



AN1 Series

Intrinsically Linear Angular Position Sensor

Features

- Patented non-contact angular position sensor
- Magnet/sensor orientation provides intrinsically linear output up to 85 degrees of electrical rotation (120 degrees mechanical rotation) without need for electrical compensation
- Return spring provides resistance to CCW motion
- Provided with EMI/ESD protection
- Fully encapsulated electronics

Applications

- Throttle and valve position sensing
- User interface controls (vehicles, gaming)
- Pedal position sensing
- Implement position sensing
- Gear Selection
- Joystick position

Environmental Specifications

Vibration	8G's nominal, 20Hz to 2,000Hz
Operating Temperature	-40°C to + 125°C
Storage Temperature	-40°C to + 135°C

Electrical Specifications

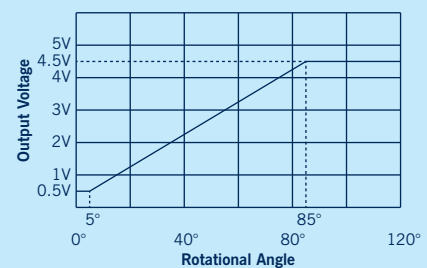
Effective Rotational Sensing Range	Maximum 85° electrical output
Input Voltage	5.0V ± 10%
Input Current	8mA, max. @ 5VDC
Output Shorted to Ground	12mA, max.
Max Overvoltage	16VDC
Sensor Output @ 5VDC (Ratiometric to Input Voltage)	0.5V to 4.5V max.
Output Linearity @ 5VDC	± 2 %
Resolution	Analog
Bulk Current Injection	SAE J1113-4, 250kHz to 500MHz.
Conduction and Coupling	SAE J1113-12; ± 200V
Electronic Discharge	SAE J1113-13; ± 8kV contact, ± 15kV air
Radiated Immunity	SAE J1113-21; 10kHz to 1.8GHz, 100V/m
Immunity to Magnetic Fields	SAE J1113-22; 200µT AC Field, 45Hz to 2kHz, 10 Gauss, 800A/m DC Field
Immunity to AC Fields	SAE J1113-26, 15,000V/m
Radiated Emissions	SAE J1113-41; Class 4

Mechanical Specifications

Mechanical Travel	120° CCW maximum rotational travel
Rotation Torque	30 inch ounce (0.21 Nm) max with return spring
Mass	24 grams
Life	+ 10 million full cycles
Mating Connection	Connector: Packard metri-pack 150 12162185 Terminal: 12124075 Housing: 12162185

AN101101 85° Sensor Output

(Typically Based on 5V Supply)



Dimensions mm

