Leading-Edge AS-FS Dual Output Flow Sensor/Switch Is Fully Redundant With Separate Outputs

Ideal for Monitoring Hydraulic Fluid, Lubricating Oil, Liquid Cooling Systems PACK Air and Bleed Air Systems, Fuel Transfer and Refueling

San Marcos, CA — The breakthrough dual output **AS-FS Flow Switch** from **FCI Aerospace** features a next-generation, zero maintenance design that is flight qualified and ideal for a wide range of liquid or air/gas measurement requirements in commercial and military mission-critical rotorcraft and fixed-wing aircraft applications.

FCI's dual output flow sensor/switch provides fully redundant and separate outputs in the same envelope dimension. The dual output assures continued operation in spite of a single-channel failure, reducing the probability of an erroneous low flow or dry signal caused by a single sensor failure. Sensor failures may cause false warnings, resulting in unnecessary and costly mission aborts. Built-in redundancy helps prevent false positive indication of critical flow sensing in a single sensor, reducing weight and power consumption.

The AS-FS Dual Output Flow Switch/Sensor features a switch point range of 0.25 to 1000 SFPS (0.07 to 305 MPS) in air, and up to 10 SFPS (3 MPS) in liquids. Repeatability is ±2% of full signal range. Response time is 1 to 10 seconds typical, depending on media conditions and switch point setting.

Designed for demanding commercial and military operating conditions, the AS-FS Dual Output Flow Sensor/Switch functions over a wide operating temperature range and is temperature-compensated for accuracy in extreme temperature conditions. The flow element is specified for service from -65 to 500°F (-54 to 260°C). The electronics are suitable for service from -40 to 257°F (-40 to 125°C).

Built for rugged service and zero maintenance, life-of-acquisition costs are very low. The AS-FS Dual Output Flow Sensor/Switch features a no-moving parts design. The mean-time between failure (MTBF) rate is 100,000 hours of service for superior dependability.

The AS-FS electronics package features an all-welded, hermetically sealed enclosure. Power input is 19-32 Vdc per MIL-STD-704. Standard outputs include an open collector, (sink) or a filtered, buffered op-amp (source) (< 1VDC [low flow] or > 17 VDC [high flow]).

Electronic hysteresis functionality is included with the AS-FS Sensor/Switch to prevent undesired

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switching when flow rates are in the vicinity of the set point. Because the flow induced heat dissipation effect is a logarithm function, FCI thermal mass flow switches can perform over a remarkably wide flow range with exceptional low-flow sensitivity.

The AS-FS meets a wide range of performance and reliability standards. It includes qualifications to MIL-STD-810 and RTCA/DO-160, EMI protection meeting MIL-STD-461 and RTCA/DO-160.

FCI's world-class, fully NIST traceable flow calibration laboratories test and calibrate all FCI products to ensure instrument accuracy with the customers' actual fluid and process conditions. FCI's calibration laboratories meet ISO/IEC 17025, 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's Quality Management System is ISO9001 and AS9100 certified. It also has been reviewed, audited, and approved by numerous commercial and military aircraft, space, vehicle, and marine contractors and approval agencies. FCI as a Production Approval Holder (PAH) provides 8130-3 Airworthiness Tags under the Federal Aviation Administration- Parts Manufactures Approval (FAA-PMA).
FCI Aerospace

FCI Aerospace is a business unit of Fluid Components International. It is a world leading manufacturer of commercial off-the-shelf (COTS) and 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 designed and manufactured qualified, flight-worthy sensor systems to meet a broad range of military and commercial applications for over 35 years.

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