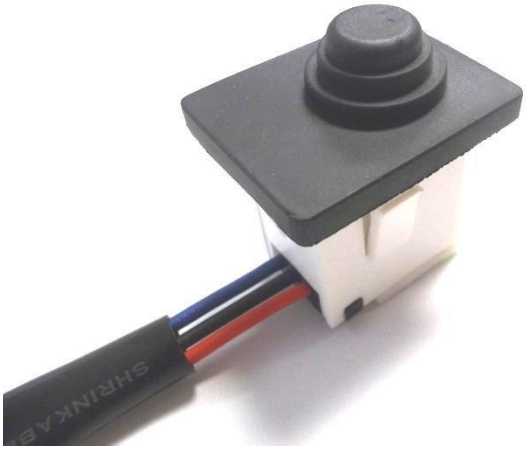
Automotive Sensor Products

Seat Occupancy Sensor – Hall



Features

- Magnetically operated position sensor
- Two logic output states (low and high)
- Simple flush and recessed mounting options available
- Non-contact sensor
- Operates when plunger is depressed
- Choice of cable length and clips
- Choice of circuitry for output voltages
- Choice of connectors and terminals

Benefits

- Robust construction makes this sensor well suited to harsh environments
- Integral neoprene boot provides protection from severe environments
- Hermetically sealed, magnetically operated contacts give excellent life and reliability

General Description

The Seat Occupancy sensor is a magnetically operated push button sensor with a simple push-fit clip mounting configuration, allowing the passenger safety system to determine the presence of an object or person in a seat.

Applications

- Seat occupancy
- Position and limit sensing

Operation

Basic Principle

The sensor is in a pre-defined single logic output state. When the plunger is depressed, the magnetic circuit will be complete, activating the Hall Effect sensor, which would switch logic (voltage) output levels to the customer electrical interface.

Packaging Options

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

Functional Characteristics

Parameter			
Type			
Hall Sensor			
Electrical			
Supply Voltage (Note 1)	Absolute rating	Max.	$8.5V_{dc}$
	Operation	Min. - Max	$4.5 – 5.5\ V_{dc}$
	Overvoltage protection	Max.	$19.5\ V_{dc}$
Output Voltage	High	Max.	$4.5 + 0.0 / -0.1\ V_{dc}$
	Low	Max.	$0.5 + 0.1 / -0.0\ V_{dc}$
Output Current (continuously on)		Max.	-1.0 to 1.0
Current Consumption over Temperature Range	Low	mA	2 – 10
	High	mA.	2 – 10
Switching Speed		Khz - Max.	2
Environmental/Mechanical			
Temperature	Operating	Celsius	-40° to +85°
	Storage	Celsius	-40° to 105°
Shock	11ms Sine	Max.	50g
Vibration	10 – 1000Hz	Max.	3.3g

Note 1 - As long as Tj (Junction Temperature) max. is not exceeded

Littelfuse

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