# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

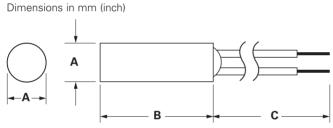




### 59010 Sub-Miniature Firecracker Reed Sensor + 57020 Actuator



### **Dimensions**



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)

### Description

The 59010 Firecracker Reed Sensor is a sub-miniature cylindrical reed sensor 9.0mm L x 3.0mm Dia. ( $0.354'' \times 0.118''$ ) 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

RoHS

options available

### **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

### **Applications**

- Position and Limit Sensing
- Security System Switch

- 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
- Level Sensing
- Linear Actuators

## 59010 Sub-Miniature Firecracker Reed Sensor + 57020 Actuator

### **Electrical Ratings**

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

#### **Product Characteristics**

Operate Time <sup>6</sup>		ms - max.	0.35
Release Time 6		ms - max.	0.03
Shock 7	11ms ½ sine	G - max.	50
Vibration <sup>7</sup>	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.

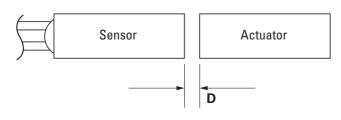
### Sensitivity Options (Using 57020 Actuator)

Select Option		S		т	
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.





### 59010 Sub-Miniature Firecracker Reed Sensor + 57020 Actuator

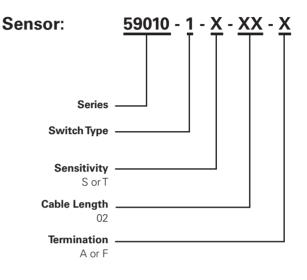
### **Cable Length Options**

(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**



### Part Numbering System



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