



RIPS[®] 500 ROTARY SENSOR



- Rotational Feedback for Industrial and Scientific Applications
- Non-Contacting Inductive Technology
- Robust, Durable and Reliable
- Up to 160° Rotation
- DC Supply - DC Analogue Output - Voltage or Current Options Available
- Excellent Accuracy and Stability
- IP65/IP67 Sealing Available

SPECIFICATION

| | |
|--|---|
| Travel | |
| Electrical | $\pm 10^\circ$ to $\pm 80^\circ$ |
| Mechanical | 360° |
| Factory set range with adjustable zero and span. | |
| Independent Linearity | $< \pm 0.25\%$ for 100° @ 20°C |
| Temperature Coefficients | $< \pm 0.01\%/^\circ\text{C}$ Gain & $< \pm 0.01\%\text{FS}/^\circ\text{C}$ Offset |
| Typical Overall Accuracy | $< \pm 0.5\%$ 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 |
| $\pm 15 \pm 2$ V dc | ± 5 V dc or ± 10 V 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) < 20 mNm Static |
| Torque | |
| 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 | |
| | EN 61000-6-2 EN 61000-6-3 |
| Vibration | IEC 68-2-6: 10g |
| Shock | IEC 68-2-29: 40 g |
| MTBF | 450,000 hrs 40°C Gf |



The P500 RIPS[®] is an affordable, durable, high accuracy Rotary Inductive Position Sensor for industrial and scientific feedback applications. P500 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 robust stainless steel and aluminium sensor has several mounting options and sealing between IP65 and IP67 depending on selected cable or connector options and full EMC protection built in. Enquires regarding modifications for custom applications are welcome, please contact us with your requirements.

