

# 55110 Miniature Flange Mounting Proximity Sensor

RoHS

**OBSOLETE** DATE: 06/23/2021 PCN/ECN# -  
REPLACED BY: -



## Description

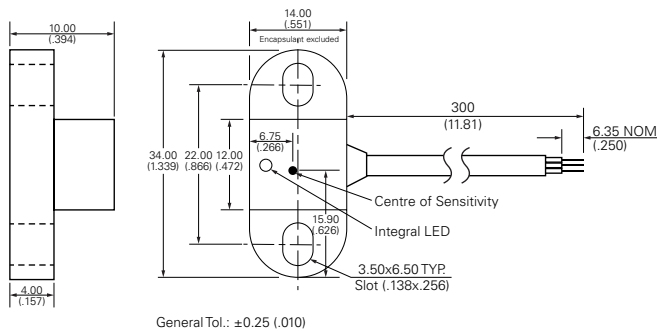
The 55110 is a flange mounting hall effect sensor with the integral LED for visual indication of operation. The overall sensor measures 34.00mm (1.339") x 14.00mm (0.551") x 10.00mm (0.394"). It is available as three-wire (voltage output) version and its case design enables screw or adhesive mounting. 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)



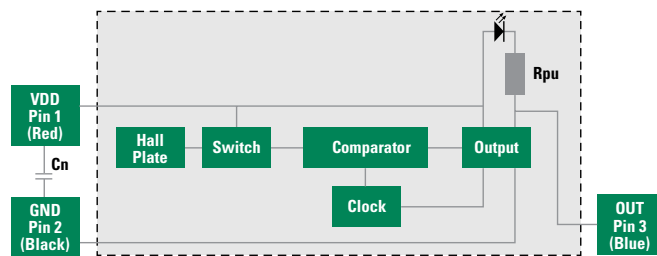
## Benefits

- 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

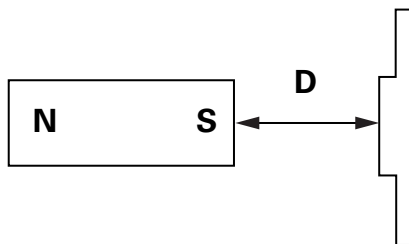
| Hall Type                           |                                                       |                          | Digital Switch<br>Three-Wire<br>(Voltage Output)        |
|-------------------------------------|-------------------------------------------------------|--------------------------|---------------------------------------------------------|
| Supply Voltage <sup>1</sup>         | Absolute Ratings<br>Operate<br>Overvoltage Protection | Vdc<br>Vdc<br>Vdc - max. | -15 to +28<br>+3.8 to +24<br>32                         |
| Output High Voltage                 |                                                       | Vdc - min.               | Vdd-2 @ 0.1mA<br>(sinking output with internal pull-up) |
| Output Low Voltage                  |                                                       | Vdc - max.               | 0.4 @ 10mA                                              |
| Output Current<br>(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<br>(typ.) | Activate - D<br>mm (inch) |
|---------------|---------------|-----------------------------|---------------------------|
| 3M            | 3 Wire Switch | 130                         | 12.5 (.492)               |
| 3H            | 3 Wire Switch | 59                          | 18.0 (709)                |



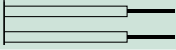
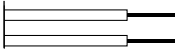
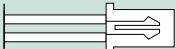
Note: Active distances are approximate using NEFEB Magnet 21 x 7 x 4.7 (.8271 x .276W x .185H) LITTELFUSE P/N H-58-MAGNET.

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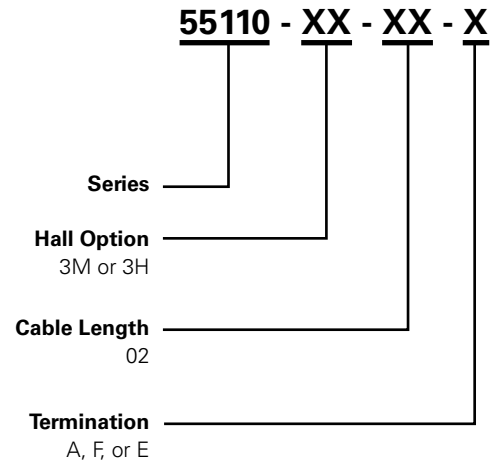
### Cable Length Specification

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

### Termination Specification

| Termination Options |                                                |                                                                                   |
|---------------------|------------------------------------------------|-----------------------------------------------------------------------------------|
| Select Option       | Description<br>(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          |