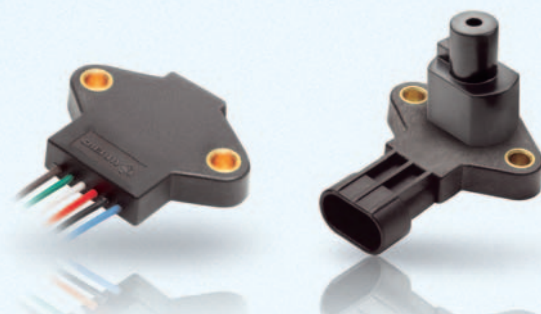


# THIN ANGULAR POSITION SENSORS

## AN8/AN9 Series



Programmable, non-contact magnetic position sensors capable of continuous rotation

### Features and Benefits

- Angular position with high tolerance for misalignment
- Provides non-contact angular position sensing and full 360° rotation
- AN9 versions with dual (redundant) outputs assuring very high reliability
- 5VDC ratiometric device.
- Sealed design exceeds IEC 60529 IP68 standard for immersion
- Performs with AS500106 standard magnetic carrier
- PWM output option available for custom applications
- Provided with EMI/ESD protection to SAE J1113 standards
- No mechanical interface means no parts to wear out
- Available with wire leads 12" (305 mm)

### Description

The sensor operates 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. Sensor kits including this standard magnet are available

### Applications

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

### Mechanical Specifications

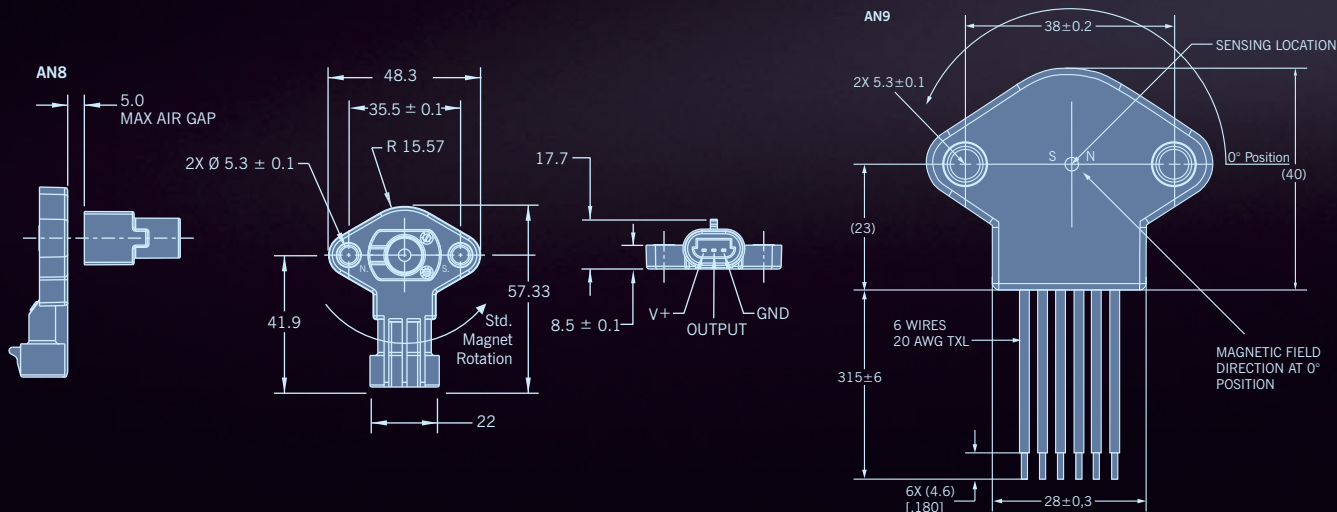
<b>Mechanical Travel</b>	0 to 360 degrees (no stops)
<b>Dither</b>	No mechanical contact
<b>Mating Connector</b>	Connector: Delphi Metri-pak 150.2 12162185 Terminal: 12124075
<b>Maximum Air Gap</b>	5 mm
<b>Maximum Center-to-Center Offset</b>	2 mm diameter (magnet to sensor)

Part Number Sensor	Part Number Set incl. magnet*	Sensing range	Interface
AN820001	CU103601	180°	Connector
AN820002	CU103602	360°	Connector
_____	CU103603	45°	Connector
AN820031	_____	180°	Wires
AN820032	_____	360°	Wires
AN920031	_____	180°, dual output	Wires
AN920032	_____	360°, dual output	Wires
AN920036	_____	90°, dual output	Wires

\*Sensor plus AS500106

### Dimensions inches (mm)

All tolerances  $\pm 0.005$  (0.13) unless otherwise noted.



Specifications subject to change without notice.