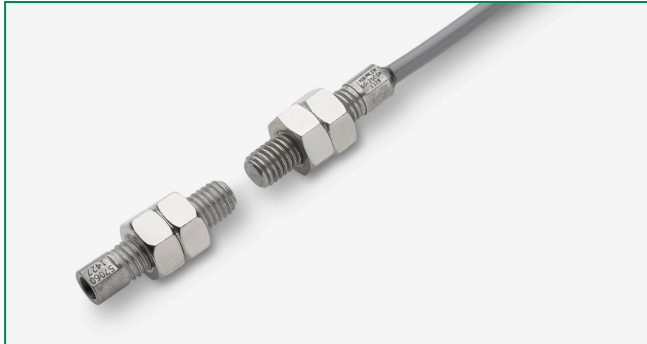


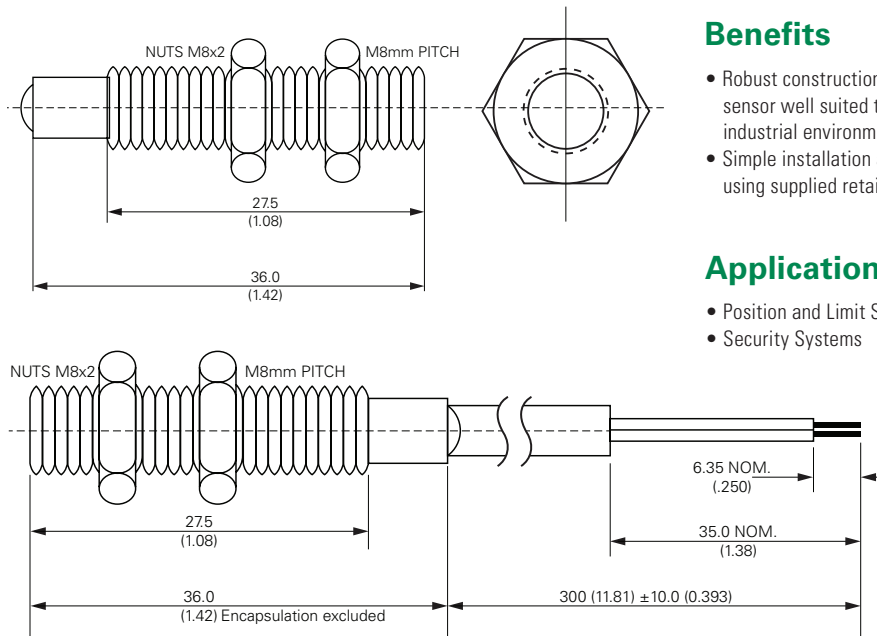
# 59060 Stainless Steel M8 Threaded Barrel Sensor + 57060 Actuator

RoHS



## Dimensions

Dimensions in mm (inch)



## Description

The 59060 is a small stainless steel barrel sensor with an M8 x 1.25mm pitch thread, 36mm (1.420") long with a choice of normally open, normally open high voltage, normally closed or change over contacts. It is capable of switching up to 265Vac/300Vdc at 10VA. It has a variety range of sensitivity, cable length and connector options. It functions best with the 57060 actuator.

**Note: The 57060 Actuator is sold separately.**

## Features

- Two-part magnetically operated proximity sensor
- Stainless steel threaded barrel with retaining nuts
- M8 thread
- Choice of normally open or normal open high voltage contacts
- Customer defined sensitivity options
- Choice of cable length and

## Benefits

- Robust construction makes this sensor well suited to harsh industrial environments
- Simple installation and adjustment using supplied retaining nuts
- No standby power requirement
- Operates through non-ferrous materials such as wood, plastic or aluminium

## Applications

- Position and Limit Sensing
- Security Systems
- Industrial Process Control
- Linear Actuators

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## Electrical Ratings

| Contact Type                |                             |                                    | Normally Open           | Normally Open High Voltage | Change Over            | Normally Closed        |
|-----------------------------|-----------------------------|------------------------------------|-------------------------|----------------------------|------------------------|------------------------|
| Switch Type                 |                             |                                    | 1                       | 2                          | 3                      | 4                      |
| Contact Rating <sup>1</sup> |                             | VA/Watt - max.                     | 10                      | 10                         | 5                      | 5                      |
| Voltage <sup>4</sup>        | Switching <sup>2</sup>      | Vdc - max.                         | 200                     | 300                        | 175                    | 175                    |
|                             |                             | Vac - max.                         | 140                     | 265                        | 120                    | 120                    |
|                             | Breakdown <sup>3</sup>      | Vdc - min.                         | 250                     | 450                        | 200                    | 200                    |
| Current <sup>4</sup>        | Switching <sup>2</sup>      | Adc - max.                         | 0.5                     | 0.5                        | 0.25                   | 0.25                   |
|                             |                             | Aac - max.                         | 0.35                    | 0.35                       | 1.0                    | 1.0                    |
|                             | Carry                       | Adc - max.                         | 1.2                     | 1.5                        | 1.5                    | 1.5                    |
| Resistance <sup>5</sup>     | Contact, Initial Insulation | $\Omega$ - max.<br>$\Omega$ - min. | 0.2<br>10 <sup>10</sup> | 0.2<br>10 <sup>10</sup>    | 0.2<br>10 <sup>9</sup> | 0.2<br>10 <sup>9</sup> |
| Capacitance                 | Contact                     | pF - typ.                          | 0.3                     | 0.2                        | 0.3                    | 0.3                    |
| Temperature                 | Operating Storage           | $^{\circ}\text{C}$                 | -40 to +105             | -20 to +105                | -40 to +105            | -40 to +105            |
|                             |                             | $^{\circ}\text{C}$                 | -65 to +105             | -65 to +105                | -65 to +105            | -65 to +105            |

## Product Characteristics

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

**Notes:**

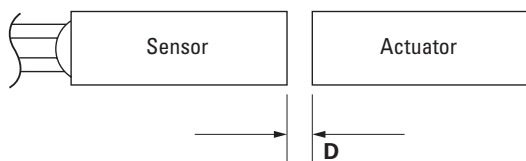
- Contact rating - Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/life information.
- When switching inductive and/or capacitive loads, the effects of transient voltages and/or currents should be considered. Refer to Application 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 57060 Actuator)

| Select Option |                  | S                                       |                  | T                                       |                  | U                                       |                  | V                                       |            |
|---------------|------------------|---|------------------|---|------------------|---|------------------|---|------------|
| Switch Type   | Pull-In AT Range | Activate Distance - D mm (inch) Minimum | Pull-In AT Range | Activate Distance - D mm (inch) Minimum | Pull-In AT Range | Activate Distance - D mm (inch) Minimum | Pull-In AT Range | Activate Distance - D mm (inch) Minimum |            |
| 1             | Normally Open    | 12-18                                   | 12.0 (.472)      | 17-23                                   | 9.0 (.354)       | 22-28                                   | 7.0 (.276)       | 27-33                                   | 5.5 (.217) |
| 2             | High Voltage     | --                                      | --               | 17-23                                   | 9.0 (.354)       | 22-28                                   | 7.0 (.276)       | 27-33                                   | 5.5 (.217) |
| 3             | Change Over      | 15-20                                   | 12.0 (.472)      | 20-25                                   | 7.5 (.295)       | 25-30                                   | 6.0 (.236)       | --                                      | --         |
| 4             | Normally Closed  | 15-20                                   | 12.0 (.472)      | 20-25                                   | 7.5 (.295)       | 25-30                                   | 6.0 (.236)       | --                                      | --         |

**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.



| Schematics | Switch Type |
|------------|-------------|
|            | 1 and 2     |
|            | 3           |
|            | 4           |