

# Full 360°, configurable non-contact position sensing

- Analogue / digital output
- Fully configurable range
- Non-contact reliability
- Full 360° measurement
- Unlimited mechanical life
- Submersible



## ANALOGUE OUTPUT

<b>Measurement range</b>	0 - 360° (configurable)
<b>Voltage output range</b>	0 - 5.5V (unless limited by V supply)
<b>Range accuracy</b>	±0.5° over temperature range
<b>Error level</b>	0.3V default (configurable)

## PWM OUTPUT

<b>Measurement range</b>	0 - 360° (configurable)
<b>Frequency</b>	1KHz

## SERIAL OUTPUT

<b>Data type</b>	RS485, 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 (32VDC Max) -40° to +125°C (14VDC Max)

## ELECTRICAL

<b>Supply voltage</b>	4.8V DC to 32V DC
<b>Over voltage protection</b>	>33V DC
<b>Supply current</b>	<25mA without 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>	16mm x Ø38mm
<b>Sensor - activator clearance</b>	0.5 - 2mm
<b>Sensor - activator concentricity</b>	<0.5mm
<b>Mounting</b>	3 x M3 screws
<b>Mounting torque</b>	0.25 Nm maximum
<b>Weight</b>	22.8 grams (0.8 ounces) excluding cable
<b>Activator materials</b>	Tinned 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:**  
 068 = 26 AWG side exit cable (preferred stock product)  
 069 = 26 AWG centre exit cable  
 070 = 20 AWG heavy duty cable

1498 - 00 -    Tinned mild steel activator = 1498-30-065

> More information at [gillsc.com](http://gillsc.com)

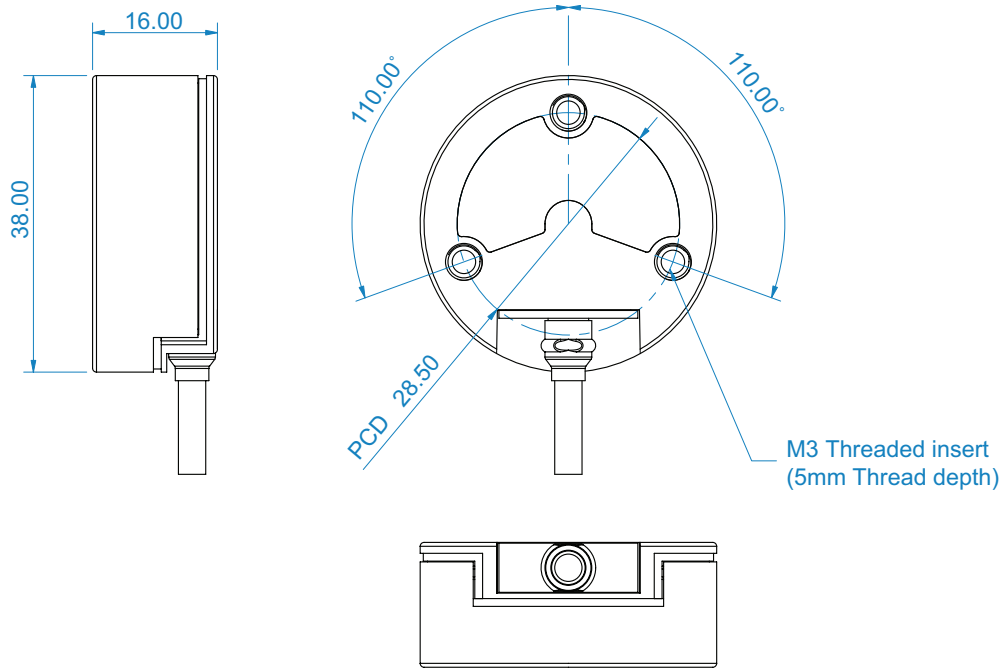
E support@gillsc.com

T +44 (0)1590 613900



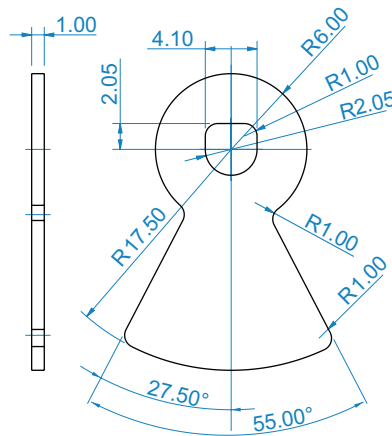
Sensors & Controls

**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 end of a rotating shaft or machined into the tip of a rotating part. Shown right is a drawing showing the dimensions of the activator for optimum performance. 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), RS485 compatible
<b>White</b>	Serial comms output (Tx), RS485 compatible
<b>Yellow</b>	Analogue output #1: Voltage or PWM
<b>Orange</b>	Not used