

Automotive Sensor Products

Power Assist Speed and Direction Sensors



General Description

The Power Assist Speed and Direction Sensor is integrated into the powered door or tailgate system of the vehicle for safe operation. This sensor helps to prevent injury and/or damage to occupants, pedestrians outside the vehicle and the vehicle itself. Some models provide “set points” for custom stop height on tailgates.

Operation

Basic Principle

Hall Effect technology based sensors operate on the change in an external magnetic field which results in a change in the output current of the sensor.

Packaging Options

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

Features

- ◆ Operates when target wheel (ferrous or magnet encoder) rotates within gas spring assembly
- ◆ Internal circuit protection available
- ◆ EMC/ESD protection available
- ◆ Choice of circuitry for outputs
- ◆ Choice of connectors and terminals

Benefits

- ◆ Sealed or unsealed construction options makes this sensor type well suited to various environments
- ◆ Magnetically operated non-contact sensing gives excellent life and reliability

Applications

- ◆ Sliding Door Automatic Systems
- ◆ Tailgate Automatic Systems
- ◆ Trunk Automatic Systems

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Functional Characteristics

Parameter			
Type			
Hall Effect Sensor			
Output		Bi-State Current	
Electrical			
Operating Power Input	Voltage	Min-Max.	4 – 24 V
Max Power Input	Voltage	Max.	26 V
Low State Output	Current	Min-Max.	4-12mA
High State Output	Current	Min-Max.	12-24mA
Duty Cycle Variation (Direction Sensor)			+/- 10%
Bandwidth	kHz	Max.	20kHz
Environmental/Mechanical			
Temperature	Operating	Celsius	-40° to +150°
	Storage	Celsius	-65° to 150°
Shock	11ms ½ Sine	Max.	100g
Vibration	20 – 2000Hz	Max.	30g

Custom electrical and environmental specifications can be designed to meet any need, please contact Littelfuse Engineering for details.

Littelfuse

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