

ILAPS™ AN101101

Intrinsically Linear Angular Position Sensor

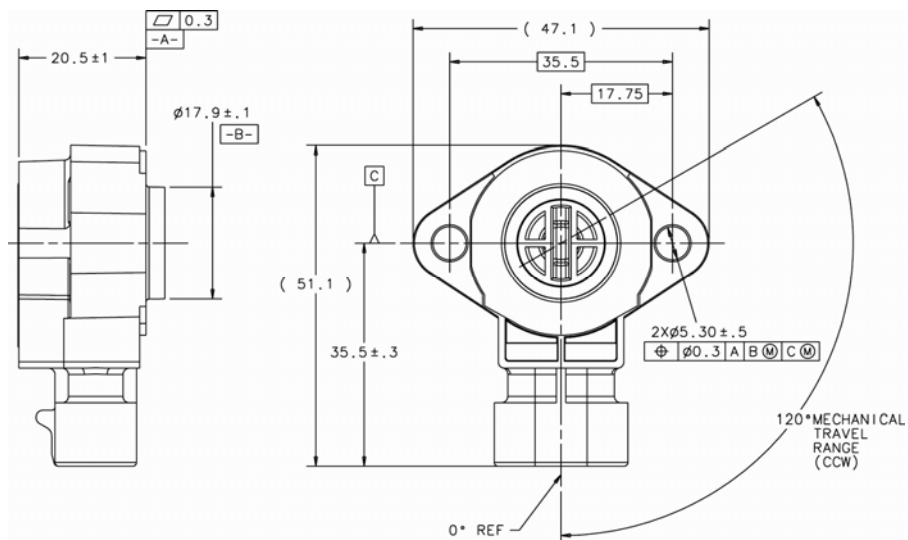


Features

- Patented non-contact angular position sensor
- Magnet/sensor orientation provides intrinsically linear output over 80 degrees of electrical rotation (120 degrees mechanical rotation) without need for electrical compensation
- Provided with programmed output or end-user re-programmable to eliminate mechanical and process tolerances in your final assembly
- Adjustable rising or falling output slope with programmable offset, gain, temperature compensation, and clamping voltage
- Return spring provides resistance to CCW motion
- Provided with EMI/ESD protection
- Fully encapsulated electronics
- ILAPS™ technology can be custom packaged to meet your exact requirements (minimum quantities apply)

Applications

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



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Mechanical Specifications

Mechanical Travel	120° CCW maximum rotational sensing range
Rotation Torque	0.12N-m max with return spring
Mass	12 grams
Life	+10 million full cycles
Mating Connection	Connector: Packard metri-pack 150 12162185 Terminal: 12124075

Electrical Specifications

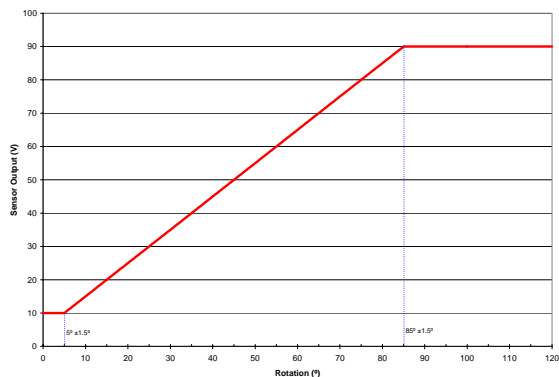
Effective Rotational Sensing Range	5° to 85°
Input Voltage	5.0V ± 10%
Input Current	4mA to 8mA at 5 VDC
Input Current, Output(s) Shorted to Ground	25mA, max, per output
Max. Overvoltage	16VDC
Sensor Output @ 5VDC (Ratiometric to Input Voltage)	0.5V TO 4.5V max. Programmable within 5% to 95% of the nominal voltage with positive or negative slopes
Output Linearity @ 5VDC (Analog Output)	±2.0%
Resolution	Analog
Response Time	.23mSEC
Bulk Current Injection	SAE J1113-4, 250kHz TO 500MHz, 60mA/m
Conduction and Coupling	SAE J1113-12, Test level C
Electrostatic Discharge	SAE J1113-13, Consult factory for details
Radiated Immunity	SAE J1113-21, 10kHz TO 18GHz, 100V/m
Immunity to Magnetic Fields	SAE J1113-22, Class C, 200uT AC Field 5Hz-2KHz, 2.5mT DC Field
Immunity to AC Fields	SAE J1113-26, Class C, 15,000V/m
Radiated Emissions	SAE J1113-41, Class 4

Environmental Specifications

Vibration	8 G's nominal, 20 Hz TO 2000 Hz
Drop	1 meter onto concrete
Operating Temperature	-40° C to +125° C
Storage Temperature	-40° C to +135° C
Salt Spray	MIL STD 202F Method 101, Condition A
Dust	SAE J1455 SEC 4.7.3

Specifications subject to change without notice.

Output Voltage % of Supply



Contact

Call, fax or visit our Website for more information.

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Last Updated: 2/23/10

The manufacturer accepts no liability for errors or non-availability, and reserves the right to change specifications without prior notice.

Technical data relates to product specifications only. Features may differ from those described. Only drawings combined with product specifications shall be deemed binding.

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