New AS-PT Pressure Sensor For Mission-Critical Aircraft Liquid/Gas Monitoring Applications

Ideal for Monitoring Fuel, Hydraulics, ECS, Coolant Systems, Lubrication

San Marcos, CA — The new AS-PT Pressure Sensor Series from FCI Aerospace features a rugged, highly reliable design that is ideal for mission-critical commercial and military aircraft liquid/gas fluid monitoring systems.

FCI Aerospace’s AS-PT pressure transmitters meet the demand for full qualification compliance with the performance and measurement capability necessary to serve a wide variety of aircraft liquid/gas pressure applications. They are suitable for systems that support the monitoring of fuel, hydraulics, environmental control, coolant and lubrication.

Depending on the fluid pressure application requirements, FCI pressure sensors are designed with either thin film sputtered deposition strain-gage or variable capacitive ceramic sensing technologies. The strain-gage elements are directly welded to the pressure port and capacitive elements are sealed to the housing via an O-ring. Both sensor types are leak-proof to provide a robust sensor for aircraft pressure applications.

FCI’s dependable AS-PT pressure sensors operate over a wide range for applications versatility. The ceramic capacitive configuration sensor measures pressure from 0 to 35 bar(a) [0 to 11000 psia]. The thin film resistive configuration sensor measures pressure from 0 to 800 bar(a) [0 to 11000 psia].

FCI AS-PT pressure sensors feature advanced electronics with precision analog signal conditioning and ASIC (application specific IC) circuitry for linearization combined with multi-point pressure calibration and temperature compensation. The result is highly accurate and repeatable pressure measurement with superior reliability.

The AS-PT pressure sensors are accurate to 0.25% of full scale (BFSL). Long term stability is 0.1% of FS maximum per year, and response time is 10 mS maximum at T63. The burst pressure is up to 4 times the pressure range.

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The sensor has a wide temperature range of -55 to 125 °C [-67 to 257 °F]. Elements and electronics are enclosed in a high-strength 300 series stainless steel housing. All-welded construction protects them and ensures continuous operation over wide pressure and temperature conditions.

The AS-PT Sensors meet or exceed the requirements of: MIL-STD-810, RTCA DO-160, MIL-STD-704 and MIL-STD-461. They have been certified for vibration, shock, temperature shock, altitude, humidity, explosive atmosphere, fluid susceptibility, salt fog, rain, sand and dust. The certifications also include indirect lightning section 22 (induced cat XXF3X, XXK44), and pin injection cat A3XXX) electrical power characteristics (normal voltage transients, under-voltage, over-voltage), RF susceptibility (CS101, CS114, CS115, CS116, RS103, RS101, RF Emission, CE 101, CE102, RE101, RE102) and have quality system approvals ISO 9001, AS9100.

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 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 over 20 years designed and manufactured qualified, flight-worthy sensor systems to meet a broad range of military and commercial applications.