

Одноточечные поплавковые реле уровня и датчики LS-1950

Технические характеристики

По вопросам продаж и поддержки обращайтесь:

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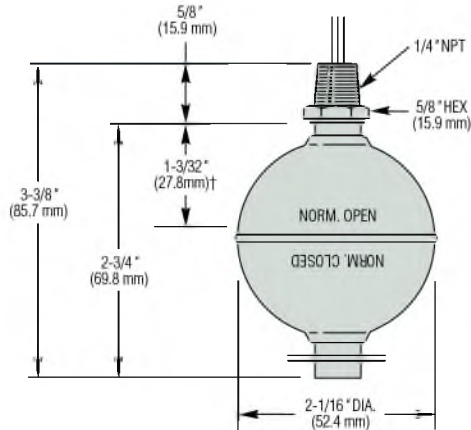
эл.почта: gsx@nt-rt.ru || сайт: <https://gems.nt-rt.ru/>

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.



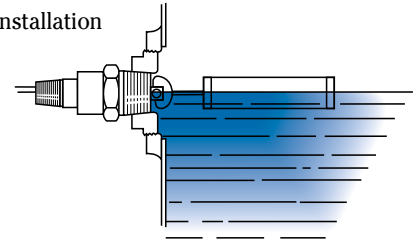
Exceptionally accurate and rugged for higher temperatures and in pressurized or corrosive liquids.
For oils, water and chemicals.

Large Size – Alloys

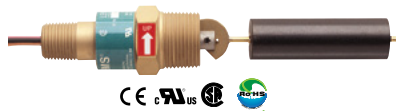
Side Mounting Switches Solve the Problem of Inaccessible Tank Tops & Bottoms

These units solve the problem of point level sensing in tanks with inaccessible tops or bottoms, or at intermediate locations in larger tanks. Operation is positive and dependable. The float pivots with changing liquid level, displacing a shuttle which magnetically actuates a hermetically sealed switch within the unit. Installation is through the tank side at the detection point.

Typical Installation

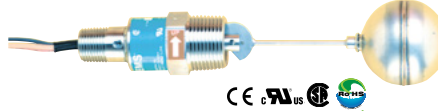


LS-2050 Series – Brass and Buna N



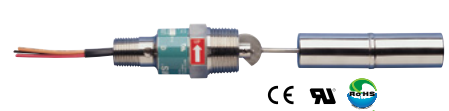
General purpose materials designed to provide reliable service in oils and water.

LS-2050 Series – All-Stainless Steel



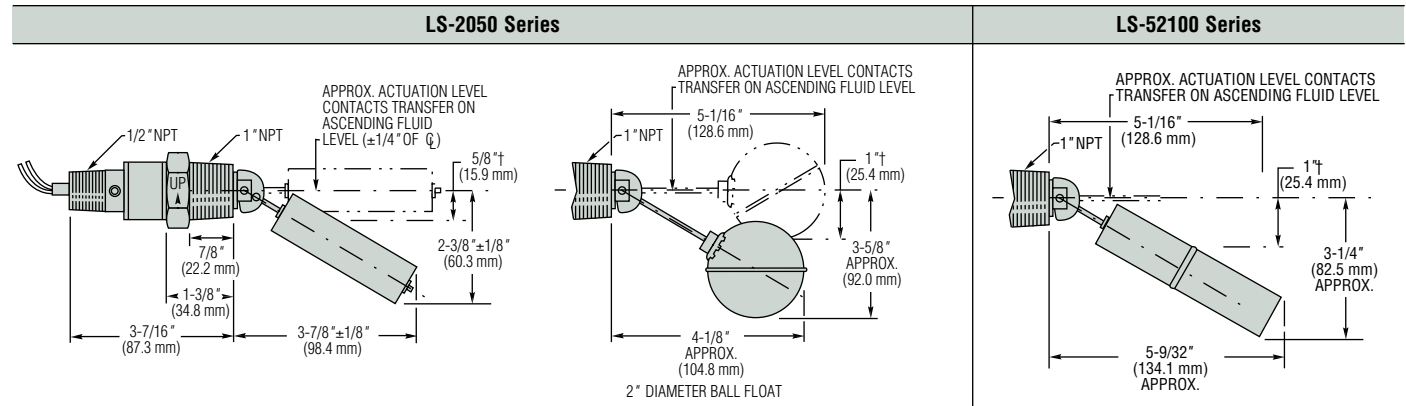
Ultimate strength: for pressures to 900 PSIG and temperatures to 300°F (148.9°C).

LS-52100 Series – All Stainless Steel



Rugged, all-stainless steel unit offers broad chemical compatibility at temperatures to 300°F (148.9°C).

Dimensions



† Approximate de-actuation level, nominal (based on a liquid specific gravity of 1.0).

* Switch Mounting dimensions are the same as shown on the LS-2050 Series drawing (far left).

For Remote Alarms – See Page E-27

- Adjustable Volume
- Indoor Outdoor
- Solid-State



Common Specifications

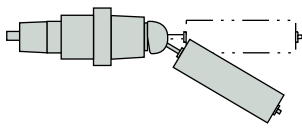
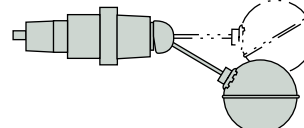
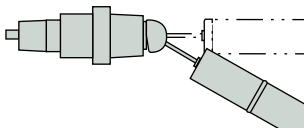
Electrical Termination: No.18 AWG, 24" L., Polymeric Lead Wires.

Approvals: LS-2050 Series Switches are U.L. Recognized – File No. E45168 and are CSA Listed.

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

Mounting Attitude: Horizontal, $\pm 15^\circ$.

Performance

	LS-2050 Series		LS-52100 Series
	Brass Mounting/Buna-N Float	All-Stainless Steel	
			
Operating Temperature	Water: to +180°F (82.2°C) Oil: -40°F to +250°F (-40°C to +121°C)		-40°F to +300°F (-40°C to +148.9°C)
Pressure, PSIG Max. @ 70°F	150		500
Min. Liquid Sp. Gr.	.8		.85
Switch Differential in Liquid	1/2" Minimum		Approximately 3/4"

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

Series Number	Materials			Switch ¹	Part Numbers	
	Stem and Mounting	Float	Other Wetted		Standard Versions	With Bellows (Details Below)
LS-2050	Brass	Buna N	316 Stainless Steel, Beryllium Copper, Teflon®, Ceramic	SPDT, 20 VA	30288 ⚡	—
	316 Stainless Steel	316 Stainless Steel	Stainless Steel, Teflon®, Ceramic	SPDT, 20 VA	30290 ⚡	175650
				SPST, 100 VA, N.O. ^{2,4}	48068	—
				SPST, 100 VA, N.C. ^{2,4}	48069	—
LS-52100	316 Stainless Steel	304 Stainless Steel	430 Stainless Steel, Teflon®, Ceramic	SPDT, 20 VA	52100 ⚡	—
				SPST, 100 VA, N.O. ³	116971	—
				SPST, 100 VA, N.C. ³	116972	—

Notes

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

2. Not CSA Approved.

3. Not U.L. Recognized or CSA Approved.

4. UL Resistive Rated

⚡ – Stock Items.

Small Size – Engineered Plastics

LS-3 Series – Offers High Reliability, Compact Size and Low Costs in NPT, Straight and Metric Threads

Ideal for shallow tanks or restricted spaces, or for any low-cost, high volume use.

LS-3 Series are available in FDA compliant materials, consult GEMS for details.

Polysulfone Float



For water based liquids, with limited use in oils and chemicals.

Polypropylene Float (Hollow)



Features a low specific gravity float offering broad chemical compatibility.

Polypropylene Float (Solid)



With Polypropylene stem and float, switch offers broad chemical compatibility.

Buna-N Float



Ideal for oils and fuels.

ALL-PVDF



Wetted materials of construction comply with FDA food contact regulations. Stem and float of corrosion-resistant PVDF for ultra-pure applications.

New 3/4" Polypropylene Float



See next page for details.



RoHS Compliant:

All LS-3 Series level switches featured on this page and the next are in compliance with EU-directive 2011/65/EC.

Common Specifications

Approvals: U.L. Recognized – File No. E45168; CSA Listed – File No. 30200. CE Declaration Available Upon Request.

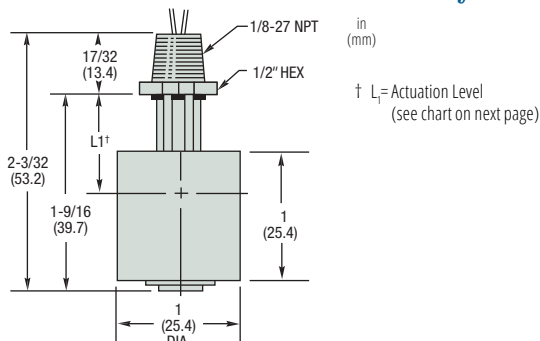
RoHS – In compliance with EU-directive 2011/65/EC requirements for chemicals and substances.

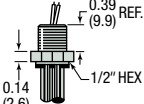
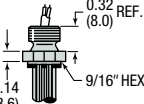
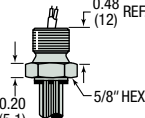
For NSF certified level switch products, contact Gems.

Switch SPST: 20 VA, 120–240 VAC. Units are shipped N.O. unless otherwise specified. Selectable, N.O. or N.C., by inverting float on unit stem.

For LS-3 Micro: 20 VA, 140 VAC/200 VDC

Dimensions – 1" Float Models only



Alternate Mountings			
	3/8-16 UNC	ISO 228 - G 1/8	M12 × 1.75
in (mm)			
	Electrical Termination	Lead Wires	Cable

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

Stem and Mounting Material	Float Material	Float Dia.	Actuation Level ¹	Min. Liquid Sp. Gravity	Pressure Max. @ 70°F (21°C)	Operating Temperature	Mounting Type	Electrical Termination	Part Number
Polysulfone	Polysulfone	1"	3/4" (19.0 mm)	0.75	50 psi (3 bar)	-40°F to +225°F (-40°C to +107°C)	1/8-27 NPT	Lead Wires	42295 ✓
Polypropylene ²	Polypropylene (Hollow)	1"	13/16" (20.6 mm)	0.60	50 psi (3 bar)	-40°F to +225°F (-40°C to +107°C)	1/8-27 NPT	Lead Wires	142505 ✓
						-40°F to +176°F (-40°C to +80°C)	3/8-16 UNC	Lead Wires	171517 ✓
						-40°F to +176°F (-40°C to +80°C)	M12 × 1.75	Cable	171518
Polypropylene ²	Polypropylene (Solid)	1"	9/16" (14.3 mm)	0.90	150 psi (10.3 bar) @ 68°F (20°C)	-40°F to +150°F (-40°C to +66°C)	1/8-27 NPT	Lead Wires	116826 ✓
						-40°F to +176°F (-40°C to +80°C)	3/8-16 UNC	Lead Wires	171514 ✓
						-40°F to +176°F (-40°C to +80°C)	M12 × 1.75	Cable	189787
Nylon	Buna-N	1"	13/16" (20.6 mm)	0.45	150 psi (10.3 bar)	-40°F to +250°F (oil) (-40°C to +121°C [oil])	1/8-27 NPT	Lead Wires	162745 ✓
						-40°F to +176°F (water) (-40°C to +80°C [water])	M12 × 1.75	Cable	189786
Polypropylene (PVDF float retaining clip) LS-3N ³	Polypropylene (Hollow) LS-3N ³	1"	13/16" (20.6 mm)	0.60	50 psi (3 bar)	-40°F to +225°F (-40°C to +107°C)	1/8-27 NPT	Lead Wires	209475
							3/8-16 UNC	Lead Wires	209455
							ISO 228 - G 1/8	Lead Wires	209460
							M12 × 1.75	Lead Wires	209465
PVDF LS-3F ⁴	PVDF LS-3F ⁴	1"	1/2" (12.7 mm)	0.86	50 psi (3 bar)	-40°F to +250°F (-40°C to +121°C)	1/8-27 NPT	Teflon® Jacketed Lead Wires	173250 ✓

Notes:

- Based on a liquid specific gravity of 1.0.
- All Polypropylene units carry a Kynar® retaining clip. Accessories Available in OEM Quantities: Jam Nut, Gaskets, and Slosh Shields.
- LS-3N is an NSF certified product, for water use only.
- LS-3F is an NSF certified product for all food contact.

✓ Stock items.

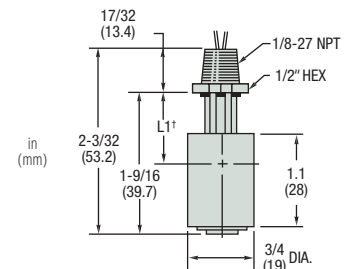
Miniature Floats for Tiny Tanks

Our smallest LS-3 Series switches yet!

Small yes, but with BIG performance. No other miniature float switches match our LS-3 specs. These units are ideal for potable water, medical devices and other compact appliances, such as printers. Gems proprietary float enables use in lighter-than-water fluids. Switches are made from FDA compliant materials.



Dimensions



† L₁ = Actuation Level (see chart below)

Series	Stem and Mounting Material	Float Material	Actuation Level ¹	Min. Liquid Sp. Gravity	Pressure Max. @ 70°F (21°C)	Operating Temperature	Electrical Termination	Mounting Type	Switch Logic	Part Number
LS-3 3/4"	Polypropylene ²	Polypropylene (Solid)	7/16" (11.1 mm)	0.95	100 psi (6.9 bar)	-40°F to +212°F (-40°C to +100°C)	Lead Wires or Cable	1/8-27 NPT	N.C./N.O. Reverse Float Position	201540
	Nylon	Buna-N	11/16" (17.5 mm)	0.85	150 psi (10.3 bar)	-40°F to +250°F (oil) (-40°C to +121°C [oil])	Lead Wire			177818

Notes:

- Based on a liquid specific gravity of 1.0.
- Utilizes a Kynar® retaining clip.

Unique Features Make These LS-3 Models Special

These small switches feature unique configurations for special applications.

**Part No. 142545
With Slosh Shield**



Cut-away version shown

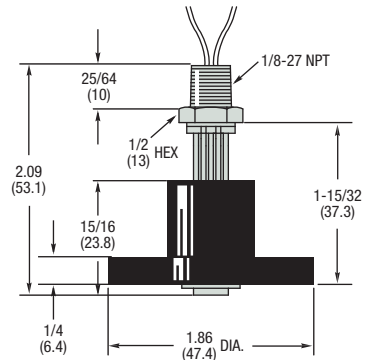
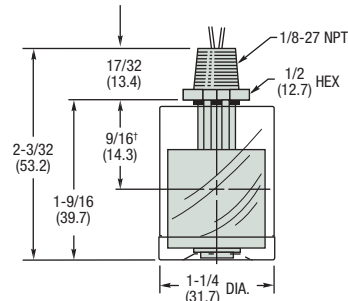
Compact, all-polypropylene switch with slosh shield is ideal for use with turbulent liquids in small tanks. FDA compliant materials.

**Part No. 76707
For Low Level**



For detecting levels as low as 5/8" from tank bottom. Use in water, some oils and chemicals.

in
(mm)



Order By Part Number	142545 ✓	76707 ✓
Materials		
Stem and Mounting	All Polypropylene (Including Shield ⁴)	All Polysulfone (Including Collar)
Float	Polypropylene (Solid)	Buna-N
Other Wetted	—	Epoxy
Min. Liquid Sp. Gr.	0.90	—
Operating Temperature	-40°F to +150°F (-40°C to +65.6°C)	-40°F to +180°F (-40°C to +82.2°C)
Maximum Pressure ³	150 psi (10.3 bar)	50 psi (3 bar)
Switch ¹ , SPST	20 VA, N.C./N.O. Dry ²	20 VA, N.C. Dry
Electrical Termination	22 AWG, 22" L., PVC Lead Wires	22 AWG, 72" L., PVC Lead Wires

Notes:

1. See "Electrical Data" on Page X-5 for more information.
2. Switch operation is selectable, N.O. or N.C., by inverting the float on the unit stem.
3. Maximum pressure at 70°F (21°C).
4. Consult factory for other available materials.

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

✓ Stock items.

По вопросам продаж и поддержки обращайтесь:

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