Multiple Level Switch LS-800E (1-7 switch points)

Max. contact loads of the reed switch: SPST 100 VA; 3.0 A; 250 VAC (NC/NO).
SPDT 20 VA; 0.5 A; 250 VAC (Change-over contact).
The data NC/NO are defined for: an empty tank / rising level.

Specifications

<table>
<thead>
<tr>
<th>Materials</th>
<th>Stem</th>
<th>Mounting elements</th>
<th>Flange</th>
<th>Float</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Brass</td>
<td>Stainless Steel</td>
<td>Brass</td>
<td>Brass</td>
</tr>
<tr>
<td></td>
<td>Brass</td>
<td>Stainless Steel</td>
<td>Buna N</td>
<td>Stainless Steel only</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stainless Steel</td>
<td></td>
<td>PTFE</td>
</tr>
<tr>
<td>Operating pressure</td>
<td>10 bar</td>
<td>30 bar</td>
<td>3 bar</td>
<td></td>
</tr>
<tr>
<td>Float temperature</td>
<td>-40°C to +80°C Water</td>
<td>-40°C to +150°C</td>
<td>-40°C to +150°C</td>
<td></td>
</tr>
<tr>
<td>Min. specific gravity of the liquid</td>
<td>0.58 g/cm³</td>
<td>0.80 g/cm³</td>
<td>0.71 g/cm³</td>
<td></td>
</tr>
<tr>
<td>Depth of immersion at a density of 1</td>
<td>~20mm</td>
<td>~30mm</td>
<td>~34mm</td>
<td></td>
</tr>
<tr>
<td>Protection rating</td>
<td>IP65 (IP64 for Potted Cable/Leads)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mounting Direction

Tank top : O  Bottom : U

Mounting Types

(TM/TC) = Tank screw DIN 910
(BCC) = Flange DN65-PN 16
(AM/AC) = Bulkhead fitting
(EM/EC) = Put in plug G1/2
(DM/DC) = Put in plug G1/4

Floats

N = Buna N
C = Stainless Steel
T = PTFE

Electrical Connections

Pg 13.5 Cable and gland
Cable standard length appr. 1m;
Temperature: -20 ... +80°C

Plug connector acc. DIN43651*
6 poles + earth
Temperature: -20 ... +90°C
max switch points: Group 1 : 5, Group 2 : 3, Group 3 : 2, Group 4 : 2

Plug connector acc. DIN43650*
3 poles + earth
Temperature: -20 ... +90°C
max switch points: Group 1 : 2, Group 2 : 1

Terminal box 12 poles*
Temperature: -20 ... +150°C

Terminal box 6 poles*
Temperature: -20 ... +150°C

* Combination with put in plug “EM/EC” is not possible
Switching Groups

(Pin correlation of the plug connectors)

<table>
<thead>
<tr>
<th>Group 1, max. 7 switch points, NC/NO</th>
<th>Group 2, max. 4 switch points, NC/NO</th>
<th>Group 3, max. 4 switch points (SPDT)</th>
<th>Group 4, max. 3 switch points (SPDT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal box</td>
<td>Adapter</td>
<td>Vertical adjustment</td>
<td>Vertical adjustment</td>
</tr>
<tr>
<td>38mm</td>
<td>Hex 24</td>
<td>Blue</td>
<td>Blue</td>
</tr>
<tr>
<td>50mm nominal</td>
<td>27mm nominal</td>
<td>Red</td>
<td>Red</td>
</tr>
<tr>
<td>20mm</td>
<td>30mm nominal</td>
<td>Pink</td>
<td>Pink</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yellow</td>
<td>Yellow</td>
</tr>
<tr>
<td>L7 white</td>
<td>L4 black</td>
<td>Group</td>
<td>L4 blue</td>
</tr>
<tr>
<td>L6 red</td>
<td>L3 red</td>
<td>L1 white</td>
<td>L2 grey</td>
</tr>
<tr>
<td>L5 pink</td>
<td>L3 grey</td>
<td>L1 green</td>
<td>L2 yellow</td>
</tr>
<tr>
<td>L4 green</td>
<td>L2 yellow</td>
<td>L1 brown</td>
<td>L2 grey</td>
</tr>
<tr>
<td>L3 yellow</td>
<td>L1 grey</td>
<td>L1 white</td>
<td>L2 yellow</td>
</tr>
<tr>
<td>L2 green</td>
<td>L1 grey</td>
<td></td>
<td>L2 yellow</td>
</tr>
<tr>
<td>L1 brown</td>
<td></td>
<td></td>
<td>L1 white</td>
</tr>
</tbody>
</table>

Options

Vertical adjustment

Vertical adjustment is only available with tank screw (T). It allows the stem to be adjusted vertically, limited only by the distance from the top stop ring to the electrical connector less the thickness of the mounting.

(Combination with bulkhead fitting "AM/AC" is not possible)

Vertical adjustment

VVM = Brass

VVC = Stainless Steel

max. pressure: 10 bar

Slosh shield

Each switch point can be equipped with a slosh shield, made from Stainless Steel, to avoid unintentional repetitive opening and closing of the switch due to turbulence or ripple.

(Combination with tank screw "TM/TC" is not possible)
**LEVEL SWITCHES**

### LS-800E Multiple Level Switch check list

(Please copy and use as order form)

<table>
<thead>
<tr>
<th>Customer:</th>
<th></th>
<th>Quantity:</th>
<th></th>
</tr>
</thead>
</table>

**Application specific data:** (Please complete fully and accurately)

1. **Medium:**
   - Through tank top □
   - Through tank bottom □

2. **Mounting:**
   - Tank screw G2“ Brass □
   - Stainless Steel □
   - Bulkhead fitting Brass □
   - Stainless Steel □
   - Put in plug G1/2“ Brass □
   - Stainless Steel □
   - Flange DN 65/PN16 Stainless Steel □
   - Put in plug G1/4“ Brass □
   - Stainless Steel □
   - No Mounting: Brass □
   - Stainless Steel □

3. **Floats:**
   - Buna N □
   - Teflon □
   - Stainless Steel □

4. **Electrical connection:**
   - Plug connector DIN 43650 □
   - Plug connector DIN 43651 (Not with AM/AC) □
   - Cable gland □
   - Potted Cable □
   - Potted Leads □
   - Terminal box 6-poles □
   - Terminal box 12-poles □

5. **Switching group:**
   - Group 1 □
   - Group 2 □
   - Group 3 □
   - Group 4 □

6. **Options:**
   - Vertical adjustment Brass □
   - Stainless Steel □
   - Slosh Shield □
   - Temperature Switch □
   - Bent Stem □

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**Dimensions**

- \( L_0 = 3000 \text{mm} \text{ max.} \)
- \( A = 60\text{mm} \text{ min. distance to highest switch point.} \)
- \( B = 50\text{mm} \text{ min. distance between stem and lowest switch point.} \)
- \( C = 75\text{mm} \text{ min. between two switch points (One float actuates two switch points).} \)

**Level dimensions (Tolerances ± 3mm) related to the mid of float.**

<table>
<thead>
<tr>
<th>Distance level</th>
<th>NO group 1</th>
<th>NC group 1</th>
<th>NO group 2</th>
<th>NC group 2</th>
<th>SPST group 3</th>
<th>SPST group 4</th>
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</thead>
<tbody>
<tr>
<td>L1</td>
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<td>L0</td>
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</tbody>
</table>

Please specify each non listed part:

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Standard Products in **bold**