

## Small Size – Engineered Plastics

### LS-300TFE Series – All-PTFE Wetted Parts for Ultra-Pure Fluids

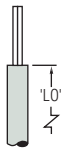
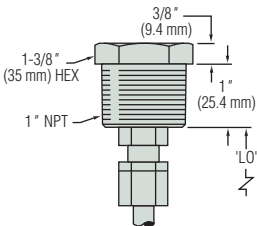
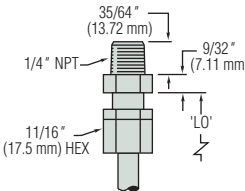
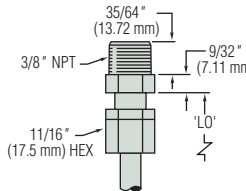
- ▶ Low Particle Generation-One piece Molded Design
- ▶ Corrosion Resistant
- ▶ 1 to 4 Actuation Levels in a Single Unit
- ▶ Lengths to 24 Inches

#### Typical Applications

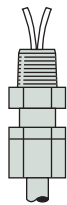
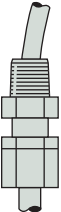
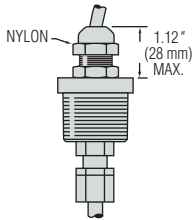
- Semiconductor Process Equipment
- Pure Chemical Delivery System
- Wafer Cleaning and Etching Systems
- Cabinet Leak Sensing

#### 1. Mounting Types

Each mounting type can be configured with stem lengths ( $L_0$ ) and float materials indicated in this bulletin.

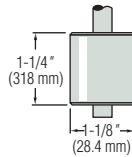
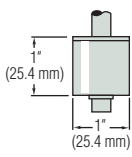
Type 11, No Mounting	Type 22, 1" NPT	Type 24, 1/4" NPT	Type 25, 3/8" NPT
			

#### 2. Electrical Connections

Type 1 Leadwire	Type 2 Cable	Type 3* Liquid-Tight Cable
		
<b>Extended Leads</b>	#22 AWG Teflon® Wire or #24 AWG PVC Jacketed Cable	

\* Available on Mounting Type 22 only.

#### 3. Float Types

Float Material	PTFE	PVDF
<b>Float Dimensions</b>		
<b>Operating Temperature</b>	+32°F to +212°F (0°C to 100°C)	-40°F to +250°F (-40°C to 121°C)
<b>Pressure, PSIG (bar), Max. at Ambient Temperature</b>	25 (1.7)	50 (3.4)
<b>Min. Liquid Specific Gravity</b>	0.86	0.86

Note: A single float type is selected for use at all actuation points.

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Easy online ordering too!



4. Electrical Specifications

Typically, one float is required for each point at which you need a switch action to occur. The number of actuation levels available depends on the Group Type Wiring selected; see below.

**Group I Wiring:** 1 to 4 Actuation Levels.

**Group II Wiring:** 1 or 2 Actuation Levels.

**Switch (SPST, N.O. or N.C.):** 10/20/50/100VA.

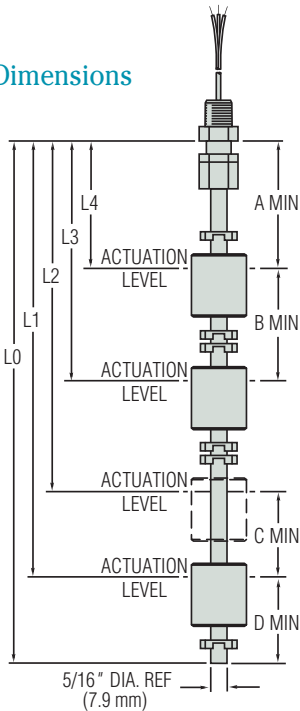
- Notes:
- 1. Other wiring options available. Consult factory.
  - 2. Consult Factory for load information.

Electrical Connection	Group 1	Group 2
Lead Wire (*)		
Cable (*)		

\*Pin correlation of plug connectors shown in parenthesis.

5. Actuation Level Dimensions

- \* Actuation level distances and  $L_0$  (overall unit length) are measured from inner surface of mounting. See mounting types on opposite page for  $L_0$  reference point.
- \*\* Length Overall ( $L_0$ ) =  $L_1$  + Dimension D.  $L_{0max.} = 24"$ .



- Switch actuation levels are determined following the guidelines below.
- A = Minimum distance from highest actuation level to bottom of mounting.
  - B = Minimum distance between actuation levels.
  - C = Minimum distance between two actuation levels with one float (Note: One float for two levels can be used only when low level is N.C. dry and high level is N.O. dry).
  - D = Minimum distance from end of unit to lowest level.

Float Material	Dimensions			
	A	B	C	D
PTFE	$\frac{1-3/4}{44.5^*}$	$\frac{2}{50.8}$	$\frac{1/8}{3.2}$	$\frac{1-1/4}{31.8}$
PVDF	$\frac{1-3/4}{44.5^*}$	$\frac{2}{50.8}$	$\frac{1/8}{3.2}$	$\frac{1-1/8}{28.6}$

inch  
mm \*Mounting Type 22 (1" NPT) requires a minimum "A" dim. of 1-3/4" (44.5mm)

**FAX IT!**  
**860-747-4244**

## Photocopy This Form

Use one form for each product type you are selecting.

This form may also be completed online at [gemssensors.com](http://gemssensors.com) for RFQ.

This is a ☐ Request for a Quote

☐ Order P.O.# \_\_\_\_\_

Quantity Needed \_\_\_\_\_

Date Required \_\_\_\_/\_\_\_\_/\_\_\_\_

Shipping Method: \_\_\_\_\_

Partials Accepted: ☐ Yes

☐ No

Name \_\_\_\_\_

Company \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_ Zip \_\_\_\_\_

Phone (\_\_\_\_) \_\_\_\_\_

Fax (\_\_\_\_) \_\_\_\_\_

## LS-300TFE Custom Length Level Switches

### Application Environmental Conditions

This information is essential to the accurate and proper operation of your GEMS configurable sensors. Please complete fully and accurately.

1. **Liquid Media:** \_\_\_\_\_

2. **Pressure:** Minimum \_\_\_\_\_ psig Maximum \_\_\_\_\_

3. **Temperature:** Minimum \_\_\_\_\_ °F Maximum \_\_\_\_\_

4. **Specific Gravity:** Minimum \_\_\_\_\_ Maximum \_\_\_\_\_

5. **Viscosity:** \_\_\_\_\_ SSU

6. **Tank Material:** \_\_\_\_\_

**Tank Depth:** \_\_\_\_\_

7. **Unit is Mounted In:** ☐ Tank Top ☐ Tank Bottom

### Product Parameters

#### 1. Mounting Type:

- ☐ Type 11 – No Mounting  
☐ Type 22 – 1" NPT  
☐ Type 24 – 1/4" NPT  
☐ Type 25 – 3/8" NPT

#### 2. Electrical Connections:

- ☐ Type 1, Leadwire  
☐ Type 2, Cable  
☐ Type 3, Liquid-Tight Cable  
 (Type 22 Mounting Only)

#### 3. Float Types:

- ☐ PTFE  
☐ PVDF

#### 4. Electrical Specifications:

- A. ☐ Group I Wiring ☐ Group II Wiring  
 B. ☐ 10 VA ☐ 20 VA  
☐ 50 VA ☐ 100 VA

#### 5. Actuation Level Dimensions:

Actuation Level	Distance to Actuation Level – Inches*	SPST Switch Operation** (Check Type)	
		N.O.	N.C.
L4			
L3			
L2			
L1***			

\* Measured from inner surface of mounting.

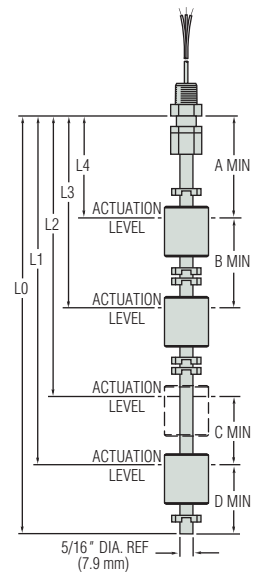
\*\* Switch position is "normal" with unit dry (tank empty).

\*\*\* L1 is the distance to the lowest actuation level with mounting "up," and is the distance to the highest actuation level with mounting "down."

B. Length Overall \_\_\_\_\_ inches

Lead Wire Length:

☐ 24" ☐ Other: \_\_\_\_\_ inches



Please contact GEMS Sensors Inc. for any configuration or special requirements not covered on this form. **800-378-1600**

Quote: \$ \_\_\_\_\_ Date Quoted: \_\_\_\_/\_\_\_\_/\_\_\_\_

Additional minimum charges may apply on special orders.



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