

LS200 & L1100 Series Liquid Level Switches

FWMurphy

Electric Switch



Pending

LS200 Liquid Level Switches with 2" NPT mounting are float activated to operate an electrical SPDT snap switch (optional DPDT on LS200 models) for alarm or shutdown of an engine or electric motor. The LS200 screws directly into the vessel wall and can be used with a weld collar or external float chamber. L1100 models (1-1/2" NPT) are available.

- Designed for Harsh Gas Compressor Scrubber Applications
- 304 Stainless Steel Float Operates in 0.5 Specific Gravity and Heavier Fluids
- LS200 Series Rated for 2000 psi (13.8 MPa) [138 bar] Working Pressure
- Electric and Pneumatic Models Available
- Improved Design Provides Better Snap Action and Dependability with Reduced Number of Moving Parts
- All Models Screw Directly Into the Vessel or Can Be Mounted Via External Float Chamber
- Nickel Plated Body to Provide *Improved* Corrosion Protection
- Improved Float Connection Thread Design Provides a More Secure Connection
- Listed for Class I, Div. 1, Grp. C & D Locations
- Canadian Registration Number OF1476.2

Pneumatic Switch



LS200NDVOR is a float-activated, pneumatic-vent level device used to operate dump valves or similar devices.

The LS200NDVOR provides a 2" NPT mounting with a pneumatic snap action output for interfacing with pneumatic devices such as our DVU scrubber dump valve or with other pneumatic instrumentation. **This unit is supplied with a pressure filter regulator and Murphy pressure gage which are recommended for improved system life and trouble-free operation.**

LS200NDVO

Pneumatic level switch with snap action Dump Valve Operator (DVO) without the Pressure Regulator for those applications where the system provides a filter regulator for "instrument quality" air or gas as the control medium.

LS200N

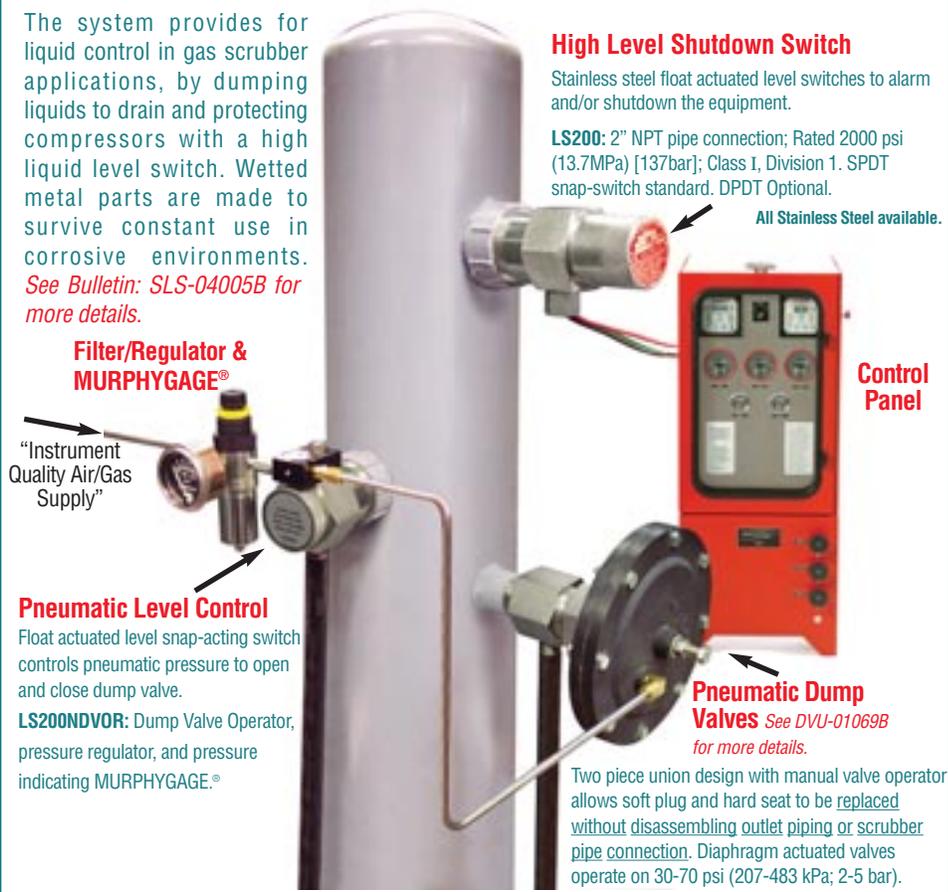
Pneumatic level switch without the DVO and filter regulator.

Warranty

A limited warranty on materials and workmanship is given with this FWMurphy product. A copy of the warranty may be viewed or printed by going to www.fwmurphy.com/warranty.asp.

The Murphy Gas Compressor Scrubber Level System (SLS)

The system provides for liquid control in gas scrubber applications, by dumping liquids to drain and protecting compressors with a high liquid level switch. Wetted metal parts are made to survive constant use in corrosive environments. See Bulletin: SLS-04005B for more details.



High Level Shutdown Switch

Stainless steel float actuated level switches to alarm and/or shutdown the equipment.

LS200: 2" NPT pipe connection; Rated 2000 psi (13.7MPa) [137bar]; Class I, Division 1. SPDT snap-switch standard. DPDT Optional.

All Stainless Steel available.

Filter/Regulator & MURPHYGAGE®

"Instrument Quality Air/Gas Supply"

Pneumatic Level Control

Float actuated level snap-acting switch controls pneumatic pressure to open and close dump valve.

LS200NDVOR: Dump Valve Operator, pressure regulator, and pressure indicating MURPHYGAGE.®

Control Panel

Pneumatic Dump Valves

See DVU-01069B for more details.

Two piece union design with manual valve operator allows soft plug and hard seat to be replaced without disassembling outlet piping or scrubber pipe connection. Diaphragm actuated valves operate on 30-70 psi (207-483 kPa; 2-5 bar).



FWMurphy

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Specifications

All Models

Body: Nickel plated steel; Optional 316 stainless steel (meets NACE standard MR-01-75 for direct exposure to H₂S service)
Float: 304 Stainless steel to operate in 0.5 specific gravity or heavier fluids (LS200 Series models only)
Pressure Rating: 2000 psig (13.8 MPa) [138 bar] (LS200 models only)
O-Ring: Viton

LS200

Process Connection: 2" NPT
Temperature Rating: -20 to 300°F (-29 to 149°C)
 - Optional -20 to 400°F (-29 to 204°C); (not available with DPDT).
Electrical: SPDT std. (see "Electrical" section for configuration/rating).
Wire: 18 AWG x 36 in. (1.0 mm² x 916 mm)

LS200NDVOR

Process Connection: 2" NPT
DVO Valve: 3 way N.C. w/manual operator; all connections 1/8" NPT (minimum 30 psig required)
Filter/Pressure Regulator Set:
 - Regulator: 0 to 75 psig (0 to 517 kPa) [0 to 5.17 bar] range
 - Maximum input pressure: 300 psig (2.07 MPa) [20.7 bar]

LS200NDVO

Process Connection: 2" NPT
DVO Valve: 3 way N.C. w/ manual operator; all connections 1/8" NPT

LS200N

Process Connection: 2" NPT
Vent Valve: 2 way N.C. snap action w/ 1/16 in. (2 mm) orifice and Viton seat;
 Inlet: 1/8" NPT ; Outlet: 3/8" NPT

L1100

Process Connection: 1-1/2" NPT
Pressure Rating: 1500 psi (10.3 MPa) [103 bar]
Float: BUOYGLAS™ operates to 0.5 specific gravity; Optional stainless steel to operate in 0.65 specific gravity
Electrical: SPDT switch

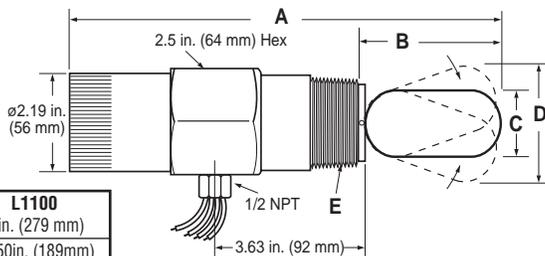
Approximate Shipping Weights and Dimensions

All models: 6 lb. 10 oz. (3 kg); 14 x 5 x 3-1/2 in. (356 x 127 x 89 mm).

Dimensions

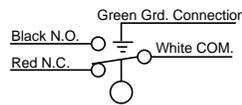
LS200, L1100

	LS200	L1100
A	10.16 in. (258 mm)	11 in. (279 mm)
B	3.44 in. (87 mm)	3.50 in. (189 mm)
C	ø1.75 in. (44 mm)	ø1.56 in. (40 mm)
D	2.80 in. (71 mm)	3.4 in. (71 mm)
E	2 NPT	1-1/2 NPT



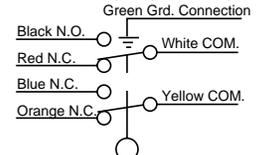
Electrical

SPDT (snap-switch)



Switch Rating:
 5 A @ 125-250- 480 VAC
 1/2 A @ 125 VDC
 1/4 A @ 250 VDC
 2A @ 6-30 VDC Resistive
 1A @ 6-30 VDC Inductive

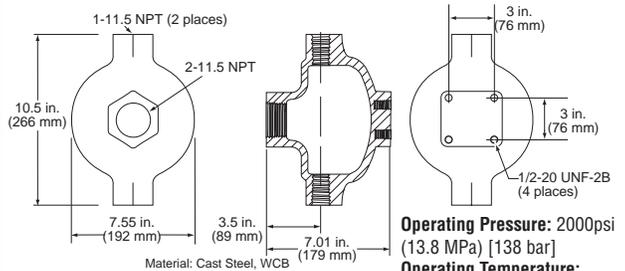
DPDT (snap-switch)



Switch Rating:
 10 A @ 125-250 VAC
 1/2 A @ 125 VDC
 1/4 A @ 250 VDC
 10 A @ 6-24 VDC Inductive/Resistive

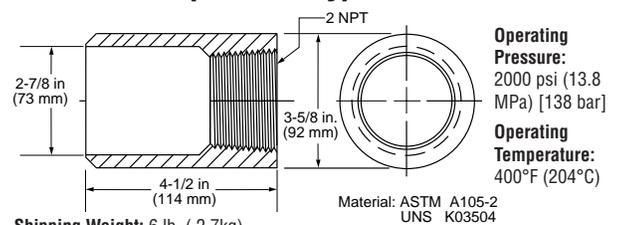
Accessories

Float Chamber 15051098



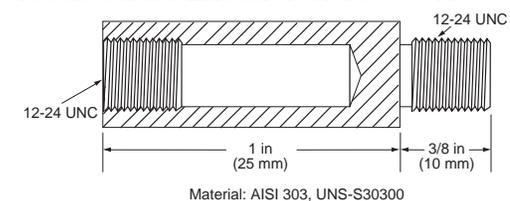
Shipping Weight: 32 lb. (14.5kg).

Weld Collar (LS200 only) 15050375



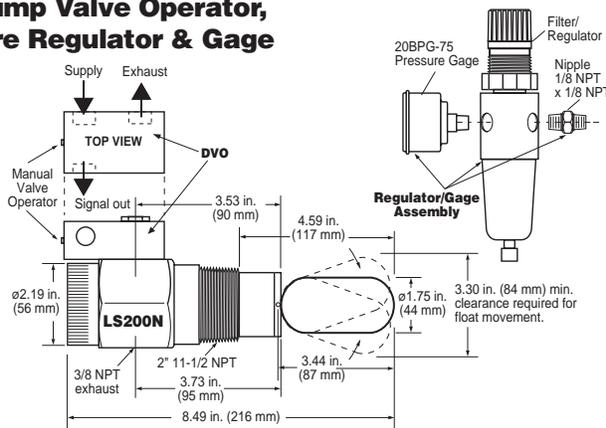
Shipping Weight: 6 lb. (2.7kg).

Float Shaft Extension 15000478



NOTE: The extension is used with the LS200 only. One extension is supplied with each unit. Use of additional extensions is not recommended as they reduce the ability of the unit to operate for the stated specific gravity.

LS200N, LS200NDVO and LS200NDVOR with Dump Valve Operator, Pressure Regulator & Gage



How to Order your Level Switch

Build a complete model number using the diagram below.

LS200 -

NOTE: Refer to LS-04006N for replacement parts.

Options

D = DPDT
K = KALREZ Seals
400 = 400°F (204°C) Service **
SF = Stainless Steel float (L1100 only)

Base Models

LS200*	L1100SS†
LS200N*	LS200SS*
LS200NDVO*	LS200NSS*
LS200NDVOR*	LS200SSDVO*
L1100**†	LS200SSDVOR*

*Pending Canadian Registration Number OF1476.2.

**Not available with DPDT snap-switch.

† Supplied with BUOYGLAS™ float.



CAUTION: LS200 series parts are not interchangeable with the L1200 Series.