

# 59025 Firecracker Reed Sensor + 57025 Actuator



## Description

The 59025 Firecracker Reed Sensor is a small cylindrical reed sensor, 25.4mm (L) x 6.22mm (Dia.) (1.00" x 0.245"), with a choice of normally open, normally closed or change-over contacts. It is capable of switching up to 265Vac/300Vdc at 10VA. The 59025 Firecracker Reed Sensor is available with a range of sensitivity and cable length options. It functions best with the 57025 actuator.

**Note: The 57025 Actuator is sold separately.**

## Features

- Magnetically-operated proximity sensor
- Hermetically sealed contacts
- Operates through non-ferrous materials such as wood, plastic or aluminum
- Customer-defined sensitivity option
- Custom cable length and connector options available

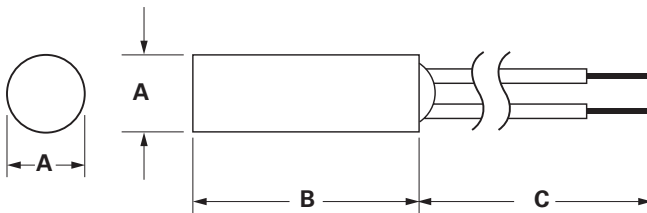
## Agency Approvals

Agency	Agency File Number
	E61760

Note: Contact Littelfuse for specific agency approval ratings.

## Dimensions

Dimensions in mm (inch)



	A Nom.	B Nom.	C Nom.
<b>57025 Actuator</b>	6.22 (.245)	25.40 (1.000)	--
<b>59025 Sensor</b>	6.22 (.245)	25.40 (1.000)	Cable Length ± 10.00 (.393)

## Benefits

- Fits nicely into small confined spaces
- Quick and easy to install
- Well suited for usage in high-moisture and contaminated environments
- Non-contact solution, aesthetically more appealing than push-button or lever mechanical-type switches
- 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
- Level sensing
- Linear actuators

# 59025 Firecracker Reed Sensor + 57025 Actuator

## Electrical Ratings

Contact Type			Normally Open	Normally Open High Voltage	Change Over	Normally Closed
Switch Type			1	2	3	4
Contact Rating <sup>1</sup>		VA/Watt - max.	10	10	5	5
Voltage <sup>4</sup>	Switching <sup>2</sup>	Vdc - max.	200	300	175	175
		Vac - max.	140	265	120	120
	Breakdown <sup>3</sup>	Vdc - min.	250	400	200	200
Current <sup>4</sup>	Switching <sup>2</sup>	Adc - max.	0.5	0.4	0.25	0.25
		Aac - max.	0.35	0.30	0.18	0.18
	Carry	Adc - max.	1.2	1.4	1.5	1.5
Resistance <sup>5</sup>	Contact, Initial Insulation	Ω - max.	0.2	0.2	0.2	0.2
		Ω - min.	10 <sup>10</sup>	10 <sup>10</sup>	10 <sup>9</sup>	10 <sup>9</sup>
Capacitance	Contact	pF - typ.	0.3	0.2	0.3	0.3
Temperature	Operating	°C	-40 to +105	-20 to +105	-40 to +105	-40 to +105

## Product Characteristics

Operate Time <sup>6</sup>		ms - max.	1.0		3.0	3.0
Release Time <sup>6</sup>		ms - max.	1.0		3.0	3.0
Shock <sup>7</sup>	11ms ½ sine	G - max.	100		50	50
Vibration <sup>7</sup>	50-2000 Hz	G - max.	30		30	30

### Notes:

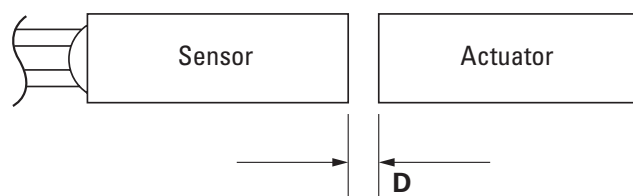
- Contact rating - Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/life information.
- When switching inductive and/or capacitive loads, the effects of transient voltages and/or currents should be considered. Refer to Application Notes AN108A and AN107 for details.
- Breakdown Voltage - per MIL-STD-202, Method 301. Leakage current is less than 0.1mA for 60 seconds.
- 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.
- Custom sensitivities and a high voltage switch are options




## Sensitivity Options (Using 57025 Actuator)

Select Option	Switch Type	S		T		U		V	
		Pull-In AT Range	Activate Distance mm (inch) Average	Pull-In AT Range	Activate Distance mm (inch) Average	Pull-In AT Range	Activate Distance mm (inch) Average	Pull-In AT Range	Activate Distance mm (inch) Average
1	Normally Open	12-18	7.9 (.311)	17-23	6.2 (.244)	22-28	4.9 (.193)	27-33	4.2 (.165)
2	High Voltage	--	--	17-23	6.2 (.244)	22-28	4.9 (.193)	27-33	4.2 (.165)
3	Change Over	15-20	7.2 (.283)	20-25	5.7 (.224)	25-30	4.7 (.185)	--	--
4	Normally Closed	15-20	7.2 (.283)	20-25	5.7 (.224)	25-30	4.7 (.185)	--	--

### 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.



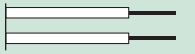
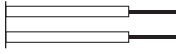
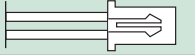
Schematics	Switch Type
	1
	3
	4

## 59025 Firecracker Reed Sensor + 57025 Actuator

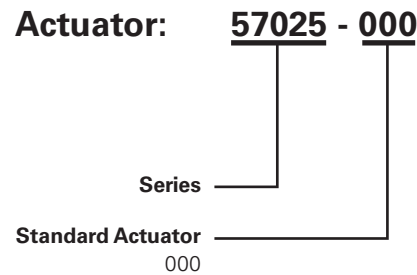
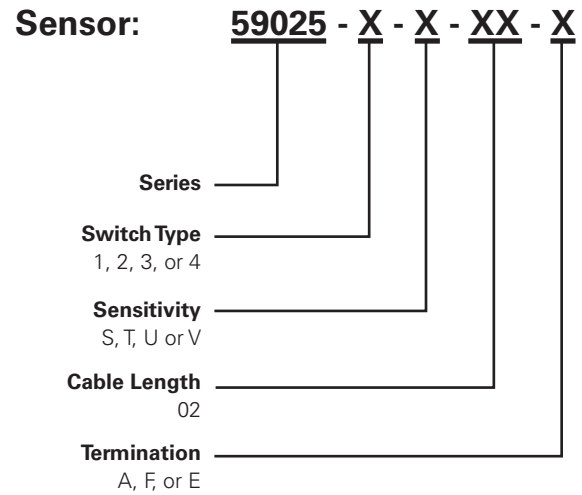
### Cable Length Specification

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 57025 Actuator is sold separately.

### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
Bulk	Bulk	500	N/A	N/A

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Proximity Sensors](#) category:*

*Click to view products by [Hamlin](#) manufacturer:*

Other Similar products are found below :

[01.001.5653.1](#) [70.340.1028.0](#) [70.360.2428.0](#) [70.364.4828.0](#) [70.810.1053.0](#) [72.360.1628.0](#) [73.363.6428.0](#) [9221350022](#) [980659-1](#) [QT-12](#)  
[E2EX10D1NN](#) [E2E-X14MD1-G](#) [E2E-X2D1-G](#) [E2EX2ME2N](#) [E2E-X3D1-N](#) [10M](#) [E2E-X4MD1-G](#) [E2FMX1R5D12M](#) [E2K-F10MC1](#) [5M](#)  
[EI1204TBOSL-6](#) [EI5515NPAP](#) [BSA-08-25-08](#) [IC08ANC15PO-K](#) [IMM2582C](#) [25.161.3253.0](#) [25.332.0653.1](#) [25.352.0653.0](#) [25.352.0753.0](#)  
[25.523.3253.0](#) [9151710023](#) [922FS1.5C-A4P-Z774](#) [SC606ABV0S30](#) [SM552A100](#) [SM952A126100LE](#) [A1220EUA-T](#) [F3S-A162-U](#) [CL18](#)  
[QT-08L](#) [34.110.0010.0](#) [TL-C2MF1-M3-E4](#) [IA08BLF15NOM5](#) [IA08BSF15NOM5](#) [IA12ASF04DOM1](#) [IMM32188C](#) [IS2](#) [IS31SE5000-](#)  
[UTLS2-TR](#) [34.110.0021.0](#) [34.110.0022.0](#) [CA150-120VACDC](#) [VM18VA3000Q](#) [XS508BSCBL2](#)