

# Crankcase Level Switch

## L971 Series

The Murphy L971 Series Level Switch detects low oil level in a compressor's crankcase. As oil level in the crankcase depletes, the float on the L971 switch falls, and when reaching the predetermined limit, it will trip the internal snap-switch sounding an alarm or initiating shutdown.

The L971 is designed for Ingersoll-Rand Type 30, Type 40 and ESH compressors, yet it can be adapted to fit other compressors that have an inspection plate extending below normal operating oil level. It installs with minimal downtime and has a two-year limited warranty.

The L971 has a 1/2 NPT process connection and features an explosion-proof enclosure, durable SPDT snap-switch and rigid polyurethane foam float. A 304 stainless steel float is available on certain configurations.

### Specifications

**Operating Temperature Range:** -15 to 275°F (-26 to 135°C)  
**Maximum Working Pressure:** 30 psi (206 kPa) [2.06 bar]  
**Switch Rating:** 4 A @ 250 VAC  
**Case:** Aluminum (explosion-proof)  
**Mounting Adaptor:** Brass  
**Floats:** Rigid polyurethane. 304 stainless steel available on L971-C only  
**Other Wetted Parts:** 303, 304, and 316 stainless steel  
**O-Ring Seals:** Viton and Buna  
**Process Connection:** 1/2 NPT  
**Hazardous Location Rating:** UL and CSA listed for Class I, Groups C & D; Class II, Groups F & G.  
**Enclosure Type / Ingress Protection Rating:** IP66 per IEC 60529.  
**Conduit Connection:** 1/2 NPT  
**Wire:** 18 AWG (0.75 mm<sup>2</sup>)  
**Shipping Weight:** 1 lb. 10 oz. (0.7 kg)  
**Shipping Dimensions:** 8-1/4 x 4-1/4 x 4-1/2 in. (210 x 108 x 114 mm)

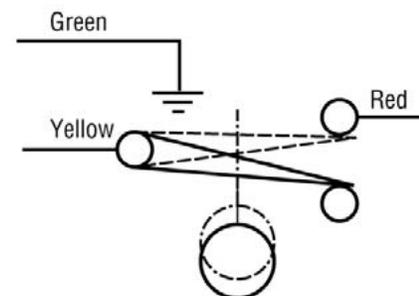


\* Products covered by this bulletin comply with EMC Council directive 89/336/EEC regarding electromagnetic compatibility except as noted.

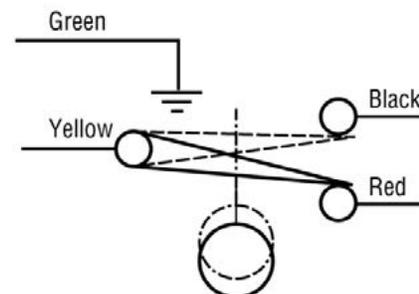
### Wiring

Diagrams are shown in the shelf position with no force acting upon float.

#### L971-A



#### All Other Models

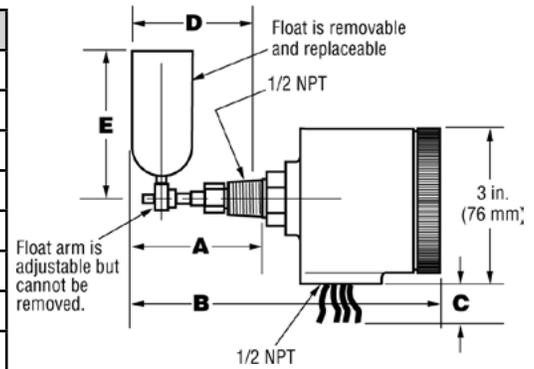


**Warranty** — A limited warranty on materials and workmanship is given with this Murphy product. A copy of the warranty may be viewed or printed by going to [www.murphybynovationcontrols.com/support/warranty.htm](http://www.murphybynovationcontrols.com/support/warranty.htm)

# Dimensions

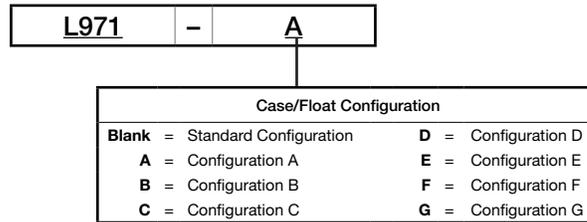
Dimensions are inches (millimeters).

Model	A	B	C	D	E
L971	2-5/8 (67)	5-7/8 (149)	30 (762)	2-1/2 (64)	2-27/32 (72)
L971-A	2-5/8 (67)	5-7/8 (149)	30 (762)	2-1/2 (64)	2-27/32 (72)
L971-B	4-13/16 (122)	8-1/16 (205)	30 (762)	4-5/8 (117)	2-27/32 (72)
L971-C	2-13/16 (71)	6-1/16 (154)	30 (762)	2-7/8 (73)	3-1/8 (79)
L971-D	3-7/8 (98)	7-1/8 (181)	30 (762)	3-3/4 (95)	2-27/32 (72)
L971-E	4-13/16 (122)	8-1/16 (205)	30 (762)	5-1/8 (130)	2-27/32 (72)
L971-F	2-5/8 (67)	5-7/8 (149)	40 (1016)	2-1/2 (64)	2-27/32 (72)
L971-G	2-5/8 (67)	5-7/8 (149)	40 (1016)	2-1/2 (64)	2-27/32 (72)

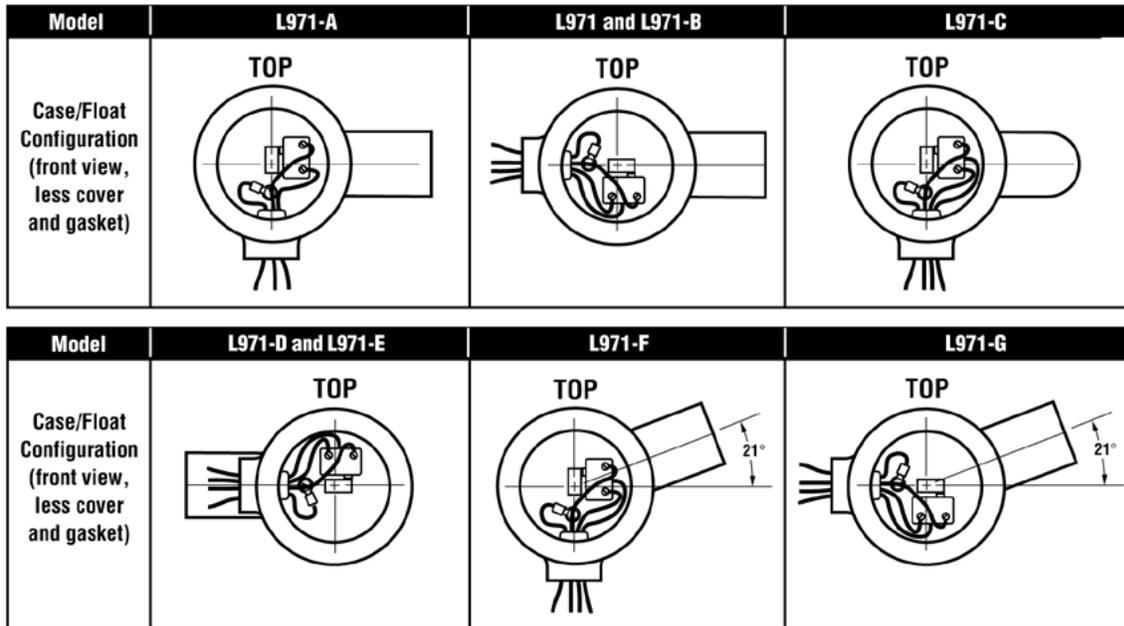


# How to Order

Options are ordered by Case/Float Configurations. Please reference the Case/Float Configuration Diagram and the Dimensions for each model. All configurations may not be available. Call your sales representative or Enovation Controls for more information.



Case/Float Configuration Diagram for L971 Models



NOTE: Switches shown tripped on falling level.

Part Number	Description	Notes
15000449	Float kit for L971	Accessory