

Dual Cavity Sensor

Non-Contact Position Sensor



Key Features

- Non-contact
- Dual channel output allows monitoring of two moving parts with one sensor
- No moving sensor parts
- Up to 90° rotary measurement
- Linear measurement
- Analogue output
- Unlimited mechanical life
- Submersible



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.

Electrical

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

Analogue Output

Measuring Range	Linear: range governed by activator shape Rotary: ±45°
Output Range (channel 1)	0-4.2 V
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
Activator Materials	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

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 - Rear exit flying lead - Integral AMP connector - 0.5m wiring loom with AMP connector
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Activator Materials

- Tinned steel
- EN3B painted mild steel or similar
- Plastic/Copper Foil
- Others compatible, contact Gill with your requirement.

Wiring

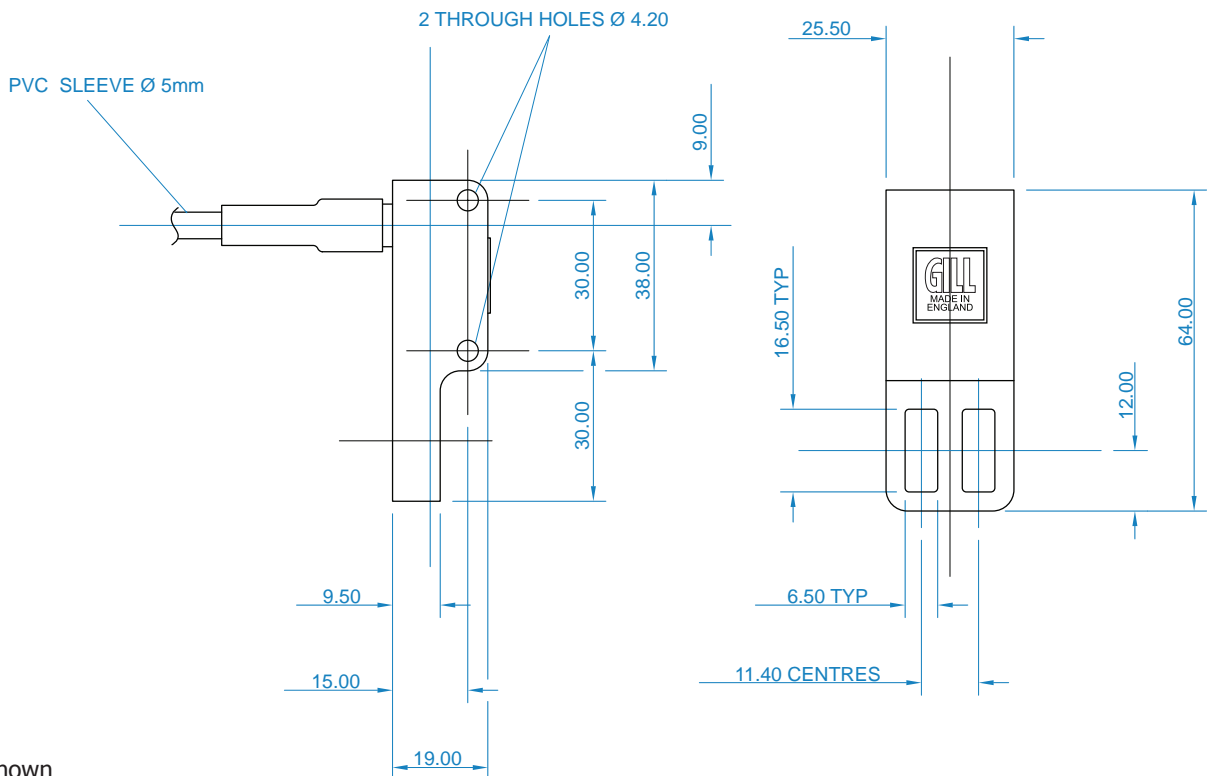
	Red	+6VDC to +30VDC Supply
	Black	System & Power Ground (GND)
	Yellow	Analogue Output (Channel 1)

Dual Cavity Sensor Options

- Integrated AMP Connector version
Part No:1356-10-021
- 0.5m Flying lead (top exit)
Part No:1356-10-022
- 0.5m Flying lead (rear exit)
Part No:1356-10-023

5V Ratiometric Sensor Options

- Integrated Connector version
Part No:1356-10-051
- 0.5m Flying lead (top exit)
Part No:1356-10-052
- 0.5m Flying lead (rear exit)
Part No:1356-10-053



Model shown
Part no: 1356-10-022

All dimensions in mm



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