



Dual Cavity Sensor



Key Features

- Non-Contact
- No Moving Sensor Parts
- Up to 90° Rotary Measurement
- Linear Measurement
- Analogue Output
- Unlimited Mechanical Life
- Submersible
- Ideal for Pedal Applications



Specification

Electrical

Supply Voltage	+6VDC to +30VDC
Over Voltage Protection	>31VDC
Supply Current	<10mA
Reverse Polarity Protection	to -30VDC
Resolution	10 bit
Sample Rate	1KHz

Analogue Output

Measuring Range	Linear: Range governed by activator shape Rotary: ±45°
Voltage Output Range	0-4.2V
Range Accuracy	±3% over full temperature range

Mechanical

Size	19 x 25.5 x 64mm (DxWxL)
Mounting	2 x ø4mm holes on a 30mm pitch
Weight	34g (Integral Connector Version)
Activator Materials/Design	See notes overleaf
Materials Compatibility	Water, engine oil, engine coolant, diesel fuel, gasoline, salt spray, degreaser, degreaser tsp, ammonia and dust. All common automotive liquids and materials



The Dual Cavity Sensor accurately and repeatably senses the linear or rotary position of a metallic 'activator' which is mounted to (or formed as part of) the sensed assembly. The activator moves within the two sensor cavities, and an output is produced relative to its position. Different output characteristics can be achieved by varying the activator shape and material. The unique non-contact two-part design utilises Gill's patented inductive technology to provide a reliable, accurate output that will not deteriorate through use.

Small, light and robust, the sensor is simple to install and three different wiring options allow for a multitude of mounting configurations. Sealed to IP67, this sensor is ideal for a variety of applications where grime, moisture, temperature and vibration can have an adverse affect on other types of sensor.

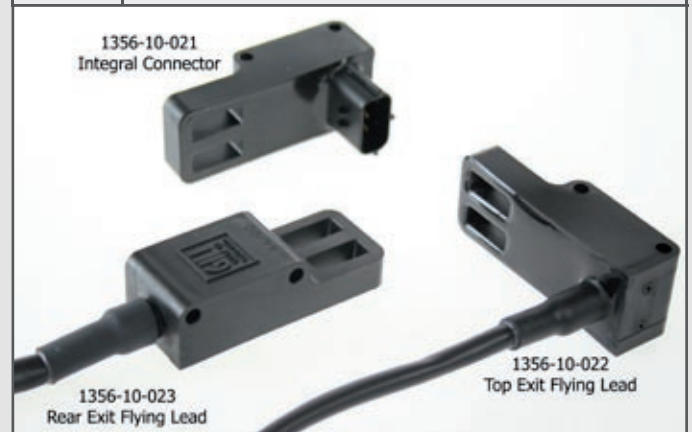
A Dual Channel variant is also available for monitoring two individual movements with one sensor (e.g brake and accelerator pedals).

Environmental

Protection Class	IP67
Operational Temperature	-40°C to +85°C (standard) -40°C to +125°C (optional)
Storage Temperature	-40°C to +125°C
Dither Life	Non-Contact: No deterioration through use

Options

Wiring	- Top Exit Flying Lead (Part: 1356-10-022) - Rear Exit Flying Lead (Part: 1356-10-023) - Integral AMP Connector (Part: 1356-10-021) - 0.5m wiring loom with AMP connector (Part: 1356-10-025)
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Non-Contact Position Sensor

Dual Cavity Sensor



Activator Materials

- EN3B Mild Steel or similar
- Copper
- Tinned Steel
- Others compatible, contact Gill with your requirement.



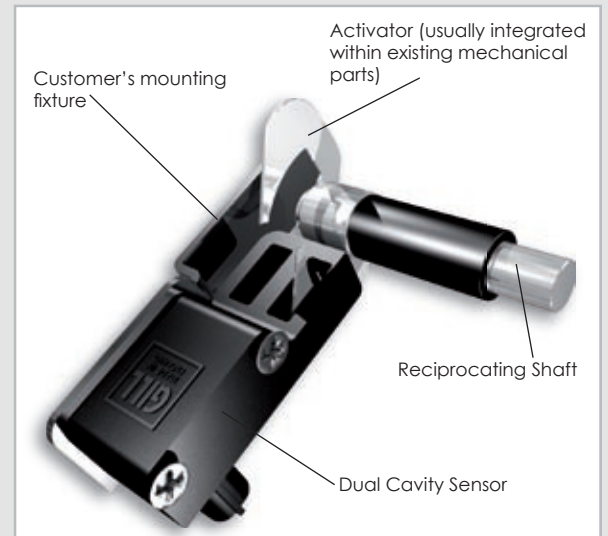
Activator

The sensor requires a metallic activator which moves within the two sensor cavities. An output is produced relative to the current position of the activator. Different output characteristics can be achieved by varying the activator shape, so most applications require a customised activator to produce the desired output. Below is an example of atypical sensor/activator configuration. Please consult Gill for information on activator design.



Wiring

	Red	+6VDC to +30VDC Supply
	Blue	System & Power Ground (GND)
	Yellow	Analogue Output Voltage



Dimensions

