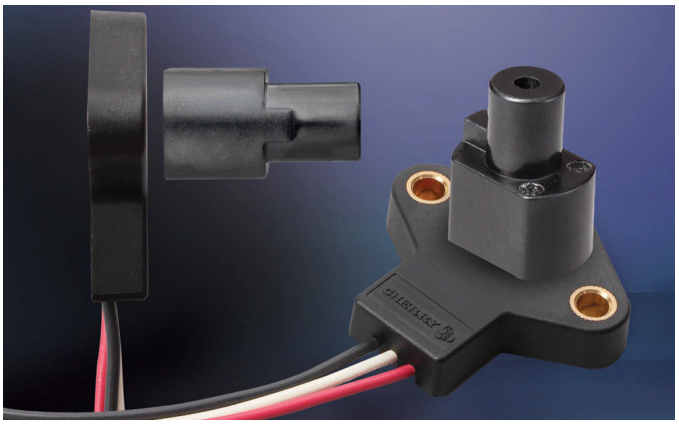
WIRED VERSION

AN8 Series

Programmable, full 0-360 ° detection
Contact less angular position sensor
capable of continuous rotation



Description

Sensor is operated by rotating a magnetic actuator close to its sensitive face. Output voltage varies according angular position of the magnet.

Optimal performance is achieved with Cherry's **AS500106** magnetic actuator.

Applications

- Replacement for smart bearings
- PRNDL switch for harsh environments
- Steer wheel position for drive by wire systems
- Throttle position sensor
- Pedal position sensor
- Non contacting Potentiometer

Features and Benefits

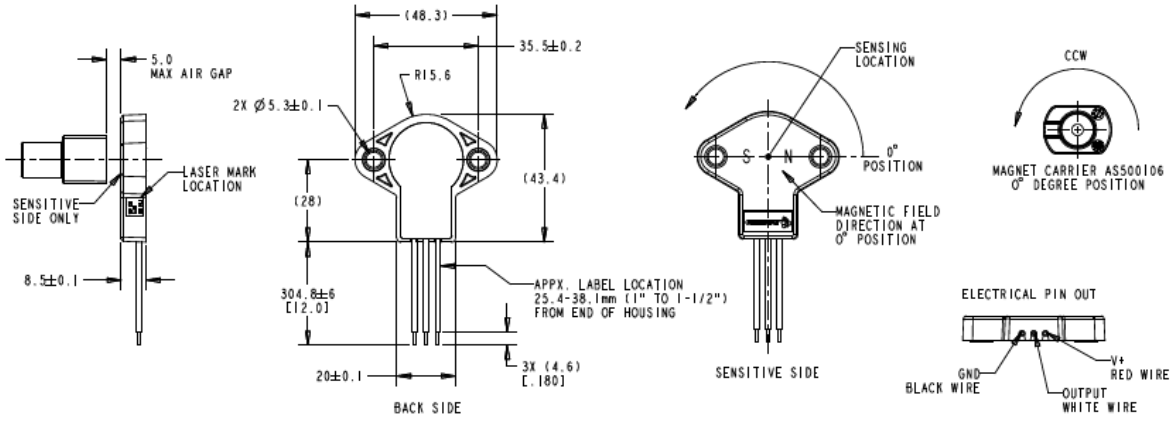
- Angular position sensor with high tolerance for misalignment
- Provides non-contact angular position sensing to full 360° rotation
- No mechanical interface means no parts to wear out
- Sealed design exceeds IEC529 IP68 standard for immersion
- 5VDC ratiometric device.
- Performs with AS500106 standard magnetic carrier
- Provided with EMI/ESD protection to SAE J1113 standards
- Maximum operating temperature of 150ºC

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 applications

Dimensions mm



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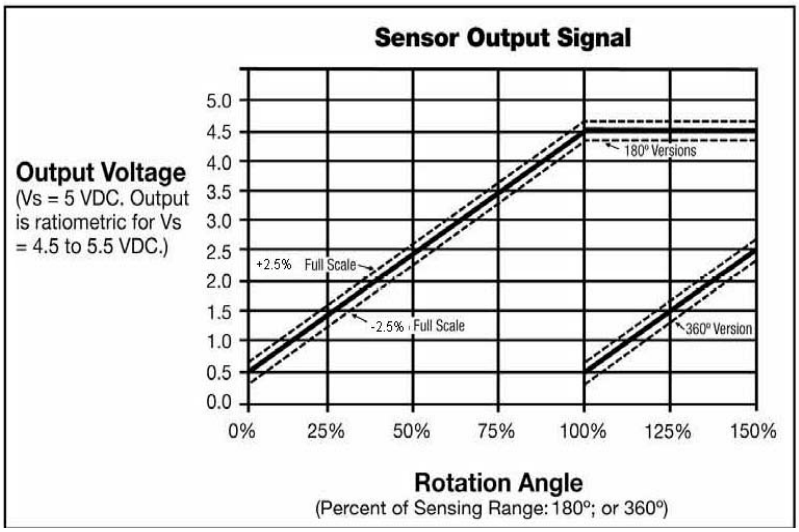
Mechanical Specifications

Mechanical Travel	0 to 360 degrees (continuous)
Dither	No mechanical contact
Termination	300mm Radox 18 AWG
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 ± 10%
Output Voltage	0.5 to 4.5 VDC (ratiometric)
Output Accuracy (with supplied magnet) (65°- 360° rotation)	± 2.5% Full Scale
Output Smoothness (with supplied magnet) (65°- 360° rotation)	± 0.75% Full Scale for any 2% interval
Output Linearity (with supplied magnet) (65°- 360° rotation)	± 2.0% Full Scale
Absolute Max Supply Voltage	16 VDC
Absolute Max Reverse Voltage	-14.5 VDC
Maximum Output Current Range	8mA
Output type	Analog
Electrostatic Discharge	SAE J1113-13; Consult factory for details
Immunity to Radiated Electronic Magnetic Fields	SAE J1113-4; 1 MHz to 400 MHz
Conducted Transient Emissions	SAE J1113-42; ± 25V
Radiated Emissions	SAE J1113-41; Class 3
Conducted Immunity	SAE J1113-2; 30Hz to 250kHz
Conduction and Coupling	SAE J1113-12; Consult factory for details
Operating Temperature	-40 to 150°C



Sensor	Sensing Range
AN820031	180°
AN820032	360°

Contact

Call, fax or visit our website
For more information.

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Specifications subject to change without notice.