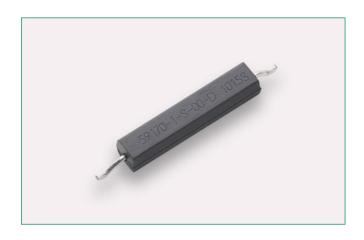


59170 Sub-miniature Overmolded Reed Switch + 57045 Actuator









Agency Approvals

Agency	Agency File Number
c FL °us	E61760 E471070
⟨Ex⟩	DEMKO 14 ATEX 1393U ऒ II 3 G Ex nC IIC Gc

Note: Contact Littelfuse for specific agency approval ratings

Description

The 59170 is a sub-miniature overmolded reed switch 11.43mm x 2.29mm x 2.29mm (0.450" x 0.090" x 0.090") with either straight or Gull Wing leads. It has normally open contact and 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
- Tape and reel option
- Solder reflow capable
- Thermoset overmolded material
- RoHS compliant
- Certified for use in North American Hazardous Locations: Class I, Division 2 and Zone 2
- ATEX certified for use in European explosive atmospheres: € II 3 G Ex nC IIC Gc

Benefits

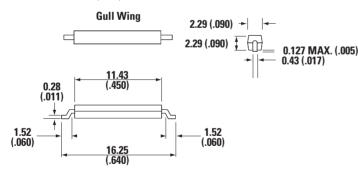
- Suitable for pick and place
- No standby power requirement
- Operates through non-ferrous materials such as wood, plastic or aluminium
- · Hermetically sealed, magnetically operated contacts continue to operate long after optical and other technologies fail due to contamination

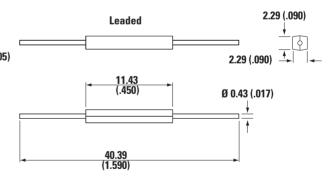
Applications

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

Dimensions

Dimensions in mm (inch)





Soldering Footprint

Dimensions in mm (inch)





59170 Sub-miniature Overmolded Reed Switch + 57045 Actuator

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 1A		
Resistance	Contact, Initial Insulation	Ω - max. Ω - min.	0.120 Ohm 10 ¹⁰		
Capacitance	Contact	pF - typ.	0.3		
Temperature	Operating	°C	-40 to +125		
Product Characteristics					
Operate Time 5		ma may	١		

Product Characteristics				
Operate Time ⁵		ms - max.	0.5	
Release Time ⁵		ms - max.	0.1	
Shock ⁶	11ms ½ sine	G - max.	100	
Vibration ⁶	50-2000 Hz	G - max.	30	

- 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.
- 4. Diesakudin Voltage pei mirci of 1922, imeliud 301.
 5. Operate (including bounce)/Release Time per ElA/NARM RS-421-A, diode suppressed coil (Coil II).
 6. Shock and Vibration per ElA/NARM RS-421-A and MIL-STD-202.

Sensitivity Options (Using 57045 Actuator)

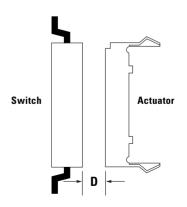
	Select Option S		T		U			
Switch Type		Pull-In AT Range	Activate Distance, D mm (inch) Average	Pull-In AT Range	Activate Distance, D mm (inch) Average	Pull-In AT Range	Activate Distance, D mm (inch) Average	
	1	Normally Open	10-15	6.5 (.255)	15-20	5.0 (.197)	20-25	4.6 (.181)

- Note:

 1. Pull-In AT Range: These AT values are the before molding and modification AT of the 59170.
- 2. The activation distance is average value post modification for the Gull wing option C or D.

Termination Specification

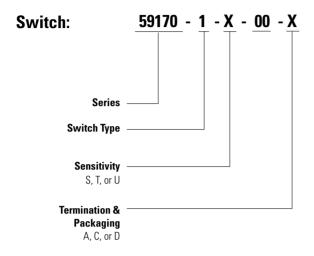
Termination Options			
Select Option	Description		
А	Leaded		
С	Gull Wing bulk packed		
D	Gull Wing tape and reel		

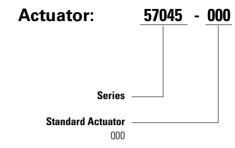




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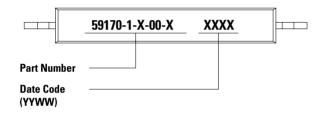
Part Numbering System





Note: The 57045 Actuator is sold separately.

Product Marking



Packaging

Packaging Option	Packaging Specification	Quantity	Termination and Packaging Code	Taping Width
Bulk	Bulk	59170-1-X-00-A 800/box	А	N/A
Bulk	Bulk	59170-1-X-00-C 1500/box	С	N/A
Tape and Reel	EIA-RS-481-1	1500	D	32.00mm (1.260")

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