

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.

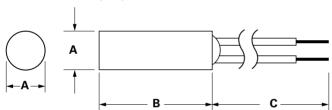
Note: The 57020 Actuator is sold separately.

Features

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

Dimensions

Dimensions in mm (inch)



	A 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)

Benefits

- Well suited for usage in highmoisture 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 nonactivated state
- Reed contacts last for millions of operating cycles under microcontroller logic-level loads

Applications

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



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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		

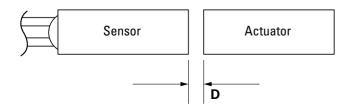
- Notes:

 1. Contact rating Product of the switching voltage and current should never exceed the wattage rating. Contact Littleffuse 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)

- 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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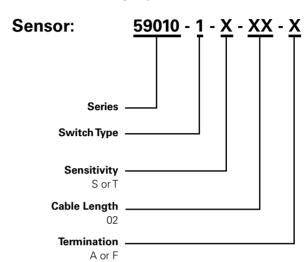
Cable Length Specification

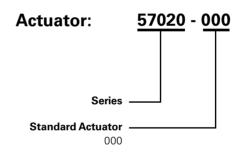
(Cable Type 30 AWG 7/38 PTFE 200°C MIL-W-16878/6)		
Select Option	Cable Length mm (inch)	
02	300 (11.81)	

Termination Options

Select Option	Description	
А	Tinned Leads	
F	Untinned Leads	

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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