

# 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

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

## PWM OUTPUT

<b>Measurement range</b>	Linear: $\pm 12.5$ mm (configurable) Angular: $\pm 45^\circ$ (configurable)
<b>Frequency</b>	250Hz or 1KHz

## SERIAL OUTPUT

<b>Data type</b>	RS232 / RS485 (optional) 19.2K 8N
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## SWITCH OUTPUT

<b>Type</b>	May be used as V ref or switch from V supply to ground
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## ENVIRONMENTAL

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

## ELECTRICAL

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

## MECHANICAL

<b>Size</b>	6 x 40 x 50mm (D x W x L)
<b>Sensor - activator clearance</b>	0.5 - 2mm
<b>Mounting</b>	2 x $\varnothing 4$ mm holes on a 30mm pitch
<b>Weight</b>	21.0 grams (0.74 ounces) excluding cable
<b>Activator materials</b>	Zinc & colour passivated CR4 mild steel, EN3B painted mild steel or similar, plastic/copper foil. Contact Gill for more details
<b>Materials compatibility</b>	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](http://gillsc.com)

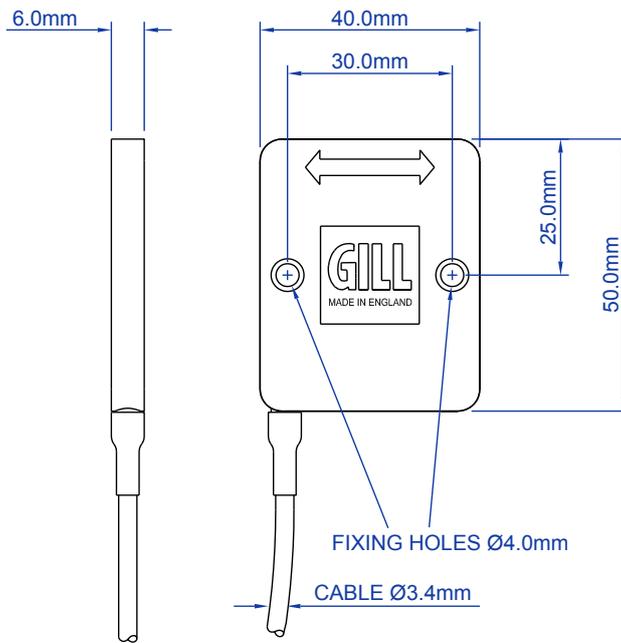
E [support@gillsc.com](mailto:support@gillsc.com)

T +44 (0)1590 613900

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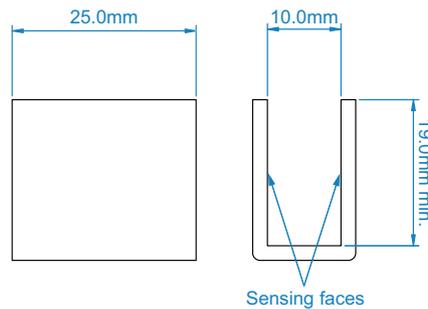
Sensors & Controls

**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**

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