59150 Flange Mount Sensor

Flange Mounting Sensor





Additional Information







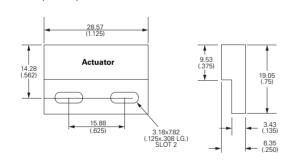
Samples

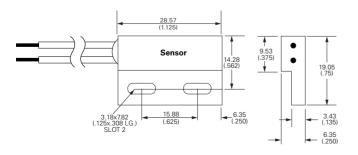
Resources Accessories

Dimensions

Dimensions in mm (inch)

Tolerances are +/- 0.25 (0.010) Unless otherwise noted. (Actuator sold separately)





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. The wires exit from the left-hand side, see Drawing 2. It is also available with right-hand exit - see 59145 series. The 59150 series is capable of switching up to 265Vac/300Vdc at 10VA. It is well suited for use in a wide range of industrial, appliances, or IoT proximity sensing applications.

The 59150 functions best with the matching actuator 57150-000.

Features and Benefits

- Non-contact switching solution for wet & harsh environments
- Housing design for optimum adjustability
- Available in select sensitivities (operating distances)
- Standard cable configurations; customization options available
- Hermetically sealed, IP67 rated; UL and REACH compliant
- No leakage current in 'open' state-ideal for batterypowered IoT applications

- Can operate through non-ferrous materials (for example, wood, plastic or aluminium)
- Helps implement efficient proximity/access and energy management systems
- Compact size and easy installation and effective concealment in many applications
- UL Recognized per UL 508 and CSA C22.2 No. 14.

Applications

- Security and access control
- Factory automation
- Process equipment
- Major appliances
- Small appliances
- Proximity and limit sensing

Agency Approvals

Agency	Agency File Number
c FL °us	E61760

Note: Contact Littelfuse for specific agency approval ratings

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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 ¹		VA/Watt - max.	10	10	5	5
Voltage ⁴	Switching ² Breakdown ³	Vdc - max. Vac - max. Vdc - min.	200 140 250	300 265 400	175 120 200	175 120 200
Current ⁴	Switching ² 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 ¹⁰	0.2 10 ¹⁰	0.2 10 ⁹	0.2 10 ⁹
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

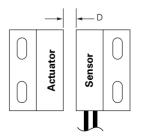
Product Characteristics							
Operate Time ⁶		ms - max.	1.0	1.0	3.0	3.0	
Release Time ⁶		ms - max.	1.0	1.0	3.0	3.0	
Shock ⁷	11ms ½ sine	G - max.	100	100	50	50	
Vibration ⁷	50-2000 Hz	G - max.	30	30	30	30	

- 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 300 mm wire length. Resistance changes when wire lengthens.
 6. Operate (including bounce)/Release Time per ElA/NARM RS-421-A, diode suppressed coil (Coil II).
 7. Shock and Vibration per ElA/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	AT	Activation Distance (mm) Min.	Deactivation Distance (mm) Max.	AT	Activation Distance (mm) Min.	Deactivation Distance (mm) Max.	AT	Activation Distance (mm) Min.	Distance	AT	Activation Distance (mm) Min.	Distance
1	Normally Open	12-18	8.2	22.5	17-23	7.2	20.5	22-28	6.4	19.5	27-33	5.7	20.5
2	High Voltage	-	-	-	17-23	7.2	20.5	22-28	6.3	20.5	27-33	5.7	20.5
3	Change Over	15-20	7.5	18.5	20-25	6.3	17	-	-	-	-	-	-
4	Normally Closed	15-20	7.5	18.5	20-25	6.3	17	-	-	-	-	-	-

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

Cable Type: 24 AWG 7/32 PVC 105°C UL1430/UL1569				
Select Option	Cable Length mm (inch)			
02	300 +/-10.00 (11.81 +/- 0.394)			
05	1000+/-10.00 (39.37+/- 0.394)			

Termination Specification

Termination Options						
Select Option	Description (Two-wire versions il					
Α	Tinned leads (6.4±0.76)mm					

Material Specifications

	Housing Material	Color	Sealing Component
57150 Actuator	20% GF P.B.T	Black	Ероху
59150 Sensor	20% GF P.B.T	Black	Ероху

Packaging

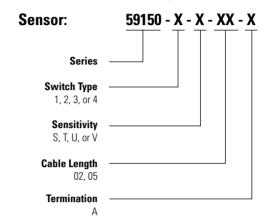
Cable Length	Packaging Option	Quantity
02	Bulk	500
05	Bulk	500

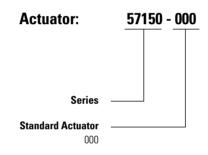
Recommended Fastener for Sensor¹

Series	Fastener	Туре	Torque
Metric	M3	Screw with washer	1.0 N-m
Standard	#4 (7/64")	Screw with washer	8.85 in-lbf

Note: 1. Sensor Housing may be secured using mechanical fasteners, M3 or #4 Screws (Torque to 1 N-m (8.9 in-lbf)), or suitable adhesive tape material. Please note that you must use a suitable washer with the mechanical fastener. Fastener material shuld be non-magnetic stainless steel or brass.

Part Numbering System





Note: The 57150 Actuator is sold separately

