Chassis Sensors



Automotive Sensor Products

Rotary Position Sensor – Hall



General Description

The sensor detects the shaft rotation and outputs the signal proportional to the shaft angle position.

Features

- Magnetically operated position sensor
- Choice of angular sensing ranges available
- Analog and PWM outputs available
- Non-contact measuring
- Choice of clockwise or counterclockwise versions available
- Choice of connectors and terminals

Benefits

- High speed
- High immunity to outside magnetic interference
- Robust construction makes this sensor well suited to harsh environments

Applications

- Pedal position
- Absolute rotary encoder
- Throttle position
- EGR
- Flap valves
- Shaft position

Operation

Basic Principle

The sensor is assembled to a shaft with a defined angle position. When the driving shaft rotates, the magnet in the sensor rotates simultaneously interacting with the Hall Effect sensor which outputs a voltage proportional to the angle of rotation.

Packaging Options

Custom packaging can be provided to meet any need, please contact Littelfuse Engineering for details.

Chassis Sensors

Automotive Sensor Products

Functional Characteristics

Parameter	
Туре	
Hall Effect Sensor	2D or 3D Hall
Output	Analog
Electrical	
Supply Voltage	5V±0.2 Vdc
Output Voltage	0.5 to 4.5 Vdc
Linearity	$\pm 3\%$
Mechanical Angle	Start point <79.5 $^\circ$, End point >187.5 $^\circ$
Electrical Angle	Start point 80.5° +/-1°, End point >185.5° +/-1°
Spring Force	20 to 120 mNm
Environmental/Mechanical	

Temperature	Operating	Celsius	-40° to +140°
Mechanical Shock	10ms Half Sine	Max.	50g
Sine Vibration	20 – 2500Hz	Max.	40g

Littelfuse

Website:www.littelfuse.comSales Support:ALL_Autosensors_Sales@littelfuse.comTechnical Support:ALL_Autosensors_Tech@littelfuse.com

Information provided by Littelfuse is believed to be accurate and reliable.

All rights reserved. Trademarks and registered trademarks are the property of their respective owners.

Littelfuse products are designed for specific applications and should not be used for any purpose (including, without limitation, automotive applications) not expressly set forth in applicable Littelfuse product documentation. Warranties granted by Littelfuse shall be deemed void for products used for any purpose not expressly set forth in applicable Littelfuse product documentation. Littelfuse shall not be liable for any claims or damages arising out of products used in applications not expressly intended by Littelfuse as set forth in applicable Littelfuse product documentation.

