

# Crankcase Level Switch – L971 Series



## Features

- Durable Low Level Switch
- Replaces Non-Explosion-proof Switch on Ingersoll-Rand Compressors
- Adaptable to Other Compressors
- Installs with Minimal Downtime
- Two Year Limited Warranty



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

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 if reaches the predetermined limit, will trip the internal snap-switch which in turn will initiate a shutdown and/or alarm.

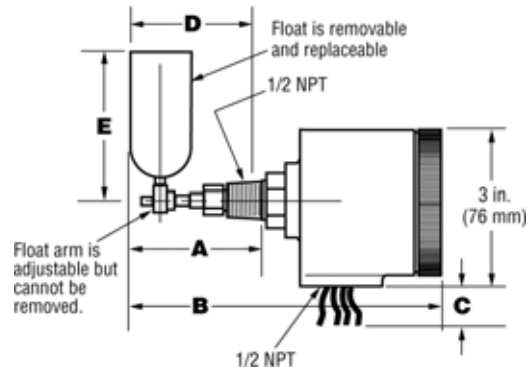
The L971 is designed for Ingersoll-Rand Type 30, Type 40 and ESH compressors, yet can be adapted to fit other compressors that have an inspection plate extending below normal operating oil level.

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 (see Specifications).

## Dimensions

Dimensions in inches\* (see drawing right)

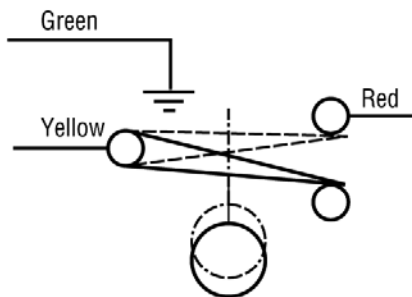
Models	A	B	C	D	E
L971	2-5/8 (67)	5-7/8 (149)	30 (762)	2-1/2 (64)	2-27/32 (72)
L971-A	2-5/8 (67)	5-7/8 (149)	30 (762)	2-1/2 (64)	2-27/32 (72)
L971-B	4-13/16 (122)	8-1/16 (205)	30 (762)	4-5/8 (117)	2-27/32 (72)
L971-C	2-13/16 (71)	6-1/16 (154)	30 (762)	2-7/8 (73)	3-1/8 (79)
L971-D	3-7/8 (98)	7-1/8 (181)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



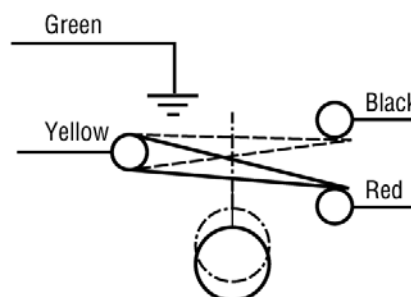
\* Millimeter dimensions are shown in parenthesis ().

## Wiring Diagrams†

### Model L971-A



### All Other Models



† Shown in "shelf" position with no force acting upon float.

# 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.

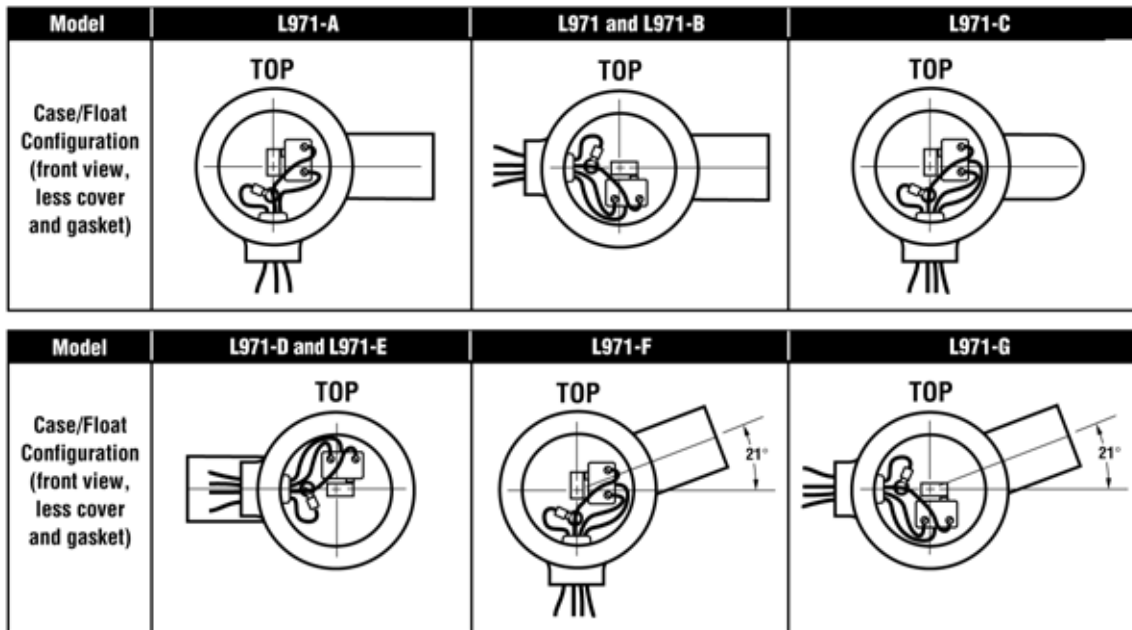
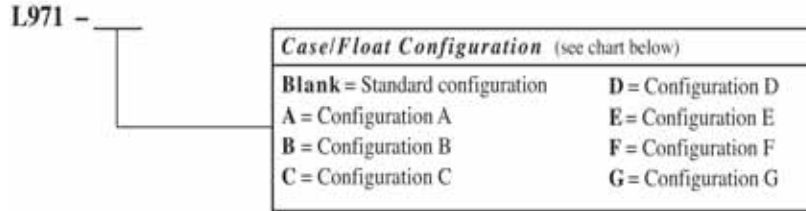
**Material**

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.  
**Enclosure Rating:** UL and CSA listed for Class I, Groups C & D; Class II, Groups F & G, Hazardous Locations.  
**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).

## How to Order

To order the L971 Series Level Switch to fit your application, use the diagram below. Example model number: **L971-C**



**NOTE:** Switches shown tripped on falling level.

**Warranty** - A limited warranty on materials and workmanship is given with this FW Murphy product. A copy of the warranty may be viewed or printed by going to <http://www.fwmurphy.com/warranty>