

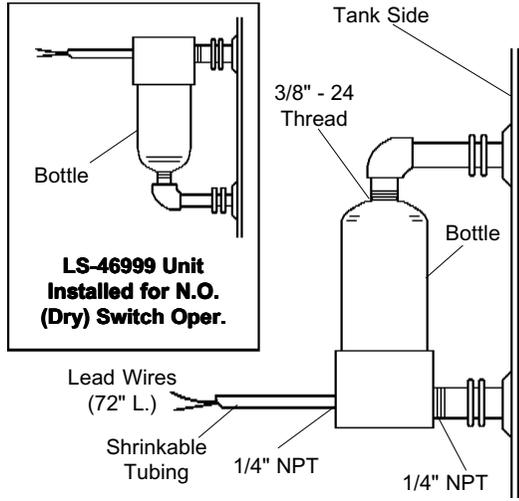
# LS-46999 Externally-Mounted Level Switches

## Instruction Bulletin No. 70724

### Installation...

The LS-46999 is installed vertically, external to the tank side, with bottle upward for N.C. (dry) switch operation - or with bottle downward for N.O. (dry) operation, as shown.

Locate unit so that actuation level will be at level to be monitored. (See "Dimensional Data".)



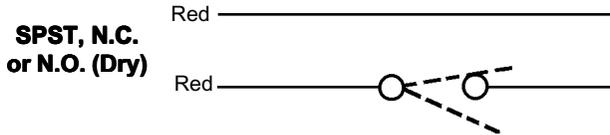
### Electrical Connection...

Connect lead wires to load circuit (See Wiring Diagram).

**CAUTION:** See "Switch Ratings" (back of sheet) before connecting power.

**LS-46999 Unit Installed for N.C. (Dry) Switch Operation**

### Typical Wiring Diagram...

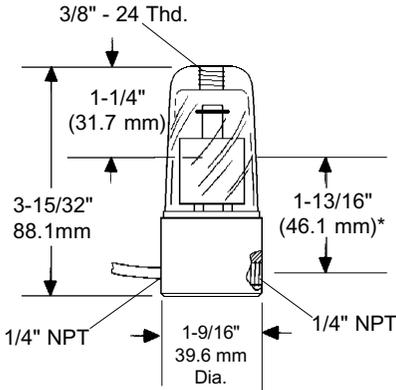


### Specifications...

Stem & Mtg. Mat'l.	Polysulfone
Float Material	Polysulfone
Other Wetted Mat'l.	Brass, Aluminum, Polycarbonate, Viton A
Min. Liquid Sp. Gr.	.75
Operating Temp.	-40°F to +120°F (-17.8°C to +48.9°C)
Pressure, PSI, Max.*	50
Switch, SPST	20 VA, N.C. Dry
Electrical Termination	No. 22 AWG, 72" L., Polymeric Lead Wires

\*Maximum pressure at 70°F (30°C)

### Dimensional Data...



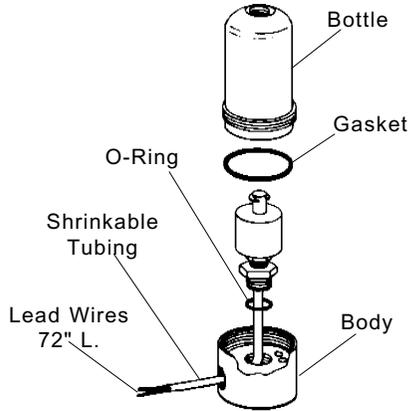
### Switch Ratings Max. Resistive Load

VA	Volts	Amps AC	Amps DC
20 Pilot Duty	0 - 30	.4	.3
	120	.17	.13
	240	.08	.06

### Maintenance...

For occasional cleaning - when excessive contamination is present in the liquid - Remove LS-46999 from tank. Unscrew and remove bottle and gasket only from body. Wipe down components and make sure that float moves freely on stem. Reassemble and reinstall unit.

CAUTION: Be sure to check and reinstall gasket when reassembling unit. **To replace level switch:** Disassemble LS-46999 as shown on right. Check O-ring and replace if necessary. Assemble replacement level switch and O-ring in body and reassemble LS-46999.



### Important Points!

Product must be maintained and installed in strict accordance with the National Electrical Code and GEMS product catalog and instruction bulletin. Failure to observe this warning could result in serious injuries or damages.

An appropriate explosion-proof enclosure or intrinsically safe interface device must be used for hazardous area applications involving such things as (*but not limited to*) ignitable mixtures, combustible dust and flammable materials.

Pressure and temperature limitations shown on individual catalog pages and drawings for the specified level switches must not be exceeded. These pressures and temperatures take into consideration possible system surge pressures/temperatures and their frequencies.

Selection of materials for compatibility with the media is critical to the life and operation of GEMS level switches. Take care in the proper selection of materials of construction; particularly wetted materials.

Life expectancy of switch contacts varies with applications. Contact GEMS if life cycle testing is required.

Ambient temperature changes do affect switch set points, since the specific gravity of a liquid can vary with temperature.

Level switches have been designed to resist shock and vibration; however, shock and vibration should be minimized.

Liquid media containing particulate and/or debris should be filtered to ensure proper operation of GEMS products.

Electrical entries and mounting points may require liquid/vapor sealing if located in an enclosed tank.

Level switches must not be field repaired.

Physical damaged sustained by the product may render it unserviceable.



**Gems Sensors Inc.**  
One Cowles Road  
Plainville, CT  
06062.1198

P/N 70724  
Rev. E

tel: 860.747.3000  
fax: 860.747.4244