



FLOAT & DISPLACER TYPE LEVEL SWITCHES

7. CABLE SUSPENDED FLOAT OPERATED LEVEL SWITCH – CFS

Cable Suspended Float Operated Level Switch is a simple, user friendly and reliable switch for liquid level detection. The dual chambered float is made of injection moulded tough polypropylene that ensures good waterproof protection. The switching differential is adjustable by adjusting the position of the Adjustable stopper.

The cable of the level switch is a flexible insulated copper cable with a PVC / Neoprene outer insulation. This can be used in Liquid Level Monitoring, Pump control for Potable water, sewage applications.



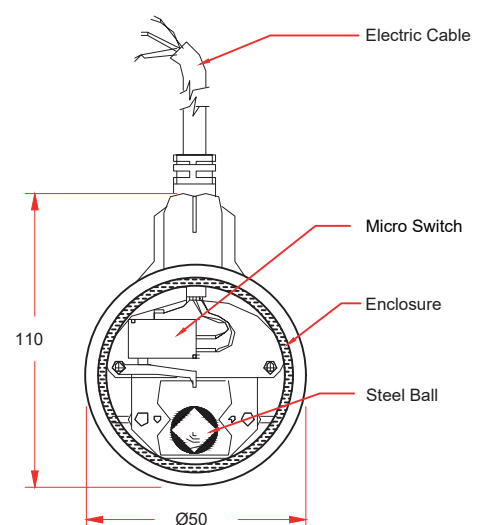
7.1 CONSTRUCTION & OPERATION

It consists of a float, integral with a 3 core electric cable. A fixed micro switch and a moving steel ball are enclosed within the float casting. A change in liquid level causes the float to tilt up or down around a pivot, provided in the form of an adjustable stopper or support pipe, at an angle and in the process, actuating a steel ball to move and operate a micro switch plunger to close or open an electrical circuit with potential free contacts, to operate auxiliary electrical devices like alarm, pump and solenoid valve.

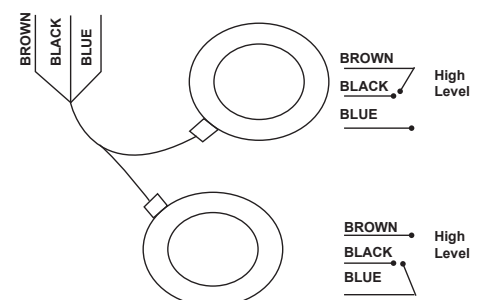
7.2 GENERAL SPECIFICATIONS

| | |
|------------------------------|--|
| Float Protection | : Weather Proof IP - 68 |
| Rating of Micro switch | : 10A, 250V AC |
| Switching Angle | : $\pm 45^\circ$ |
| Max. Temperature | : 50°C |
| Max. Pressure | : 1 bar |
| Terminal Enclosure | : Cast Al., Weather Proof IP - 67 |
| Cable gland | : Polyamide x PG |
| Process connection | : 2", 2 1/2", 3" & 4" ANSI or BS Standard Flange |
| Integral cable length | : 5 or 10 mtrs. (Larger length on request) |
| Contact Type | : Micro switch (SPDT) |
| Float MOC | : PP |
| Cable | : Neoprene or PVC $\varnothing 9\text{mm}$ With 3 core 1mm ² |
| Min. Liquid Specific Gravity | : 0.8 |
| Adjustable Stopper | : PP |
| Support Pipe | : SS304 / PP / PVC |

INTERNAL MECHANISM WITHIN THE FLOAT



WIRING



Applications: Used in Sumps, Sewage, factory drainage, sludgy & soil water containing suspensions for automatic switching of pumps, submerged pumps, solenoid valves, alarms, etc.

7.3 INSTALLATION MODES

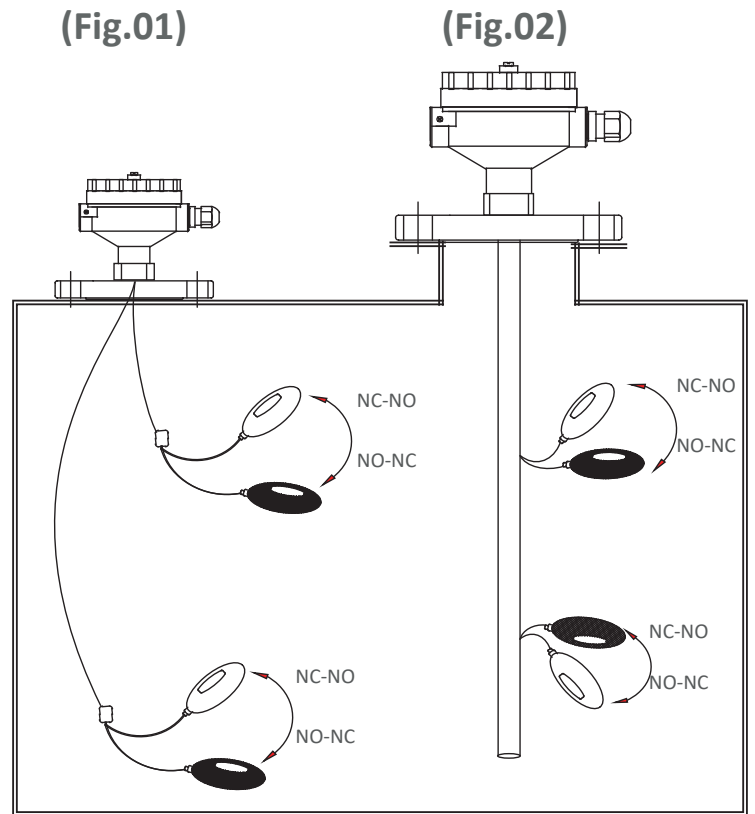
Provide a fixation point to the cable, to act as a pivot for the float to achieve switch actuation at preset level. The location of the fixation point depends on the preset level, float shape, weight and its differential angle.

TOP MOUNTED WITH ADJUSTABLE STOPPER (Fig.01)

The cable is suspended through a top clamp/flange and an adjustable stopper, which moves freely along its length. It is positioned at a fixed point through an internal O-ring to provide a fixation point.

TOP MOUNTED WITH SUPPORT PIPE (Fig.02)

A support pipe along with required number of cable float switches is suspended from tank top through a flange. The open cable ends, terminate into an IP65 enclosure. The cables are tied / clamped to the support pipe at various points to provide number of fixation points.



7.4 ORDERING INFORMATION FOR CABLE SUSPENDED FLOAT OPERATED LEVEL SWITCH

SPECIFY PART NO. → CFS **1** **2** **3** **4**
 Example: CFS **A** **1** **1** **1**
 CFS

| 1 | ENCLOSURE |
|---|-------------------------------|
| A | Not Provided |
| B | Cast Al., Weather Proof IP-67 |
| O | Others |

| 2 | CONSTRUCTION |
|---|-------------------------------------|
| 1 | Adjustable stopper |
| 2 | Support Pipe x CPVC / SS304 / SS316 |
| O | Others |

| 3 | ACCESSORIES |
|---|----------------------------|
| 1 | Not Provided |
| 2 | 'L' Clamp |
| 3 | 2 ½" / 3" / 4" ANSI Flange |
| O | Others |

| 4 | NO. OF FLOATS |
|---|---------------|
| 1 | One |
| 2 | Two |
| 3 | Three |
| 4 | Four |
| 0 | Others |



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