

Linear or angular, configurable non-contact position sensing

- 25mm linear, 90° angular measurement
- Analogue / digital output
- Fully configurable range
- Non-contact reliability
- Unlimited mechanical life
- Submersible



ANALOGUE OUTPUT

Measurement range	Linear: $\pm 12.5\text{mm}$ (configurable) Angular: $\pm 45^\circ$ (configurable)
Voltage output range	0 - 5.6V (unless limited by V supply)
Range accuracy	$\pm 0.1\text{mm}$ or equivalent

PWM OUTPUT

Measurement range	Linear: $\pm 12.5\text{mm}$ (configurable) Angular: $\pm 45^\circ$ (configurable)
Frequency	250Hz or 1KHz

SERIAL OUTPUT

Data type	RS232 / RS485 (optional) 19.2K 8N
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SWITCH OUTPUT

Type	May be used as V ref or switch from V supply to ground
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ENVIRONMENTAL

Protection	IP67
Operating temperature	-40° to +85°C (32V DC max) -40° to +125°C (optional, 14V DC max)
Dither life	Non-contact: no deterioration through use

ELECTRICAL

Supply voltage	4.8V DC to 32V DC
Over voltage protection	>33V DC
Supply current	<10mA with comms
Reverse polarity protection	Up to -32V DC
Resolution	10 bit over configured range
Sample rate	1KHz
Rise time	2ms*
Pulse energy absorption	1.0J

MECHANICAL

Size	6 x 40 x 50mm (D x W x L)
Sensor - activator clearance	0.5 - 2mm
Mounting	2 x $\varnothing 4\text{mm}$ holes on a 30mm pitch
Weight	21.0 grams (0.74 ounces) excluding cable
Activator materials	Zinc & colour passivated CR4 mild steel, EN3B painted mild steel or similar, plastic/copper foil. Contact Gill for more details
Materials compatibility	Water, engine oil, engine coolant, diesel fuel, gasoline, salt spray, degreaser, ammonia and dust. All common automotive liquids and materials

*The sensor samples the position at 1ms intervals. Each sample is processed then made available via an analogue filter with a rise time of 1.5ms. The total delay to 50% output is approximately 2ms.

ORDERING

Wiring options:

- 045 = 30 AWG 6 wire (85°C) (preferred stock product)
- 055 = 28 AWG 6 wire (125°C)
- 065 = 24 AWG 5 wire (85°C) (no switch output)

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Zinc & colour passivated CR4
mild steel activator = 1484-30-050

> More information at gillsc.com

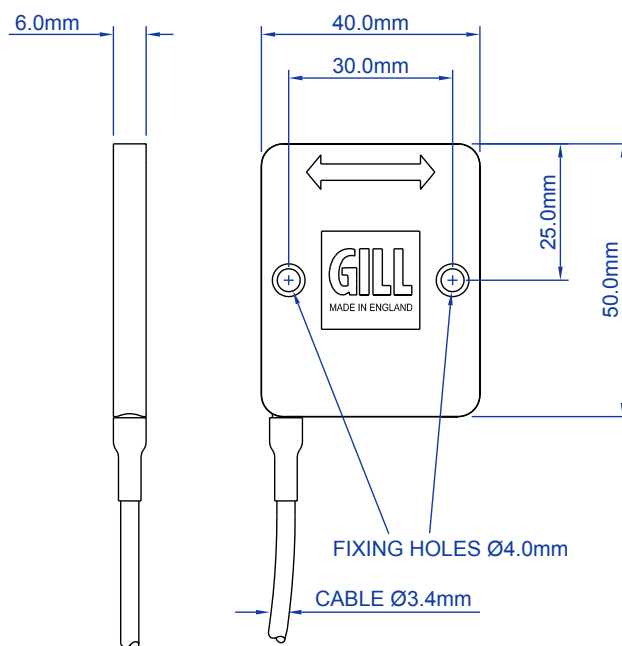
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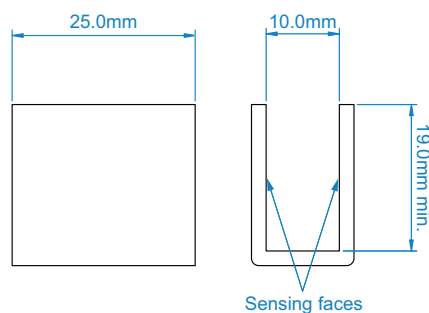
Sensors & Controls

DIMENSIONS - SENSOR



DIMENSIONS - ACTIVATOR

The sensor requires a metallic activator to be mounted 0.5-2mm away from the sensing face. This can either be mechanically mounted to the moving object or machined into the application for minimal installation overhead. Shown right is a drawing detailing the dimensions of our recommended standard activator. Please consult Gill for more information on activator design.



WIRING DESIGNATION

■ Red	4.8V DC to 32V DC supply
■ Black	System & power ground (GND)
■ Blue	Switch output
■ Green	Serial comms input (Rx), RS232 or RS485 compatible
■ White	Serial comms output (Tx), RS232 or RS485 compatible
■ Yellow	Analogue output: Voltage or PWM