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

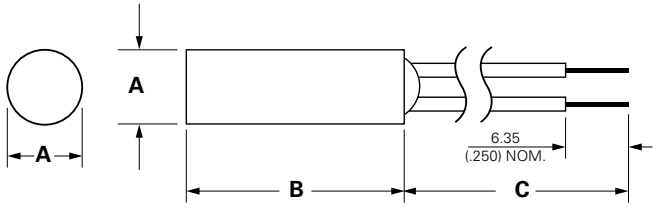
- Hermetically sealed, magnetically operated contacts continue to operate long after optical and other technologies fail due to contamination
- Quick and easy to install
- No standby power requirement
- Operates through non-ferrous materials such as wood, plastic or aluminium

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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Specifications are subject to change without notice.

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Electrical Ratings

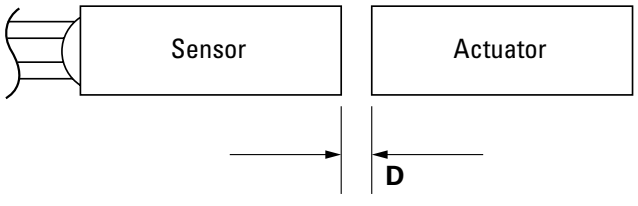
Contact Type			Normally Open
Switch Type			1
Contact Rating [1]		VA/Watt - max.	10
Voltage [4]	Switching [2] Breakdown [3]	Vdc - max. Vdc - min.	170 175
Current [4]	Switching [2] Carry	Adc - max. Adc - max.	0.25 0.5
Resistance [5]	Contact, Initial Insulation	Ω - max. Ω - min.	0.2 10^{10}
Capacitance	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:
1. Contact rating - Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/life information.
2. 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.
3. Breakdown Voltage - per MIL-STD-202, Method 301.
4. Electrical Load Life Expectancy - Contact Littelfuse with voltage, current values along with type of load.
5. This resistance value is for 11.81mm wire length. Resistance changes when wire lengthens.
6. Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil II).
7. Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.
8. 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:
1. Pull-In AT Range: These AT values are the bare reed switch AT before modification.
2. The activation distance is average value on the final sensor assembly.



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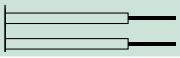
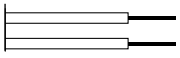
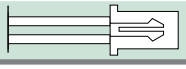
Cable Length Specification

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

Sensor: **59020 - 1 - X - XX - X**

- **Series**
- **Switch Type**
- **Sensitivity**
  S
- **Cable Length**
  02
- **Termination**
  A, F, or E

Actuator: **57020 - 000**

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

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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