

59170 Sub-miniature Overmolded Reed Switch + 57045 Actuator





Agency Approvals

Dimensions

Agency	Agency File Number
c FL °us	E61760 E471070
Æx>	DEMKO 14 ATEX 1393U 🚱 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

Benefits

- Suitable for pick and place
- No standby power requirement
- Operates through non-ferrous materials such as wood, plastic or aluminium

Applications

- Position and Limit Sensing
- Security System Switch

- 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
- Hermetically sealed, magnetically operated contacts continue to operate long after optical and other technologies fail due to contamination
- Door Switch



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 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		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

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		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	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	A	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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