

55110 Miniature Flange Mounting Proximity Sensor

RoHS

OBSOLETE DATE: 06/23/2021 PCN/ECN# _____
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Description

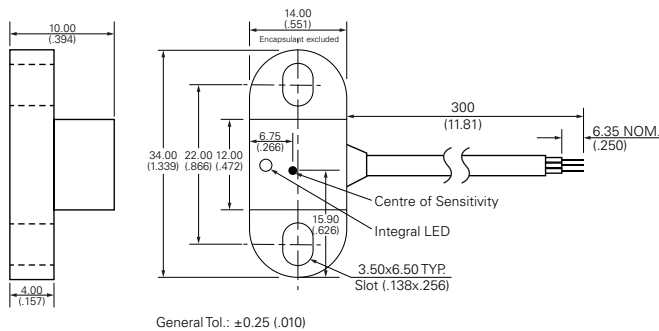
The 55110 is a flange mounting hall effect sensor with the integral LED for visual indication of operation. The overall sensor measures 34.00m (1.339") x 14.00m (0.551") x 10.00mm (0.394"). It is available as three-wire (voltage output) version and its case design enables screw or adhesive mounting. It is capable of switching up to 28Vdc and 20mA. It works best with Littelfuse's H-58 magnet.

Features

- Magnetically operated position sensor
- Integral LED
- Medium or high sensitivities
- Three-wire (voltage output)
- Reverse/Over voltage protection
- Built in temperature compensation

Dimensions

Dimensions in mm (inch)



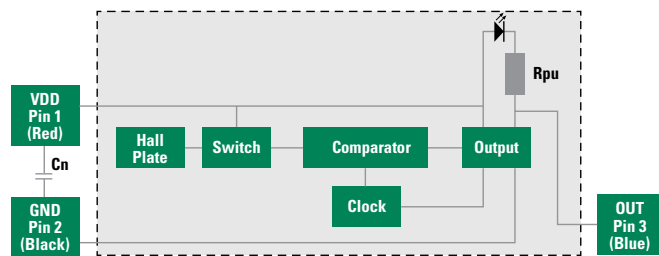
Benefits

- High switching speed up to 10kHz
- Long life - up to 1 billion operations
- Visual indication of operation
- Unaffected by harsh environments
- Operates in static or dynamic magnetic field
- Customer selection of cable length and connector type

Applications

- Position and limit sensing
- Magnetic encoders

Block Diagram



Note:

1. Add capacitor Cn as shown, close for the sensors for transient suppression if required.

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Electrical Ratings

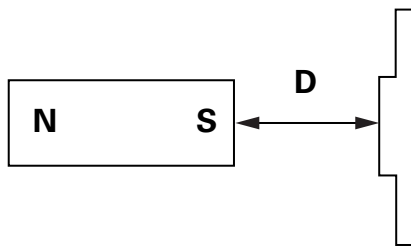
| Hall Type | | | Digital Switch Three-Wire (Voltage Output) |
|-------------------------------------|---|--------------------------|---|
| Supply Voltage ¹ | Absolute Ratings Operate Overvoltage Protection | Vdc Vdc Vdc - max. | -15 to +28 +3.8 to +24 32 |
| Output High Voltage | | Vdc - min. | Vdd-2 @ 0.1mA (sinking output with internal pull-up) |
| Output Low Voltage | | Vdc - max. | 0.4 @ 10mA |
| Output Current (continuously on) | | mA - max. | 10 |
| Switching Speed | | Khz - max. | 10 |
| Temperature | Operating | °C | -40 to +85 |

Note:

1. As long as Tj (Junction Temperature) max. Is not exceeded.

Hall Options

| Select Option | Hall Type | Sensitivity Gauss (typ.) | Activate - D mm (inch) |
|---------------|---------------|-----------------------------|---------------------------|
| 3M | 3 Wire Switch | 130 | 12.5 (.492) |
| 3H | 3 Wire Switch | 59 | 18.0 (709) |



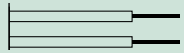

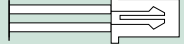
Note: Active distances are approximate using NEFEB Magnet 21 x 7 x 4.7 (.8271 x .276W x .185H) LITTELFUSE P/N H-58-MAGNET.

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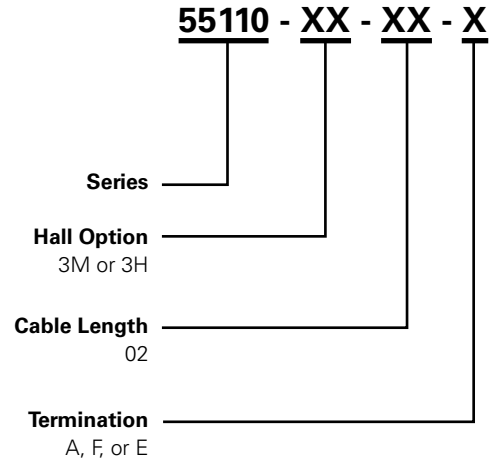
Cable Length Specification

| Cable Type: 24AWG 7/32/PVC 105°C Double Insulated | |
|---|---------------------------|
| Select Option | Cable Length mm (inch) |
| 02 | 300 (11.81) |

Termination Specification

| Termination Options | | |
|---------------------|--|---|
| Select Option | Description (Two-wire versions illustrated) | |
| A | Tinned leads (6.4±0.76)mm |  |
| F | Untinned leads (6.4±0.76)mm |  |
| E | JST type XHP 2.5mm pitch |  |

Part Numbering System



Packaging

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