59135 High Temperature Flange Mount Sensor

Flange Mounting Sensor





Description

The 59135 is a high temperature flange mounting reed sensor $28.57 \text{mm} \times 19.05 \text{mm} \times 6.35 \text{mm} (1.125" \times 0.750" \times 0.250")$ with a choice of normally open, normally closed or change-over contacts.

The case design enables mounting with M3 screw with washer at 1 Nm torque maximum or adhesive mounting. It is rated for operation up to 150°C and capable of switching up to 265Vac/300Vdc at 10VA.

The 59135 series is well suited for use in a wide range of industrial, appliances, or IoT proximity sensing applications.

Note: The 59135 series functions best with the matching actuator 57135-000.

Additional Information



Resources





Accessories

Samples

Dimensions

Dimensions in mm (inch)

Tolerances are +/- 0.25 (0.010) unless otherwise noted.

Actuator (sold separately) 28.57 (1.125) 10.31 (.406) (.75) 19.05 (.75) 19.0

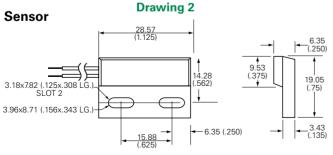


Table 1

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

Features and Benefits

- Non-contact switching solution for wet & harsh environments
- Rated up to 150C operating temperature
- Housing design for optimum adjustability
- Available in select sensitivities (operating distances)
- Standard Teflon insulated cable configurations; customization options available
- Thermoset overmold material
- Hermetically sealed, IP67 rated; UL and REACH compliant

- No leakage current in 'open' state-ideal for battery powered 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

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- Major appliances
- Small appliances
- Proximity and limit sensing

Table 2 Agency Approvals

Agency	Agency File Number
c FL °us	E61760

Note: Contact Littelfuse for specific agency approval ratings.



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Table 3 **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 +150	-20 to +150	-40 to +150	-40 to +150	

Table 4

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

Table 5 Sensitivity Options (Using 57135 Actuator)

	Sensitivity Options (Osing 57 155 Actuator)												
	Select Option	S			т			U			V		
	Switch Type	Pull-In AT Range	Activation Distance (mm)	Deactivation Distance (mm)	ΛТ	Activation Distance (mm)	Deactivation Distance (mm)		Activation Distance (mm)	Deactivation	ΛТ	Activation Distance (mm)	Deactivation Distance (mm)
1	Normally Open	12-18	11-23	13-25	17-23	10-22	12-24	22-28	8-20	10-22	27-33	6-18	9-21
2	High Voltage	-	-	-	17-23	8-20	11-23	22-28	7-19	11-23	27-33	6-18	10-22
3	Change Over	15-20	9-21	11-23	20-25	6-18	9-21	25-30	5-17	8-20	-	-	-
4	Normally Closed	15-20	9-21	11-23	20-25	6-18	9-21	25-30	5-17	8-20	-	-	-

- 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.

