

# Float Operator Level Transmitters



## Features

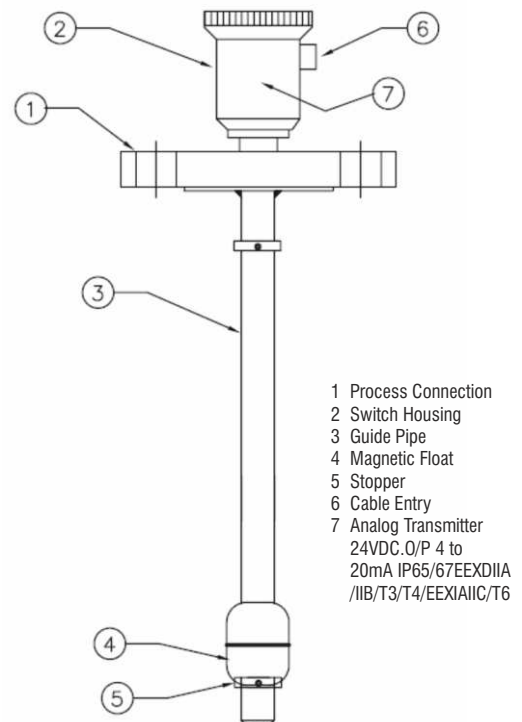
- Displacer type level transmitter with application upto 100 bar and 350 deg cent application
- Heavy walled floats for critical application
- Tight sealing versions for float sensors with level transmitter to enable correct application solutions, with sealing internals at 10(-3/-4) mbarltr/sec available
- Insertion length defined for 5000mm, other lengths on request and confirmation on design
- 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 and steel, hastelloy, monel, PTFE, PP, Titanium available
- Versions with flange, screwed, welded available
- IBR versions available
- Applicable for H2S, NACE, certified
- Level transmitter is CCOE approved and certified for IP67, IP65
- Certified for group IIA/IIB, IIC
- Enclosure at die cast aluminium and SS available
- Application with PTFE lined coating at special 1.6 mm thickness and PTFE floats for critical media available
- Versions with ATEX and FM certified available on request
- Local Display



Application in petrochemical complex with varied specific gravity

## Concept and Principle of Operation

This is top mounted displacer type level transmitter provided continues set points. It uses float that glides on the surface of liquids. This level switch consists of Terminal Enclosure, Float Stem with Reed Switches and resistor and Float with magnets assembled inside. This type of level transmitter can be used for continuous level controls for both closed and open tanks. When level rises float travels with the liquid on the float stem and when it comes in contact with the reed switches, due to magnetic force reed switch changes its contact. This type of level transmitter is used for lengths upto 5000 mm, other lengths on request and confirmation on design. It is recommended to use perforated still well for lengths more than 3000 mm.



G A Drawing for assembly and mounting

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## Technical Specifications: Table-1 Material of Construction

<b>Float</b>	PTFE, PP, PVDF, SS316, SS304, SS316L, SS304L, Monel, Titanium, Hastelloy
<b>Float stem</b>	PTFE lined SS, PP lined SS, PVDF lined SS, SS316, SS304, SS316L, SS304L, Monel, Titanium, Hastelloy
<b>Flange</b>	PTFE, PP, PVDF, SS316, SS304, SS316L, SS304L, Monel, Titanium, Cast Carbon Steel, Hastelloy
<b>Switch enclosure</b>	Die cast aluminium, SS304, SS316, SS316L
<b>Cable gland</b>	Brass, PBS Plastic, SS316, SS304, SS316L
<b>Stopper</b>	Metal stoppers of relevant material compatible to media

## Technical Specifications: Table-2

<b>Float</b>	38X200mm upto 60X160mm and upto 68X100mm
<b>Float</b>	Specific gravity = 0.4, till 1.2
<b>Float Stem</b>	500mm to 5000mm, other lengths on request and confirmation on design
<b>Float stem width</b>	12.5mm and 16mm
<b>Flange</b>	2" till 6", ANSI RF, FF, 125-250AARH, DIN std DN50 till 150, BS10TabE, socket weld, butt weld, weld neck flange in ANSI
<b>Float</b>	Pressure design till 40 kg / 60 kg / 100 kg
<b>Flange rating</b>	max rating ANSI 600# and DN PN 100
<b>Cable gland</b>	Double compression, metal cable normal glands, 1/2" NPT F, 3/4" ET, M20, PG 13.5, PG16
<b>Flange</b>	Forged, cast versions, radiography level - 1 / 2 versions available
<b>Float weight</b>	60gms to 200 gms depending specific gravity
<b>Float stem weight</b>	Max upto 200 gms depending on size / length
<b>Flange weight</b>	500gms till 30 kg depending float dimensions which inturn would density of media and other accessories
<b>Temperature application</b>	-100 deg cent till 350 deg cent
<b>Pressure application</b>	Upto 100 kg/cm <sup>2</sup> g
<b>Analog transmitter output</b>	4- 20 m A
<b>Analog transmitter principle</b>	Reed switch
<b>Analog transmitter power supply</b>	230 VAC, 5 A or 24VDC, 0.5 A
<b>Analog transmitter out put in split range</b>	Split range of 4...12 m A and 12...20 m A, others on request
<b>Analog transmitter internal resistance</b>	200M ohms
<b>Transmitter accuracy</b>	3%
<b>Transmitter repeatability</b>	0.15%
<b>Transmitter certifications</b>	CCOE, FM, ATEX, CE (versions applicability on request)
<b>Transmitter enclosure</b>	EExia IICT6, Eexd IIA/IIB, Eexd IIC and IP65
<b>HART transmitter principle</b>	Reed switch, LVDT
<b>HART transmitter accuracy</b>	1.5 %
<b>HART transmitter output in split range</b>	Adjustable as per HART software
<b>HART programmable software</b>	With serial interface adapter with HART interface to calibrate
<b>HART transmitter feature</b>	SIL2 certified
<b>HART transmitter feature</b>	Slave circuitry operation with MASTER as an additional option on request
<b>HART output</b>	4 to 20 m A, other on request
<b>HART transmitter internal resistance</b>	440 ohms
<b>HART transmitter enclosure</b>	EExia IICT6, EExd IIA/IIB, EExd IIC and IP65
<b>HART transmitter certifications</b>	CCOE, FM, ATEX, CE (Versions applicability on request)