

# Liquid Level Switches

## MLS Series

MLS Series Liquid Level Switches are float activated to operate an electrical SPDT reed switch for annunciation/pilot signal for indication of high level to an annunciator, controller or PLC. The MLS connects directly into the gas scrubber wall and can be used with an FW Murphy weld collar or FW Murphy external float chamber. The MLS Series is available in both 1 1/2 and 2 in. NPT models and with or without the test button.

The test button tests for float function; the complete mechanism including the magnetic activation of the reed switch; and the wiring from the switch to the control panel. Features of the MLS Series include:

- Clean magnet design virtually eliminates iron filing accumulation on the magnet.
- Seal-free construction.
  - ANSI/ISA 12.27.01 compliant (Single Seal).
- Optional push button to test functions.
  - Operates in 0.50 specific gravity or heavier fluids.
- Designed for harsh gas compressor scrubber applications.

**NOTE:** Not recommended for hydrogen gas applications.

- 304 cast equivalent SS body and 304 SS float.
- Rated for 2000 psi (13.8 MPa) [138 bar] working pressure.

**NOTE: DO NOT OVERPRESSURE.** The stainless-steel float may be deformed if exposed to pressure beyond rated (2000 psi). This can affect specific gravity and overall operation.

- Trip on rising and falling without need to rotate body.

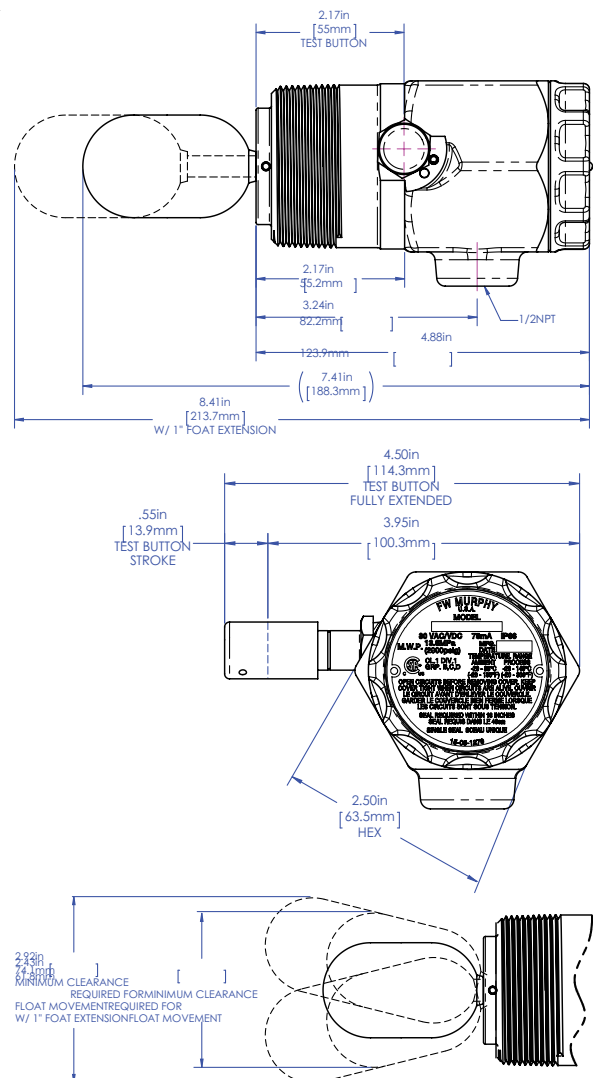
- Electric model only available.
- All models screw directly into the scrubber or can be mounted via an FW Murphy External Float Chamber.
- CSA C/US Class I, Div. 1, Grp. B, C & D locations.
- Canadian registered, CSA approved.



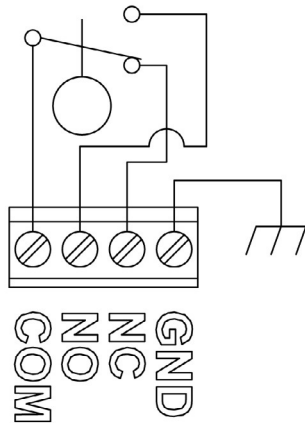
TF Model shown  
with Test Button



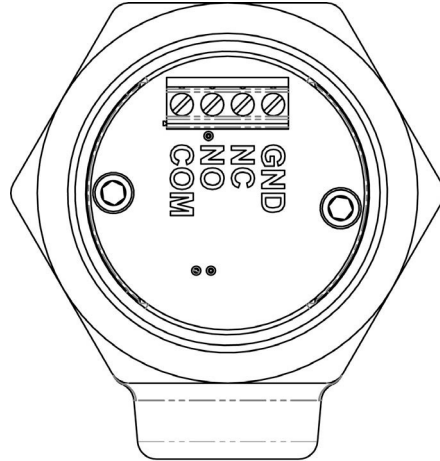
## Dimensions



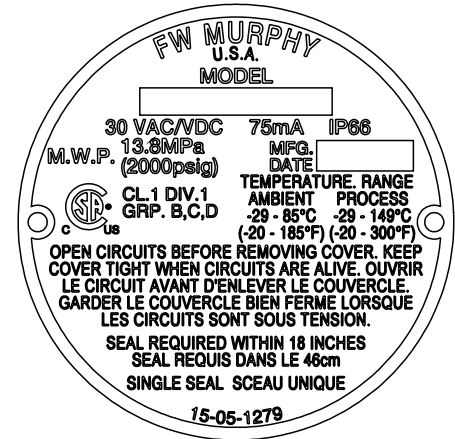
## STD Wiring Diagram



## Inside Back Cover (PCB)



## Back Cover



Refer to MLS installation and operation manuals for additional information.

## Specifications

### Process Connection:

2" NPT (MLS-020); 1-1/2" NPT (MLS-015)

### Fluid Density (SG):

0.50 MIN (no extension)

0.65 MIN (1 inch extension)

**Pressure Rating:** 2000 psi (13.8 MPa) [138 bar]

**NOTE:** DO NOT OVERPRESSURE. The stainless-steel float may be deformed if exposed to pressure beyond rated (2000 psi).

This can affect specific gravity and overall operation.

**NOTE:** Not recommended for hydrogen gas applications.

**Body:** ASTM A351 CF8 (304 SS)

**Cover:** ASTM A351 CF8 (304 SS)

**Other Wetted Parts:** 303, 304 and 316 SS

**Process Temperature:** -20° to 300° F (-29° to 149° C)

**Electrical:** 30VAC/VDC 75mA Form C SPDT

**Conductor cross section AWG/kcmil min.:** 26

**Conductor cross section AWG/kcmil max.:** 16

**Canadian Registration Number:**

OF12013.2 C (all provinces and territories) CSA approved

## How to Order

Part Number	Description	Notes
15700840	MLS-015	1-1/2 in. NPT
15700905	MLS-015-TF	1-1/2 in. NPT with Test Function
15700839	MLS-020	2 in. NPT
15700904	MLS-020-TF	2 in. NPT with Test Function
15700799	External Float Chamber	Operating Pressure: 2000 psi (13.8 MPa) [138 bar]
15050375	Weld Collar	Operating Temperature: 400° F (204° C)
15700853	MLS PCB Replacement Kit	Includes printer circuit board and mounting screws

Approximate Shipping Weight and Dimensions		
Model	Weight	Dimension
MLS-015	5 lbs. (2.27 kg)	14 x 5 x 3.5 in. (356 x 127 x 89 mm)
MLS-020	5.5 lbs. (2.49 kg)	
External Float Chamber	18 lbs. (8.2 kg)	
Weld Collar	6 lbs. (2.7 kg)	

### CONTACT

✉ sales@rajkotmarine.ae

☎ +971 6 7487580

🌐 www.rajkotmarine.com

### RAJKOT MARINE LLC

Jarf Industrial Area 1,

P.O Box 5861

Ajman, UAE