

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

PWM OUTPUT

Measurement range	Linear: ± 12.5 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 $\varnothing 4$ 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, degreaser tsp, 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

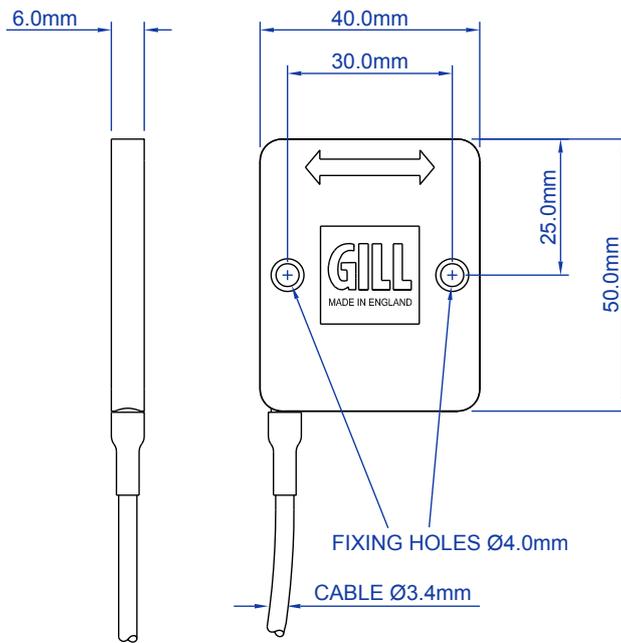
E support@gillsc.com

T +44 (0)1590 613900

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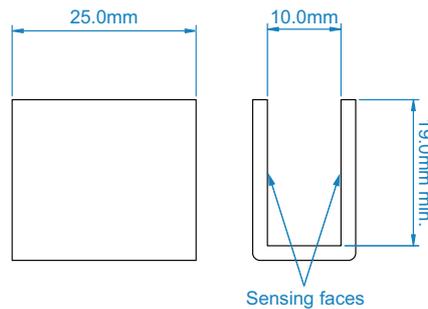
Sensors & Controls

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