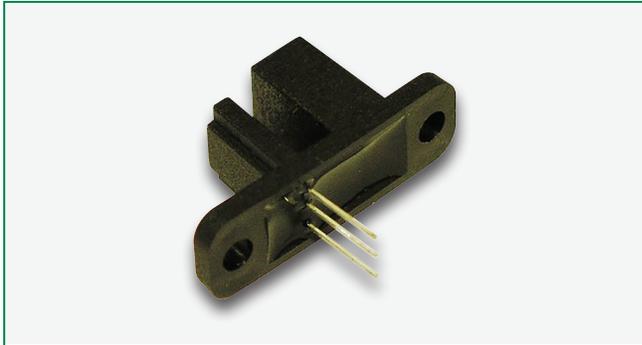


55085 With Integral Actuator Magnet



Description

The 55085 is a miniature hall effect sensor with integral actuator magnet. Actuation occurs when a suitable vane passes through the slot between the magnet and hall element. It is capable of switching up to 28Vdc and 20mA and ideally suited to position and limit sensing, security, linear actuator, industrial process control, and shaft rotation applications.

Features

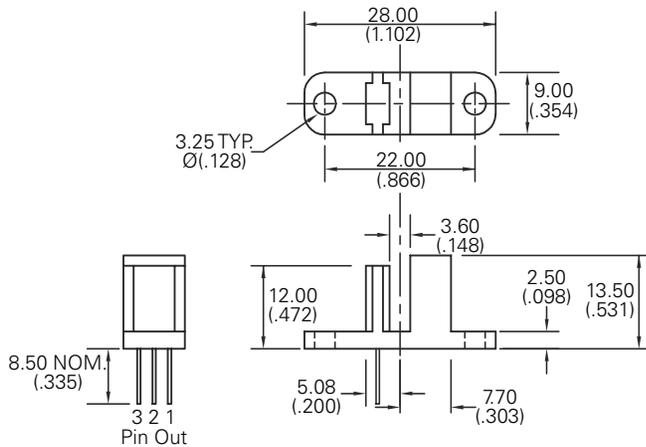
- Sensor and magnet contained in a single housing
- Sensor operates when ferrous vane passes through slot
- Three-pin leadout integral to sensor
- Reverse/Over voltage protection
- Built in temperature compensation

Agency Approvals

Agency	Agency File Number
	E61760 (TBD)

Dimensions

Dimensions in mm (inch)



Benefits

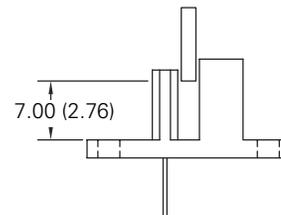
- High switching speed up to 10kHz
- Long life - up to 20 billion operations
- Unaffected by harsh environments
- Operates in static or dynamic magnetic field
- Small package size
- Simple installation

Applications

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

Activation

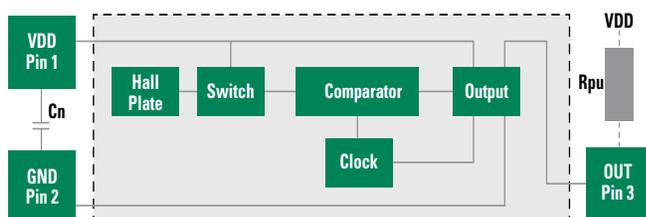
Dimensions in mm (inch)



Note:

1. Activate Distance is approximate using a 2.54mm (.100) thick ferrous vane as illustrated.

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.

Additional Information



Datasheet



Resources



Samples

55085 With Integral Actuator Magnet

Electrical Ratings

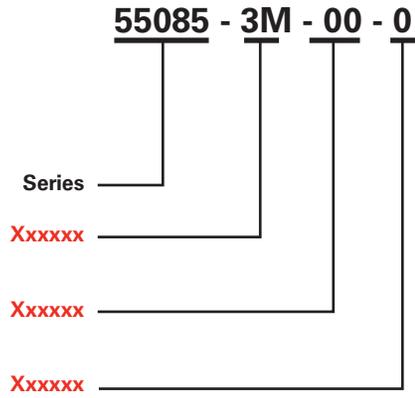
Hall Type		Digital Switch 3-Wire (Voltage Output)	
Supply Voltage ¹	Absolute Range Recommended Overvoltage Protection	Vdc Vdc Vdc - max.	-15 to +28 +3.8 to +24 32
Output High Voltage		Vdc - min.	VDD - 2 (sinking output with internal pull-up resistor)
Output Low Voltage		Vdc - max.	0.4 @20mA
Output Current (continuously on)		mA - max.	20
Current Consumption		mA - min. mA - max.	1 10.5
Switching Speed		KHz-max.	10
Temperature	Operating Storage	°C °C	-40 to +100 -65 to +105

Note:

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

55085 With Integral Actuator Magnet

Part Numbering System



Packaging

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Littelfuse:

[55085 3M 00 0](#) [55085-3M-00-0](#)