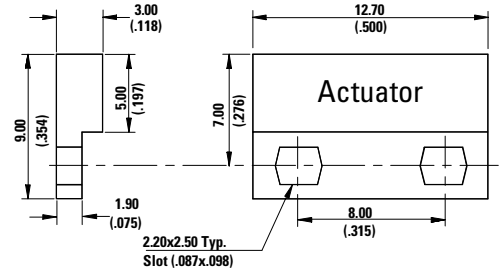
59155 Series
Subminiature Flange Mount Sensor



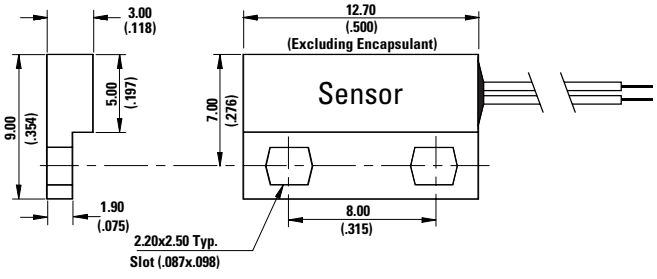
Dimensions
Dimensions in mm (inch)

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

Actuator (sold separately)



Sensor (Two-wire version)



Schematics	Switch Type
Black / Black	1

Description

The 59155 is a subminiature flange mounting reed sensor 12.70mm x 9.00mm x3.00mm (0.500'' x 0.354'' x 0.118'') with normally open contacts. The case design enables mounting with M2 screw at 0.1 Nm torque maximum or adhesive mounting. The wires exit from the right-hand side, see Drawing 2. It is also available with left-hand exit, see 59156 series. The 59155 is capable of switching up to 120Vac/170Vdc at 10VA.

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

The 59155 series functions best with the matching actuator 57155-000.

Features and Benefits

- Smallest flange mount type reed sensor in the market
- Non-contact switching solution for wet and harsh environments
- Housing design for optimum adjustability
- Available in select sensitivities (operating distances)
- Standard cable configurations; customization options available
- 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
- Easy installation and effective concealment in many applications
- UL Recognized per UL 508 and CSA C22.2 No. 14
- Hermetically sealed, IP67 rated; REACH compliant
- ATEX certified for use in European explosive atmospheres: II 3 G Ex nC IIC Gc

Applications

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

Agency Approvals

Agency	Agency File Number
c UL us	E61760
Ex	DEMKO 14 ATEX 1393U* Ex II 3 G Ex nC IIC Gc

Note: Contact Littelfuse for specific agency approval ratings.

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59155 Series
Subminiature Flange Mount Sensor

Electrical Ratings

Contact Type			Normally Open
Switch Type			1
Contact Rating [1]		VA/Watt - max.	10
Voltage [4]	Switching [2] Breakdown [3]	Vdc - max. Vac - max. Vdc - min.	170 120 175
Current [4]	Switching [2] Carry	Adc - max. Aac - max. Adc - max.	0.25 0.18 0.5
Resistance [5]	Contact, Initial Insulation	Ω - max. Ω - min.	0.15 10^{12}
Capacitance	Contact	pF - typ.	0.3
Temperature	Operating	°C	-40 to +105

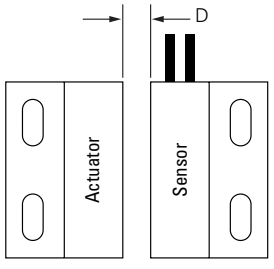
Product Characteristics			
Operate Time [6]		ms - max.	0.5
Release Time [6]		ms - max.	0.2
Shock [7]	11ms ½ sine	G - max.	100
Vibration [7]	50-2000 Hz	G - max.	30

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 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 57155 Actuator)

Select Option		S			T		
Switch Type		Pull-In AT Range	Activation Distance (mm)	Deactivation Distance (mm)	Pull-In AT Range	Activation Distance (mm)	Deactivation Distance (mm)
1	Normally Open	6-10	2.0-4.2	2.2-4.7	10-15	1.5-4.0	1.8-4.4

Notes:
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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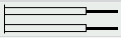
59155 Series
Subminiature Flange Mount Sensor

Cable Length Specification

Cable Type: 26 AWG PVC 105 °C UL1569	
Select Option	**Cable Length mm (inch)**
02	300 +/-10.00 (11.81 +/- 0.394)
05	1000+/-10.00 (39.37+/- 0.394)

Note: Please contact Littelfuse for cable length customizations.

Termination Specification

Termination Options		
Select Option	**Description (Two-wire versions illustrated)**	
A	Tinned leads (6.4±0.76)mm	

Material Specification

	Housing Material	Color	Sealing Component
57155 Actuator	20% GF P.B.T	Black	Epoxy
59155 Sensor	20% GF P.B.T	Black	Epoxy

Packaging

Cable Length	Packaging Option	Quantity
02	Bulk	500
05	Bulk	500

Part Numbering System

Sensor: **59155- X - X - XX - X**

- **Series**
- **Switch Type** 1
- **Sensitivity** S and T
- **Cable Length** 02, 05
- **Termination** A

Actuator: **57155 - 000**

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

Note: The 57140 Actuator is sold separately.

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