

## 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.



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



Features a low specific gravity float offering broad chemical compatibility.



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



Ideal for oils and fuels.



Stem and float of corrosion-resistant PVDF for ultra-pure applications.



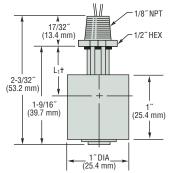
See next page for details.

#### **Common Specifications**

**Approvals:** U.L. Recognized – File No. E45168; CSA Listed – File No. 30200. CE Declaration Available Upon Request. NSF materials are Standard 61 compliant. For NSF approved level switches 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.

### Dimensions – 1" Float Models only



<sup>†</sup> L<sub>1</sub>= Actuation Level (see chart below)

	Alternate Mountings					
	3/8″-16	G1/8″	M12x 1.75			
	Straight Thread	1/8″-28 BSP	Straight Thread			
	7.390 REF. (9.9mm) 1.147 HEX	7.315 REF. (8.0mm) 147 147 (3.6mm)	- 475 REF. (12mm) - 15/8 HEX			
Electrical Termination	Lead Wires	Cable	Cable			

Stock Items.

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

Stem and Mounting Material	Float Material	Float Dia.	Actuation Level <sup>1</sup>	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)	.75	50 psi (3 bar)	-40°F to +225°F (-40°C to +107°C)	1/8" NPT	Lead Wires	42295 🗲	
				.60	50 psi (3 bar)	-40°F to +225°F (-40°C to +107°C)	1/8" NPT	Lead Wires	142505 🗲	
POWNTON/Jenes 1 31	Polypropylene	1″	13/16" (20.6 mm)				3/8″-16	Lead Wires	171517	
	(Hollow)					-40°F to +176°F (-40°C to +80°C)	G 1/8"-28	Cable	171518	
							M12x1.75	Cable	189739	
(Kypar float (Hollow)			13/16″ (20.6 mm)	.60	50 psi (3 bar)	-40°F to +225°F (-40°C to +107°C)	1/8" NPT	Lead Wires	209475	
	Polypropylene <sup>3</sup>	1″					3/8″-16	Lead Wires	209455	
	NSF Std. C-2						G 1/8"-28	Lead Wires	209460	
							M12x1.75	Lead Wires	209465	
		1″	9/16″ (14.3 mm)	.90	150 psi (10 bar) @ 68°F (20°C)	-40°F to +150°F (-40°C to +66°C)	1/8" NPT	Lead Wires	116826 🗲	
Polypropylene <sup>2</sup> Po	Polypropylene (Solid)						3/8″-16	Lead Wires	171514	
						-40°F to +176°F (-40°C to +80°C)	M12x1.75	Cable	189787	
			3/4″	7/16" (11.1 mm)	.95	Atmospheric	-40°F to +212°F (-40°C to +100°C)	1/8" NPT	Lead Wires or Cable	201540
Nylon	Buna	4"	1″	13/16″	45	150 psi	-40°F to +250°F (oil) (-40°C to +121°C [oil])	1/8" NPT	Lead Wires	162745 🗲
			(20.6 mm)	.45	(10 bar)	-40°F to +176°F (water) (-40°C to +80°C [water])	M12x1.75	Cable	189786	
		3/4″	11/16" (17.5mm)	.85	150 psi (10.3 bar)	-40°F to +250°F (oil) (-40°C to +121°C [oil])	1/8" NPT	Lead Wire	177818	
PVDF	PVDF	1″	1/2" (12.7 mm)	.86	50 psi (3 bar)	-40°F to +250°F (-40°C to +121°C)	1/8" NPT	Teflon Jacketed Lead Wires	173250	

Notes:

Based on a liquid specific gravity of 1.0.

2. All Polypropylene units carry a Kynar retaining clip. Accessories Available in OEM Quantities: Jam Nut, Gaskets, and Slosh Shields.

3. NSF C-2 Approved unit, for water use only.

# 3/4" Diameter Floats for Tiny Tanks

### Our smallest LS-3 yet!

- Reliable alternative to more expensive electronic sensors.
- Fits smaller devices. Less material, lower cost.
- Proprietary float more buoyant than competitors.

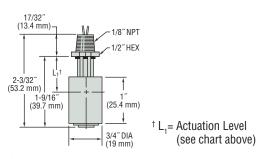
Small yes, but with BIG performance. No other 3/4" float switch on the market matches our LS-3 specs. These units are ideal for potable water, medical devices and other compact appliances, such as printers. Gems proprietary float enables use in lighter-than-water fluids. NSF/ FDA compliant models available at your request. Please consult factory.

#### **Specifications**

Polypropylene with Kynar retaining clip	
Nylon	
Polypropylene	
Buna-N	
212°F (100°C)	
250°F (121°C) oil, -40°F to +176°F (-40°C to +80°C)	
Atmospheric	
150 psi (10.3 bar)	



#### **Dimensions**



#### Order by Part Numbers:

LS-3, 3/4" Polypropylene Float: 201540 LS-3, 3/4" Buna-N Float: 177818



### 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. 46999 Bottle Level

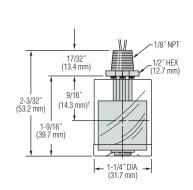


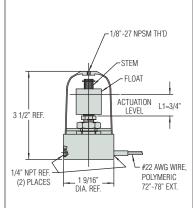
For external mounting on tanks too small to accommodate internally mounted switches. (See note below)

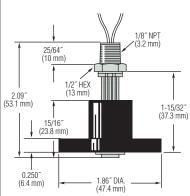
Part No. 76707 For Low Level



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







Order By Part Number	142545 🗲	46999 🗲	76707 <i>f</i>	
Materials				
Stem and Mounting	All Polypropylene (Including Shield <sup>4</sup> )	Polysulfone	All Polysulfone (Including Collar)	
Float	Polypropylene (Solid)	Polysulfone	Buna N	
Other Wetted	_	Brass, Aluminum, Polycarbonate, Viton A	Ероху	
Min. Liquid Sp. Gr.	.90	.75	_	
Operating Temperature	-40°F to +150°F (-40°C to +65.6°C)	-40°F to +120°F (-40°C to +48.9°C)	-40°F to +180°F (-40°C to +82.2°C)	
Pressure, PSI, Max. <sup>3</sup>	150	50		
Switch <sup>1</sup> , SPST	20 VA, N.C./N.O. Dry <sup>2</sup>	20 VA, N.C. Dry		
Electrical Termination	No. 22 AWG, 22"L., PVC Lead Wires	No. 22 AWG, 72"L., Polymeric Lead Wires	No. 22 AWG, 72″L., PVC Lead Wires	

#### Notes

- 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<sub>1</sub>= Switch actuation level, nominal (based on a specific gravity of 1.0).

Note: LS-3 Series Bottle Level Switch is also available with any of the float materials shown on opposite page. Contact GEMS for correct part number.

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