First Technology
Innovative Solutions

AUTOMOTIVE & SPECIAL PRODUCTS DIVISION

Differential Angle and Absolute Position Angle Sensor

First Technology has developed a non-contacting method of determining differential angle between two shafts that fulfills automotive market needs for measurement of applied torque. The optical based technology measures the differential angle up to 8° by a method that is inherently self correcting, completely non-contacting and requires no field calibration. The sensor functions with torsion bar shafts currently used in all power steering systems and measures absolute position over 2,000°.

First Technology is an ISO and TS registered company. We provide world-class quality products error free and on time.

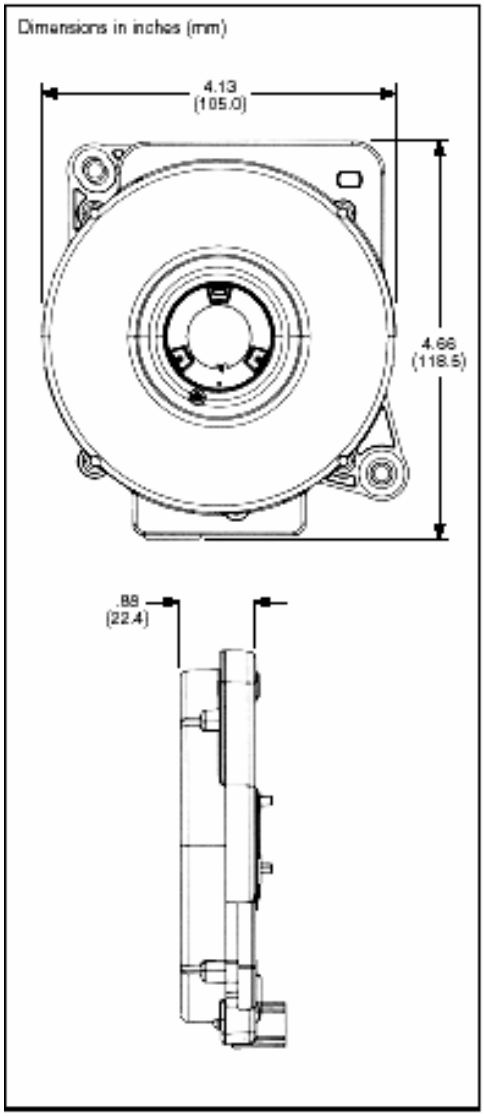
Features:

- Surface Mount & Chip-on-Board technology
- Sensing element inherently unaffected by EMI/RFI
- Designed to operate in harsh environments
- Non-contacting optical technology
- Inherently self-correcting
- Requires no field calibration
- Measures differential angle up to 8°
- Measures absolute position over 2000°

Benefits:

- Output available in Serial LIN or CAN BUS
- Offers two sensing functions in one small package

Quality & Environmental
ISO/TS 16949
ISO 9001
ISO 14001
Registered



General Specifications	
Overall Size	119 mm x 105 mm x 23 mm
Approx. Weight	150 gm
Differential Angle Range	±8°
Differential Angle Resolution	0.03
Differential Angle Accuracy	5% of indicated
Rotational Angle	±1000°
Absolute Position Resolution	1.0° (other resolutions available)
Initialization Period	5°
Accuracy (non-cumulative)	40% of specified resolution
Output Format	LIN or CAN
Supply Voltage	9 to 16 Volts DC, 28V max
Operating Current	50mA nominal
Max Rotational Speed	2000° per second
SPL	<32dbA
Operating Temperature	-40°C to 85°C
Storage Temperature	-40°C to 105°C
Operational Life	> 10,000 hours

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