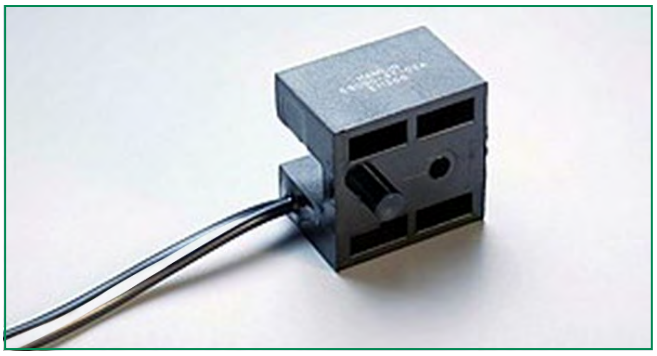
59090 Heavy Duty Vane Sensor

RoHS



Description

The 59090 is a robust reed vane sensor with integral actuator magnet. It's actuation occurs when a suitable low carbon steel vane passes through the slot between the magnet and switch. It has different contact types such as normally closed, high voltage normally closed and changeover. It is capable of switching up to 265Vac/300Vdc at 10VA. It is ideally suited to position and limit sensing, security, linear actuator, industrial process control and shaft rotation. It is also suited for heavy duty applications such as off-road and heavy vehicles and farm machinery.

Features

- Sensor and magnet contained in single housing
- Sensor operates when ferrous vane passes through slot
- Normally closed standard
- Choice of cable length and connector

Benefits

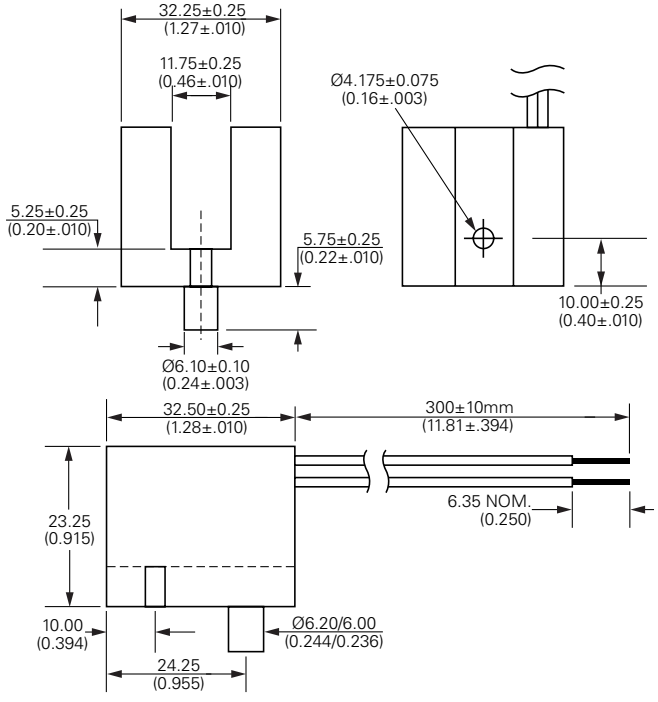
- Hermetically sealed, magnetically operated contacts continue to operate long after optical and other technologies fail due to contamination
- Quick and reliable single screw mounting with location feature
- No standby power requirement

Applications

- Position and limit sensing
- Security system switch
- Linear actuators
- Industrial process control
- Shaft rotation sensing
- Off-Highway or Agriculture equipment compatible

Dimensions

Dimensions in mm (inch)



 Revised: 12/18/17

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Electrical Ratings

Contact Type			Normally Closed
Switch Type			4
Contact Rating [1]		VA/Watt - max.	10
Voltage [4]	Switching [2] Breakdown [3]	Vdc - max. Vac - max. Vdc - min.	200 140 250
Current [4]	Switching [2] Carry	Adc - max. Aac - max. Adc - max.	0.5 0.35 1.2
Resistance [5]	Contact, Initial Insulation	Ω - max. Ω - min.	0.3 10^{10}
Capacitance	Contact	pF - typ.	0.3
Temperature	Operating	°C	-40 to +105

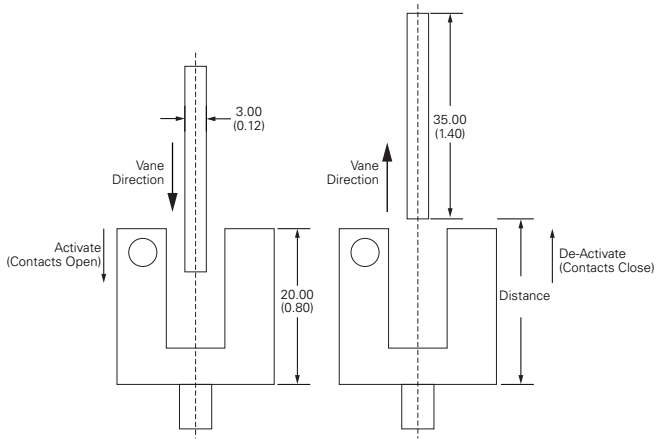
Product Characteristics			
Operate Time [6]		ms - max.	1.0
Release Time [6]		ms - max.	1.0
Shock [7]	11ms ½ sine	G - max.	100
Vibration [7]	50-2000 Hz	G - max.	30

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 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.

Activation

Select Option			
Switch Type		Activation Distance mm (inch) Average	De-Activation Distance mm (inch) Average
4	Normally Closed	18.0 (.708)	24.0 (.945)

Schematics	Switch Type
Blue Brown	4



 Revised: 12/18/17
Specifications are subject to change without notice.

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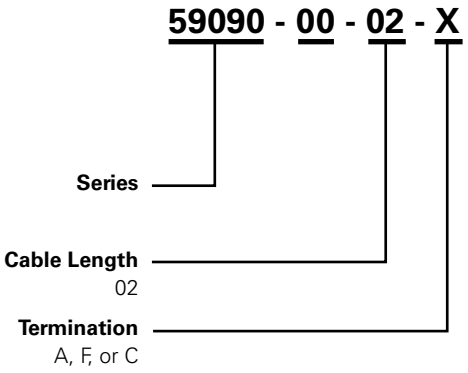
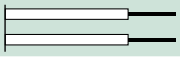
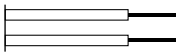
Cable Length Options

Cable Type: 20AWG 7/28 TXL 125C SAE J1128	
Select Option	**Cable Length mm (inch)**
02	300 (11.81)

Part Numbering System



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	
C	Molex Connector MX 150 33481-0201 Molex Terminals 33000-1002	

Packaging

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

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