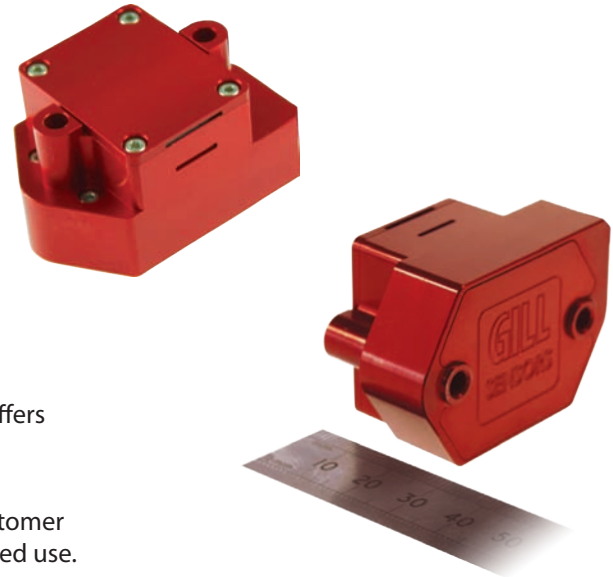


Oil Quality Sensor



Key Features

- No Moving Parts
- Accurate
- Thermally Stable
- Fully Submersible
- Lightweight
- Fully Configurable
- Individually designed



The Gill Oil Quality Sensor is a solid-state, compact device that offers the user the ability to monitor the fluid quality via the dielectric constant of a chosen liquid.

The sensor is available as a configurable device allowing the customer to pre-calibrate it against fluid samples of known quality or related use.

Calibration can be conducted using our own free software, firstly qualifying the sensor in a clean sample of the medium. Subsequent exposure to further samples of decreasing quality will enable results to be collated within a database.

The sensor is designed to be used only in a fully submerged condition and is therefore IP68 rated.



Electrical

Supply Voltage	+6VDC to +24VDC
Supply Current	<10mA @12V
Serial Interface	RS232 (+5V)
Resolution	10 bit
Sample Rate	80Hz

Analogue Output

Voltage Output Range	Calibrated 2.50V, ranging $\pm 2V$ with medium quality
Range Accuracy	$\pm 0.5\%$ of calibrated datum

Wiring

Wire/Connector	Customer Specified Flying lead or integrated connector of customer choice or combination
Wiring Gauge	Typically 26 AWG (options up to 20 AWG if requested)
Cable Material Compatibility	Wiring sleeved with either Fluorocarbon or Raychem DR25, or customised to customer specifications

Mechanical

Dimensions	33 x 46 x 26 (LxWxH) or customer specified
Weight	85g including 1m cable

Calibration

Factory Calibration	Traceable to national standards
Customer Calibration	Using ProbeMon or ProbeView Software - Supplied free of charge

Environmental






Protection Class	IP68
Operational Temperature	-40°C to 125°C
EMC Immunity Level	SAE J1113/2 1996 design guideline used
Vibration	15g RMS (24-2000Hz) & SAE J1455 design guidelines used
Finish	Anodised to DEF STAN 025

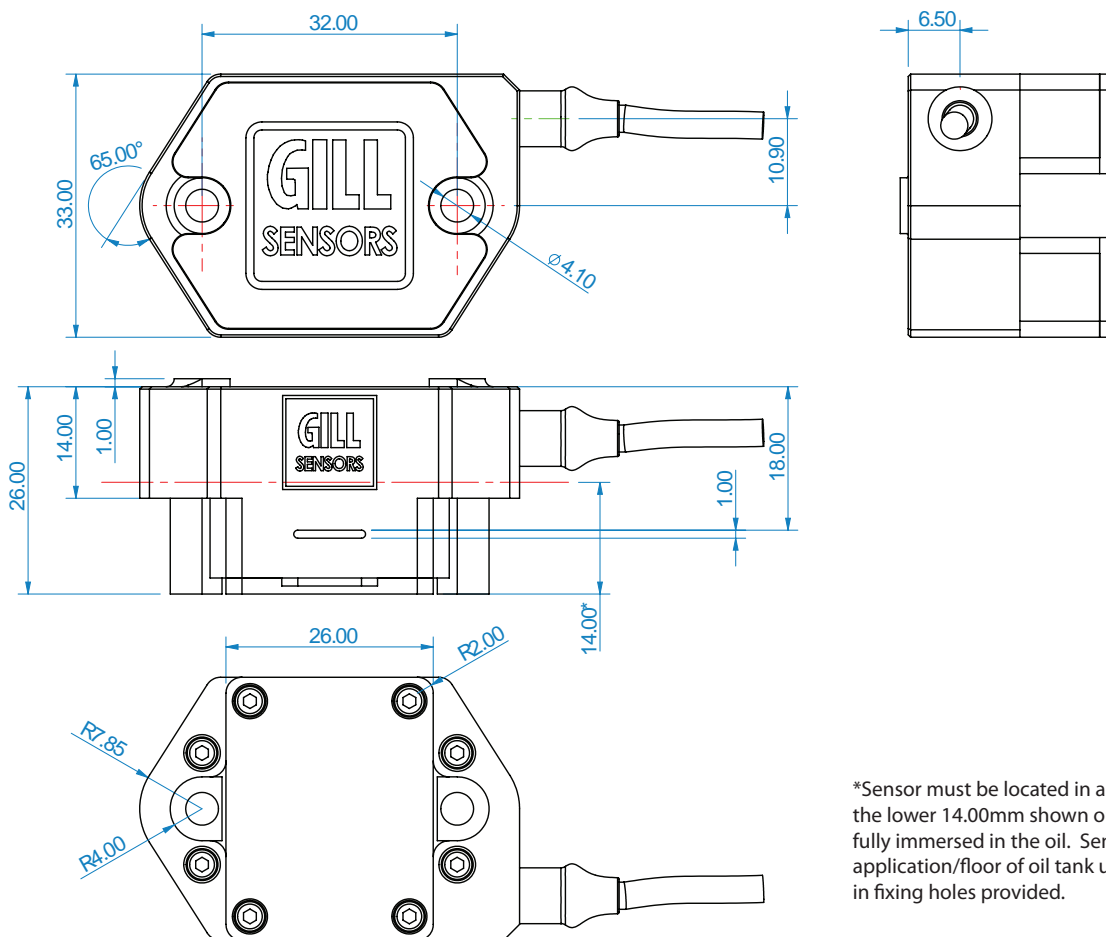
Fuels

Compatible Medium	Engine oils, transmission oils, steering & hydraulic fluids Diesel, Heavy Oil
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Oil Quality Sensor

Wiring

	Red	+4.8 VDC to +32 VDC Supply
	Black	System & Power Ground (GND)
	Green	Serial Comms Input (Rx), RS232 Compatible
	White	Serial Comms Output (Tx), RS232 Compatible
	Orange	Analogue Output: Voltage 0.25V - 4.75V



*Sensor must be located in a position whereby the lower 14.00mm shown on drawing is always fully immersed in the oil. Sensor secured to application/floor of oil tank using 2 off M4 screws in fixing holes provided.



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