

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).

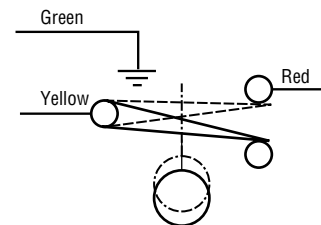
Shipping Dimensions: 8-1/4 x 4-1/4 x 4-1/2 in. (210 x 108 x 114 mm).

Warranty

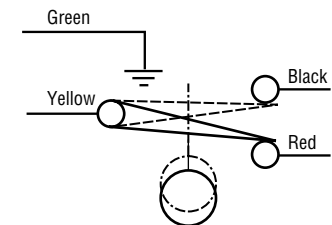
A two-year limited warranty on materials and workmanship is given with this Murphy product. Details are available on request and are packed with each unit.

Wiring Diagrams*

Model L971-A



All Other Models



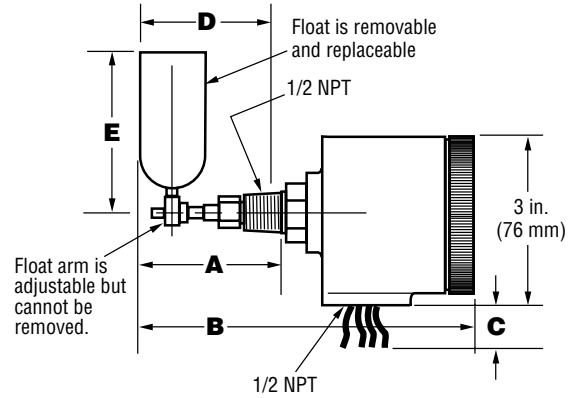
*Shown in "shelf" position with no force acting upon float.

**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

A = Configuration A

B = Configuration B

C = Configuration C

D = Configuration D

E = Configuration E

F = Configuration F

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.

In order to consistently bring you the highest quality, full featured products, we reserve the right to change our specifications and designs at any time.



Frank W. Murphy Manufacturer

P.O. Box 470248; Tulsa, Oklahoma 74147; USA
tel. (918) 627-3550 fax (918) 664-6146
e-mail sales@fwmurphy.com

Frank W. Murphy Southern Division

P.O. Box 1819; Rosenberg, Texas 77471; USA
tel. (281) 342-0297 fax (281) 341-6006
e-mail murphysd@intertex.net

Frank W. Murphy, Ltd.

Church Rd.; Laverstock, Salisbury SP1 1QZ; U.K.
tel. +44 1722 410055 fax +44 1722 410088 tlx 477088
e-mail sales@fwmurphy.co.uk

Frank W. Murphy Pte., Ltd.

No. 2 Tuas South Street 2, Sprintecs Bldg., #02-01/02
Singapore 638042
tel. +65 863-1398 fax +65 863-0208
e-mail fwmsales@fwmurphy.com.sg

Murphuk Pty., Ltd.

1620 Hume Highway; Campbellfield, Vic 3061; Australia
tel. +61 3 9358-5555 fax +61 3 9358-5558
e-mail murphy@macquarrie.com.au

Murphy de México, S.A. de C.V.

Bld. Antonio Rocha Cordero 300, Fracción del Aguaje
San Luis Potosí, S.L.P.; México 78384
tel. +52-48-206264 fax +52-48-206336
e-mail murmexsl@sanluis.podernet.com.mx

Murphy Switch of California

P.O. Box 900788; Palmdale, California 93590; USA
tel. (805) 272-4700 fax (805) 947-7570
e-mail sales@murphyswitch.com

Frank W. Murphy France

tel. +33 1 30 762626 fax +33 1 30 763989