

# 59125 Pinned Flange Sensor + 57125 Actuator



## Description

The 59125 is a flange mounting reed sensor 28.57mm x 19.05mm x 6.35mm (1.125" x 0.750" x 0.250") with integral terminal pins with a choice of normally open, normally open high voltage or normally closed contacts. It's case design enables screw or adhesive mounting. It is capable of switching up to 265Vac/300Vdc at 10VA. The 59125 functions best with the matching actuator 57125-000.

**Note: The 57125 Actuator is sold separately.**

## Features

- Two-part magnetically operated proximity sensor
- Moulded in terminal pins accept push on connector or wire wrap
- Case design allows screw down or adhesive mounting
- Customer defined sensitivity option

## Agency Approvals

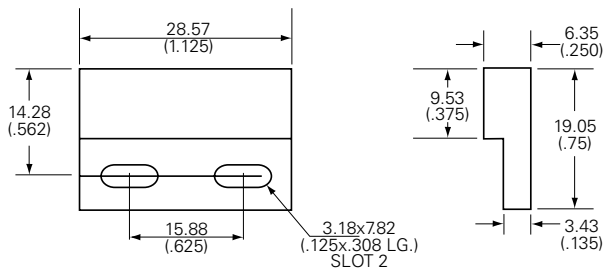
| Agency | Agency File Number |
|--------|--------------------|
|        | E61760             |

Note: Contact Littelfuse for specific agency approval ratings.

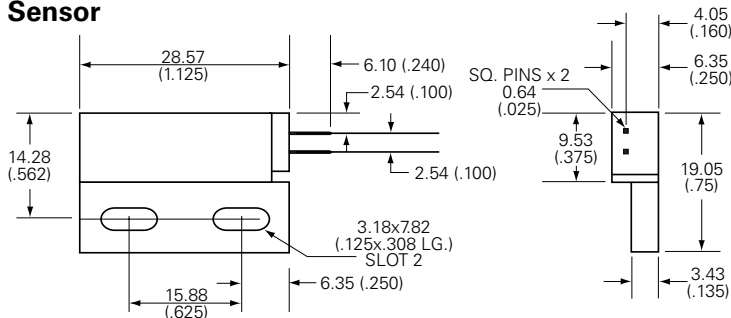
## Dimensions

Dimensions in mm (inch)

### Actuator



### Sensor



## Benefits

- Hermetically sealed, magnetically operated contacts continue to operate long after optical and other technologies fail due to contamination
- No standby power requirement
- Operates through non-ferrous materials such as wood, plastic or aluminium

## Applications

- Position and limit sensing
- Security system switch
- Linear actuators
- Industrial process control

## 59125 Pinned Flange Sensor + 57125 Actuator

### Electrical Ratings

| Contact Type                |                             |                | Normally Open    | Normally Open High Voltage | Normally Closed |
|-----------------------------|-----------------------------|----------------|------------------|----------------------------|-----------------|
| Switch Type                 |                             |                | 1                | 2                          | 4               |
| Contact Rating <sup>1</sup> |                             | VA/Watt - max. | 10               | 10                         | 5               |
| Voltage <sup>4</sup>        | Switching <sup>2</sup>      | Vdc - max.     | 200              | 300                        | 175             |
|                             |                             | Vac - max.     | 140              | 265                        | 120             |
|                             | Breakdown <sup>3</sup>      | Vdc - min.     | 250              | 400                        | 200             |
| Current <sup>4</sup>        | Switching <sup>2</sup>      | Adc - max.     | 0.5              | 0.4                        | 0.25            |
|                             |                             | Aac - max.     | 0.35             | 0.30                       | 0.18            |
|                             | Carry                       | Adc - max.     | 1.2              | 1.4                        | 1.5             |
| Resistance <sup>5</sup>     | Contact, Initial Insulation | Ω - max.       | 0.2              | 0.2                        | 0.2             |
|                             |                             | Ω - min.       | 10 <sup>10</sup> | 10 <sup>10</sup>           | 10 <sup>9</sup> |
| Capacitance                 | Contact                     | pF - typ.      | 0.3              | 0.2                        | 0.3             |
| Temperature                 | Operating                   | °C             | -40 to +105      | -20 to +105                | -40 to +105     |

### Product Characteristics

|                           |             |           |     |     |     |
|---------------------------|-------------|-----------|-----|-----|-----|
| Operate Time <sup>6</sup> |             | ms - max. | 1.0 | 1.0 | 3.0 |
| Release Time <sup>6</sup> |             | ms - max. | 1.0 | 1.0 | 3.0 |
| Shock <sup>7</sup>        | 11ms ½ sine | G - max.  | 100 | 100 | 50  |
| Vibration <sup>7</sup>    | 50-2000 Hz  | G - max.  | 30  | 30  | 30  |

**Notes:**

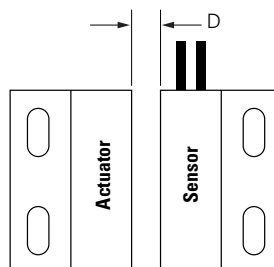
- Contact rating - Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/life information.
- When switching inductive and/or capacitive loads, the effects of transient voltages and/or currents should be considered. Refer to Application Notes AN108A and AN107 for details.
- Breakdown Voltage - per MIL-STD-202, Method 301.
- Electrical Load Life Expectancy - Contact Littelfuse with voltage, current values along with type of load.
- This resistance value is for 11.81mm wire length. Resistance changes when wire lengthens.
- Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil II).
- Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.
- For custom modifications to the wire length or size, or adding a special connector, please contact Littelfuse.

### Sensitivity Options (Using 57125 Actuator)

| Select Option |                 | S                |                                       | T                |                                       | U                |                                       | V                |                                       |
|---------------|-----------------|------------------|---------------------------------------|------------------|---------------------------------------|------------------|---------------------------------------|------------------|---------------------------------------|
| Switch Type   |                 | Pull-In AT Range | Activate Distance-D mm (inch) Average | Pull-In AT Range | Activate Distance-D mm (inch) Average | Pull-In AT Range | Activate Distance-D mm (inch) Average | Pull-In AT Range | Activate Distance-D mm (inch) Average |
| 1             | Normally Open   | 12-18            | 12.5 (.492)                           | 17-23            | 11.3 (.445)                           | 22-28            | 9.8 (.385)                            | 27-33            | 8.9 (.350)                            |
| 2             | High Voltage    | --               | --                                    | 17-23            | 11.3 (.445)                           | 22-28            | 9.8 (.385)                            | 27-33            | 8.9 (.350)                            |
| 4             | Normally Closed | 15-20            | 8.0 (.315)                            | 20-25            | 7.2 (.283)                            | 25-30            | 5.9 (.233)                            | --               | --                                    |

**Note:**

- Pull-In AT Range: These AT values are the bare reed switch AT before modification.
- The activation distance is average value on the final sensor assembly



## 59125 Pinned Flange Sensor + 57125 Actuator

### Part Numbering System

**Sensor:** 59125 - X - X - 00 - 0

**Series**  
**Switch Type**  
1, 2, or 4  
**Sensitivity**  
S, T, U, or V

**Actuator:** 57125 - 000

**Series**  
**Standard Actuator**  
000

**Note:** The 57125 Actuator is sold separately.

### Packaging

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

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