Specialty Switches

GEMS Excels in Switches for Special Requirements

The products below are examples of the custom engineering GEMS can provide to meet specific application needs. These units are ideal for use in oils and water.

TH800 Series – Temperature/ Level Switch



Level monitoring and temperature switch in a single unit. Intermediate in size; single-setting temperature sensor is in bottom of stem.

LS-38760 Series – Cushioned Float



Cushioned float and switch for turbulent liquids or excessive vibration. Easily grounded. Ideal for tank trucks, construction equipment or mobile applications.

LS-270 Series – Bracket Mounting Slosh Shield

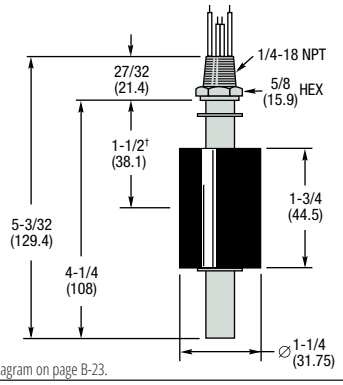
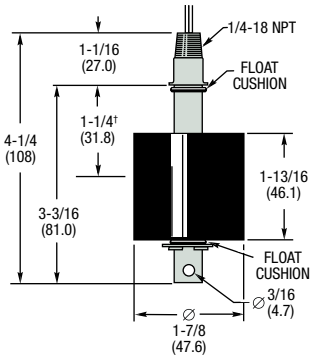
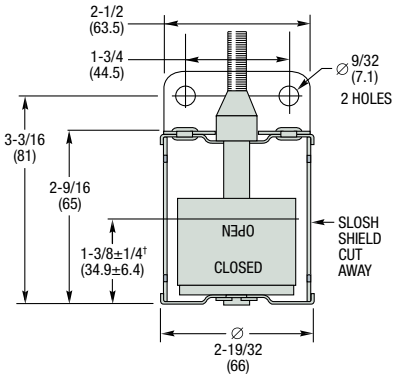
U.L. Recognized – File No. E45168



Small, lightweight, and extremely stable in nonstatic, highly contaminated liquids. Slosh shielding minimizes effects of turbulence and helps prevent interference by foreign material. Bracket-mounted to any convenient surface.

Dimensions

in (mm)

TH800 Temperature/Level Switch	LS-38760 Series	LS-270 Series
 Wire diagram on page B-23.		
Electrical Termination	18 AWG, 24″ (61 cm) Polymeric Lead Wires	18 AWG, 36″ (91.4 cm) Polymeric Lead Wires	18/2 Cable, 6′ (1.8 m) Neoprene with Waterproof Connection

† L_1 = Switch actuation level, nominal (based on a liquid specific gravity of 1.0).
LS-270 Series Note: Installed vertically with cable upward. Caution: Elastomer seals in the sensor and cable are subject to deterioration and aging, and therefore need to be checked regularly. Life expectancy of seals varies with application.

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

Series	Material			Min. Liq. Sp. Gr.	Operating Temperature	Maximum Pressure	Switch[1]		Part Number
	Stem and Mounting	Float	Other Wetted				Level SPST	Temperature[3]	
TH800 Temp./ Level	Brass	Buna-N	Beryllium Copper, Hysol	0.75	Water: to 180°F (82°C) Oil: −40°F to +230°F (−40°C to +110°C)	300 psi (20.6 bar)	20 VA, N.O.	N.C., open on +150°F (+65.6°C) ±10°F (5.55°C), incr.	**57143** ⚡
								N.O., close on +150°F (+65.6°C) ±10°F (5.55°C), incr.	**57144** ⚡
LS-38760	Aluminum	Buna-N	S.S., Hysol	0.55	−40°F to +180°F (−40°C to +82°C)	150 psi (10.3 bar)	20 VA, N.C.	—	**38760**
LS-270	316 S.S.	Buna-N	Beryllium Copper, Copper Nickel, Polycarb. 316 S.S.	0.55	−40°F to +140°F (−40°C to +60°C)	300 psi (20.6 bar)	20 VA, N.O.	—	**43765** ⚡
							20 VA, N.C.		**43760** ⚡
							50 VA[2], N.O.		**43980** ⚡
							50 VA[2], N.C.		**43982** ⚡

Notes:
1. See "Electrical Data" on Page X-5 for more information.
2. Switches are not U.L. Recognized or CSA Listed.
3. See Page B-23 for thermostat ratings and wiring diagram. Other temperature settings are available; consult factory.

Specialty Switches – Continued

Portable Level Switch – Integral Mounting Magnet



Precisely monitors liquid level and is ideal for controlling filling operations and preventing overflows. Permanent magnet attaches unit securely to steel tank wall at exact level required.

LS-750 Series – Weighted for Suspension Cable



With a compact-sized float, slosh shield and weighted collar, the LS-750 provides liquid level detection for a wide variety of applications. Suspend in stand pipes or sumps for leak detection duty, or drop into wells for ground-water monitoring. Supplied with 25 feet of waterproof cable.

U.L. Recognized—
File No. E-45168.
CSA Listed-File No.
LR-30200.

LS-700F Series

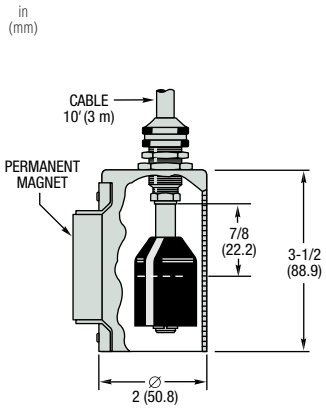


Overfill Protection for Refrigerant Tanks.The LS-700F enables safe compliance with EPA directives to recover refrigerants. These units are designed to fit standard 30# and 50# D.O.T. approved refrigerant tanks. They provide 80% full shutoff capability when used as an integral part of a recovery system.

U.L. Recognized—
File No. SA8857.
CSA Listed-File No.
LR-30200-31.

Dimensions

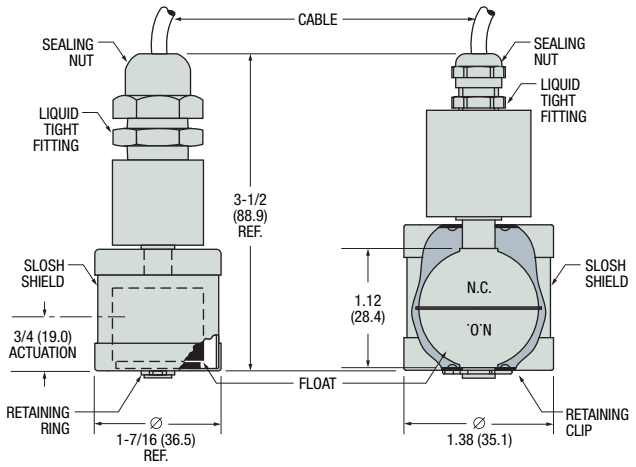
Portable Level Switch



SJO, 18/2 10' (3 m) Neoprene

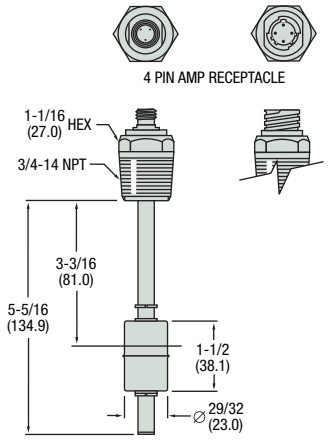
LS-750

Brass | Stainless Steel



22 AWG, 2-Wire Cable

LS-700F



3- or 4-Pin, Quick-Connect Receptacle

† L_1 = Switch actuation level. In liquid with specific gravity of 1.0, switch actuation is approximately half the distance from end of stem to mounting, or at the halfway point of float travel.

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

Series	Material			Min. Liquid Sp. Gr.	Operating Temperature	Pressure PSI, Max.	Switch*	Electrical Termination Option	Part Number
	Stem and Mounting	Float	Other Wetted						
Portable	Brass	Buna-N	Aluminum, 316 S.S.	0.85	Oil: −40°F to +230°F (−40°C to +110°C) Water: to 180°F (82°C)	10 psi (0.69 bar)	SPST, 20 VA N.O., Dry	—	**15208**
LS-750	Brass	Buna-N	Nylon, PVC, Beryllium Copper	0.45		150 psi (10.3 bar)	SPST, 20 VA N.C., Dry	PVC Cable Jacket	**149350** ↯
	316 S.S.**	316 S.S.	PVDF, Viton®	0.65	−40°F to 212°F (−40°C to +100°C)	375 psi (25.9 bar)	SPST, 10 VA N.C., Dry	Teflon® Cable Jacket	**197433**
LS-700F	Brass	304 S.S.	—	0.98	−40°F to +221°F (−40°C to +105°C)	400 psi (27.6 bar)	SPST, 20 VA N.C., Dry	3-Pin	**128500** ↯
								4-Pin	**144900** ↯

* See "Electrical Data" on Page X-5 for m
** Stainless steel is generally recognized as safe (GRAS) with FDA for food contact regulations.
↯ Stock items.

Visit www.GemsSensors.com for most current information.