

# 59150 Flange Mount Sensor + 57150 Actuator





## **Agency Approvals**

Agency	Agency File Number
c <b>AU</b> us	E61760

Note: Contact Littelfuse for specific agency approval ratings.

### **Dimensions**

Dimensions in mm (inch)





Schematics	Switch Type
Black Black	1 and 2
Black Blue White	3
Black Black	4

## Description

The 59150 is a flange mounting reed sensor 28.57mm x 19.05mm x 6.35mm (1.125" x 0.750" x 0.250") with a choice of normally open, normally open high voltage, normally closed or changeover contacts. Its case design enables screw or adhesive mounting and the wires exit from top right hand side. It is also available with left hand exit - see 59145 Series. It is capable of switching up to 265Vac/300Vdc at 10VA. The 59150 functions best with the matching actuator 57150-000.

#### Note: The 57150 Actuator is sold separately.

#### **Features**

- Two-part magnetically operated proximity sensor
- Case design allows screw down or adhesive mounting

#### **Benefits**

 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

• No standby power requirement

• Customer defined sensitivity

Choice of cable and connector

RoHS compliant

- Operates through non-ferrous materials such as wood, plastic or aluminium
- Simple installation and adjustment
- Linear actuators
- Door switch

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## **Electrical Ratings**

Contact Type			Normally Open	Normally Open High Voltage	Change Over	Normally Closed
Switch Type			1	2	3	4
Contact Rating <sup>1</sup>		VA/Watt - max.	10	10	5	5
Voltage <sup>4</sup>	Switching <sup>2</sup> Breakdown <sup>3</sup>	Vdc - max. Vac - max. Vdc - min.	200 140 250	300 265 400	175 120 200	175 120 200
Current <sup>4</sup>	Switching <sup>2</sup> Carry	Adc - max. Aac - max. Adc - max.	0.5 0.35 1.2	0.4 0.30 1.4	0.25 0.18 1.5	0.25 0.18 1.5
Resistance ⁵	Contact, Initial Insulation	Ω - max. Ω - min.	0.2 10 <sup>10</sup>	0.2 10 <sup>10</sup>	0.2 10 <sup>9</sup>	0.2 10 <sup>9</sup>
Capacitance	Contact	pF - typ.	0.3	0.2	0.3	0.3
Temperature	Operating	°C	-40 to +105	-20 to +105	-40 to +105	-40 to +105

#### **Product Characteristics**

Operate Time 6		ms - max.	1.0	1.0	3.0	3.0
Release Time 6		ms - max.	1.0	1.0	3.0	3.0
Shock 7	11ms ½ sine	G - max.	100	100	50	50
Vibration <sup>7</sup>	50-2000 Hz	G - max.	30	30	30	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. Breakdown Voltage - per MIL-STD-202, Method 301.

4. Electrical Load Life Expectancy - Contact Littelfuse with voltage, current values along with type of load.

5. This resistance value is for 11.81mm wire length. Resistance changes when wire lengthens.

6. Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil II).

7. Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.

8. For custom modifications to the wire length or size, or adding a special connector, please contact Littelfuse.

## Sensitivity Options (Using 57150 Actuator)

	Select Option		S	т		U		v	
	Switch Type	Pull-In AT Range	Activate Distance - D mm (inch) Average						
1	Normally Open	12-18	13.5 (.531)	17-23	11.2 (.441)	22-28	9.8 (.385)	27-33	9.0 (.357)
2	High Voltage			17-23	11.2 (.441)	22-28	9.8 (.385)	27-33	9.0 (.357)
3	Change Over	15-20	11.0 (.433)	20-25	9.2 (.362)	25-30	8.5 (.335)		-
4	Normally Closed	15-20	11.0 (.433)	20-25	9.2 (.362)	25-30	8.5 (.335)		-

#### Note:

1. Pull-In AT Range: These AT values are the bare reed switch AT before modification.

2. The activation distance is average value on the final sensor assembly.





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## **Cable Length Specification**

Part	Numbering	System
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Cable Type: 24 AWG 7/32 PVC 105°C UL1430/UL1569					
Select Option	Cable Length mm (inch)				
02	300 (11.81)				

## **Termination Specification**

#### **Termination Options**

Select Option	Description (Two-wire versions illustrated)					
А	Tinned leads (6.4±0.76)mm					
F	Untinned leads (6.4±0.76)mm					
E	JST type XHP 2.5mm pitch					



# Actuator: <u>57150</u> - <u>000</u>



Note: The 57150 Actuator is sold separately.

## Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
Bulk	Bulk	500	N/A	N/A

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