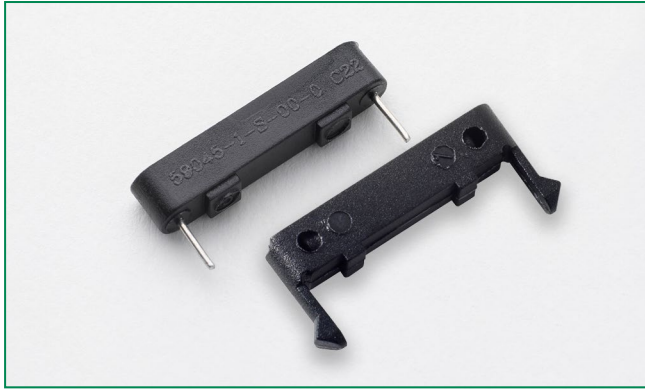


# 59045 Miniature PCB Mountable Reed Switch + 57045 Actuator



## Description

The 59045 is a miniature PCB-mountable reed switch, 17.78mm x 4.32mm x 3.3mm (0.700" x 0.170" x 0.130") with a normally open contact. It has moulded stand-offs to allow board washing. It is capable of switching up to 200Vdc at 10W. It functions best with the matching actuator 57045-000.

**Note: The 57045 Actuator is sold separately.**

## Features

- Two-part magnetically operated proximity switch
- Normally open contact configuration
- Moulded stand-offs to allow board washing
- Wave solder capable
- Certified for use in North American Hazardous Locations: Class I, Division 2 and Zone 2
- ATEX certified for use in European explosive atmospheres: Ex II 3 G Ex nC IIC Gc
- RoHS compliant

## Agency Approvals

Agency	Agency File Number
	E61760 E471070
	DEMKO 14 ATEX 1393U Ex II 3 G Ex nC IIC Gc

Note: Contact Littelfuse for specific agency approval ratings.

## Benefits

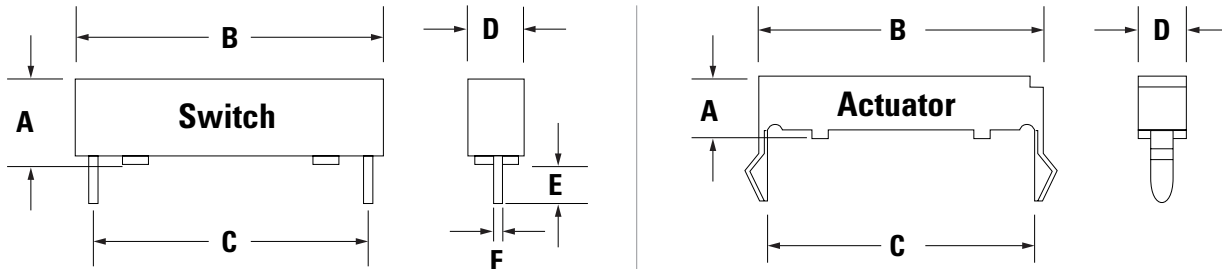
- Mounts directly into printed circuit board
- No standby power requirement
- Operates through non-ferrous materials such as wood, plastic or aluminium
- Hermetically sealed, magnetically operated contacts continue to operate long after optical and other technologies fail due to contamination

## Applications

- Position and Limit Sensing
- Security System Switch
- Door Switch

## Dimensions

Dimensions in mm (inch)



	A Max.	B Max.	C ±0.25 (.010)	D Max.	E ±0.38 (.015)	F Nom.
<b>57045 Actuator</b>	4.32 (.170)	17.78 (.700)	*	3.3 (.130)	—	—
<b>59045 Switch</b>	4.32 (.170)	17.78 (.700)	15.24 (.600)	3.3 (.130)	3.3 (.130)	0.4699 (.0185") Dia.

\* Mounting: 1.57 (.062) thick board, 3.17 (.125) holes on 13.72mm (.540) centerline.

# 59045 Miniature PCB Mountable Reed Switch + 57045 Actuator

## Electrical Ratings

Contact Type			Normally Open
Switch Type			1
Contact Rating <sup>1</sup>		VA/Watt - max.	10
Voltage <sup>3</sup>	Switching <sup>2</sup>	Vdc - max.	200
	Breakdown <sup>4</sup>	Vac - max.	140
		Vdc - min.	250
Current <sup>3</sup>	Switching <sup>2</sup>	Adc - max.	0.5
	Carry	Aac - max.	0.35
			Adc - max.
Resistance	Contact, Initial Insulation	Ω - max.	0.2
		Ω - min.	10 <sup>10</sup>
Capacitance	Contact	pF - typ.	0.3
Temperature	Operating	°C	-40 to +105

## Product Characteristics

Operate Time <sup>5</sup>		ms - max.	1.0
Release Time <sup>5</sup>		ms - max.	1.0
Shock <sup>6</sup>	11ms ½ sine	G - max.	100
Vibration <sup>6</sup>	50-2000 Hz	G - max.	30

### Notes:

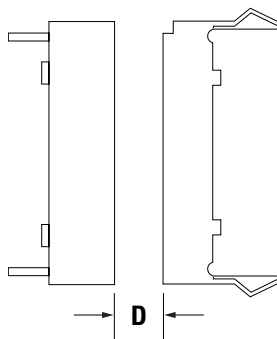
- Contact rating - Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/life information.
- When switching inductive and/or capacitive loads, the effects of transient voltages and/or currents should be considered. Refer to Application Notes AN108A and AN107 for details.
- Electrical Load Life Expectancy - Contact Littelfuse with voltage, current values along with type of load.
- Breakdown Voltage - per MIL-STD-202, Method 301.
- 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.

## Sensitivity Options (Using 57045 Actuator)

Select Option		S		T		U	
Switch Type		Pull-In AT Range	Activate Distance, D mm (inch) Average	Pull-In AT Range	Activate Distance, D mm (inch) Average	Pull-In AT Range	Activate Distance, D mm (inch) Average
1	Normally Open	15-20	5.0 (.196)	20-25	4.3 (.170)	25-30	3.8 (.150)

### Note:

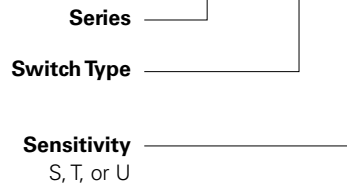
Pull-In Range - Contact Littelfuse for narrower AT ranges available. These AT values are the before molding and modification AT of the 59045.



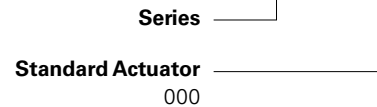
# 59045 Miniature PCB Mountable Reed Switch + 57045 Actuator

## Part Numbering System

**Switch:**      59045 - 1 - X - 00 - 0



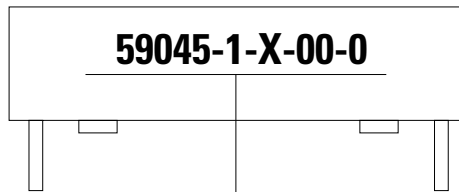
**Actuator:**      57045 - 000



**Note: The 57045 Actuator is sold separately.**

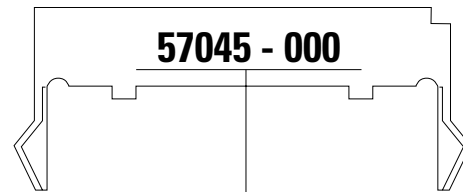
## Product Marking

**Switch:**



**Part Number** \_\_\_\_\_

**Actuator:**



**Part Number** \_\_\_\_\_

## Packaging

Packaging Option	Packaging Specification	Quantity	Quantity and Packaging Code	Taping Width
Bulk	Bulk	200/Box MOQ = 1000pcs	N/A	N/A

**Disclaimer Notice** - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at [www.littelfuse.com/disclaimer-electronics](http://www.littelfuse.com/disclaimer-electronics).