

59065 5/16" Plastic Threaded Barrel Sensor + 57065 Actuator



Description

The 59065 is a small plastic barrel sensor with a 5/16" x 24 thread, 38.1mm (1.500") 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 functions best with the 57065 actuator.

Note: The 57065 Actuator is sold separately.

Features

- Two-part magnetically operated proximity sensor
- Threaded barrel with retaining nuts
- Available as M8 (57070/59070) or 5/16 (57065/59065) size options
- Customer defined sensitivity option
- Choice of cable length and connector

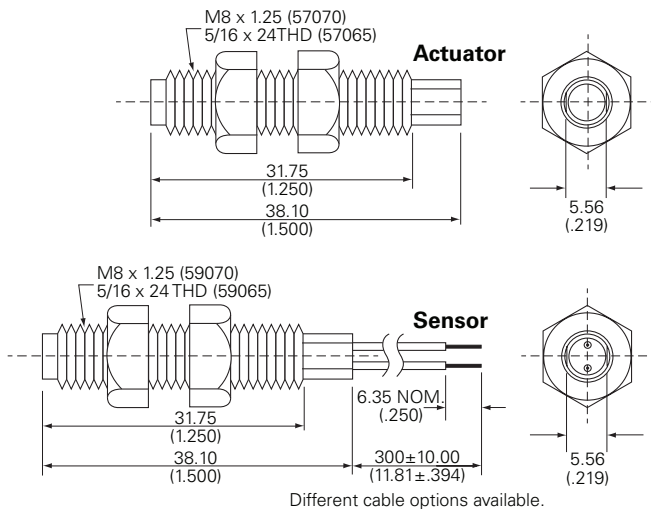
Agency Approvals

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

Note: Contact Littelfuse for specific agency approval ratings.

Dimensions

Dimensions in mm (inch)



Benefits

- Simple installation and adjustment using supplied retaining nuts
- Operates through non-ferrous materials such as wood, plastic or aluminium
- Excellent for switching micro-controller logic level loads
- No standby power requirement

Applications

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

Product Characteristics

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

Notes:

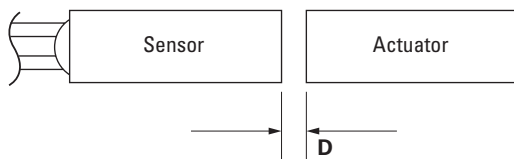
- Contact rating - Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/life information.
- When switching inductive and/or capacitive loads, the effects of transient voltages and/or currents should be considered. Refer to Application 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 57065 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 | 8.4 (.330) | 17-23 | 6.6 (.260) | 22-28 | 5.1 (.200) | 27-33 | 4.0 (.157) | |
| 2 High Voltage | - | - | 17-23 | 6.6 (.260) | 22-28 | 5.1 (.200) | 27-33 | 4.0 (.157) | |
| 3 Change Over | 15-20 | 6.5 (.255) | 20-25 | 4.9 (.193) | 25-30 | 3.7 (.146) | - | - | |
| 4 Normally Closed | 15-20 | 6.5 (.255) | 20-25 | 4.9 (.193) | 25-30 | 3.7 (.146) | - | - | |

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.



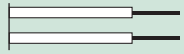
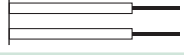
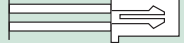
| Schematics | Switch Type |
|------------|-------------|
| | 1 and 2 |
| | 3 |
| | 4 |

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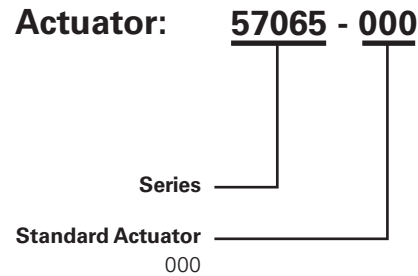
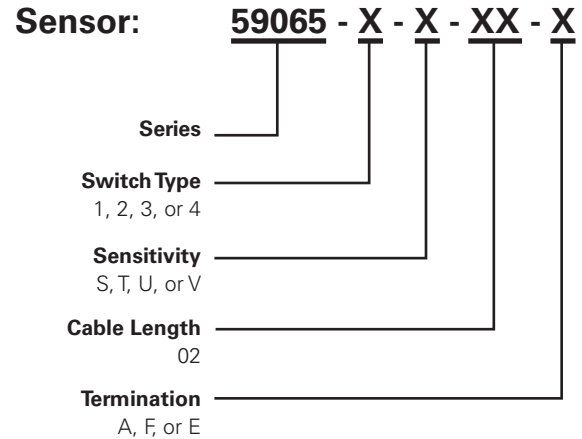
Cable Length Specification

| Cable Type: 24 AWG 7/32 PVC 105°C UL1430/UL1569 | |
|---|---------------------------|
| Select Option | Cable Length mm (inch) |
| 02 | 300 (11.81) |

Termination Specification

| Termination Options | | |
|---------------------|--|---|
| Select Option | Description (Two-wire versions illustrated) | |
| A | Tinned leads (6.4±0.76)mm |  |
| F | Untinned leads (6.4±0.76)mm |  |
| E | JST type XHP 2.5mm pitch |  |

Part Numbering System



Note: The 57065 Actuator is sold separately.

Packaging

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