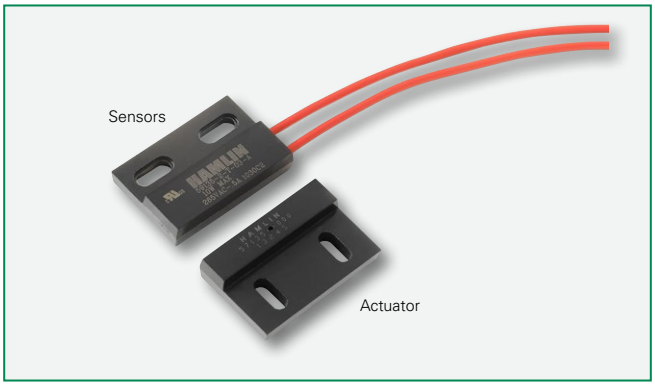
59135 High Temperature Flange Mount Sensor + 57135 Actuator



Description

The 59135 is a high temperature flange mounting reed sensor 28.57mm x 19.05mm x 6.35mm (1.125" x 0.750" x 0.259") with a choice of normally open, normally open high voltage, normally closed or changeover contacts. It's case design enables screw or adhesive mounting. It is rated for operation up to 150°C. It is capable of switching up to 265Vac/300Vdc at 10VA. The 59135 functions best with the matching actuator 57135-000.

Note: The 57135 Actuator is sold separately.

Features

- Two-part magnetically operated proximity sensor
- High temperature rated
- Cross-slotted mounting holes for optimum adjustability
- Customer defined sensitivity option
- Choice of cable length and connector
- Thermoset overmold material
- Teflon insulated wires

Benefits

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

Applications

- Position and limit sensing
- Security system switch
- Linear actuators
- Door switch

Agency Approvals

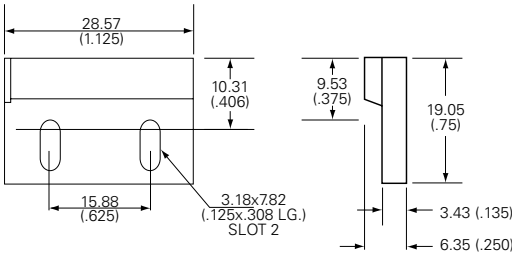
Agency	Agency File Number
c UL us	E61760

Note: Contact Littelfuse for specific agency approval ratings.

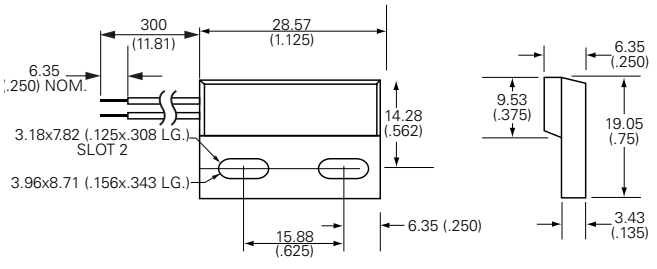
Dimensions

Dimensions in mm (inch)

Actuator



Sensor



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

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Electrical Ratings

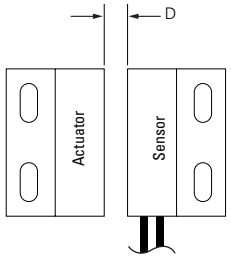
Contact Type			Normally Open	Normally Open High Voltage	Change Over	Normally Closed
Switch Type			1	2	3	4
Contact Rating [1]		VA/Watt - max.	10	10	5	5
Voltage [4]	Switching [2] Breakdown [3]	Vdc - max. Vac - max. Vdc - min.	200 140 250	300 265 400	175 120 200	175 120 200
Current [4]	Switching [2] Carry	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 +150	-20 to +150	-40 to +150	-40 to +150
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 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 57135 Actuator)

Select Option		S		T		U		V	
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	Pull-In AT Range	Activate Distance-D mm (inch) Average
1	Normally Open	12-18	18.5 (.729)	17-23	17.1 (.673)	22-28	15.8 (.622)	27-33	15.1 (.595)
2	High Voltage	--	--	17-23	17.1 (.673)	22-28	15.8 (.622)	27-33	15.1 (.595)
3	Change Over	15-20	16.7 (.657)	20-25	14.7 (.579)	25-30	13.4 (.528)	--	--
4	Normally Closed	15-20	16.7 (.657)	20-25	14.7 (.579)	25-30	13.4 (.528)	--	--

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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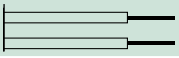
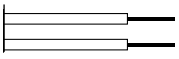
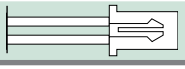
Cable Length Specification

Cable Type: 20 AWG 19/32 FEP UL1130/UL1332

Select Option	Cable Length mm (inch)
02	300 (11.81)

Termination Specification

Termination Options

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

Part Numbering System

Sensor: 59135 - X - X - XX - X

- **Series**
- **Switch Type** 1, 2, 3, or 4
- **Sensitivity** S, T, U, or V
- **Cable Length** 02
- **Termination** A, E, or F

Actuator: 57135 - 000

- **Series**
- **Standard Actuator** 000

Note: The 57135 Actuator is sold separately.

Packaging

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