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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

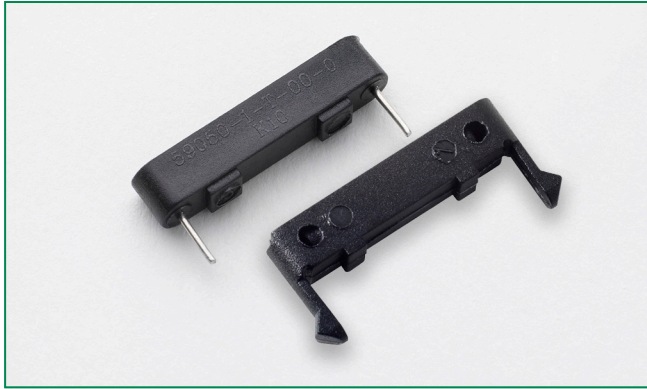
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# 59050 Miniature PCB Mountable Reed Switch + 57050 Actuator



## Description

The 59050 is a miniature PCB-mountable reed switch, 22.86mm x 4.57mm x 4.32mm (0.900" x .180" x .170") with a choice of normally open, and normally open high voltage contacts. It has moulded stand-offs to allow board washing. It is capable of switching up to 265Vac/300Vdc at 10VA. It functions best with the matching actuator 57050-000.

**Note: The 57050 Actuator is sold separately.**

## Features

- Two-part magnetically operated proximity switch
- Standard normally open and high voltage normally open contact configuration
- Moulded stand-offs to allow board washing
- RoHS Compliant
- 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
- Certified for use in North American Hazardous Locations: Class I, Division 2 and Zone 2

## 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

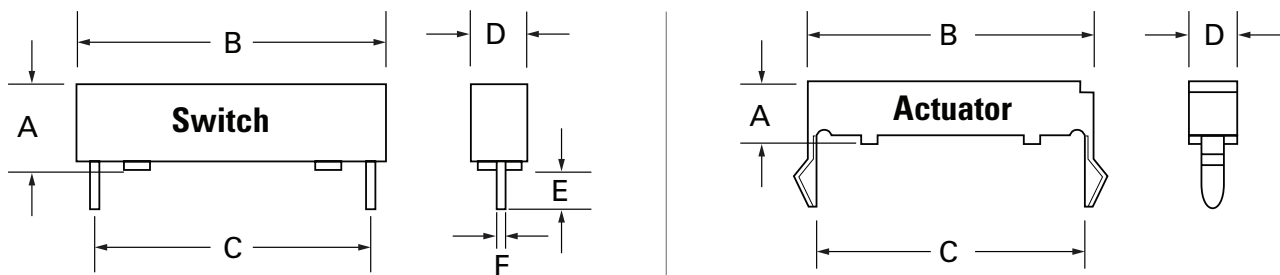
- Mounts directly into printed circuit board
- No standby power requirement
- Operates through non-ferrous materials such as wood, plastic or aluminium
- Hermetically sealed, magnetically operated contacts continue to operate long after optical and other technologies fail due to contamination

## 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>57050 Actuator</b>	5.08 (.200)	22.86 (.900)	*	4.57 (.180)	—	—
<b>59050 Switch</b>	4.57 (.180)	22.86 (.900)	20.32 (.800)	4.32 (.170)	3.3 (.130)	0.508 (.020") Dia.

\* Mounting: 1.57 (.062) thick board, 3.17 (.125) holes on 18.28 (.720) nom. centres.

### 59050 Miniature PCB Mountable Reed Switch + 57050 Actuator

#### Electrical Ratings

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

#### Product Characteristics

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

Notes:

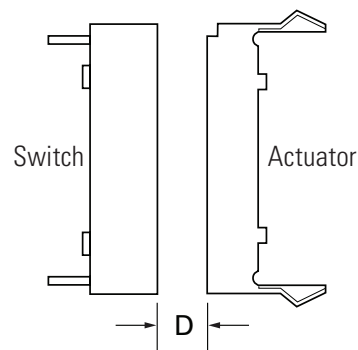
- Contact rating - Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/life information.
- When switching inductive and/or capacitive loads, the effects of transient voltages and/or currents should be considered. Refer to Application Notes AN108A and AN107 for details.
- 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 57050 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	12-18	7.2 (.283)	17-23	5.8 (.228)	22-28	4.8 (.189)
2	High Voltage	-	-	17-23	5.8 (.228)	22-28	4.8 (.189)

Note:

Pull-In Range - Contact Littelfuse for narrower AT ranges available.  
 These AT values are the before molding and modification AT of the 59050.

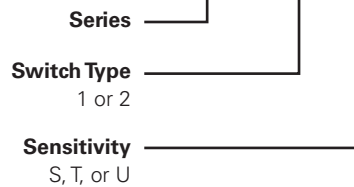




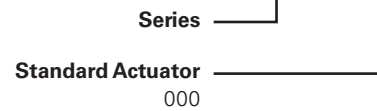
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### Part Numbering System

Switch: 59050 - X - X - 00 - 0



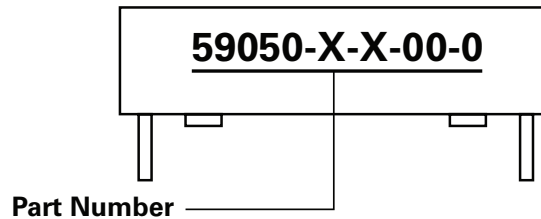
Actuator: 57050 - 000



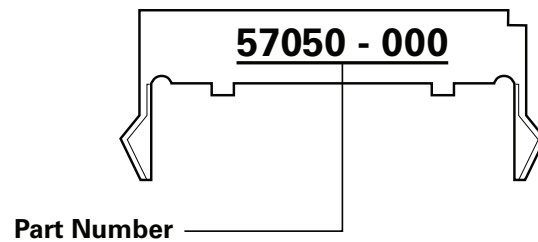
Note: The 57050 Actuator is sold separately.

### Product Marking

Switch:



Actuator:



### Packaging

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