

# Level Switchgag<sup>®</sup> for Engine Liquids

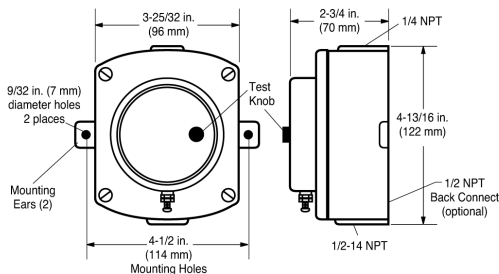
## L150 and EL150K1 Series

The L150 Series Level Switchgag instrument is a combination liquid level gauge and low-limit switch; each unit includes (1) a chamber with pivotal float, (2) an indicating dial with pointer and (3) a low-level contact. When properly installed and maintained, the float operates the pointer which, in turn, both indicates level during normal operation and closes a switching circuit if the level falls to the low-limit set point.

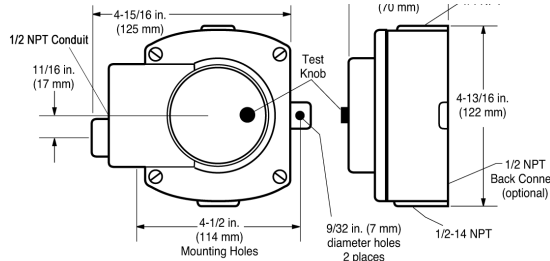
The primary use of the L150/EL150K1 is for engine cooling systems, surge or expansion tanks, condenser radiator or vapor phase systems, pressurized or atmospheric systems. The Level Switchgag instrument can also be used to monitor lube oil, hydraulic fluid or diesel fuel reservoirs and activates alarms and/or shut down at a predetermined minimum level. These instruments are built for low pressure systems with a maximum of 25 psi (172 kPa) [1.72 bar].

### Dimensions

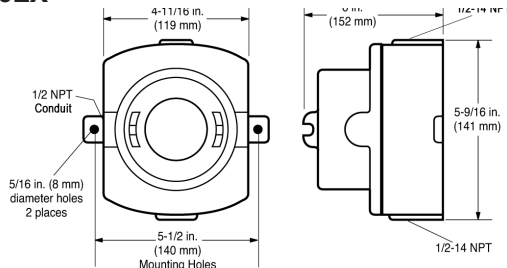
#### L150



#### EL150K1



#### EL150EX



#### L150



#### EL150K1



#### EL150EX



<sup>1</sup> EL150EX Models are CSA Listed for Class I, Division 1, Group C & D Hazardous Locations.

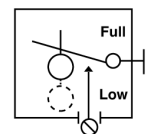
<sup>2</sup> Products covered by this bulletin comply with EMC Council directive 89/336/EEC regarding electromagnetic compatibility except as noted.

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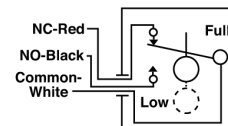
### Standard Electrical Diagrams

**WARNING:** This typical wiring diagram is shown for clarity only. It is not intended for use as installation instructions.

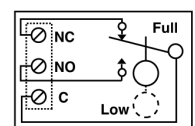
#### L150



#### EL150K1



#### EL150EX



## Specifications

### L150

**Maximum Temperature:** 250° F (121° C)  
**Maximum Operating Pressure:**  
 25 PSI (172 kPa)  
**Case:** Die cast aluminum, polyurethane coated;  
 approximate dimensions; 4-1/2 x 4-3/4 x 2-3/4  
 in. (114 x 121 x 70 mm)  
**Mounting Holes:** (2) 9/32 in. (7 mm) diameter  
 at 4-1/2 in. (114 mm) on center  
**Float:** Brass  
**Lens:** Polycarbonate  
**O-rings:** Saturated Nitrile, are suitable for cool-  
 ant or hydrocarbons  
**Gasket:** Nitrile  
**Vent Tube:** 1/4 x 5 in. (6 x 127 mm) copper  
 cane with 1/4 NPT x 1/4 in. (6 mm) tube fitting  
**Contact Rating:** 2 A @ 30 VAC/DC. Wire: (1)  
 16 AWG x 26 in. (1.5 mm 2 x 660 mm) with  
 terminals

### EL150K1

**Maximum Temperature:** 250° F (121° C)  
**Maximum Operating Pressure:**  
 25 PSI (172 kPa)  
**Case:** Die cast aluminum, polyurethane coated;  
 approximate dimensions; 5 x 4-3/4 x 2-3/4 in.  
 (127 x 121 x 70 mm)  
**Enclosure Rating:** IP35  
**Mounting Holes:** (2) 9/32 in. (7 mm) diameter at  
 4-1/2 in. (114 mm) on center  
**Float:** Brass  
**Lens:** Polycarbonate  
**O-rings:** Saturated Nitrile, are suitable for coolant  
 or hydrocarbons  
**Gasket:** Nitrile  
**Vent Tube:** 1/4 x 5 in. (6 x 127 mm) copper  
 cane with 1/4 NPT x 1/4 in. (6 mm) tube fitting  
**Snap-Switch:** SPDT rated 10 A @ 125 VAC;  
 0.5 A @ 125 VDC; 10 A 30 VDC  
**Wire:** (3) 18 AWG x 14 in. (1 mm 2 x 356 mm)

### EL150EX

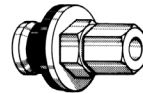
**Maximum Temperature:** 250° F (121° C)  
**Maximum Operating Pressure:**  
 25 PSI (172 kPa)  
**Case:** Sand cast aluminum, painted;  
 approximate dimensions; 6-1/2 x 5-3/4 x  
 5-1/4 in. (165 x 146 x 133 mm)  
**Mounting Holes:** (2) 5/16 in. (8 mm) diameter  
 at 5-1/2 in. (140 mm) on center  
**Float:** 304 Stainless steel  
**Lens:** Tempered glass  
**O-rings:** Saturated Nitrile, suitable for coolant or  
 hydrocarbons  
**Gasket:** Nitrile  
**Vent Tube:** 1/4 x 5 in. (6 x 127 mm) copper  
 cane with 1/4 NPT x 1/4 in. (6 mm) tube fitting  
 and 1/2 NPT to 1/4 NPT reducer fitting  
**Snap-Switch:** SPDT rated 10 A @ 125 VAC;  
 0.5 A @ 125 VDC; 10 A 30 VDC  
**Wire:** Wired to terminal block  
**Laboratory Approvals:**  
 CSA Listed for Hazardous Locations Class I,  
 Division 1, Groups C & D

## Recommended Use

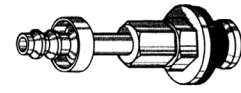
This device is a passive mechanical switch for use in non-hazardous areas. It may be used in hazardous areas with an FW Murphy Controller approved for hazardous areas equipped with a non-incendive or intrinsically safe digital input circuits, when Installation Diagrams are followed for that Controller. The device will meet the intent of a general-purpose passive mechanical switch associated with the Controller's hazardous area approvals. When used in an intrinsically safe circuit, the end device and associated wiring must meet the entity parameters for the circuit.

## How to Order

## Radiator Fittings



15-00-0107 (PS)



15-01-0167 (PS Barbed)

FW Murphy PS, PS Barbed and PS-D fittings allow the installation of the L150 / EL150K1 to the radiator when a fitting is not available.

Part Number	Model and Description	Notes
15700135	L150	
15700144	L150-BC	
15700121	EL150EX	
15700124	EL150EX-D	
15700116	EL150K1	
15700118	EL150K1-BC	
15000138	All parts except case and body	L150 Repair Kits
15000139	All parts except case and body	EL150K1 Repair Kits
15000100	Lens/switch assembly	
15000109	Switch/terminal assembly	
15000107	Radiator fitting (PS), thin wall, 1/4 in. (6 mm) tube fitting	Accessories
15010202	Radiator fitting (PS-D), for diesel or oil, thick wall (to 1/4 in. [6 mm]), accepts 1/2 in. (13 mm) I.D. hose or 1/4 in. (6 mm) O.D. tubing	
15010167	Radiator fitting (PS Barbed), thin wall, 1/4 in. (6 mm) tubing or hose	

Approximate Shipping Weight and Dimensions		
Model	Weight	Dimension
L150	29 oz. (0.82 kg.)	5-1/4 x 5-1/4 x 5-1/2 in. (133 x 133 x 140 mm)
EL150K1	42 oz. (1.2 kg.)	5-1/4 x 5-1/4 x 5-1/2 in. (133 x 133 x 140 mm)
EL150EX	5 lbs. (2.26 kg.)	6-1/2 x 6-3/4 x 6-3/8 in. (165 x 171 x 162 mm)