**Contactless sensor**

**PSC-360**

The robust PSC-360 is a cost effective high performance non-contacting rotary position sensor for automotive, off-road, marine, medical and industrial applications without the limitations of potentiometric solutions (wear, limited electrical angles...). A configurable switch output, as an option, integrated within the sensor is available too.

Redundancy can be achieved by employing a dual die version providing independent voltage outputs with fully customized characteristics providing the possibility to detect error outputs by the host electronics.

Sealed for harsh environments and flange mounted for easy positioning when necessary, it provides high stability under harsh environment conditions such as vibration, shock, extreme temperatures / humidity, dither, moisture or dirt. Available with fly leads, can be customized to customer’s needs to any desired connector configuration.

### Mechanical specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotational life</td>
<td>(depends on application and mounting)</td>
</tr>
<tr>
<td></td>
<td>up to 50,000,000 cycles.</td>
</tr>
<tr>
<td>Operating temperature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-40°C to +125°C.</td>
</tr>
</tbody>
</table>

### Electrical specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linearity</td>
<td>±1% absolute (0.5% upon request).</td>
</tr>
<tr>
<td>Angular range</td>
<td>Programmable from 15 to 360 degrees.</td>
</tr>
<tr>
<td>Output</td>
<td>Analog (Ratiometric), PWM, Serial Protocol upon request.</td>
</tr>
<tr>
<td>Switch output</td>
<td>Upon request, Programmable.</td>
</tr>
<tr>
<td>Angular Resolution</td>
<td>Analog &amp; PWM: up to 12 bits.</td>
</tr>
<tr>
<td></td>
<td>Serial Protocol (SPI): up to 14 bits.</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>Up to 30V.</td>
</tr>
<tr>
<td>Supply current</td>
<td>Typ 8.5mA for single version.</td>
</tr>
<tr>
<td></td>
<td>Typ 17mA for redundant version.</td>
</tr>
</tbody>
</table>

1 Others: check availability.
Magnetic rotary angle and position sensor-control

Contactless sensor

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How to order (example: PSC360G2-F1A-C0000-ERA360-05K)

Simple output (analogic / PWM)

Redundant output (analogic / PWM)

Full redundant output (analogic / PWM)

Other product configurations will be studied case by case.

(1) The analog output is a ratiometric output, proportional to:
   - For supply voltage 5V: to input supply voltage.
   - For supply voltage RE: to 5V.

(2) 05: 5V ±10%
    RE: 7V - 30V

(3) Other output functions available check availability. In the How To Order reference, enter CXXXX meanwhile the new output function reference is not defined.

(4) Leave empty if no applicable. Default frequency is 200 Hz
Magnetic rotary angle and position sensor-control

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Dimensions

Shaft shown at 0° position.

Special version with return spring lever.
Check availability.
Magnetic rotary angle and position sensor-control

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Mounting instructions
1.- Place the component on a flat surface.
2.- Fit the actuator onto the shaft avoiding any mechanical play/wobble.
3.- Fasten the two M4 screws (M4 washers are recommended).

Connections scheme
Simple analog output connection wiring scheme. Other versions available upon request.

- Brown = Power supply.
- Blue = Ground.
- Black = Signal output.
- White = Not used.
- Grey = Not used.

Fly leads with Wire: 0.35mm², TXL SAE J1128.
Check availability for the connector options.

Output

Others upon request.

Piher Sensing Systems
Our product competencies and services:
Potentiometers | Position / angle sensors | Rotary switches | Incremental encoders
Printed circuit resistors | Mechatronics | Value added assemblies
Magnetic rotary angle and position sensor-control

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PSC-360

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