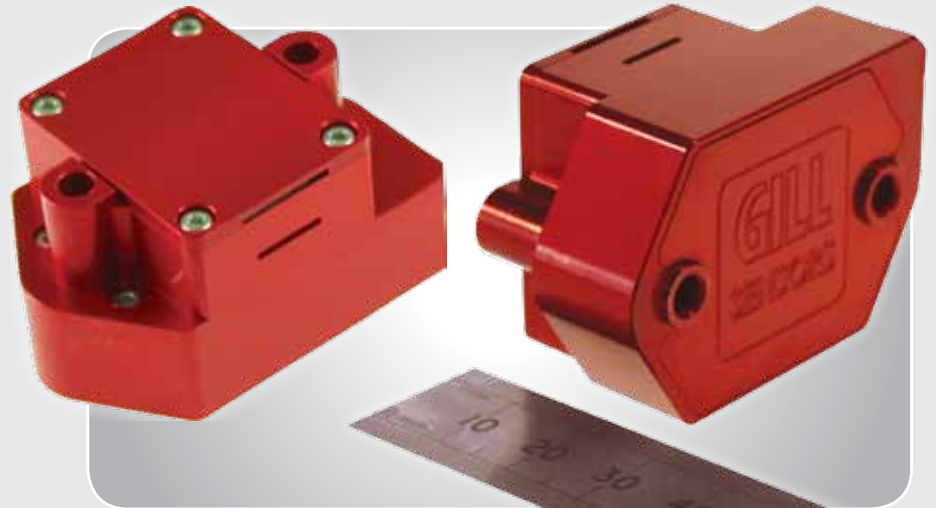




Oil Quality Sensor



Key Features

- ✓ No Moving Parts
- ✓ High Accuracy
- ✓ Thermally Stable
- ✓ Fully Submersible
- ✓ Lightweight
- ✓ Fully Configurable Output
- ✓ 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. This data can then be used as a performance indicator when the sensor is used in the racecar environment.

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

Specification

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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