## Large Size - Engineered Plastics

## LSP-800 Series - <br> Features Inert Materials for Corrosive Liquids

- All-Plastic Wetted Parts - PVC or Polypropylene
- 1 to 6 Actuation Levels


## - Lengths to 70 inches

Specifically designed for corrosive liquids and vapors. Three standard model types in a choice of materials offer broad chemical compatibility.

## 1. Mounting Types

Each mounting type can be configured with stem lengths $\left(\mathrm{L}_{0}\right)$ and materials indicated in the table below. Floats and float stop collars are of same material specified for mounting.

2. Float Types

| Float Material | PVC | Polypropylene |
| :--- | :---: | :---: | :---: |
| Float Dimensions |  |  |

Note: Floats are always supplied in same material as specified for mounting.

## LSP-800 Series - Continued

Temperature and Pressure Ratings Chart
Maximum Pressure vs. Temperature

|  | Operating Temperature |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LSP-800 | $0{ }^{\circ} \mathrm{F}$ <br> $\left(-17.7^{\circ} \mathrm{C}\right)$ | $70^{\circ} \mathrm{F}$ <br> $\left(21.1^{\circ} \mathrm{C}\right)$ | $100^{\circ} \mathrm{F}$ <br> $\left(37.7^{\circ} \mathrm{C}\right)$ | $125^{\circ} \mathrm{F}$ <br> $\left(51.7^{\circ} \mathrm{C}\right)$ | $140^{\circ} \mathrm{F}$ <br> $\left(60.0^{\circ} \mathrm{C}\right)$ | $170^{\circ} \mathrm{F}$ <br> $\left(76.6^{\circ} \mathrm{C}\right)$ | $200^{\circ} \mathrm{F}$ <br> $\left(93.3^{\circ} \mathrm{C}\right)$ | $210^{\circ} \mathrm{F}$ <br> $\left(98.8^{\circ} \mathrm{C}\right)$ |  |
| Material | 50 PSI <br> $(3.4 \mathrm{bar})$ | 50 PSI <br> $(3.4 \mathrm{bar})$ | 35 PSI <br> $(2.4 \mathrm{bar})$ | 20 PSI <br> $(1.4 \mathrm{bar})$ | 10 PSI <br> $(0.68 \mathrm{bar})$ | X | X | X |  |
| PVC | 50 PSI <br> $(3.4 \mathrm{bar})$ | 50 PSI <br> $(3.4 \mathrm{bar})$ | 40 PSI <br> $(2.7 \mathrm{bar})$ | 35 PSI <br> $(2.4 \mathrm{bar})$ | 30 PSI <br> $(2.0 \mathrm{bar})$ | 25 PSI <br> $(1.7 \mathrm{bar})$ | X | X |  |

## 3. Electrical Specifications

## Switch (N.O. or N.C.):

> SPST: 20 VA or 100 VA
> SPDT: 20 VA

Lead Wires: \#22 AWG, 24" L., Polymeric
Typical Wiring Diagrams
For clarity, only two actuation levels are shown in each group diagram.

| $\begin{aligned} & \text { GROUP I } \\ & \text { SPST } \end{aligned}$ | GROUP II SPST | GROUP III SPDT | GROUP IV <br> SPDT |
| :---: | :---: | :---: | :---: |
| -a | Cor |  |  |

## 4. Actuation Level Dimensions



* Actuation level distances and $L_{0}$ (overall unit length) are measured from inner surfaces of mounting plug or flange.
** Length Overall $L_{0}=L_{1}+$ Dimension B. See Mounting Types for Maximum Length values.
$\dagger$ Bottom support recommended for units longer than 36 inches, or in applications having turbulent conditions.


## Wiring Color Code

| SPST Switches |  |  |  | SPDT Switches 20 VA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wiring | Group I | Group II |  | Group III |  | Group IV |  |  |
| Com.W- <br> ire | Black | None |  | Black |  | None |  |  |
|  | NO/NC | SWW. <br> Com. | NO/NC | NO | NC | SW. <br> Com. | NO | NC |
| L1 | Red | Red | Red | Red | Wh/Red | Red | Wh/Red | Wh/BIk/Red |
| L2 | Yellow | Yellow | Yellow | Yellow | Wh/Yel | Yellow | Wh/Yel | Wh/BIk/Yel |
| L3 | Blue | Blue | Blue | Blue | Wh/Blue | Blue | Wh/Blu | Wh/BIk/Blu |
| L4 | Brown | Brown | Brown | Brown | Wh/Brn | Brown | Wh/Brn | Wh/Blk/Brn |
| L5 | Orange | Orange | Orange | Orange | Wh/Orn | Orange | Wh/Orn | Wh/BIk/Orn |
| L6 | Gray | Gray | Gray | Gray | Wh/Gra | Gray | Wh/Gra | Wh/BIk/Gra |

Notes: See "Electrical Data" on Page X-5 for more information.

Switch actuation levels are determined following the guidelines below.
$A=2-1 / 16^{\prime \prime}(52.4 \mathrm{~mm}) \pm 1 / 16^{\prime \prime}$ minimum distance to centerline of float (ref. mounting).
$B=2-11 / 16^{\prime \prime}(68.3 \mathrm{~mm}) \pm 1 / 16^{\prime \prime}$ minimum distance to centerline of float (ref. stem end).
$\mathrm{C}=3-1 / 2^{\prime \prime}(88.9 \mathrm{~mm})$ minimum distance between actuation levels.
$D=$ Distance between actuation levels using one float.
Minimum $=1 / 4^{\prime \prime}(6.3 \mathrm{~mm})$
Maximum $=3-1 / 2^{\prime \prime}(88.9 \mathrm{~mm})$
Notes:

1. The centerline of the float is used as a standard reference for actuating the switches.
2. All levels are set on descending float travel with overtravel $=1 / 4^{\prime \prime}$ $(6.3 \mathrm{~mm}) \pm 1 / 8^{\prime \prime}(3.2 \mathrm{~mm})$.
Overtravel on Ascending $=1 / 8^{\prime \prime}(3.2 \mathrm{~mm})$ min.
3. Tolerance on all actuation levels is $\pm 1 / 8^{\prime \prime}(3.2 \mathrm{~mm})$ Ref.
