

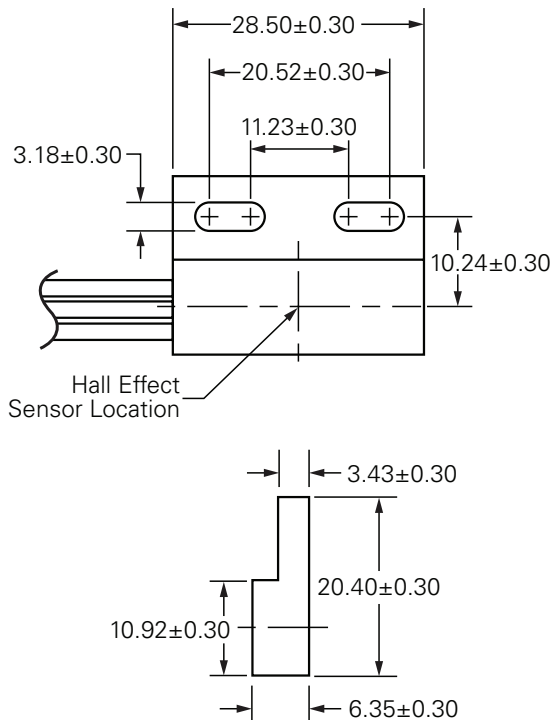
55310 Flat Pack Digital Hall Sensor

RoHS



Dimensions

Dimensions in mm



Note:
Standard actuators available pending application distance requirements. Consult Littelfuse.

Description

The Littelfuse 55310 absolute position sensor provides a digital output signal when activated by a magnet. The internal design of the sensor uses non-contact magnetic Hall effect technology. This sensor is immune to the performance limitations of the mechanical based products that are associated with mechanical wear or contamination.

The 55310 package design commonly finds applications within all types of vehicle and industrial segments and designed to operate in the harsh environments, the sensor has an operating temperature range between -40°C and 105°C. This unit incorporates automotive grade EMI/EMC and reverse battery polarity protection, as well as commercial grade 20 AWG-TXL automotive wire and the option of a Molex type sealed connector.

Features

- Magnetically operated position sensor
- Three-wire with open-drain output
- Unipolar digital hall switch
- EMC protection
- Reverse/over voltage protection

Benefits

- Custom connector, wire length options available. Consult Littelfuse
- Long life - up to 20 billion operations
- High switching speed up to 10kHz
- Unaffected by harsh environments

Applications

- Position sensing
- Limit sensing
- Speed measurement
- Magnetic encoders

Customization Options

Customized versions available. Contact Littelfuse for details.

- Connectors and terminals
- Wire type and length
- Magnetic actuators

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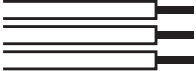
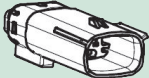
Specifications

| Hall Effect Device | | | Unipolar Digital Switch |
|---|---------------------------|-----------------|-------------------------|
| Operating Voltage | Recommended | Vdc | 4.75 to 24.0 |
| Over Voltage | Absolute Max ¹ | Vdc | 30 |
| Reverse Voltage | Absolute Max ¹ | Vdc | -20 |
| Supply Current | | mA - max. | 6 |
| Output Current | | mA - max. | 20 |
| Sensor Actuation with Magnetic South Pole | Operate (output low) | Gauss - Typical | 55 |
| | Release (output high) | Gauss - Typical | 35 |
| Switching Speed | | kHz Max | 10 |
| Temperature | Operating | °C | -40 to +105 |
| Pin Out | Size | AWG | 20 |
| | Insulation | SAE | J-1128, Type TXL |
| | Length | mm | 300 |

Notes:

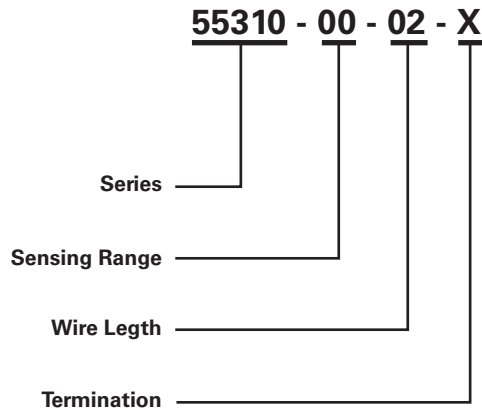
1. This is a stress rating only. Functional operation is not implied for additional load/life information.

Termination Options

| Select Option | Description | | Color | Function |
|---------------|--------------------------------------|---|-----------------------|--|
| A | Stripped Leads |  | Black White Red | Ground Signal V (in) |
| C | Molex Connector MX 150 33481-0301 |  | Black White Red | Pin 1: Black/Ground Pin 2: White/Signal Pin 3: Red/V(in) |

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Part Numbering System



Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|------------------|-------------------------|----------|---------------------------|--------------|
| Bulk | Bulk | 500 | N/A | N/A |