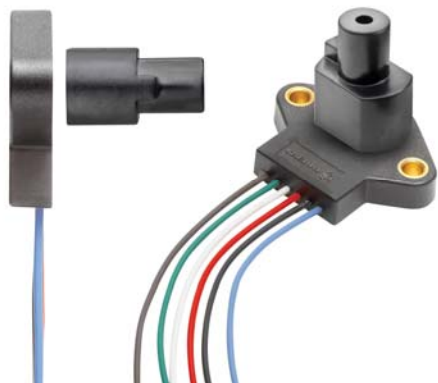


DUAL OUTPUT ANGULAR POSITION SENSOR

AN9 Series

Non-contacting magnetic position sensor with two independent outputs
Ideal for high reliability sensing applications



Features and Benefits

- Angular position sensor with high tolerance for misalignment
- Dual (redundant) outputs assure very high reliability
- Non-contact sensing up to full 360° rotation
- No mechanical interface
 - Nothing to break or wear out
 - No possibility of jamming or resistance to motion
- Sealed design meets IEC529 IP68 for immersion
- Rugged design includes EMI/ESD protection to SAE J1113 standards
- Performs with standard AS500106 magnetic actuator
- Maximum operating temperature of 125°C

Description

The sensor is operated by rotating a magnetic actuator close to the face of the sensor. Output voltage varies with angular position of the magnet relative to the sensor. Optimal performance is achieved with Cherry's AS500106 magnetic actuator.

Applications

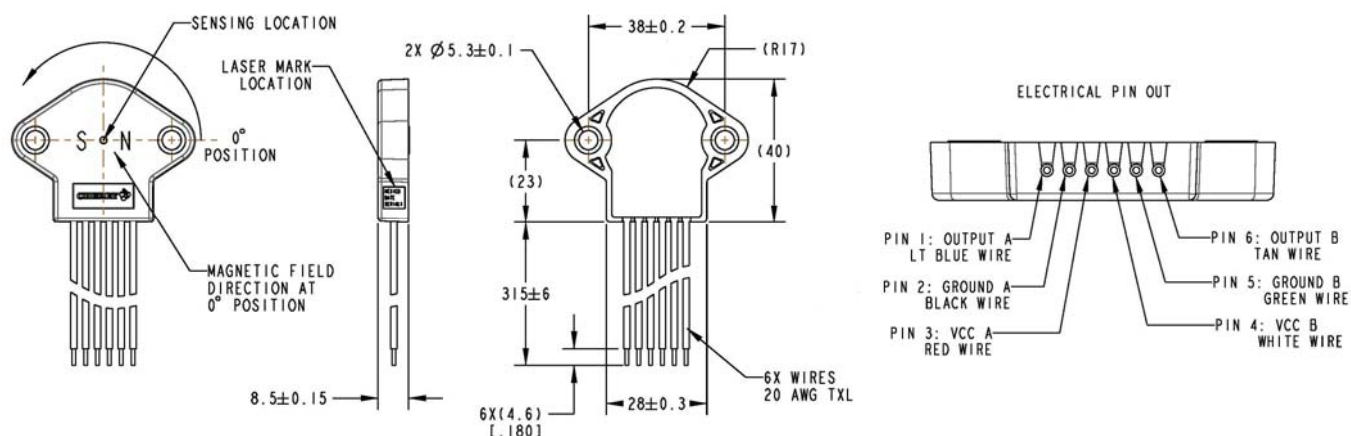
- Angular position in electro-hydraulic system (heavy equipment control)
- Steer wheel position (steer by wire)
- Shifter position (shift by wire)
- Brake pedal position (brake by wire)

Custom Options

(Contact factory for minimums and availability)

- Linear output over specific angular rotation ranges available on request
- Sensor can be programmed for use with custom magnets
- Custom programming option for rising or falling output slope with selectable offset, gain, clamp voltage
- PWM output option available for custom application

Dimensions mm



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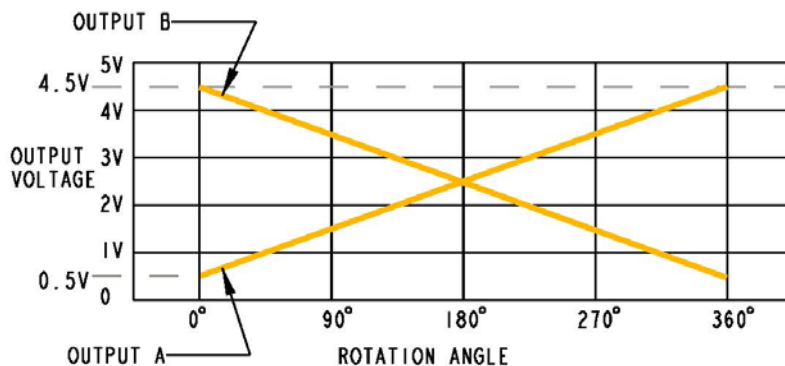
Mechanical Specifications

Mechanical Travel	0 to 360 degrees (continuous)
Dither	No mechanical contact
Termination	6 x 315mm 20awg wires
Maximum Air Gap	5mm
Maximum Center-to-Center Offset	1mm (magnet to sensor)

Electrical Specifications

Sensing Range	0 to 360 degrees of rotation
Input Voltage	5.0 VDC $\pm$ 10%
Output Voltage	0.5 to 4.5 VDC (ratiometric)
Output Accuracy (with supplied magnet) (65°- 360° rotation)	$\pm$ 2.5% Full Scale
Output Smoothness (with supplied magnet) (65°- 360° rotation)	$\pm$ 0.75% Full Scale for any 2° interval
Output Linearity (with supplied magnet) (65°- 360° rotation)	$\pm$ 2.0% Full Scale
Max Supply Voltage	20 VDC
Reverse Voltage	-10 VDC
Maximum Output Current Range	8mA
Minimum Output Current Range	-8mA
Resolution	Analog
Electrostatic Discharge	SAE J1113-13; +/- 8kV
Immunity to Radiated Electronic Magnetic Fields	SAE J1113-4; 1 MHz to 400 MHz
Conducted Transient Emissions	SAE J1113-42; $\pm$ 25V
Operating Temperature	-40 to 125°C

Typical Sensor Output Signal (Based on 5V Supply)



Sensor	Output A°	Output B°
AN920031	0-180° inc.	0-180° dec.
AN920032	0-360° inc.	0-360° dec.
AN920036	0-90° inc.	0-90° dec.

Contact

Call, fax or visit our website
For more information.

ZF Electronics Corporation

11200 88th Avenue
Pleasant Prairie, WI 53158

Phone: 262.942.6500
Web: www.cherrycorp.com
E-Mail: cep_sales@zf.com
Fax: 262.942.6566

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Specifications subject to change without notice.
Last Update 020111

