



Features

- Level Switch with application upto 40 bar and 350 deg cent application
- Heavy walled level sensor for critical application
- Insertion length defined for 10000mm
- 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 steel, hastelloy, monel, PTFE, PP, Titanium available
- Versions with flange, screwed, welded available
- Applicable for H2S, NACE, certified
- Switch is CE approved and certified for IP66
- Switch certified for group IIA/IIB, IIC
- Switch enclosure at die cast aluminium and SS available
- Application with PTFE lined at special 1.6 mm thickness and PTFE floats for critical media available

Concept and Principle of Operation

RIB INSTRUMENTS offers Top Mounted Sensor Operated Level Switches for single and multiple level set points:

Series TMLS/3000

This is top mounted type level switch provided single or multiple set points. It uses Level sensors that do float on the surface of liquids with certain immersed section with respect to design. Working principle of the level switch is based on a buoyancy principle.

This level switch is consists of Switch Assembly, Wire Rope with Spring Assembly and level sensor suspended on spring. Level sensor having more density than the process liquid is used. Spring selection is determined by the weight of the level sensor. When level rises & the level sensor is submerged as per the design consideration and amount of weight equal to the weight of process liquid is displaced. This displacement relieves the spring tension which is related to tension constant K, causes the actuation of microswitch. This type of level switch is used for lengths upto 10000 mm.

Technical Specifications: Table-1 Technical Data

Parameter	Details
Type	Displacer Operated Level Switch
Mounting	Top Mounted
Switch Housing	• Die Cast Aluminium Weatherproof to IP-67 • Die Cast Aluminium Explosionproof suitable for Gr. IIA, IIB • Die Cast Aluminium Explosionproof suitable for Gr. IIC



Displacer Type Level Switches

Switch Type	Snap Acting 1SPDT/2SPDT Microswitch, 5A, 230VAC /0.5A, 24VDC
Cable Entry	1 no / 2 nos. of 3/4"ET(F), 1/2"NPT(F), M20x1.5(F)
Process Connection	Flanged in various sizes
Flange MOC	CS, SS304, SS316, SS316L, PP, Other on request
Displacer MOC	SS304, SS304L, SS316, SS316L, PP, Other on request
Wire Rope MOC	SS304, SS304L, SS316, SS316L, PP, Other on request
Spring MOC	SS304, SS304L, SS316, SS316L, PP, Other on request
Specific gravity	Please specify
Pressure	Up to 40kg/cm ² g
Temperature	350 Deg C
Switch certification	CCOE, FM, ATEX, CE (Versions applicability on request)
Switch Insertion Length	Up to 10000mm

Ordering Information

LS3000 F05-ZA-OV-VR-WQ-SI-PU-MQ



Model	
Displacer Type Level Switch	LS 3000

Process Connection	
Flanged Connection	
F05	2", 150# RF
F06	2.5", 150# RF
F07	3", 150# RF
F08	4", 150# RF
F13	2", 300# RF
F14	2.5", 300# RF
F15	3", 300# RF
F16	4", 300# RF
XX	Any Other

MOC of Connection			
ZA	CS (A105)	ZE	SS 316
ZC	SS 304	ZF	SS 316L
ZD	SS 304L	ZI	PP

MOC of Diaplacer	
OV	SS 304
OW	SS 304L
OX	SS 316
OY	SS 316L
OZ	PP

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

MOC of Wire Rope	
WQ	SS 304
WR	SS 304L
WS	SS 316
WT	SS 316L
WU	PP
XX	Any Other

MOC of Spring	
VR	SS 304
VS	SS 304L
VT	SS 316
VU	SS 316L