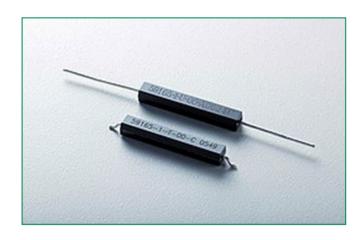


59165 Miniature Overmolded Reed Switch + 57045 Actuator









Agency Approvals

Agency	Agency File Number
c FL °us	E61760 e471070
⟨Ex⟩	DEMKO 14 ATEX 1393U ☐ II 3 G Ex nC IIC Gc

Note: Contact Littelfuse for specific agency approval ratings.

Description

The 59165 is a miniature overmolded reed switch 16.00mm x 2.40mm x 2.40mm(0.630" x 0.095" x 0.095") with either straight or 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, leaded and staple form options
- Tape and reel option
- RoHS Compliant
- · Solder reflow capable
- Thermoset overmolded material
- · 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

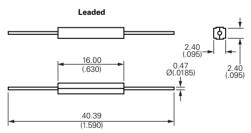
Benefits

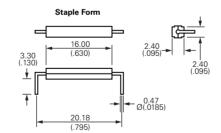
- Suitable for pick and place
- No standby power requirement
- Operates through non-ferrous materials such as wood, plastic or aluminium
- · Hermetically sealed, magnetically operated contacts continue to operate long after optical and other technologies fail due to contamination

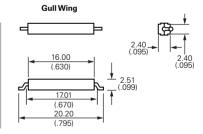
Applications

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

Dimensions Dimensions in mm (inch)

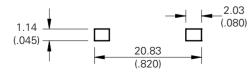






Soldering Footprint

Dimensions in mm (inch)





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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			
	11ms ½ sine	G - max.	100			
Shock ⁶						

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)

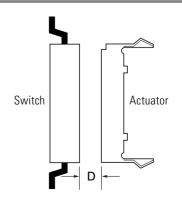
	Select Option			S	Т		U	
Switch Type		Pull-In AT Range	Activate Distance, D mm (inch) Average	Pull-In AT Range	Activate Distance, D mm (inch) Average	Pull-In AT Range	Activate Distance, D mm (inch) Average	
	1	Normally Open	10-15	7.4 (.292)	15-20	6.1 (.240)	20-25	5.1 (.201)

Note

- Pull-In AT Range: These AT values are the before molding and modification AT of the 59165.
- 2. The activation distance is average value post modification for the Gull wing option C or D.

Termination Specification

Termination Options			
Select Option	Description		
А	Leaded		
В	Staple form		
С	Gull Wing bulk packed		
D	Gull Wing tape and reel		

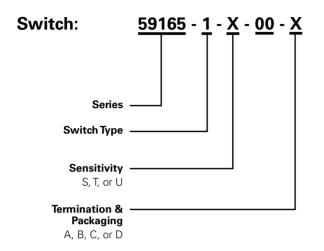


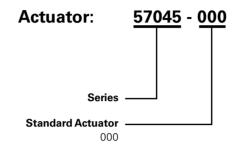
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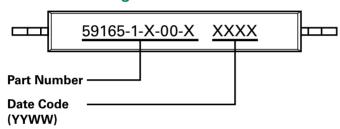
Part Numbering System





Note: The 57045 Actuator is sold separately.

Product Marking



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity and Packaging Code	Taping Width
Bulk	Bulk	800/box	59165-1-X-00-A	N/A
Bulk	Bulk	1500/box	59165-1-X-00-C	N/A
Tape and Reel	EIA-RS-481-1	1500	R	32.00/(1.260)

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