

ProSense™ Series

Custom Capacitive Liquid Level Sensors

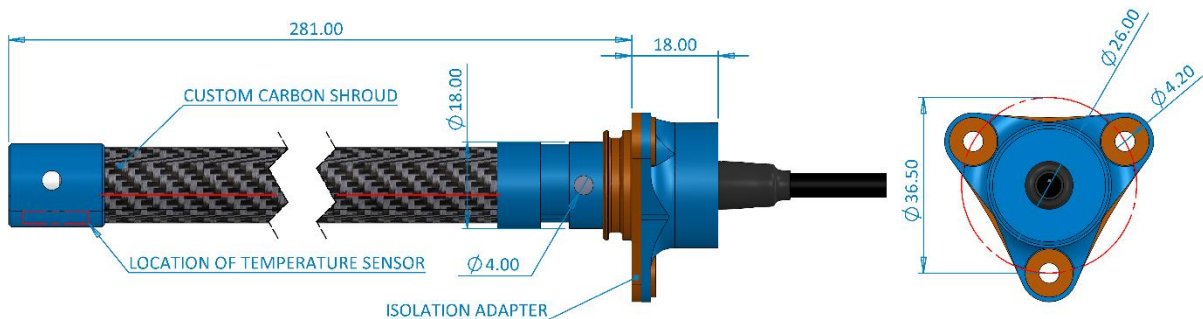


The ProSense™ series of level sensors are custom designed to your exacting requirements. Proven in harsh environment applications, the sensors are suitable for use with all grades of oils, fuels and engine coolants. Highly accurate and robust, the sensors use solid-state capacitive technology and provide a configurable analogue 0.25 to 4.75V output.

- Suitable for all common fuels, oils and engine coolants
- Solid-state, continuous liquid level sensing
- $\pm 0.5\%$ of full scale accuracy
- Custom designed to your requirements
- Designed and tested for long-term reliability in harsh environments
- Optional fluid temperature sensor



Example Custom Sensor Dimensions



DIMENSIONS IN MM
GENERAL TOLERANCE: ± 0.1

Sensor shown with 3 bolt mount, radial seal and top exit cable
(design to be customised to suit)



Level Measurement

Accuracy	±0.5% of full scale
Measurement Rate	100Hz
Calibration	Fluid specific; on-board storage of up to 24 fluid calibrations

Electrical

Supply Voltage	+6VDC to +31VDC
Typical Operating Current	<10mA at +12VDC
Overvoltage Protection	+45 VDC continuous
Reverse Polarity Protection	-45 VDC continuous

Output

Type	Voltage
Typical Output range	0.25 VDC: Empty (Dry) 4.75 VDC: Full (Wet) Configurable across 0-5VDC
Resolution	10 bit

Dimensions

Probe length	100mm to 1500mm
Sensor Dimensions	Customer Specific
Mounting Arrangement	Fully custom; SAE 5-bolt; Threaded; Clip etc

Environmental

Environmental protection	IP67
Pressure Rating	Up to 20 bar differential (internal between measurement tube and electronics)
Vibration	Designed to meet: 10Hz to 2000Hz sine sweep @10G (24hrs per each axis)
Shock	Designed to meet: 50G half sine wave for 11ms, 10 times each axis
EMC	Designed to meet: MIL461F- CE102, CS101, CS114, RE102, RS103, CS115, CS116 DO 160- Section 20 Cat R, Section 25 Cat A
Operating Temperature	-40°C to +125°C

Mechanical

Fluid Compatibility	Petroleum, Diesel, Bio-fuels, Water, Sea Water, AvGas, Methanol, Ethanol, Glycol (contact us for other fluid compatibilities).
Construction Material	Anodised Aluminium, Stainless-Steel, Titanium, PEEK or a combination
Sealing Elastomers	Viton FEP
Mass	from 75g

Wiring Specification

Connector Options	Connectors can be integrated into the flange design or terminated to flying lead
Sleeve Elastomer	To customer specification; Typically DR-25 or RW-200E
Boot Elastomer	Viton FEP
Wire Type	5 core, Type 55, 26 AWG

Wiring Definition

Description	Wire Colour
Supply (+)	Red
Ground (GND)	Black
Signal (0.25-4.75V)	Yellow
Tx Comms (Transmit)	White
Rx Comms (Receive)	Green

Configuration Interface

Type	RS-232 via FTDI USB cable. See accessories
GUI	Available on request

Accessories

USB calibration cable	P/N: 07-003-01
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Specifications may be subject to change without prior notice