

# 查询"55140-2H-04-A"供应商



## 55140 Flange Mount Hall Effect Sensor Features and Benefits

### Features

- Magnetically operated position sensor
- Digital, latching or programmable analogue types available
- Medium, high or programmable sensitivities
- 3 wire (voltage output) or 2 wire (current output) versions
- 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

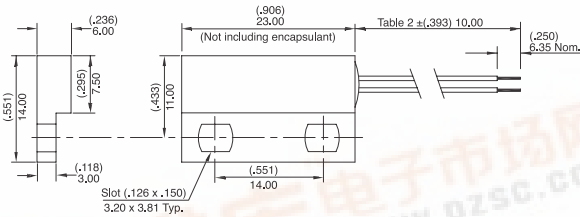
- High switching speed up to 10kHz
- Long life; up to 20 billion operations
- Unaffected by harsh environments
- Operates in static or dynamic magnetic field
- Customer selection of cable length and connector type

### Applications

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

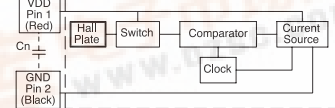
## DIMENSIONS (in) mm

### 2 WIRE VERSION ILLUSTRATED

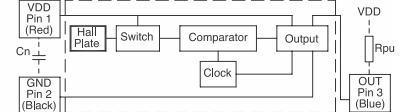


## BLOCK DIAGRAMS

### 2 WIRE VERSION



### 3 WIRE VERSION



### Notes

- 1) Add capacitor Cn as shown, close to the sensor, for transient suppression if required
- 2) Add resistor Rpu as shown for sinking output

## CUSTOMER OPTIONS - Switching Specifications

| SPECIFICATIONS                             |                        |         | Digital Switch or Digital Latch |                         | A - Analogue (Programmable Only) (Note 2) |
|--------------------------------------------|------------------------|---------|---------------------------------|-------------------------|-------------------------------------------|
| Hall Type                                  |                        |         | 3 Wire (Voltage output)         | 2 Wire (Current Output) |                                           |
| Supply Voltage (Note 1)                    | Absolute Ratings       | Vdc     | -15 to +28                      | -15 to +28              | 8.5                                       |
|                                            | Operate                | Vdc     | +3.8 to +24                     | +3.75 to +24            | 4.5-5.5                                   |
|                                            | Overvoltage Protection | Vdc-max | 32                              | 32                      | 19.5                                      |
| Output High Voltage                        |                        | Vdc     | sinking output                  | N/A                     | 4.65                                      |
| Output Low Voltage                         |                        | Vdc-max | 0.4 @ 20mA                      | N/A                     | 0.35                                      |
| Output Current (continuously on)           |                        | mA-max  | 20                              | N/A                     | -1.0 to +1.0                              |
| Current Consumption over Temperature Range | Low                    | mA      | 1.6 - 5.2                       | 5-6.9                   | 2 - 10                                    |
|                                            | High                   | mA      | 1.6 - 5.2                       | 12-17                   | 2 - 10                                    |
| Switching Speed                            |                        | kHz-max | 10                              | 10                      | 2                                         |
| Temperature                                | Operating              | °C      | -40 to +100                     | -40 to +100             | -40 to +100                               |
|                                            | Storage                | °C      | -65 to +105                     | -65 to +105             | -65 to +150                               |

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

Note 2 - Preprogrammed by Hamlin or Customer pending agreement

## CUSTOMER OPTIONS - Sensitivity, Cable Length and Termination Specification

| TABLE 1<br>HALL OPTIONS                                                                                          |               |                          |                      |
|------------------------------------------------------------------------------------------------------------------|---------------|--------------------------|----------------------|
| ACTIVATE DISTANCES ARE APPROXIMATE USING NeFeB MAGNET (.827L x .276W x .185H) 21 x 7 x 4.7 HAMLIN P/N 5812334000 |               |                          |                      |
|                                                                                                                  |               |                          |                      |
| Select Hall Option                                                                                               | Hall Type     | Sensitivity Gauss (Typ.) | Activate - d (in) mm |
| 2M                                                                                                               | 2 Wire Switch | 120                      | (.531) 13.5          |
| 2H                                                                                                               | 2 Wire Switch | 57                       | (.728) 18.5          |
| 2L                                                                                                               | 2 Wire Latch  | 40                       | (.827) 21.0          |
| 3M                                                                                                               | 3 Wire Switch | 130                      | (.492) 12.5          |
| 3H                                                                                                               | 3 Wire Switch | 59                       | (.709) 18.0          |
| 3L                                                                                                               | 3 Wire Latch  | 86                       | (.394) 10.0          |
| AP                                                                                                               | Analogue      | Programmable             | Consult Hamlin       |

| TABLE 2                                                         |                      |
|-----------------------------------------------------------------|----------------------|
| Cable Length:- (Cable Type 24 AWG 7/32 PVC 105°C UL1430/UL1569) |                      |
| Standard Lengths                                                |                      |
| SELECT OPTION                                                   | CABLE LENGTH (in) mm |
| 01                                                              | (3.94) 100           |
| 02                                                              | (11.81) 300          |
| 03                                                              | (19.69) 500          |
| 04                                                              | (29.53) 750          |
| 05                                                              | (39.37) 1000         |

| TABLE 3               |                                          |  |
|-----------------------|------------------------------------------|--|
| Termination Options:- |                                          |  |
| SELECT OPTION         | DESCRIPTION (2 WIRE VERSION ILLUSTRATED) |  |
| A                     | Tinned leads                             |  |
| C                     | 6.35mm fastons                           |  |
| D                     | AMP MTE 2.54mm pitch                     |  |
| E                     | JST XHP 2.5mm pitch                      |  |

## ORDERING INFORMATION

55140 - XX - XX - X

Series 55140

Hall option

Cable Length

Termination

Table 1

Table 2

Table 3

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