

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



FDA
CE
UL US CS

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

Polypropylene Float (Hollow)



CE
UL US CS

Features a low specific gravity float offering broad chemical compatibility.

Polypropylene Float (Solid)



CE
UL US CS

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

Buna-N Float



CE
UL US CS

Ideal for oils and fuels.

ALL-PVDF



UL US
CE
FDA

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



UL US
CE

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.

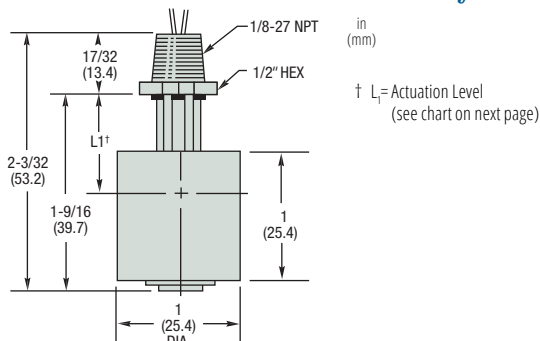
RoHS – In compliance with EU-directive 2011/65/EC requirements for chemicals and substances.

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	Cable

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

LEVEL SWITCHES – SINGLE POINT

Stem and Mounting Material	Float Material	Float Dia.	Actuation Level [†]	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 ✓
							3/8-16 UNC	Lead Wires	171517 ✓
							ISO 228 - G 1/8	Cable	171518
							M12 × 1.75	Cable	189739
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 ✓
							3/8-16 UNC	Lead Wires	171514 ✓
							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 ✓
							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.

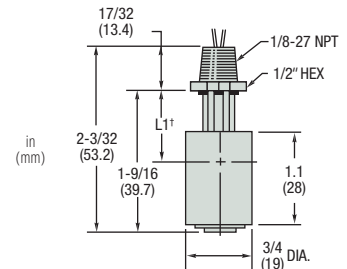
Miniature Floats for Tiny Tanks

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 [†]	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

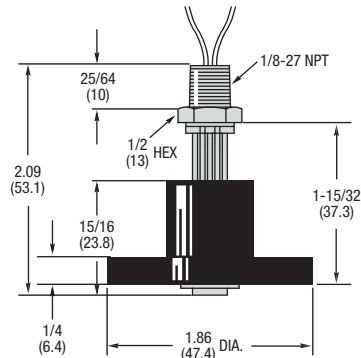
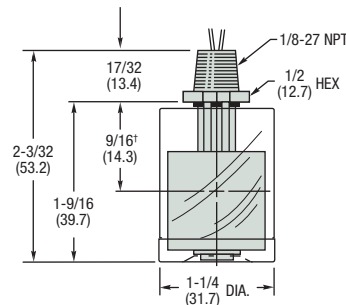
Compact, all-polypropylene switch with slosh shield is ideal for use with turbulent liquids in small tanks. FDA compliant materials.

**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 ¹)	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_s = Switch actuation level, nominal (based on a specific gravity of 1.0).

✓ Stock items.