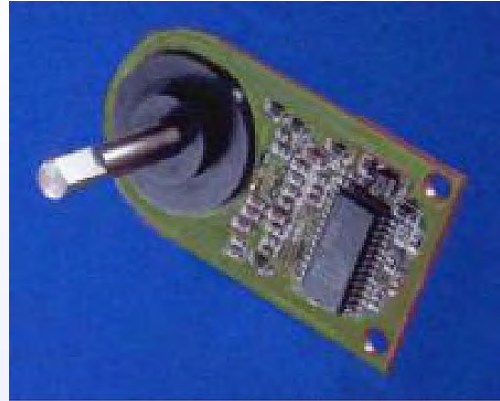


RIPS SERIES P503 ROTARY INDUCTIVE POSITION SENSOR

- Non-Wearing Inductive Technology
- Low Cost assembly for OEM Applications
- Up to 140° Rotation
- 0.35% Linearity Over 100° Rotation
- Superb Durability and Robustness
- Low Profile Pcb Design
- High Frequency Response



SPECIFICATION

Travel

Travel- Electrical 10° to 140
 Mechanical 360°

Factory set; range with adjustable zero and span

Independent Linearity < +/- 0.35% for 100° at 20°C
 Typical +/- 0.25°

Temperature Coefficient

< +/-0.015%/°C

Typical Absolute Accuracy

< +/-0.75% / FSO

Frequency Response > 800 Hz (-3dB)

Resolution Infinite

Noise < 0.1% FSO

Torque < 20mNm Static

Power Supply and Output Options

Input	Output
+ 5 V dc +/- 1 V	0.5 – 4.5 V dc ratiometric +/- 15
V dc +/-	5 V dc or +/- 10V dc
+16 to 28 V dc	0.5 – 9.5 V dc
18 to 28 V dc	4 to 20mA (2 wire)
10 to 28 V dc	4 to 20mA (3 wire sink)
16 to 28 V dc	4 to 20mA (3 wire source)
Supply Current	10 mA Typical 20 mA max.

Environmental

Temperature Limits

Operating -40 to +125°C (5V only)
 -20 to +85°C

Storage -40 to +125°C

Sealing Unsealed

EMC Performance

IEC 801 EN50082-2
 IEC 801 EN50081-1
 IEC 68-2-6: 10g
 IEC 68-2-29: 40 g
MTBF 450,000 hrs 40°C Gf



The **P503 RIPS** (Rotary Inductive Position Sensors) is a durable, accurate rotary position sensor for OEM feedback applications. The sensor is particularly suitable for applications needing very long life in harsh environments but where cost is important.

The **P503** sensor is supplied on a very compact flat, surface mount, pcb assembly. It use simple inductive coils with rotating aluminium vanes mounted onto a drive hub. This sub assembly can be mounted easily within the customer's equipment.

The sensor incorporates all the signal processing to give a high performance DC analogue output

It is therefore very easy to use and install. Each sensor is calibrated to the exact angle required to suit the application. The range can be from +/- 5° to +/-70°. The sensor provides a linear output characteristic with rotation with linearity better than +/- 0.35% over 100° rotation.

A wide variety of electrical outputs are available including 4-20mA current formats. Performance, repeatability and stability are excellent over the temperature range -40°C to 85°C. A temperature rating of +125°C is available on some versions. The sensor also offers excellent frequency response up to 800Hz.

