



**FLOAT & DISPLACER
TYPE LEVEL SWITCHES**

6. EXTERNAL CHAMBER LEVEL SWITCHES- MLS

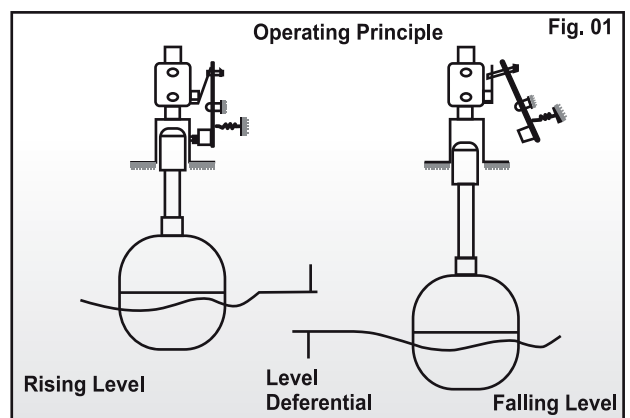
A switch for critical area applications or just general purpose control, a choice of carbon steel chambers is available, or for more vigorous applications we supply a series of 316 stainless steel chambers. A variety of tank and process connections is available to make installation simple and economical.



6.1 CONSTRUCTION AND OPERATION

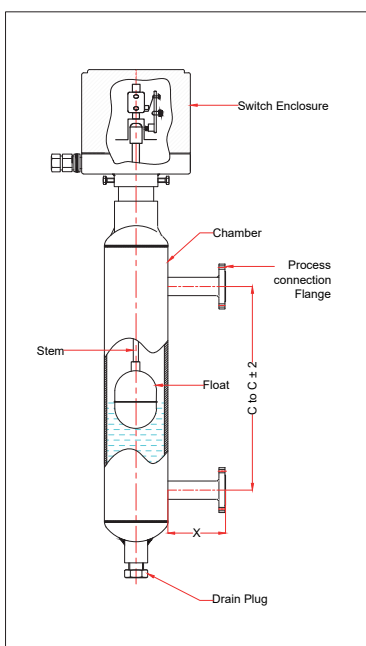
The basic operating includes a magnetic switch action resulting from a change in liquid level, which moves a magnetic attraction sleeve into the field of an externally located magnet. This Principle eliminates problems associated with flexing diaphragm seals. Bellow seals, as well as "fouling" problems encountered by probe type devices.

The illustrations below (refer Fig. 01) demonstrates the operating principle using a float to provide the operating motion. A falling liquid level causes a downward movement of a magnetic attraction sleeve moving it below the magnetic field generated by the externally mounted magnet. The bias spring causes the magnet to pull away from the sealing tube in-turn actuating the switch. The reverse action takes place on rising level, with the attraction sleeve being moved into the magnetic field causing the magnet to pull in towards the sealing tube in-turn actuating the switch.

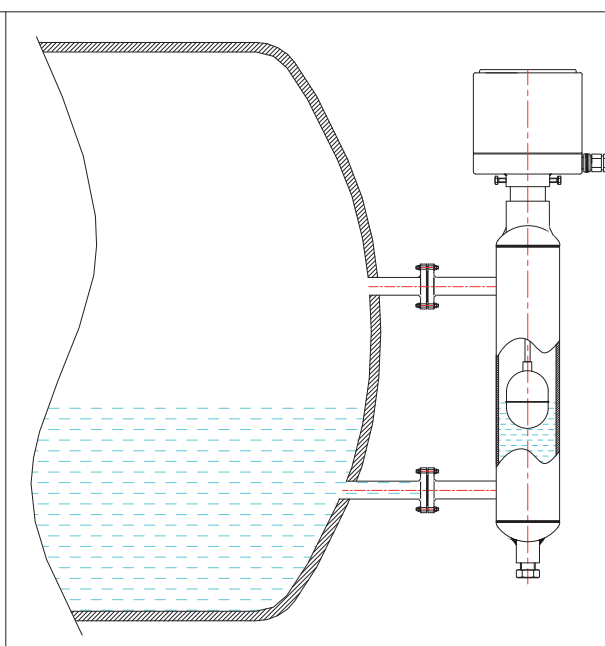


6.2 INSTALLATION OPTIONS

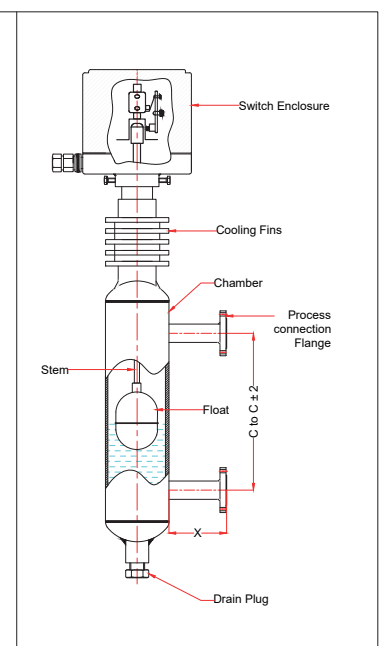
STANDARD CONSTRUCTION



TYPICAL INSTALLATION FOR TANK



HIGH TEMP. CONSTRUCTION



6.3 GENERAL SPECIFICATIONS

Enclosure	Cast Al., Weather Proof IP 66
Connection	Brass ¾" ET or ½" NPT
Switch mechanism	Adjustable, Micro switch 5A, 230VAC (SPDT)
Switch action	Bi-stable
No. of switch mechanisms	Max. Three (adjustable)
Control range	150 mm (Approx.)
Operating Differential	25±5mm
Float & Stem	SS304 or SS316
Float size	Ø50x150mm
Chamber MOC (IBR)	CS (IBR grade) / Custom
Chamber MOC (Non-IBR)	CS / SS304 / SS316
Process connection (IBR)	Flanged
Size	25NB, BS 10 - E or ANSI std.
Process connection (Non-IBR)	Flanged
MOC	CS, SS304, BS 10 - E
Size	25NB or ANSI std
C-C distance	300-1000mm *
Vent	½" Plug / Flanged
Max temperature	200°C (without cooling fins) Or 400°C (with cooling fins)
Test Pressure	Up to 50 Kg/cm²
Min. Liquid Specific Gravity	0.8

6.4 ORDERING INFORMATION

SPECIFY PART NO. → **MLS** **1** **2** **3** **4** **5** **6**
 MLS
 Example: MLS **1** **1** **1** **B** **1** **O**

1	APPROVAL
1	None
2	IBR

2	PROCESS CONNECTION
1	1" NB ANSI 150#
2	1.5" NB ANSI 150#
O	Others

3	SWITCHES
1	One
2	Two
3	Three

4	CHAMBER
W	Without
B	CS (IBR)
M	CS (Non IBR)
N	SS304 (Non IBR)
S	SS316 (Non IBR)
O	Others

5	FLOAT & STEM
1	SS304
2	SS316
O	Others

6	DRAIN
1	½" BSP Plug
O	Others

* Consult factory for long C-C distances



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