

RIPS SERIES P500 ROTARY INDUCTIVE POSITION SENSOR

- **Non-Contacting Inductive Technology**
- **DC Analogue Output**
- **0.25% Linearity Over 100° Rotation**
- **Superb Durability and Robustness**
- **Excellent Stability**
- **30° to 160° Rotation**
- **High Frequency Response**



SPECIFICATION

Travel

Travel- Electrical	30° to 160
Mechanical	360°
Factory set; range with adjustable zero and span	

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

Temperature Coefficient < +/-0.01%/°C

Typical Absolute Accuracy < +/-0.5%/ 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 IP65/IP67 depending on connector / cable

EMC Performance

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

Vibration

Shock

Fittings

MTBF

The **P500 RIPS** is a high accuracy Rotary Inductive Position Sensor which provides outstanding performance and durability. The sensor uses inductive technology and produces a DC voltage or current output from a DC supply. Angular ranges of between 30° and 160° rotation are available. Each sensor is calibrated to the exact angle required to suit the application.

The **P500** provides a linear output characteristic with rotation with non-linearity of less than +/- 0.25% for 100° rotation. The analogue output signal represents absolute position and is available on power up.

The sensor incorporates a printed circuit coil and custom ASIC electronic interface. It is easy to install and provides outstanding durability, robustness and performance.

For demanding applications the **P500** is a more durable alternative to RVDT's and potentiometers. A wide range of interface options can be supplied. For applications needing remote sensing a loop powered 4-20mA interface is available.

Performance 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.

The sensor has a robust stainless steel and anodised aluminium housing sealed to IP65/IP67.

The sensor is available with a range of mounting and cable/connector options including a servo mount housing.

