

TECHTROL FLOAT OPERATED TILT LEVEL SWITCH FOR LIQUIDS- FTS

It is durable & economical level switch, specially designed to assist with long range applications. It can be configured for single or multiple switching, using single or multiple floats and used for pump control and alarm applications.

SALIENT FEATURES

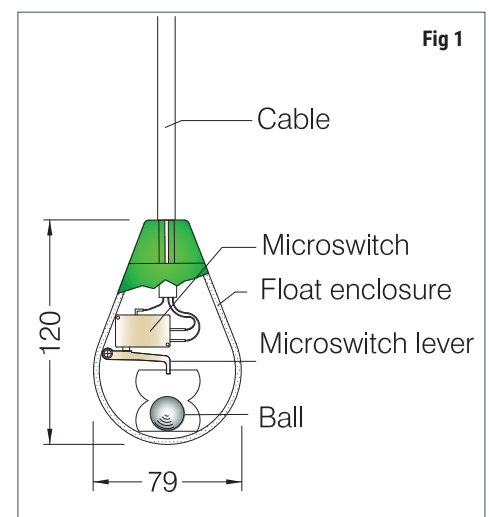
- Reliable working with long service life
- Stable performance with bi-stable switching action
- Site adjustable switching set points
- Single or multiple switching
- Corrosion resistant PP float with IP68 protection
- Easy to install from tank top or side
- 'Mercury Free' switching element
- Float shape ensures no hang ups



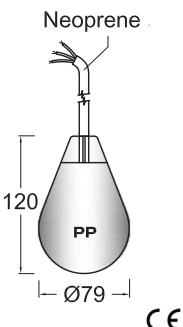
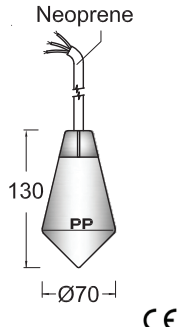
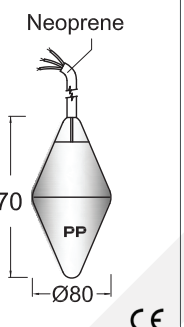
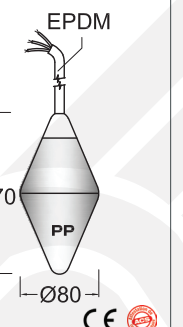

CONSTRUCTION AND OPERATION

It consists of a float suspended from an open ended cable. A float assembly houses microswitch alongwith a moving steel ball, which slides as float position changes. When the liquid level rises, the float moves up around the adjustable stopper (pivot), causing the steel ball to move and operate the microswitch lever for actuation.

The switches are available in various types- Obconical, Biconical, Biconical Large, Biconical Aseptic, Biconical Ex-proof. Multiple switching is achieved using multiple floats.



SPECIFICATIONS

Model	Obconical (C)	Biconical (B)	Biconical Large (A)	Biconical Aseptic (S)	Biconical Ex-proof (E)
					
Standard Cable Length	1 to 30 mtrs (longer length on request)	2, 3, 5, 6 & 10 mtrs (longer length on request)			
Float MOC	PP	PP	PP	PP	Hypalon
Float Shape	Obconical	Biconical	Biconical	Biconical	Biconical
Float Protection	IP68	IP68	IP68	IP68	IP6X
Liquid SG	≥ 0.8 to 1.2	≥ 0.7 to 1.2			≥ 0.8 to 1.1
*Cable	3 core x 1mm ² Neoprene	3 core x 1 mm ² Neoprene		3 core x 1mm ² EPDM	3 core x 1mm ² Hypalon
Switch Type	Micro switch, SPDT	Micro switch, SPDT		Micro switch, SPDT	Micro switch, SPDT
Switch Rating	5A, 250 VAC	8A, 250 VAC		6A, 250 VAC	10 mA, 24 VAC/DC
Process Conn. MOC	CS or PP (CS clad)				
Process Conn.	4" NB ASME 150# Flange	3" NB ASME 150# Flange	4" NB ASME 150# Flange		
Enclosure x Conduit Connection	Cast Al. IP66 x PG 11 Cable Gland, Nylon (Optional- 1/2" NPT DC Cable Gland, Brass)				—
Max. Temperature	70°C	85°C			70°C
**Max. Test Pressure	3.5 kg/cm ²	3.5 kg/cm ²			4 kg/cm ²
Applications	Clean and dirty liquids, non-sticky slurry, large tanks, open canal	Clear, dirty or viscous liquids, slurry. Large tanks, canals		Sanitary appln, drinking water, beverages	Inflammable liquids/hazardous area
System Configuration	a. Adjustable Stopper (Top Mounting): PP (size: Ø50 x 58 mm) b. Suspended Ballast with Wire Rope (Top Mounting): SS304 or SS316 (size: 38 sq. x 52 H mm); Wire Rope 1.6Ø mm (PP ballast with PP wire rope optional) c. Flange with Extended Pipe and Adjustable Stopper (Side Mounting): 4" NB ASME 150# flange with extended pipe x 300 mm length				

* Food grade cable available with Obconical float switch for drinking water.

** Max. test pressure for float with open ended cable only. Max. test pressure for float supplied with process flange will be 1 kg/cm².

INSTALLATION

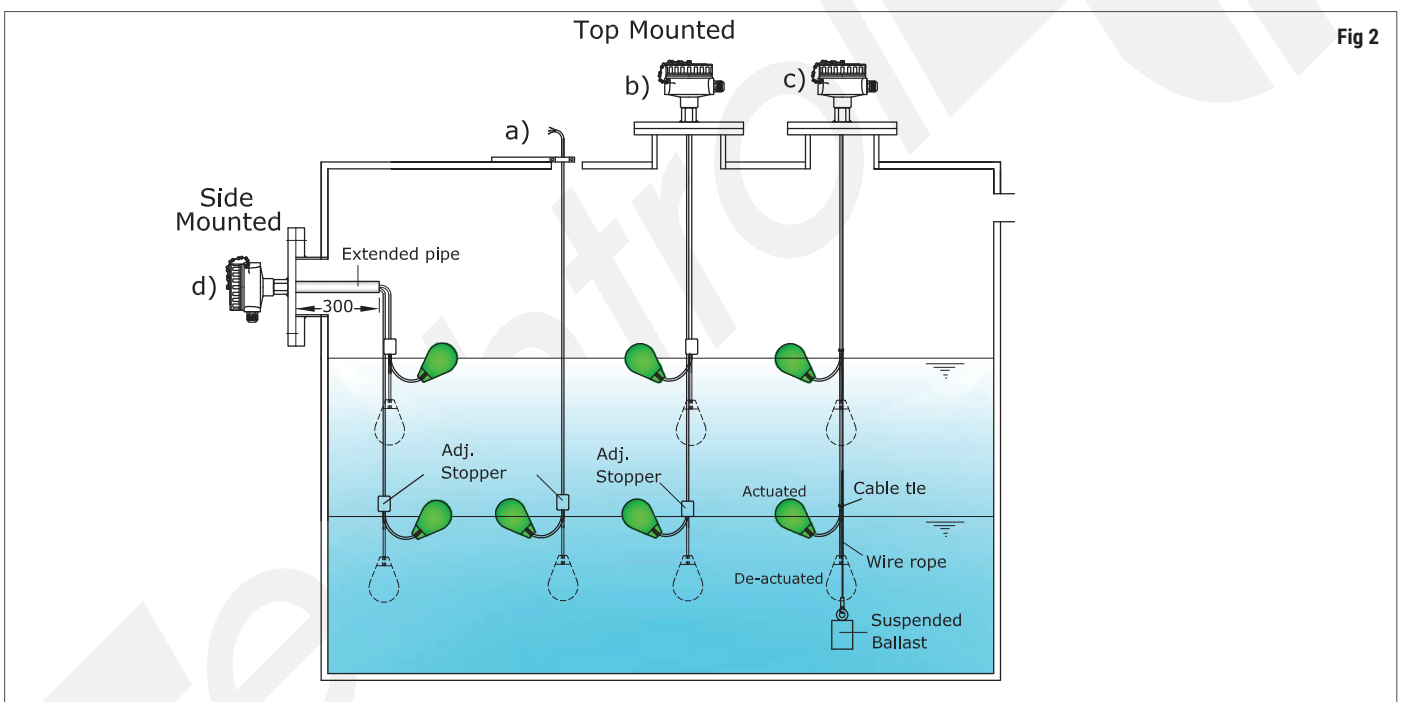
The switch can be installed in single or multiple configurations (max. 4) to provide single or multiple switching as required by the application/site conditions.

Top mounted

- Float switches with open ended cable are configured with adjustable stoppers and mounted on tank through suitable couplers. (fig 2a)
- Multiple float switches with terminal enclosure are configured with adjustable stoppers or suspended ballast and mounted on tank through process flange. (fig 2 b & c)

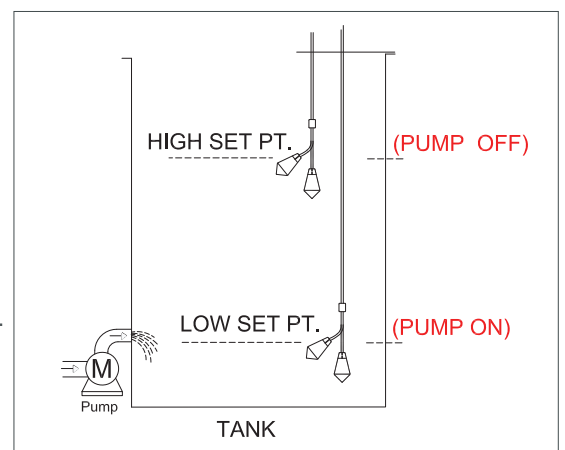
Side Mounted

- Single or multiple float switches with terminal enclosure are configured with adjustable stoppers and mounted on tank through flange with extended pipe. (fig 2d)

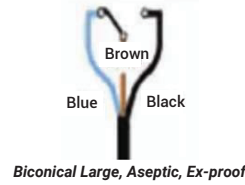
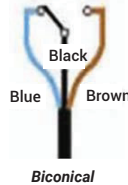
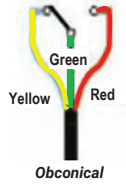


APPLICATIONS

- It is used for single or multiple level detection, dry run protection and pump control of water, waste water, sewage, sludge, dosing liquids (acids/ alkalis) in open and closed tanks in WTPs, WWTPs, STPs, ETPs, pumping stations, pit drain and construction dewatering.
- FTS with food grade cable is suitable for drinking water in potable water reservoir.



TERMINATIONS



MODEL IDENTIFICATION

	FTS-	C	W	W	1	S
1. Float Type x Cable						
Obconical x Neoprene		C				
Biconical x Neoprene		B				
Biconical Large x Neoprene		A				
Biconical Aseptic x EPDM		S				
Biconical Ex-proof x Hypalon		E				
Others		O				
2. Terminal Enclosure x Conduit Connection						
Without (Open ended cable)			W			
Cast Al. WP IP66 x PG11 Cable Gland			J			
Cast Al. WP IP66 x 1/2" NPT DC Cable Gland			K			
Others			O			
3. Process Connection MOC x Type						
Without				W		
CS x 3" NB ASME 150 # Flange ('B' Float)					2	
CS x 4" NB ASME 150 # Flange ('C', 'A', 'S' & 'E' Float)						3
PP (CS clad) x 3" NB ASME 150 # Flange ('B' Float)						5
PP (CS clad) x 4" NB ASME 150 # Flange ('C', 'A', 'S' & 'E' Float)						6
Others						0
4. No. of Floats						
One, two, . four						1..4
5. System Configuration						
Adjustable Stopper (Top mounted)						S
Suspended Ballast with Wire Rope (Top mounted)						B
Flange with Extended Pipe and Adjustable Stopper (Side mounted)						E
Others						O

x cable length of each float L1, L2.. L4

ORDERING INFORMATION

Model Number x Liquid and its SG, Cable Length of each float, Operating Temperature and Pressure

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*All dimensions in mm except specified