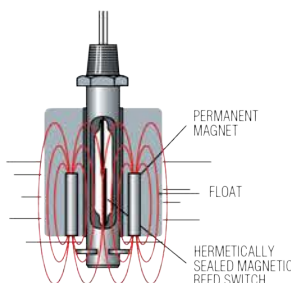


Float Type Level Switches

Single Point

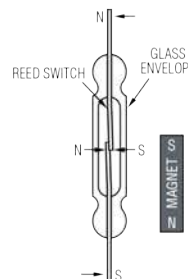
GEMS Level Switches operate on a direct, simple principle. In most models, a float encircling a stationary stem is equipped with powerful, permanent magnets. As the float rises or lowers with liquid level, the magnetic field generated from within the float actuates a hermetically sealed, magnetic reed switch mounted within the stem. The stem is made of non-magnetic metals or rugged, engineered plastics. When mounted vertically, this basic design provides a consistent accuracy of $\pm 1/8$ inch. Multi-station versions use a separate reed switch for each level point being monitored.



Side-mounted units use different actuation methods because of their horizontal attitude. The basic principle, however, is the same: as a direct result of rising or falling liquid, a magnetic field is moved into the proximity of a reed switch, causing its actuation.

Reed Switch Reliability

The durable construction of these reed switch designs ensures long, trouble-free service. Because the effects of shock, wear and vibration are minimized, these hermetically sealed switches provide precise repeatability with no more than 1% deviation. The switch actuation points remain constant over the life of the unit. See "Reed Switch Protection" in Appendix X for information on extending the life of GEMS Level Switches.



Wide Variety

Top/Bottom Mounting



Side Mounting



Specialty



Large Size – Alloys

LS-1800 and LS-1900 Series are a Step Above Our Plastic Units for Pressure Capabilities

Excellent stability for general use in oils and water.

LS-1800 Series –
Buna N Float



LS-1800 Series –
Teflon® Float



LS-1900 Series –
Buna N Float



Intermediate in size, LS-1800 switches provide long life and dependability to meet a broad range of requirements.

With large float displacement, switch withstands rough service; is suitable for high viscosity liquids.

Dimensions

LS-1800 Series		LS-1900 Series
Buna N Float	Teflon® Float	Buna N Float
<p>1/8" NPT 17/32" (13.5 mm) 1/2" HEX (12.7 mm) 2-15/16" (74.6 mm) 7/8" (22.2 mm)† 2-13/32" (61.1 mm) 1-3/4" (44.5 mm) 1-1/4" DIA (31.7 mm)</p>	<p>1/8" NPT 17/32" (13.5 mm) 1/2" HEX (12.7 mm) 2-15/16" (74.6 mm) 7/8" (22.2 mm)† 2-13/32" (61.1 mm) 1-3/4" (44.5 mm) 1-1/4" DIA (31.7 mm) FLAT WASHER SPRING</p>	<p>1/4" NPT 21/32" (16.7 mm) 5/8" HEX (15.9 mm) 3-3/16" (80.9 mm) 1-3/16" (30.2 mm)† 2-17/32" (64.3 mm) 1-13/16" (46.1 mm) 1-7/8" DIA (47.6 mm)</p>

†L_s = Switch actuation level, nominal (based on a liquid specific gravity of 1.0).

Common Specifications

Electrical Termination: No.18 AWG, 24" L., Polymeric Lead Wires.

Approvals: All Switches on this page are U.L. Recognized – File No. E45168, and are CSA Listed – File No. 30200.

RoHS – In compliance with EU-directive 2011/65/EC requirements for chemicals and substances.

Switch Operation: Selectable, N.O. or N.C., by inverting float on unit stem (except for LS-1800 Series switch with Teflon® float). Units are shipped N.O. unless otherwise specified.

How To Order – Select Part Number based on specifications required.

Series Number	Material			Min. Liquid Sp. Gr.	Operating Temperature	Pressure, PSI, Max.	Switch* SPST	Part Number
	Stem and Mounting	Float	Other Wetted					
LS-1800	Brass	Buna N	316 Stainless Steel, Hysol	.75	Water: to 180°F (82°C) Oil: -40°F to +230°F (-40°C to +110°C)	150	20 VA	01801 ⚡
		Buna N		.75			100 VA**	35651 ⚡
	316 Stainless Steel	Buna N		.65	-40°F to +250°F (-40°C to +121°C)	300	20 VA	01807 ⚡
		Teflon®		.65			100 VA**	35657 ⚡
LS-1900	Brass	Buna N	316 Stainless Steel, Hysol	.55	Water: to 180°F (82°C) Oil: -40°F to +230°F (-40°C to +110°C)	150	20 VA, N.O.	01811 ⚡
		Buna N		.55			20 VA	01901 ⚡
	316 Stainless Steel	Buna N		.55	-40°F to +250°F (-40°C to +121°C)	300	100 VA***	35676 ⚡
		Buna N		.55			20 VA	01907 ⚡
							100 VA	35682 ⚡

*See "Electrical Data" on Page X-5 for more information.

*** LS-1900 100VA unit is UL Resistive Rated.

**LS-1800 100 VA switches are not U.L. Recognized.

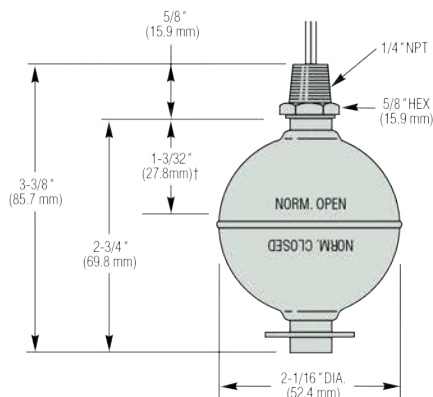


Large Size – Alloys

LS-1950 – All Stainless Steel For High Pressure and Temperature

For high performance applications, the LS-1950 provides high temperature and pressure capabilities. Materials of construction comply with FDA food contact regulations.

Dimensions



†L₁ = Switch actuation level, nominal (based on a liquid specific gravity of 1.0 and N.O. dry circuit – dimension will vary for N.C. circuit).

Common Specifications

Electrical Termination: No. 18 AWG, 24" L., Polymeric Lead Wires (except Part No. 79999 which has Teflon® lead wires).

Approvals: LS-1950 Series switches are U.L. Recognized – File No. E45168 and are CSA Listed - File No. 30200
RoHS – In compliance with EU-directive 2011/65/EC requirements for chemicals and substances.
(Part No. 79999 is U.L. Recognized RoHS Compliant only).

Switch Operation: Selectable, N.O. or N.C., by inverting float on unit stem. Units are shipped N.O. unless otherwise specified.

How to Order – Select Part Number based on specifications required.

Series Number	Materials		Min. Liquid Sp. Gr.	Operating Temperature	Pressure, PSI, Max.	Switch ¹	Part Number
	Stem and Mounting	Float					
LS-1950	316 Stainless Steel	0.75	-40°F to +300°F (-40°C to +149°C)	750	SPST, 20 VA	01950	⚡
					SPST, 100 VA ²	26717	⚡
			-40°F to +480°F (-40°C to +249°C)		SPST, 20 VA	79999	⚡

Notes

1. See "Electrical Data" on Page X-5 for more information.

2. UL Resistive Rated

⚡ – Stock Items.



Exceptionally accurate and rugged for higher temperatures and in pressurized or corrosive liquids.
For oils, water and chemicals.