, they are suitable for systems that support the monitoring of fuel, hydraulics, bleed air, liquid coolant, environmental control systems, pneumatic air cycle kits, lubrication and more.

The advanced FCI AS-FT flow transmitters measure air from 0.25 SFPS to 1000 SFPS [0,07 NMPS to 305 NMPS]. Measurement of fuel, hydraulic fluid or coolant is available from 0.01 SFPS to 10 SFPS [0,003 MPS to 3 MPS]. The measurement range for water and ethylene glycol (EGW) is from 0.01 SFPS to 5 SFPS [0,003 MPS to 1,5 MPS]. Accuracy for measurement is $\pm 2\%$ of full scale; higher accuracy optionally available. Temperature accuracy is $\pm 1^\circ\text{F}$ [$\pm 1^\circ\text{C}$] over the specified range.

Manufactured with rugged materials, the robust FCI AS-FT flow transmitters operate from -40°F to 250°F [-40°C to 121°C]. They are proof pressure tested up to 2000 psig [138 bar (g)] or greater as required by application. Certifications include: MIL-STD-810, MIL-STD-461 and RTCA / DO-160.

FCI's thermal dispersion technology (TDT) directly measures mass flow of air, gases, water or liquids, which saves cost, installation space, and weight over alternatives that require the addition of pressure and temperature sensors, and a flow computer to infer mass flow. FCI flow sensors are also inherently dual-function, and temperature measurement of the fluid is readily available from the same sensor element.

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The AS-FT flow transmitter consists of a flow element that is inserted into the application's process and a control unit that can be mounted integrally or remotely. The wetted portion of the sensor probe is hermetically sealed, made of stainless steel parts joined by gas tungsten arc weld or nickel braze. The element construction provides excellent corrosion resistance that can withstand up to 2000 psig or more in line pressures. The insertion length is specified for the application to position the thermowells in the center of the flow stream.

The AS-FT flow transmitter's electronics are mounted in an environmentally sealed enclosure with a gasket under the lid. Power input is 22-29 Vdc per MIL-STD-704. The electronics maintain a temperature difference between the two RTDs by providing a current to the heater adjacent to the active RTD. The electrical current to the heater is repeatable and proportional to the mass flow rate of the process fluid.

The AS-FT flow transmitters are calibrated to precision standards in FCI's world-class, fully NIST traceable flow calibration laboratories to ensure instrument accuracy with the customers' actual fluid and process conditions. FCI's calibration laboratories are ISO9001:2008 certified and AS9100 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.

Contact: FCI: 1755 La Costa Meadows Dr, San Marcos, CA 92078
Web: www.fluidcomponents.com Tel: 800-854-1993 Tel: 760-744-6950 Fax: 760-736-6250
Email: FCImarcom@fluidcomponents.com