

## 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

Materials		
Stem	Brass	Stainless Steel
Mounting elements		
Tank screw	Brass	Stainless Steel
Flange		Stainless Steel
Bulkhead fitting	Brass	Stainless Steel
Put in plug	Brass	Stainless Steel

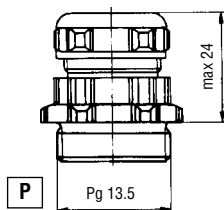
Float	Buna N	Stainless Steel	PTFE
Operating Pressure	10 bar	30 bar	3 bar
Float Temperature*	-20°C ... +80°C Water -20°C ... +110°C Oil	-20°C ... +150°C	-20°C ... +150°C
Min. specific gravity of the liquid	0.58 g/cm <sup>3</sup>	0.80 g/cm <sup>3</sup>	0.71 g/cm <sup>3</sup>
Depth of immersion at a density of 1	~20mm	~30mm	~34mm
Protection rating	IP65 (IP64 for Potted Cable/Leads)		

\*(Please see also "Electrical connection")

### Electrical connections

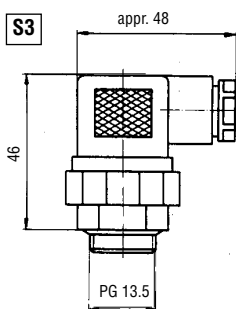
#### Pg 13.5 Cable and gland

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



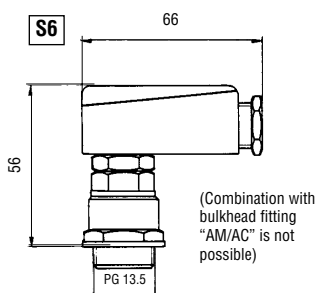
#### Plug connector acc. DIN43650\* 3 poles + earth

Temperature: -20 ... +90°C  
 max switch points: Group 1 : 2, Group 2 : 1



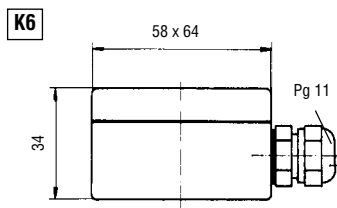
#### Plug connector acc. DIN43651\* 6 poles + earth

Temperature: -20 ... +90°C  
 max switch points: Group 1 : 5, Group 2 : 3,  
 Group 3 : 2, Group 4 : 2



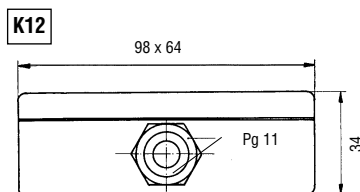
#### Terminal box 6 poles\*

Temperature: -20 ... +150°C



#### Terminal box 12 poles\*

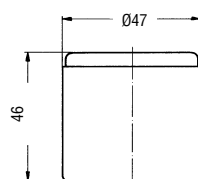
Temperature: -20 ... +150°C



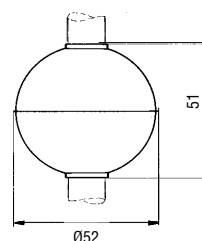
**\*Combination with put in plug "EM/EC" is not possible**

### Floats

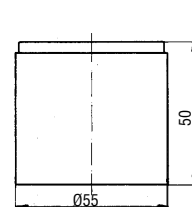
**N** = Buna N



**C** = Stainless Steel



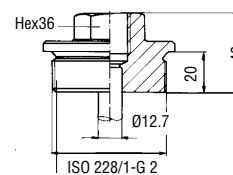
**T** = PTFE



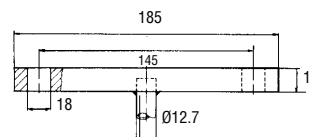
### Mounting elements

(Material: Stainless Steel or brass)

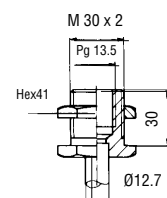
**T<sub>-</sub>** = Tank screw DIN 910



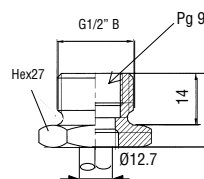
**BCC** = Flange DN65-PN 16



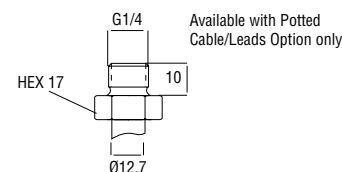
**A<sub>-</sub>** = Bulkhead fitting



**E<sub>-</sub>** = Put in plug G1/2



**D<sub>-</sub>** = Put in plug G1/4



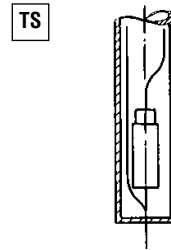
Options

**Temperature Switch**

For large or OEM applications the LS-800E may be fitted with a temperature switch. It is installed at the lower end of the stem and reduces the number of switch points by one.

For full specification contact your sales office.

**Temperature switch**



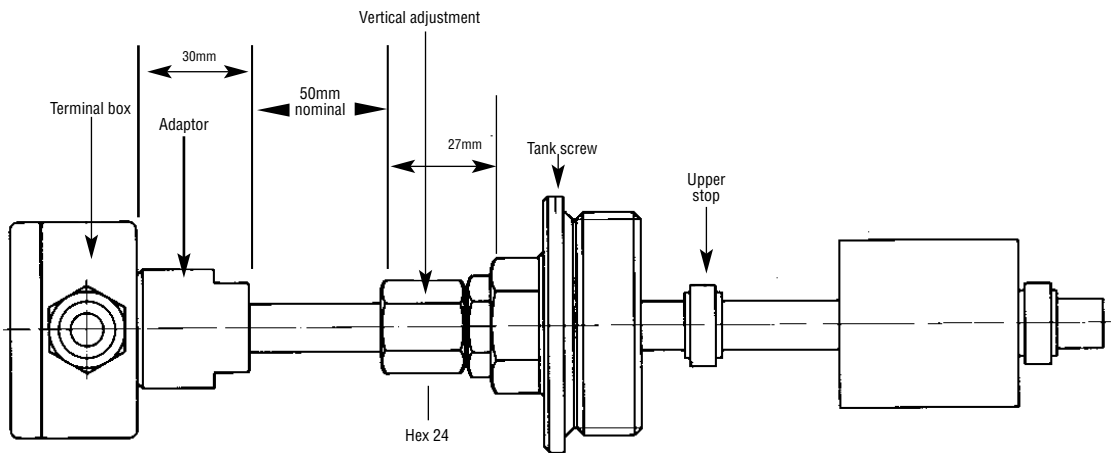
**Vertical adjustment**

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



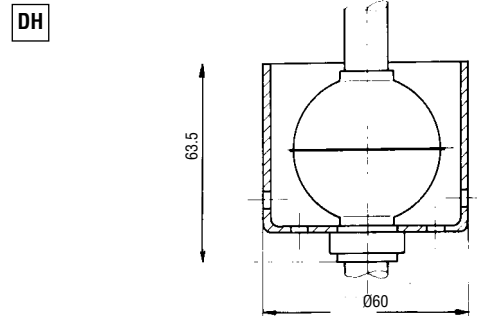
**Slosh shield**

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.

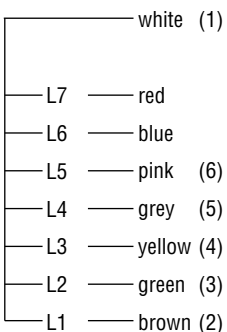
(Combination with tank screw "TM/TC" is not possible)

**Slosh shield**

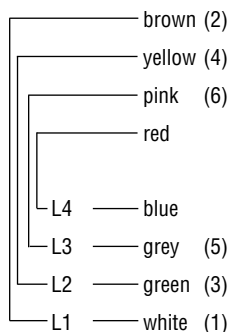
Material: Stainless Steel



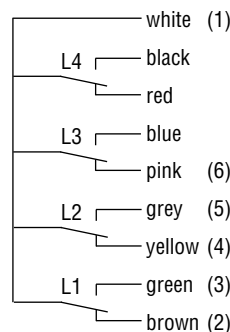
**Switching groups (Pin correlation of the plug connectors)**



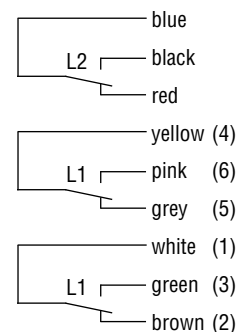
Group 1, max. 7 switch points, NC/NO



Group 2, max. 4 switch points, NC/NO



Group 3, max. 4 switch points (SPDT)



Group 4, max. 3 switch points (SPDT)

## LS-800E Multiple Level Switch check list

(Please copy and use as order form)

Customer: \_\_\_\_\_

Order no.: \_\_\_\_\_ Quantity: \_\_\_\_\_

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

1. Medium \_\_\_\_\_
2. Pressure (bar): Min \_\_\_\_\_ Max \_\_\_\_\_
3. Temperature (°C): Min \_\_\_\_\_ Max \_\_\_\_\_
4. Specific gravity (g/cm3): \_\_\_\_\_ Min \_\_\_\_\_ Max \_\_\_\_\_
5. Viscosity (SSU): \_\_\_\_\_
6. Tank: Material \_\_\_\_\_ Depth \_\_\_\_\_
7. Connection periphery (eg relay, PLC,.....): \_\_\_\_\_

**LS-800E -** ..... 1. .... 2. .... 3. .... 4. .... 5. .... 6. ....

1. **Mounting direction:**
  - Through tank top  O
  - Through tank bottom  U
2. **Mounting:**
  - Tank screw G2"**
    - Brass  TM
    - Stainless Steel  TC
  - Bulkhead fitting**
    - Brass  AM
    - Stainless Steel  AC
  - Put in plug G1/2"**
    - Brass  EM
    - Stainless Steel  EC
  - Flange DN 65/PN16**
    - Stainless Steel  BCC
  - Put in plug G1/4"**
    - Brass  DM
    - Stainless Steel  DC
3. **Floats:**
  - Buna N  N
  - Teflon  T
  - Stainless Steel  C
4. **Electrical connection:**
  - Plug connector DIN 43650  S3
  - Plug connector DIN 43651 (Not with AM/AC)  S6
  - Cable gland  P
  - Potted Cable  VC
  - Potted Leads  VL
  - Terminal box 6-poles  K6
  - Terminal box 12-poles  K12
5. **Switching group:**
  - Group 1  1
  - Group 2  2
  - Group 3  3
  - Group 4  4
6. **Options:**
  - Vertical adjustment Brass  VVM
  - Vertical adjustment Stainless Steel  VVC
  - Slosh Shield  DH
  - Temperature Switch  TS
  - Bent Stem  BS

### Dimensions

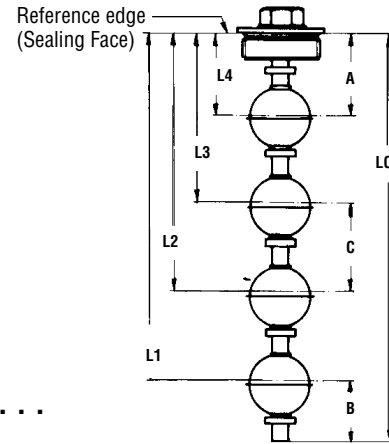
L<sub>0</sub> = 3000mm max.

A = 60mm min. distance to highest switch point.

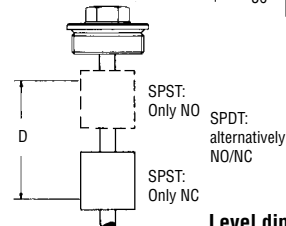
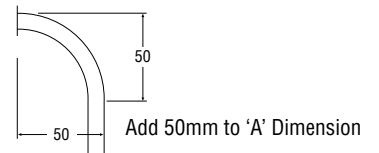
B = 50mm min. distance between stem and lowest switch point.

C = 75mm min. between two switch points

D = 7mm min. dual action  
(One float actuates two switch points).



### Bent Stem Option



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

Distance level	NO group 1	NC group 1	NO group 2	NC group 2	SPDT group 3	SPDT group 4
L1 =	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L2 =	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L3 =	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L4 =	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L5 =	<input type="checkbox"/>	<input type="checkbox"/>				
L6 =	<input type="checkbox"/>	<input type="checkbox"/>				
L7 =	<input type="checkbox"/>	<input type="checkbox"/>				
L0 =	±2mm		max 3000 mm			

**Please specify each non listed part:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_