

59166 Miniature Overmolded Reed Switch + 57045 Actuator









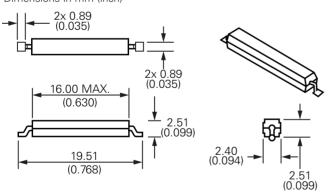
Agency Approvals

Agency	Agency File Number			
c FL L°us	E61760 and E471070			
⟨Ex⟩	DEMKO 14 ATEX 1393U (a) II 3 G Ex nC IIC Gc			

Note: Contact Littelfuse for specific agency approval ratings.

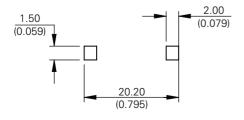
Dimensions

Dimensions in mm (inch)



Soldering Footprint

Dimensions in mm (inch)



Description

The 59166 is a miniature overmolded reed switch 16.00mm x 2.40mm x 2.40mm (0.630" x 0.094" x 0.094") with Gull Wing leads. It has normally open contact, capable of switching up to 200Vdc at 10W.

Note: The 57045 Actuator is sold separately.

Features

- Two-part magnetically operated proximity switch
- · Gull Wing Leads
- Tape and reel option
- Solder reflow capable
- Thermoset overmolded material
- RoHS Compliant
- ATEX certified for use in European explosive atmospheres: 🖘 II 3 G Ex nC IIC Gc
- Certified for use in North American Hazardous Locations: Class I. Division 2 and Zone 2

Benefits

- Suitable for pick and place
- 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



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Electrical Ratings

Contact Type			Normally Open		
Switch Type			1		
Contact Rating ¹		VA/Watt - max.	10		
Voltage ³	Switching ² Breakdown ⁴	Vdc - max. Vac - max. Vdc - min.	200 140 250		
Current ³	Switching ² Carry	Adc - max. Aac - max. Adc - max.	0.5 0.35 0.8		
Resistance	Contact, Initial Insulation	Ω - max. Ω - min.	0.2 10 ¹⁰		
Capacitance	Contact	pF - typ.	0.3		
Temperature	Operating	°C	-40 to +105		
Product Characteristics					
Operate Time ⁵		ms - max.	1.0		
Release Time ⁵		ms - max.	1.0		
Shock ⁶	11ms ½ sine	G - max.	100		
Vibration ⁶	50-2000 Hz	G - max.	30		

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. Electrical Load Life Expectancy Contact Littelfuse with voltage, current values along with type of load.
- 4. Breakdown Voltage per MIL-STD-202, Method 301.
- 5. Operate (including bounce)/Release Time per EIA/NARM RS-421-A, diode suppressed coil (Coil II).
- 6. Shock and Vibration per EIA/NARM RS-421-A and MIL-STD-202.

Sensitivity Options (Using 57045 Actuator)

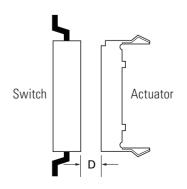
	Select Option S		S	Т		U	
	Switch Type	Pull-In AT Range	Activate Distance, D mm (inch) Average	Pull-In AT Range	Activate Distance, D mm (inch) Average	Pull-In AT Range	Activate Distance, D mm (inch) Average
1	Normally Open	10-15	7.4 (.292)	15-20	6.1 (.240)	20-25	5.1 (.201)

Note

- $1. \ \ Pull-In \ AT \ Range: These \ AT \ values \ are \ the \ before \ molding \ and \ modification \ AT \ of \ the \ 59166.$
- 2. The activation distance is average value post modification for the Gull wing option ${\tt C}$ or ${\tt D}$.

Termination Specification

Termination Options			
Select Option	Description		
С	Gull Wing bulk packed		
D	Gull Wing tape and reel		

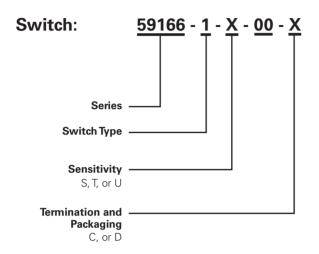


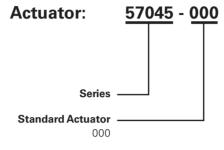
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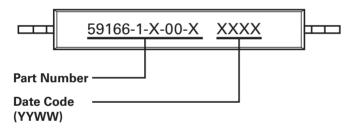
Part Numbering System





Note: The 57045 Actuator is sold separately.

Product Marking



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity and Packaging Code	Taping Width
Bulk	Bulk	1500	В	N/A
Tape and Reel	EIA-RS-481-1	1500	R	32.00/(1.260)