

55110 L.E.D. Flange Mount Hall Effect Sensor Features and Benefits



Features

- Magnetically operated position sensor
- Digital or latching types available
- Integral LED
- Medium or high sensitivities
- 3 wire (voltage output)
- Vibration 50g max. @ 50-2,000Hz
- Shock 150g max. @ 11ms 1/2 Sine
- EMC to DIN 40839 (Consult Hamlin)
- Reverse/Over Voltage Protection
- Built in temperature compensation

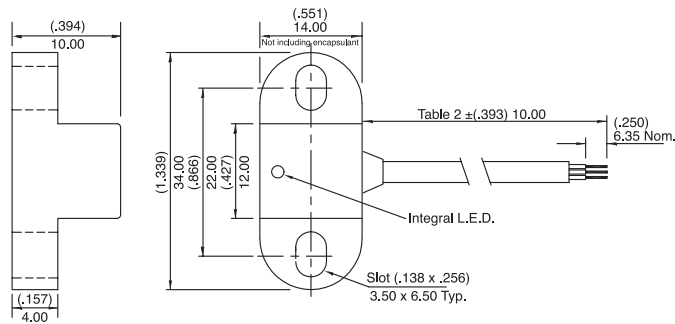
Benefits

- High switching speed up to 10kHz
- Long life; up to 20 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

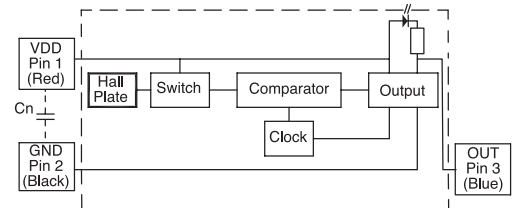
Applications

- Position and limit sensing
- RPM measurement
- Flow metering
- Commutation of brushless dc motors
- Angle sensing
- Magnetic encoders

DIMENSIONS (in) mm



BLOCK DIAGRAMS



Note
Add capacitor Cn as shown, close for the sensor, for transient suppression if required

CUSTOMER OPTIONS - Switching Specifications

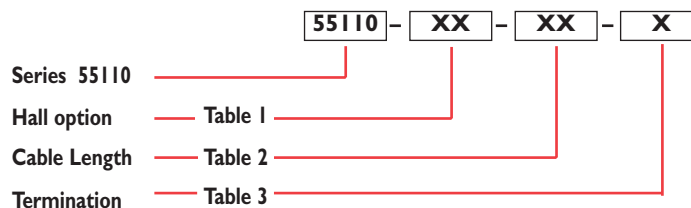
| SPECIFICATIONS | | | Digital Switch or Digital Latch |
|----------------------------------|----------------------|--|---------------------------------|
| Hall Type | | | 3 Wire (Voltage output) |
| Supply Voltage (Note 1) | Absolute Ratings | Vdc | -15 to +28 |
| | Operate | Vdc | +3.8 to +24 |
| | Overshoot Protection | Vdc-max | 32 |
| Output High Voltage | Vdc-min | Vdd-2 @ 0.1mA (sinking output with internal pull-up) | |
| Output Low Voltage | Vdc-max | 0.4 @ 20mA | |
| Output Current (continuously on) | mA-max | 20 | |
| Switching Speed | kHz-max | 10 | |
| Temperature | Operating | °C | -40 to +85 |
| | Storage | °C | -65 to +85 |

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

CUSTOMER OPTIONS - Sensitivity, Cable Length and Termination Specification

| TABLE 1 HALL OPTIONS | | | | TABLE 2 | | TABLE 3 | | |
|--|---------------|--------------------------|----------------------|--|----------------|-----------------------|----------------------|--|
| ACTIVATE DISTANCES ARE APPROXIMATE USING NeFeB MAGNET (.827L x .276W x .185H) 21 x 7 x 4.7 HAMLIN P/N 5812334000 | | | | Cable Length:- (Cable type 24 AWG 7/32 PVC 105°C Double Insulated) | | Termination Options:- | | |
| Select Hall Option | Hall Type | Sensitivity Gauss (Typ.) | Activate - d (in) mm | SELECT OPTION | LENGTH (in) mm | SELECT OPTION | DESCRIPTION | |
| 3M | 3 Wire Switch | 130 | (.492) 12.5 | 01 | (3.94) 100 | A | Tinned leads | |
| 3H | 3 Wire Switch | 59 | (.709) 18.0 | 02 | (11.81) 300 | C | 6.35mm fastons | |
| 3L | 3 Wire Latch | 86 | (.394) 10.0 | 03 | (19.69) 500 | D | AMP MTE 2.54mm pitch | |
| | | | | 04 | (29.53) 750 | E | JST XHP 2.5mm pitch | |
| | | | | 05 | (39.37) 1000 | | | |

ORDERING INFORMATION



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Hamlin USA Tel: +1 920 648 3000 • Fax: +1 920 648 3001 • Email: sales.us@hamlin.com
 Hamlin UK Tel: +44 (0)1379 649700 • Fax: +44 (0)1379 649702 • Email: sales.uk@hamlin.com
 Hamlin Germany Tel: +49 (0) 6142 923920 • Fax: +49 (0) 6142 923921 • Email: sales.de@hamlin.com
 Hamectrol France Tel: +33 (0) 1 4687 0202 • Fax: +33 (0) 1 4686 6786 • Email: sales.fr@hamlin.com