



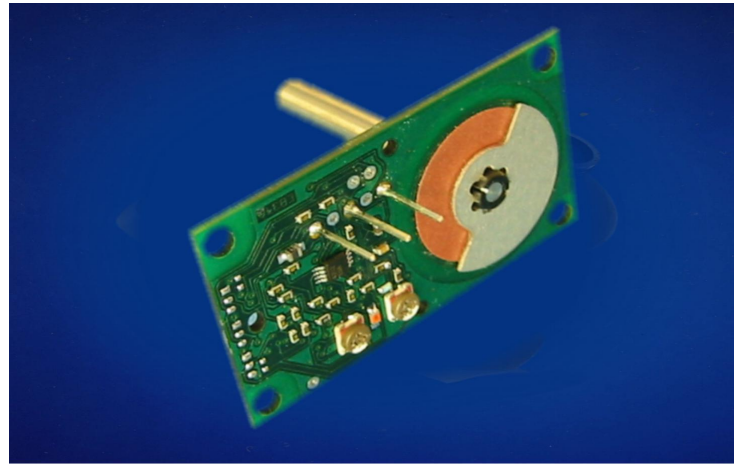
RIPS[®] 503 FLAT ROTARY SENSOR ASSEMBLY



- Low Cost Assembly for OEM Applications
- Non-Contacting Inductive Technology
- Robust, Durable and Reliable
- Compact PCB Design
- Up to 160° Rotation
- DC Supply - DC Analogue Output - Voltage or Current Options Available
- Excellent Accuracy and Stability

SPECIFICATION

Travel	
Electrical	±10° to ±80°
Mechanical	360°
Factory set range with adjustable zero and span.	
Independent Linearity	< ± 0.5% for 100° @ 20°C
Typical	± 0.25°
Temperature Coefficients	< ± 0.02%/°C Gain & < ± 0.02%FS/°C Offset
Typical Overall Accuracy	< ± 0.75% / FSO
Frequency Response	> 10 KHz (-3dB) > 300 Hz (2 wire 4 to 20 mA)
Resolution	Infinite
Noise	< 0.02% FSO
Power Supply and Output Options	
Input	Output
+ 5 V dc ± 0.5 V	0.5 – 4.5 V dc ratiometric
± 15 ± 2V dc	± 5 V dc or ± 10V dc
+13 to 28 V dc	0.5 – 9.5 V dc
+18 to 28 V dc	4 to 20mA (2 wire)
+13 to 28 V dc	4 to 20mA (3 wire sink)
+13 to 28 V dc	4 to 20mA (3 wire source)
Supply Current	10 mA Typical, 20 mA max. (Voltage versions)
Torque	< 20mNm Static
Environmental	
Temperature Limits	
Operating	-40 to +125°C (5V only) -20 to +85°C -40 to +125°C
Storage	
Sealing	Unsealed
EMC Performance	EN 61000-6-2 EN 61000-6-3
(in suitable enclosure)	
Vibration	IEC 68-2-6: 10g
Shock	IEC 68-2-29: 40 g
MTBF	450,000 hrs 40°C Gf

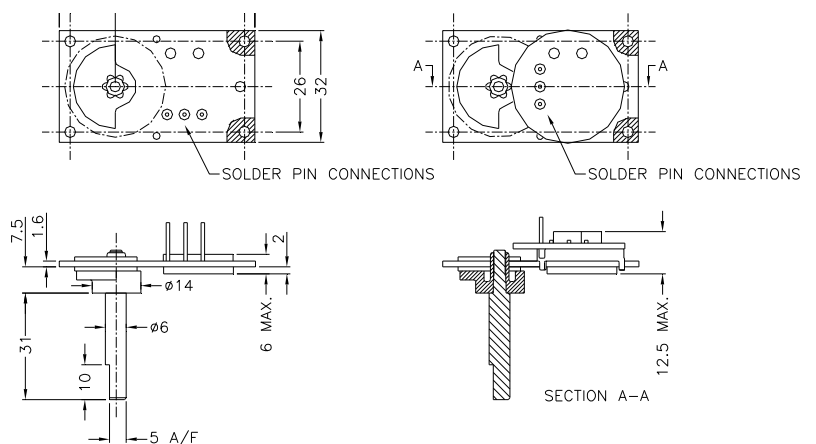


The P503 RIPS[®] is an affordable, durable, accurate Rotary Inductive Position Sensor for OEM applications.

P503 sensors are; available with calibrated travel from 20° up to 160°, easy to install and set up and provide a linear output characteristic with rotation. Using Positek's PIPS[®] technology, inductive printed circuit board coil with advanced ASIC electronic technology, the sensors DC analogue output signal represents absolute position and is available immediately on power up. A range of factory set electrical output options are available, including 4-20mA current loop, without the need for a separate interface card.

Overall performance, repeatability and stability are outstanding over a wide temperature range; excellent frequency response and no wearing contacts they have major advantages over RVDT or potentiometer based devices.

This very compact sensor is supplied as a printed circuit board sub-assembly, with full EMC protection built in, and ready to mount directly in customer's equipment.



SPECIAL MOUNTING NOTE:
THE RADIAL POSITION OF THE SHAFT MUST BE CONTROLLED BY THE CUSTOMER
THE END FLOAT OF THE SHAFT IS SET BY THE SENSOR AND SHOULD NOT BE CONTROLLED BY THE CUSTOMER.