

618 – Motorsport Lightweight Capacitive Level Sensor

- Capacitive Technology
- 12 Bit Measurement resolution
- Lightweight Aluminium Construction
- 0-10V or 4-20mA Analogue
- Serial Plain ASCII over RS232
- Wide operating temperature range
- Suitable for Fuel, Oil and Coolant

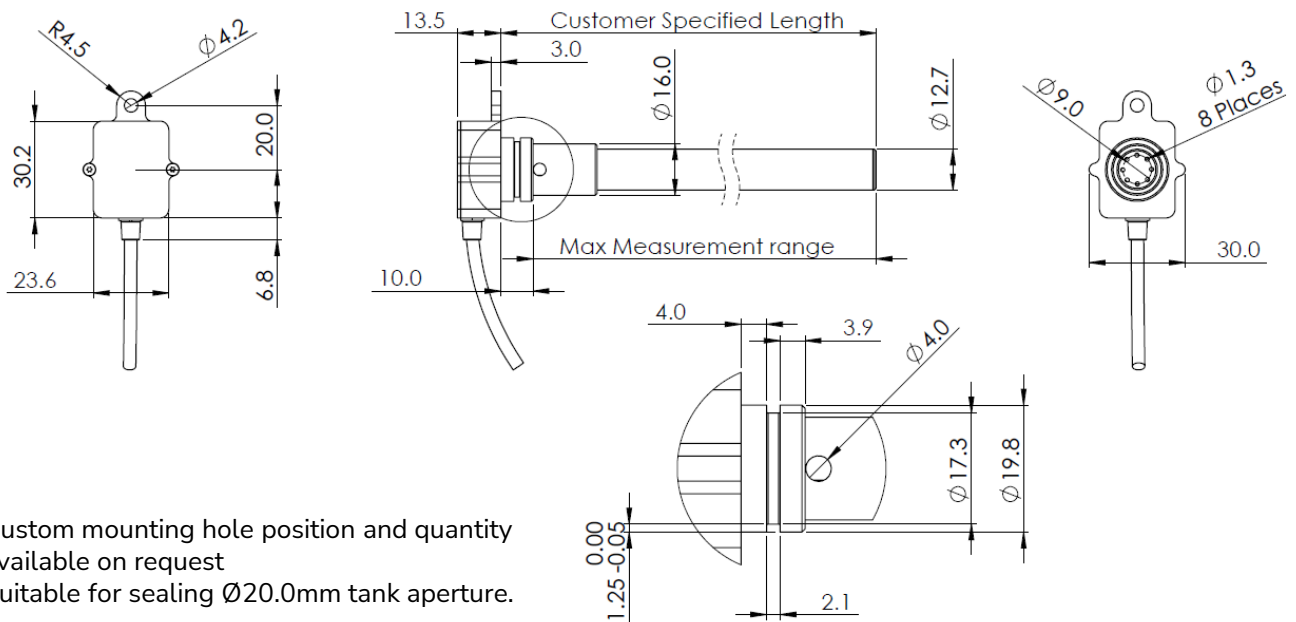


Function

This advanced capacitive sensor offers precise liquid level communication via selectable analogue or serial transmissions. With industry-leading 12-bit measurement technology, it ensures optimal precision in measuring fuels, oils, and coolant levels. Constructed primarily from lightweight yet durable Aluminium, it withstands challenging environmental conditions.

Featuring both standard and customizable mounting options, this sensor accommodates diverse installation requirements. Electrical connection is facilitated via a side-exiting cable, supplied unterminated for flexibility. Each sensor is custom-manufactured to suit your tank length, with specifications available from 80mm to 600mm in 1mm increments.

Dimensions



Custom mounting hole position and quantity available on request
Suitable for sealing $\phi 20.0$ mm tank aperture.

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Technical Data

Technical Article	Specification
Interface	
Analogue Voltage	0-10V – Configured to 0.25-10V or 0.25-4.75V
Analogue Current	4-20mA (3 wire configuration)
Serial	Serial Plain ASCII over RS232
Switch	Open collector High/Low switch
Sample rate (analogue)	100Hz
Sample rate (Serial)	1Hz (Configurable)
Level to Volume Conversion	Config file can be installed to convert to volume
Error Condition (Analogue)	0.1V or 2mA
Supply requirements	
Supply Voltage	5-32V (output signal clipping may occur under 11V)
Supply Current (Serial & V)	<20mA
Supply Current (Current)	<40mA at max analogue output
Environmental	
Electronics Temperature	-40 to +125 °C (-40 to +247 °F)
Ingress Protection	IP68
Pressure	10 Bar differential
Compatible Liquids	Petroleum Fuels, Diesel, Water, Coolant & Oils
Performance	
Accuracy	+/- 1% of full-scale deflection at 20 °C
Resolution	12 Bit (4096 steps)
Linearity	Config file can be installed for custom linear function
Temperature Stability	Calibrated over liquid appropriate range

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Technical Article	Specification
Weight	37.5g (100mm sensor without cable) + 0.09g/mm
Cable	
Wires	24 AWG 7/0.2 Type A BS3G 20
Cable Jacket material	Viton
Screen	Unscreened
Wetted Materials	
External Body	Anodized Aluminium
Internal O-rings	Viton, FKM
Internal insulator	Fluorinated ethylene propylene (FEP)
Internal Body	PEI 15% GF
Finish	
External Body	Sulphuric Colour Anodize (Matte Black) 15-20µm

Connection Data

Wire Colour	Function
Red	Supply Voltage (5-32V)
Black	Supply Ground
Yellow	Analogue
White	Serial Tx
Green	Serial Rx
Blue	Switch

Order code & drawing provided with Quotation

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