59010 Sub-Miniature Firecracker Reed Sensor + 57020 Actuator

RoHS

Description

The 59010 Firecracker Reed Sensor is a sub-miniature cylindrical reed sensor 9.0mm L x 3.0mm Dia. (0.354" x 0.118") with a normally open contact. It is capable of switching up to 170Vdc at 10W and has cable length and connector options. It functions best with the 57020-000 actuator.

Note: The 57020 Actuator is sold separately.

Features

- Magnetically operated proximity sensor
- Compact size requires only 3mm diameter hole
- Hermetically sealed contacts
- Custom cable length and connector options available

Benefits

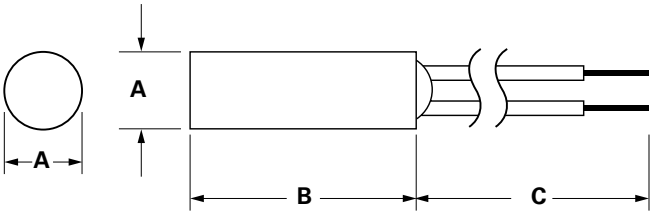
- Well suited for usage in high-moisture and contaminated environments
- Non-contact solution, aesthetically more appealing than push-button or lever mechanical-type switches
- Simple installation and adjustment
- No standby power requirement
- Ideal for battery-powered applications as the contacts do not draw power when in the non-activated state
- Reed contacts last for millions of operating cycles under micro-controller logic-level loads

Applications

- Position and Limit Sensing
- Security System Switch
- Level Sensing
- Linear Actuators

Dimensions

Dimensions in mm (inch)



	A Nom. mm(in)	B Nom. mm(in)	C Nom. mm(in)
57020 Actuator	5.10 (.201)	15.24 (.600)	–
59010 Sensor	3.00 (.118)	9.00 (.354)	Cable Length ±10.00 (.393)

 Revised: 02/08/19

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Electrical Ratings

Contact Type			Normally Open
Switch Type			1
Contact Rating [1]		VA/Watt - max.	5
Voltage [4]	Switching [2] Breakdown [3]	Vdc - max. Vac - max. Vdc - min.	175 140 200
Current [4]	Switching [2] Carry	Adc - max. Aac - max Adc - max.	0.35 0.25 0.50
Resistance [5]	Contact, Initial Insulation	Ω - max. Ω - min.	0.550 10^{12}
Capacitance	Contact	pF - typ.	0.45
Temperature	Operating	°C	-40 to +85

Product Characteristics			
Operate Time [6]		ms - max.	0.35
Release Time [6]		ms - max.	0.03
Shock [7]	11ms ½ sine	G - max.	50
Vibration [7]	10-2000 Hz	G - max.	10

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		T	
Switch Type		Pull-In AT Range	Activate Distance - D mm (inch) Average	Pull-In AT Range	Activate Distance - D mm (inch) Average
1	Normally Open	6-10	6.3 (.248)	10-15	4.9 (.193)

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.