



CUSTOM

# Petroleum/Gasoline Level Sensor



## Key Features

- No Moving Parts
- High Accuracy
- Race Proven
- Thermally Stable
- Fully Submersible
- Lightweight
- Fully Configurable Output
- Individually designed



\*Examples of current Petroleum/Gasoline level sensors

Gill Motorsport Petroleum/Gasoline Fuel Level Sensors are specifically designed for use in the fuel cell or collector. Gill design and manufacture each sensor to match the customer's exact requirements and with no moving parts used within the construction, this product is a genuine solid-state device.

Each sensor is designed with integrated electronics, customer specified harness or integrated connector and is fully immersible in race fuel. A novel use of a capacitive measurement technique combined with compact, lightweight, robust designs ensure this sensor is the preferred choice for fuel cell installations in F1 and many other sports car series.

Every Gill M-Series sensor is fully user configurable using our own simple software enabling the level settings to be finely adjusted to suit individual precise requirements. Gill offer a race proven sensor that is the complete solution for the extreme demands of Motorsport.



## Specification

### Electrical

Supply Voltage	+6VDC to +24VDC
Supply Current	<10mA @12V
Serial Interface	RS422 (internal)
Resolution	10 bit
Sample Rate	80Hz

### Analogue Output

Voltage Output Range	0.25V - 4.75V over sensing range or customer specified, fully configurable
Range Accuracy	±0.5% of fuel depth @20°C

### 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

Probe Length	0 - 700mm (customer to specify)
Mounting	Customer Specified, various standard options available
Weight	From only 80g (dependant on design)

### Environmental

Protection Class	IP68
Operational Temperature	0°C to 125°C
EMC Immunity Level	SAE J1113/2 1996 design guideline
Vibration	15g RMS (24-2000Hz) & SAE J1455 design guidelines used
Finish	Anodised to DEF STAN 025

### Fuels

Compatible Medium	Race Petroleums Gasoline Unleaded Petrol (95 RON) Low Leaded Petrol (98 RON)
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## Connectors

All Gill M-Series sensors can be supplied with customer-specified connectors. Some examples of popular connectors are below:

### DEUTSCH



ASU - Fitted In Harness



ASU - Integrated



ASL - Integrated



AS HERMETIC - Fitted In Harness



ASC - Integrated / Harness Option

### LEMO



HES - Integrated



FGS - Fitted In Harness

\*We can supply sensors fitted with most connector requirements. Please contact us if you would like to discuss the available options



## Dimensions

Gill M-Series sensors are custom-designed to your specifications. An example of an M-Series Fuel level sensor currently used in Motorsport is illustrated below:

