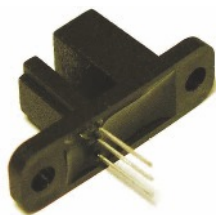


## 55085 Miniature Vane Hall Effect Sensor



### Features

- Sensor and magnet contained in a single housing
- Sensor operates when ferrous vane passes through slot
- 3 pin leadout integral to sensor
- Reverse/Over voltage protection
- Built in temperature compensation

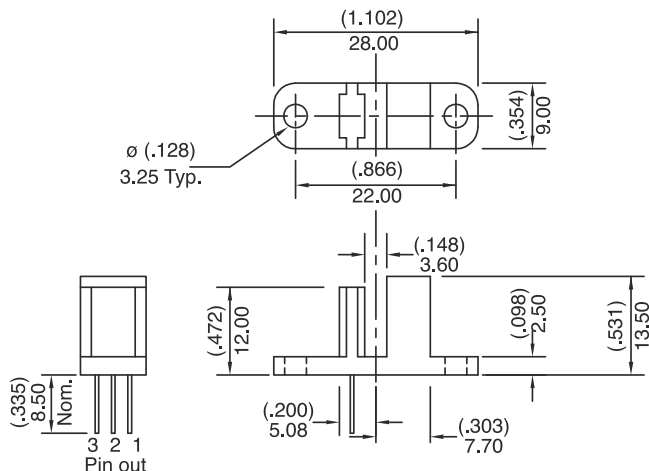
### Benefits

- High switching speed up to 10kHz
- Long life; up to 20 billion operations
- Unaffected by harsh environments
- Operates in static or dynamic magnetic field
- Small package size
- Simple installation

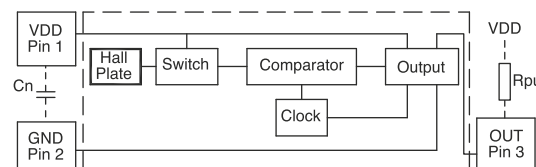
### Applications

- Position and limit sensing
- Shaft rotation sensing
- Security systems
- Linear actuators
- Angle sensing
- Magnetic encoders

## DIMENSIONS (in) mm



## BLOCK DIAGRAM



### 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.

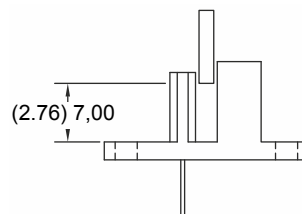
## SPECIFICATIONS

| Specifications                   |                        |            | Digital Switch                             |
|----------------------------------|------------------------|------------|--------------------------------------------|
| Hall Type                        |                        |            | 3 Wire (Voltage output)                    |
| Supply Voltage (Note1)           | Absolute Range         | Vdc        | -15 to +28                                 |
|                                  | Recommended            | Vdc        | +3.8 to +24                                |
|                                  | Overvoltage Protection | Vdc - max. | 32                                         |
| Output High Voltage              | Vdc                    |            | Sinking output (Pull Up Resistor Required) |
| 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 +100                                |
|                                  | Storage                | °C         | -65 to +105                                |

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

## ACTIVATIONS (in) mm

Activate Distance is approximate using a (.100) 2,54 mm thick ferrous vane as illustrated.



## ORDERING INFORMATION

55085 - 3M - 00 - 0

Series 55085

**Hamlin USA** Tel: +1 920 648 3000 • Fax: +1 920 648 3001 • Email: [sales.us@hamlin.com](mailto:sales.us@hamlin.com)  
**Hamlin Europe** Tel: +44 (0)1603 257700 • Fax: +44 (0)1603 257702 • Email: [sales.uk@hamlin.com](mailto:sales.uk@hamlin.com)  
**Hamlin China** Tel: +86 (0) 512 69365 800 • Fax: +86 (0) 512 69365 811 • Email: [sales.cn@hamlin.com](mailto:sales.cn@hamlin.com)