



Fuel Level Sensor

Active Capacitance Type, Clamp Mounted



The AUTOFLUG clamp mounted active capacitance type Fuel Level Sensor (FLS) is a short sensor for installation inside fuel tanks.

The sensors can be used for dedicated point level sensing (e.g. low or high level sensing) as well as for control of fuel transfer, refuelling and defueling functions.

The Fuel Level Sensor features a sensing range of several centimetres and enables the implementation of hysteresis functionality.

Typical applications are helicopter and fixed wing aircraft fuel tanks.

Fuel Level Sensor Functionality

The clamp mounted sensor is an active capacitance type sensor. The capacitor's conductive surfaces are provided by concentric tubes. The measured capacitance is dependent on the fuel height at the sensor.

Within the sensor's integral, intrinsically safe electronics the measured capacitance which represents the actual fuel height at the sensor is transformed into an EMI immune output signal.

Customising

AUTOFLUG provides a wide range of Fuel Gauge Transmitters and Fuel Level Sensors. AUTOFLUG Fuel Sensors are based on company standardised components such as tubes, flanges, level sensors, electronics, cables and connectors.

In short time AUTOFLUG can configure, build, test and qualify sensor prototypes. Series production can start immediately thereafter.

AUTOFLUG performs fuel tank studies based on customer supplied CAD data in order to define the required quantity and position of Fuel Sensors.



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Mechanical Interface

Mounting	Clamp Mounted inside the fuel tank
Length	95 mm (approx. 113 mm incl. connector)
Diameter	50 mm
Sensing length	approx. 70 mm

Electrical Interface

Input Power	15 VDC, max. 20 mA
Output Signal	Frequency modulated square wave signal

Temperature Range

Operational	-54 °C to +96 °C
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Applicable Fluids

NATO Code MIL Type	F-40 MIL-DTL-5624, Grade JP-4 F-34 MIL-DTL-83133E, Grade JP-8 F-44 MIL-DTL-5624, Grade JP-5 F-35 MIL-DTL-83133E F-37 MIL-DTL-83133E, Grade JP8+100 F-54 F-63 JET-A/ JET-A1 ATSM D-1655 Jet B AVTAG DERD 2486
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Accuracy	point level sensing accuracy of 1.5 mm
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Weight	117 g
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Environmental Qualification	in accordance with MIL-STD-810
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EMC/EMI Qualification	in accordance with SPE-J-000-E-1000
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