

Crankcase Level Switch



L971 Series

- 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

Description

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 explosionproof enclosure, durable SPDT snap-switch and rigid polyurethane foam float. A 304 stainless steel float is available on certain configurations (see Specifications).

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 mm²).

Shipping Weight: 1 lb. 10 oz. (0.7 kg).

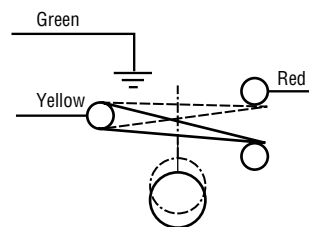
Shipping Dimensions: 8-1/4 x 4-1/4 x 4-1/2 in. (210 x 108 x 114 mm).

Warranty

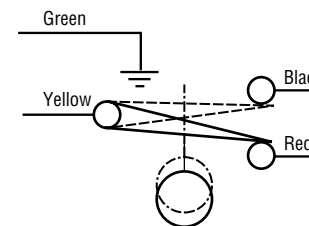
A two-year limited warranty on materials and workmanship is given with this Murphy product. Details are available on request and are packed with each unit.

Wiring Diagrams*

Model L971-A



All Other Models



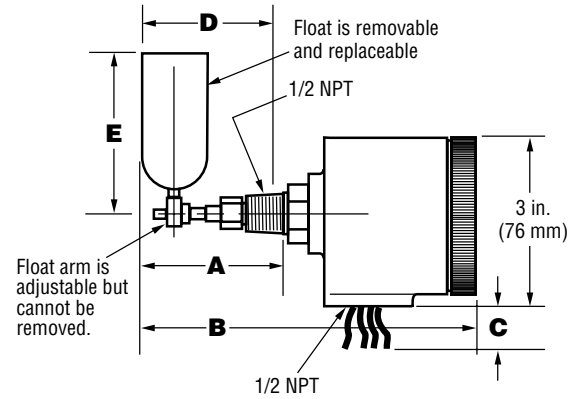
*Shown in "shelf" position with no force acting upon float.

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

Dimensions

Models	Dimensions in inches* (see drawing right)				
	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 ().



How to Order

To order the L971 Series Level Switch to fit your application, use the diagram below.

Example model number: **L971-C**

L971 -

Case/Float Configuration (see chart below)

Blank = Standard configuration

D = Configuration D

A = Configuration A

E = Configuration E

B = Configuration B

F = Configuration F

C = Configuration C

G = Configuration G

Model	L971-A	L971 and L971-B	L971-C
Case/Float Configuration (front view, less cover and gasket)			
Model	L971-D and L971-E	L971-F	L971-G
Case/Float Configuration (front view, less cover and gasket)			

NOTE: Switches shown tripped on falling level.