

# 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

## Agency Approvals

Agency	Agency File Number
	E61760

Note: Contact Littelfuse for specific agency approval ratings.

## Dimensions

Dimensions in mm (inch)

### Actuator



### Sensor



Schematics	Switch Type
	1 and 2
	3
	4

## Applications

- Position and limit sensing
- Security system switch
- 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>	Vdc - max.	200	300	175	175
	Breakdown <sup>3</sup>	Vac - max.	140	265	120	120
		Vdc - min.	250	400	200	200
Current <sup>4</sup>	Switching <sup>2</sup>	Adc - max.	0.5	0.4	0.25	0.25
	Carry	Aac - max.	0.35	0.30	0.18	0.18
		Adc - max.	1.2	1.4	1.5	1.5
Resistance <sup>5</sup>	Contact, Initial Insulation	Ω - max.	0.2	0.2	0.2	0.2
		Ω - min.	10 <sup>10</sup>	10 <sup>10</sup>	10 <sup>9</sup>	10 <sup>9</sup>
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 <sup>6</sup>		ms - max.	1.0	1.0	3.0	3.0
Release Time <sup>6</sup>		ms - max.	1.0	1.0	3.0	3.0
Shock <sup>7</sup>	11ms ½ sine	G - max.	100	100	50	50
Vibration <sup>7</sup>	50-2000 Hz	G - max.	30	30	30	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.
- Breakdown Voltage - per MIL-STD-202, Method 301.
- Electrical Load Life Expectancy - Contact Littelfuse with voltage, current values along with type of load.
- This resistance value is for 11.81mm 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.
- For custom modifications to the wire length or size, or adding a special connector, please contact Littelfuse.

## Sensitivity Options (Using 57135 Actuator)

Select Option	Switch Type	S		T		U		V	
		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:**

- Pull-In AT Range: These AT values are the bare reed switch AT before modification.
- The activation distance is average value on the final sensor assembly

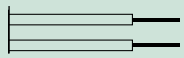

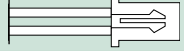


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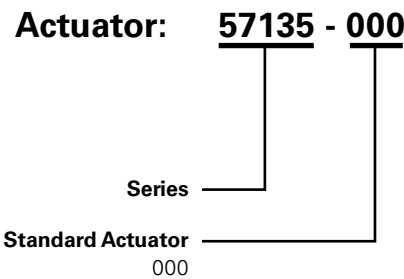
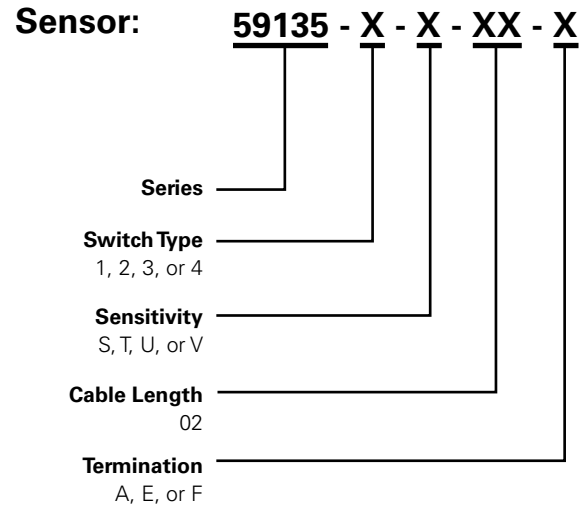
## Cable Length Specification

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



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

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