

Techtrol Chamber Float Switch - CFS

A versatile magnetic level switch for liquids with one or two preset levels. Single switch mechanism employed for one preset level and double switch mechanism is employed for two preset levels.

Salient Features

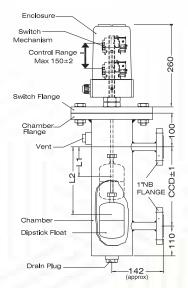
- Bi-stable switch action
- Choice of Ex-proof Gr. IIC or ATEX enclosure for hazardous areas
- Specially designed float available for interface level detection
- Choice of hermetically sealed switch mechanism
- Option of IBR approval



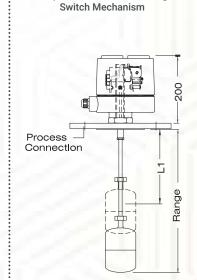
Construction & Operation

A dipstick float carrying a unique magnetic system at its top end, is housed in a chamber. The float rises and falls corresponding to change in liquid level, which causes magnetic system to actuate a switch mechanism to provide potential free changeover contacts.

 a) With Chamber x Double Switch Mechanism



Schematic Diagram



b) Without Chamber x Single



Important:

The preset level L1 (single switch mechanism) or L1, L2 (double switch mechanism) should be specified in PO, as they are factory set and cannot be modified at site.

Specifications

Enclosure x Conduit Conn. : Cast Al/SS304, IP66 x 3/4"ET or 1/2 NPT cable gland, brass

Cast Al.Exd Gr.IIC (CCOE)x 1/2"NPT double compression cable gland, brass or Cast Al. ATEX Ex d IIB or IIC x ½"NPT,

double compression cable gland, brass

Dipstick Float x Stem : Ø65 mm x SS304 or SS316

Liquid Specific Gravity : ≥0.8

Interface Detection : 0.2 diff. between SG of upper & lower liquid

Switch Mechanism : Standard Microswitch or Microswitch in

Hermetically Sealed Casing(2 x SPDT)

Switch Rating : 5A, 250 VAC/ 24 VDC

Switching Action : Bi-stable

Preset Levels : One (L1) with single switch mechanism

: Two (L1 & L2) with double switch mechanism

Switch Differential : 15 ± 5 mm (fixed)

Accuracy : ± 5 mm

CC Dist. (with chamber) : 200 to 400 mm (fig 1a)
Range (w/o chamber) : 200 to 400 mm (fig 1b)

Process Connection

(with chamber)

: 25NB Flanged or 1" NPT (F) Screwed or 1"NB sw

Process Connection

(w/o chamber)

Chamber MOC

: 80 NB Flanged x CS A-105, SS304, SS316

: CS A-106 or SS304 or SS316

Vent x Drain : 1/2" NPT Plug x Plug

Ambient Temperature : 80°C

Max. Optg. Temperature : 200°C or 300°C (with Radiating Fins)

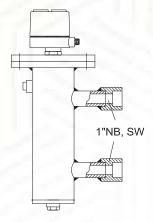
Max Test Pressure : 10 Kg/cm2

Gasket

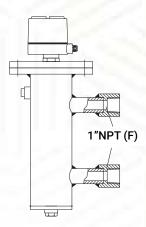
Nuts & Bolts : CAF, CNAF, PTFE : CS Zinc plated



Schematic diagram with alternate process connections

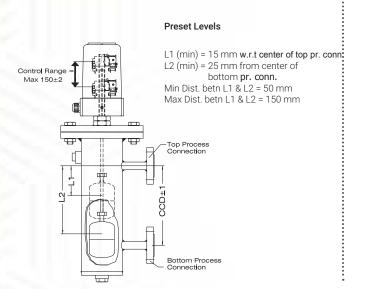


1"NB SW Process Conn.

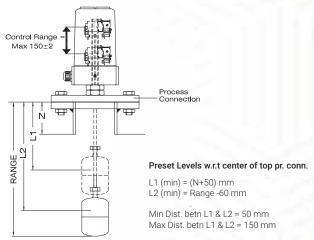


1"NPT (F) Process Conn.

With Chamber - Min /Max preset levels w.r.t water SG 1



Without Chamber - Min / Max preset levels w.r.t water SG 1

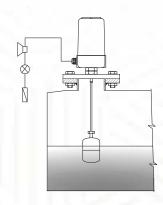


Installation

With Chamber

Chamber Customers scope

Without Chamber



Applications

Separators, Storage tanks, Drainage Systems, Heat Exchangers, Boilers, Concentrators.



Model Identification

L. Enclosure × Conduit Connection Cast Al. IP66 x 34" ET Cable Gland J Cast Al. IP66 x 34" ET Cable Gland J Cast Al. IP66 x 34" ET Cable Gland K Cast Al. IP66 x 34" NPT Double Comp'n Cable Gland K Cast Al. IP66 x 34" NPT (P) L Cast Al. Ex d Gr. IIC x 12" NPT Double Comp'n Cable Gland G Cast Al. Ex d Gr. IIC x 12" NPT Double Comp'n Cable Gland G Cast Al. ATEX Ex d Gr. IIC x 12" NPT (F) Q Cast Al. ATEX Ex d Gr. IIC x 12" NPT (F) Q Cast Al. ATEX Ex d Gr. IIC x 12" NPT (F) Q Cast Al. ATEX Ex d Gr. IIC x 12" NPT (F) R Cast Al. ATEX Ex d Gr. IIC x 12" NPT (F) R Cast Al. ATEX Ex d Gr. IIC x 12" NPT (F) R Cast Al. ATEX Ex d Gr. IIC x 12" NPT (F) R Cast Al. ATEX Ex d Gr. IIC x 12" NPT (F) R Cast Al. ATEX Ex d Gr. IIC x 12" NPT (F) C	CFS -							
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7. Switch Mechanism Standard Micro switch, 2 x SPDT M	Others							
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·	Standard Micro switch, 2 x SPDT							М
	Micro switch in hermetically sealed casing, 2 x SPDT							Н

8. Max. Temperature			
200 °C	S		
300 °C with radiating fins	Н		
9. Gasket			
Not Provided		W	
CAF		1	
CNAF		2	
PTFE		3	
Others		0	
10. Nuts & Bolts			
Not Provided			W
CS, Zinc plated			1
Others			0

Ordering Information

With Chamber: Model No x Liquid & its SG. x Optg. Temp & Pressure x Preset Levels x CC distance **Without Chamber**: Model No x Liquid & its SG. X Optg. Temp & Pressure x Preset Levels x Range

PUNE TECHTROL PVT LTD

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