

59020 Miniature Firecracker Reed Sensor + 57020 Actuator

RoHS



Description

The 59020 Firecracker Reed Sensor is a miniature cylindrical reed sensor 15.24mm x 5.10mm (0.600" x 0.201") with a normally open contact. It is capable of switching up to 170Vdc at 10W. It has a variety of cable lengths and connector options. It functions best with the 57020-000 actuator.

Note: The 57020 Actuator is sold separately.

Features

- Magnetically operated proximity sensor
- Normally open contact
- Customer defined sensitivity option
- Choice of cable length and connector

Benefits

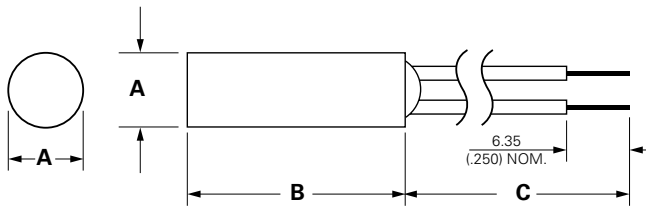
- Hermetically sealed, magnetically operated contacts continue to operate long after optical and other technologies fail due to contamination
- Quick and easy to install
- No standby power requirement
- Operates through non-ferrous materials such as wood, plastic or aluminium

Applications

- Position and Limit Sensing
- Security Systems
- Level Sensing
- Linear Actuators

Dimensions

Dimensions in mm (inch)



| | A Nom. | B Nom. | C Nom. |
|-----------------------|-------------------|-------------------|------------------------------|
| 57020 Actuator | 5.10 (.201) | 15.24 (.600) | – |
| 59020 Sensor | 5.10 (.201) | 15.24 (.600) | 300 (11.81)± 10.00 (.393) |

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Electrical Ratings

| Contact Type | | | Normally Open |
|-----------------------------|--|-----------------|------------------|
| Switch Type | | | 1 |
| Contact Rating ¹ | | VA/Watt - max. | 10 |
| Voltage ⁴ | Switching ² Breakdown ³ | Vdc - max. | 170 |
| | | Vdc - min. | 175 |
| Current ⁴ | Switching ² Carry | Adc - max. | 0.25 |
| | | Adc - max. | 0.5 |
| Resistance ⁵ | Contact, Initial Insulation | Ω - max. | 0.2 |
| | | Ω - min. | 10 ¹⁰ |
| Capacitance | Contact | pF - typ. | 0.2 |
| Temperature | Operating | °C | -40 to +105 |

Product Characteristics

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

Notes:

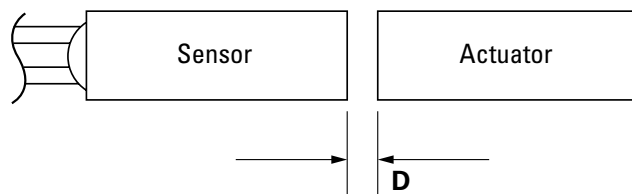
- Contact rating - Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/life information.
- When switching inductive and/or capacitive loads, the effects of transient voltages and/or currents should be considered. Refer to Application 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 57020 Actuator)

| Select Option | | S | |
|---------------|---------------|------------------|---|
| Switch Type | | Pull-In AT Range | Activate Distance – D mm (inch) Average |
| 1 | Normally Open | 6-10 | 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.

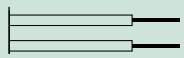
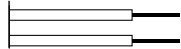
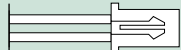


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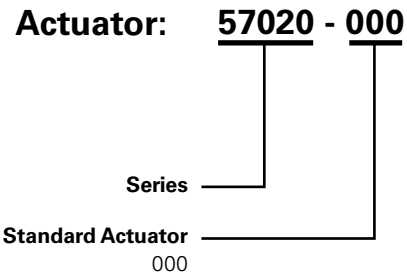
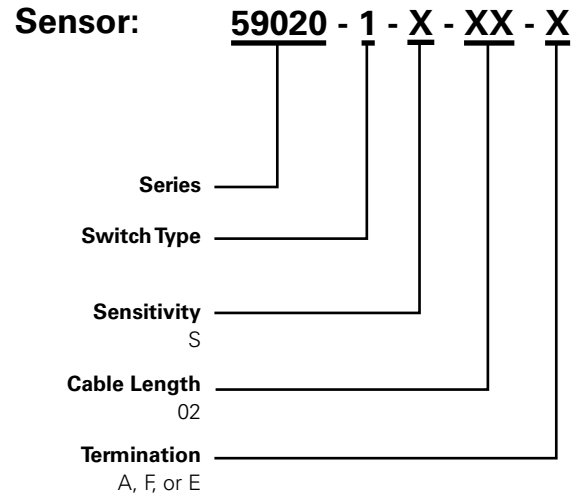
Cable Length Specification

| 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 57020 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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