

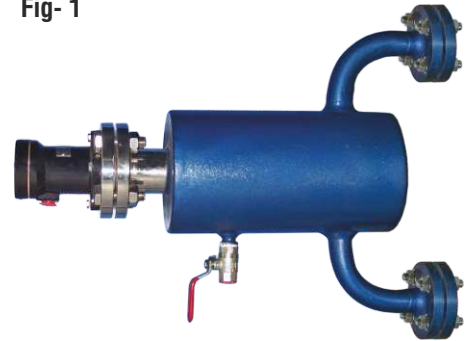
# External Chamber Type Level Switches

*General*

## Features

- Float level switch with application upto 100 bar and 350 deg cent application
- Heavy walled floats for critical application
- CCD length defined for upto 2500mm
- Switching differential upto 10mm
- Durability defined on sealing and pressure and temperature application
- Improved reliability with dual opposed magnet design which provides snap action
- Applicable with various versions of MOC's depending on pressure and temperature, versions with Stainless and steel, hastelloy, monel, PTFE, PP, Titanium available
- Special magnet attractor to meet high temperature and pressure
- Versions with flange, screwed, welded available
- Applicable for H2S, NACE, certified
- Switch is CCOE approved and certified for IP67
- Switch certified for group IIA/IIB, IIC
- Switch enclosure at die cast alluminium and SS available
- Application with PTFE lined at special 1.6 mm thickness and PTFE floats for critical media available
- Versions with ATEX and FM certified available

Fig- 1



Series LS2000-SM

## Concept and Principle of Operation

*General Instruments Consortium* offers External Cage Type Level Switches for single level set point. This is trouble free, consistent and inexpensive solution to control Level in the tanks / vessels.

In this type there are two versions applicable

- External cage chamber side mounted with side mounted switch LS 2000SM
- External cage chamber side mounted with top mounted switch LS 2000MT

### Principle of operation:

1. External cage chamber side mounted with side mounted switch LS 2000SM

This type of level switch consists of fabricated external cage with inlet-outlet process connections having fixed distance. The switch assembly is mounted horizontally on the external cage as shown in figure-1.

### Application:

The external cage type level switch is mounted outside the tank / vessel which significantly reduce effect of turbulence. It also provides ease of online maintenance without impeding the process conditions.

2. External cage chamber side mounted with top mounted switch LS 2000MT

This type of level switch assembly is mounted vertically on the external cage as shown in figure-2. The external cage type level switch is mounted outside the tank / vessel which significantly reduces effect of turbulence.

Fig- 2



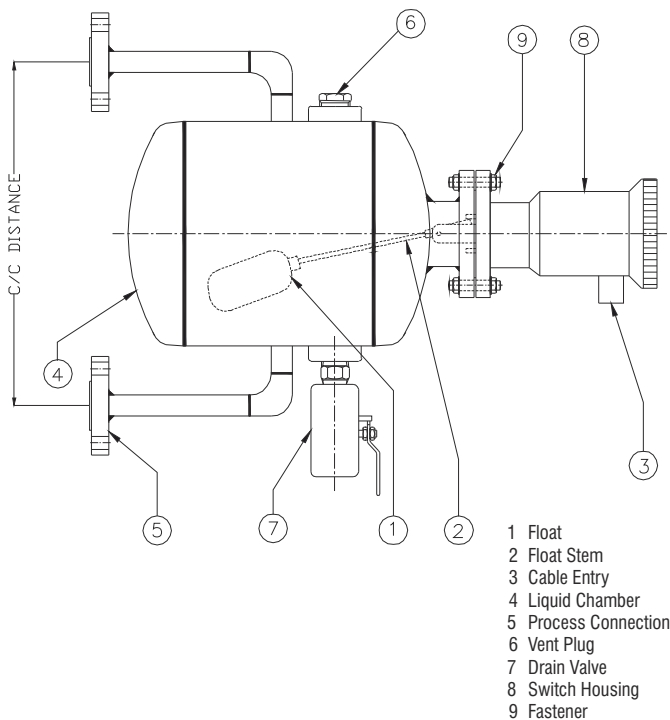
External cage chamber side mounted with top mounted switch LS2000

# External Chamber Type Level Switches

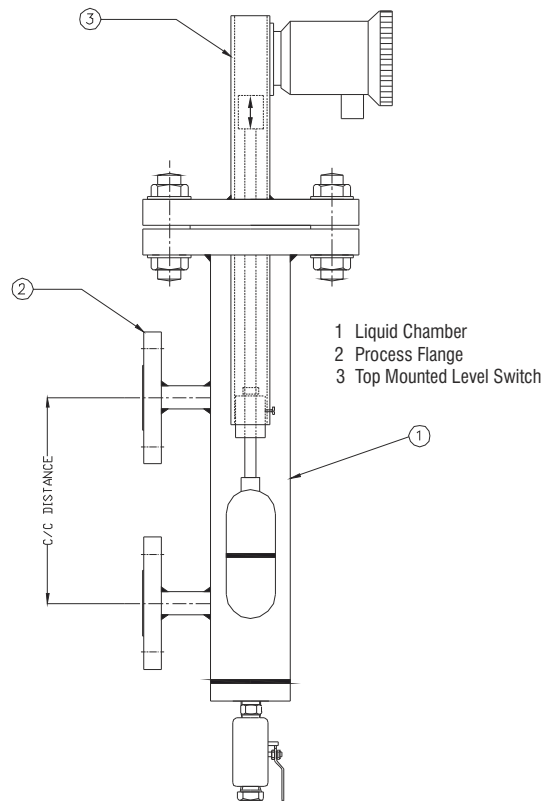


## Technical Specifications: Table-1 Technical data

<b>Type</b>	External Chamber Type
<b>Mounting</b>	Side Mounted on tank
<b>Switch Mounting</b>	Side / Top mounted on external cage chamber
<b>Switch Housing</b>	Die Cast Aluminium Weatherproof to IP-67 Die Cast Aluminium Explosionproof suitable for Gr. IIA, IIB Die Cast Aluminium Explosionproof suitable for Gr. IIC
<b>Switch Type</b>	Snap Acting 1SPDT/2SPDT Microswitch, 5A, 230VAC /0.5A, 24VDC
<b>Cable Entry</b>	1 no / 2 nos. of 3/4"ET(F), 1/2"NPT(F), M20x1.5(F)
<b>Process Connection</b>	Flanged in various sizes
<b>Flange MOC</b>	SS304, SS316, SS316L, Monel400, Titanium, Inconel 600, Hastelloy-C. Others on request
<b>Float/Stem MOC</b>	SS304, SS304L, SS316, SS316L, Monel400, Titanium, Inconel 600, Hastelloy-C. Others on request
<b>External cage MOC</b>	CS, SS304, SS304L, SS316, SS316L, Monel400, Titanium, Inconel 600, Hastelloy-C. Others on request
<b>Specific gravity</b>	Please specify
<b>Pressure</b>	Up to 100kg/cm <sup>2</sup> g
<b>Temperature</b>	(-20) to 350 <sup>o</sup> c
<b>Switch certification</b>	CCOE, FM, ATEX, CE (Versions applicability on request)
<b>Switch CCD Length</b>	Up to 2000mm



**Side Mounted Switch**



**Top Mounted Switch**

# Ordering Information

## LS2000 LS2000-SM-XX-F01-ZC-RA-QU-RU-SI-PU-MQ



Model	
External Chamber Type Level Switch	LS2000

Type	
SM	Side Mounted
MT	Top Mounted

Center to Center Distance	
XX	Please Specify

Process Connection	
Flanged Connection	
F01	1/2", 150# RF
F02	3/4", 150# RF
F03	1", 150# RF
F04	1.5", 150# RF
F05	2", 150# RF
F09	1/2", 300# RF
F10	3/4", 300# RF
F11	1", 300# RF
F12	1.5", 300# RF
F13	2", 300# RF
XX	Any Other

MOC of Connection			
ZC	SS 304	ZK	Monel 500
ZD	SS 304L	ZM	Hastelloy-B
ZE	SS 316	ZN	Hastelloy-C
ZF	SS 316L	ZO	Inconel 600

MOC of External Chamber			
RA	SS 304	RF	Monel 500
RB	SS 304L	RG	Hastelloy-B
RC	SS 316	RH	Hastelloy-C
RD	SS 316L	RI	Inconel 600

Cable Entry	
MQ	One
MR	Two

Enclosure	
PU	Die Cast Aluminium Weatherproof to IP – 67
PV	Die Cast Aluminium Flameproof suitable to Gr. IIA / IIB
PW	Die Cast Aluminium Flameproof suitable to Gr. IIC

Microswitch	
SI	1 SPDT
SJ	2 SPDT

Drain	
RU	1/2" NPT (F), Plug
RV	3/4" NPT (F), Plug
RW	1/2" Needle Valve
RX	1/2" Ball Valve
XX	Any Other

Vent	
QU	1/2" NPT (F), Plug
QV	3/4" NPT (F), Plug
QW	1/2" Needle Valve
WX	1/2" Ball Valve
XX	Any Other