



FCI Introduces Miniature Liquid Point Level Sensor Designed for Remote Oil Level Sensing and More

Ideal for Highly Reliable Monitoring and Alarming of Fuel, Oil, Hydraulic Fluid, Coolant, and Water Aboard Commercial and Military Fixed Wing and Rotary Aircraft

San Marcos, CA — With its precision thermal sensing capabilities, the new next-generation miniature Model AS-LLE liquid point level sensor from FCI Aerospace offers aircraft design engineers a reliable solution to detecting and alarming liquid level for tanks, reservoirs, sumps and gearboxes in commercial and military fixed wing and rotary aircraft.

The versatile AS-LLE point level sensor can be used with most any liquid, including water, oil, hydraulic fluid, coolants, and more. Its titanium (Ti 6AL-4V, per AMS 4928) construction ensures it is rugged, lightweight, and corrosion resistant to meet the most demanding aerospace fluid measurement application environments.

Unlike ordinary level sensors that are installed through a tap point in a vessel and protrude both into and out from the vessel, the breakthrough Model AS-LLE liquid point level sensor is designed to be installed within the vessel itself. There are no external penetration points to leak or that require additional external space to accommodate their installation.

With a no-moving parts thermal sensing technology design, the highly reliable Model AS-LLE sensor has no moving parts to clog, jam or break. It operates based on an excitation current of 75 mA (ON for 30 seconds, OFF for 120 seconds), which delivers an output signal that corresponds to tank or reservoir level.

The tiny, but mighty, Model AS-LLE sensor's body is designed to fit and go anywhere with a barrel-shaped body that's only 1.36 inches [34,54 mm] in length with a 0.625 inch [15,87 mm] diameter. The trim and svelte Model AS-LLE sensor weighs a mere 1.6 oz [45 g], making it ideal for both size-constricted and weight-restricted aerospace design environments

The process connection built into the easy-to-install Model AS-LLE sensor features an integrated extension panel with a 0.219 inch [5,6 mm] hole for attachment to the in-tank mounting bracket. The



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sensor is potted to protect the electronics, which feature flying leads for simple, straightforward connection. Designed for challenging aerospace temperature and pressure operating environments, the Model AS-LLE sensor operates over a wide freezing-to-frying wide temperature range of -67 °F to 400 °F [-55 °C to 205 °C]. It meets high-pressure requirements too, operating at up to 3000 psig [207 bar (g)]; proof to 6000 psig [414 bar (g)].

FCI Aerospace's engineering team with decades of aerospace experience has designed the AS-LLE sensor to meet high reliability and long service life expectations, including a mean time between failure (MTBF) rating of 500,000-hours. It has qualified to the most rigorous standards, including RTCA/DO-160 for fluid compatibility, temperature cycling, vibration and endurance testing. FCI Aerospace quality system approvals include compliance to both ISO 9001 and AS 9100 standards.

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-LLE sensors are manufactured to strict materials, manufacturing and quality standards. Qualifications available include MIL-STD-130 Markings, MIL-STD-810 Environmental Testing, and MIL-STD-7990 Temperature Transmitter.

Testing of the AS-LLE 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. The laboratories also meet MIL-STD-45662A and ANSI/NCSSL-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, for nearly 30 years FCI Aerospace has designed and manufactured qualified, flight-worthy sensor systems to meet a broad range of military and commercial applications.