

VIPL-FBTLG Float & Board Tank Level Gauge

An economical, easy to install gauge for level indication of liquids in bulk storage tanks under atmospheric condition.

Salient Features

Durable aluminum powder coated gauge board Gaugeboard markings visible from distance

Options

SS304, SS316, PP or ECTFE coated SS to suit various liquids half travel gauge board for underground tanks Seal pot Adjustable alarm switches (max 4) Volumetric calibration in Liters or KL or BBL

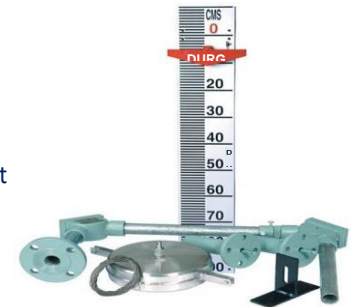
Construction & Operation

Guided : (fig 1) It consists of a float connected to a pointer through a rope via a set of pulleys. The pointer with nylon roller glides smoothly over a calibrated gauge board, positioned parallel to the tank. The float accurately follows liquid level variations in vertical direction. The horizontal float movement is restricted between two guide wires firmly anchored to tank bottom. As such, the pointer is in 'TOP POSITION' when tank is 'EMPTY' and in 'BOTTOM POSITION' when 'FULL'. The pointer indicates level. The gauge board is supplied in 1 meter sections and multiple gauge boards are connected through gauge board brackets as per ordered measuring range.

Applications : Liquid with moderate turbulence.

Unguided : In this construction the float movement is not restricted through the guide wire as its movement is negligible.

Applications : Liquid with minimum turbulence.



Typical Installation

Fig.1 Gauge Board with Full Travel Mounted on Side of GND Level Tank

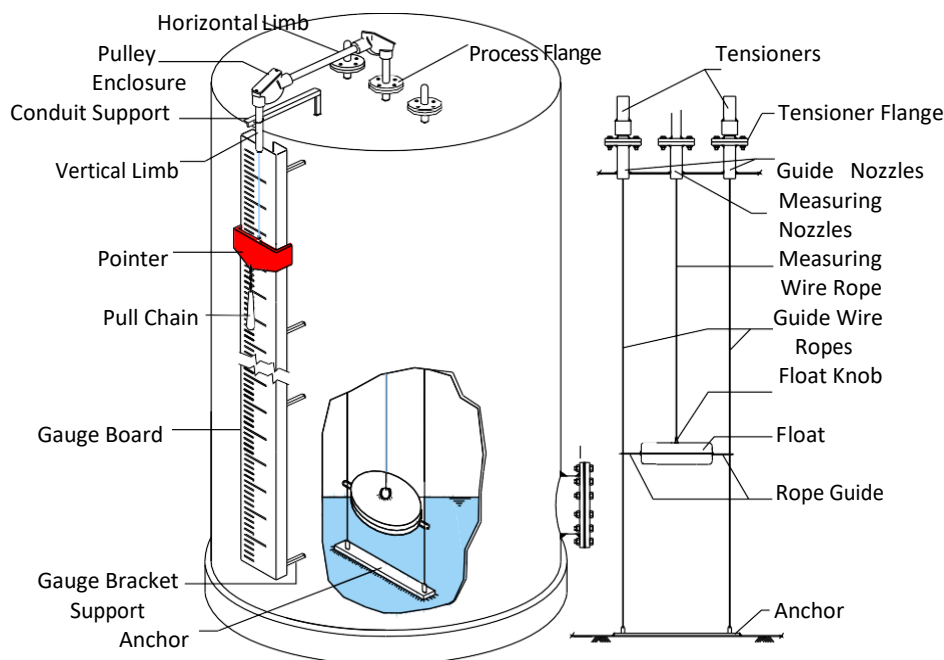
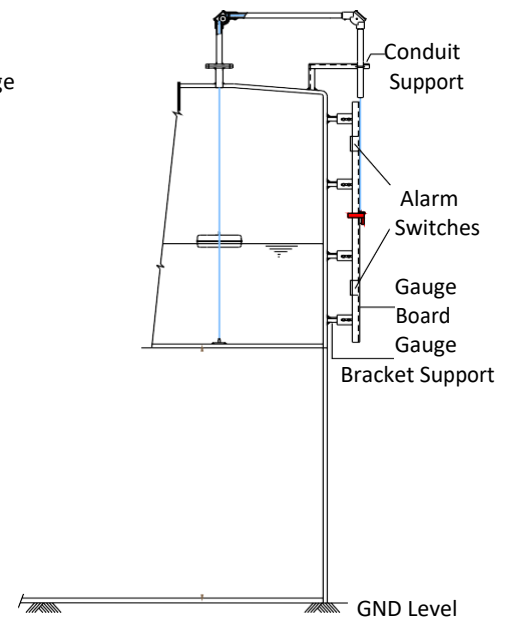


Fig.2 Gauge Board with Full Travel mounted on Side of Elevated Tank



Specifications

Construction	Guided	Unguided
Range	<ul style="list-style-type: none"> ➤ 7.5 meters with Ø200float ➤ 15 meters with Ø350float 	3 meters with Ø200 float
Installation	Ground level tank or underground tank or elevated tank	
Liquid SG	≥0.8	
Max Temperature	80 °C (PP), 100 °C (ECTFE Ctd SS), 150 °C (SS)	
Max Pressure	Atmospheric	
Float	SS304/316/316L, PP, ECTFE (Hallar) coated SS304/316 x Ø200 or Ø350	
Float/Guide Wire Rope	SS304/316/316L, PTFE ctd SS304/316 x Ø1.6mm (multistrand) PP x Ø3 mm (multistrand)	
Process/Tensioner Connection MOC	CS, CS A105, PP, SS304 or SS316	
Process Connection	¾" or 1" or 1-1/2" NB ASME 150# flange	
Tensioner Connections	¾" or 1" or 1-1/2" ASME 150# flanges (2 nos.)	Not Applicable
Tensioner (2 nos.)	<ul style="list-style-type: none"> ➤ Cadmium p ltd. steelspring in CS powder coated or PP enclosure ➤ SS304 spring housed in SS304 enclosure ➤ SS316 spring housed in SS316 enclosure 	Not Applicable
Calibrated Gauge Board	<ul style="list-style-type: none"> ➤ 6" wide, white powder coated Aluminum or SS304 MOC with black graduations and numerical markings in black (minor) per 10 cm and in red (major) per 100 cm (34 mm height) for full travel. ➤ As above, but numerical markings in black (minor) per 20 cm and in red (major) per 200 cm for half travel. ➤ Volumetric scale in Liters or KL or BBL on request. 	
Resolution (Gauge Board)	5 mm (full travel), 10 mm (half travel)	
Pointer	Red powder coated CS or SS304 Pointer height = 60 mm for 7.5 meters range and 80 mm for 15 meters range	
Pointer Travel	<ul style="list-style-type: none"> ➤ Full for ground level, elevated tanks and underground tanks (< 4 meters) ➤ Half for underground tanks from 4 to 8 meters depth 	
Pull Chain	Nylon rope with PP handle for highly viscous liquids which tend to solidify at ambient temp	
Protection Conduit	¾" x GI or PP or SS304 pipe MOC <ul style="list-style-type: none"> ➤ Two vertical limbs of 285 & 195 mm ➤ One horizontal limb of 650 mm 	
Pulley & Pulley Enclosure (2 nos)	<ul style="list-style-type: none"> ➤ Cadmium plated steel with PTFE bush & SS shaft in powder coated cast Al enclosure (WP) ➤ PP pulley with PTFE bush & SS shaft in PP enclosure (WP) ➤ SS304/316 pulley with PTFE bush & SS shaft in WP Cast Al. powder coated enclosure (WP) ➤ SS304 pulley with PTFE bush & SS shaft in SS304 enclosure (WP) ➤ SS316 pulley with PTFE bush & SS shaft in SS316 enclosure (WP) 	
Anchor	<ul style="list-style-type: none"> ➤ Welded: SS304/316/316L plate, 25 W x 6 Thick (metallic tanks) ➤ Weighted : SS304/ 316/ 316L or ECTFE coated SS304 pipe (1" NB) or PP 50 mm OD Note: Length of anchor = 300 (Ø200float) and 450mm (Ø350float)	Not Applicable
Rope Fasteners	SS316	
Gauge Board Brackets	Powder coated steel	
Conduit Support	MS	
Gauge Bracket Support	MS	
Seal Pot	<ul style="list-style-type: none"> ➤ 50 mm WC - Cast aluminum/ SS316/ PVC coated cast aluminum ➤ 200 mm WC - CS or SS316 	
Accessories	<ul style="list-style-type: none"> ➤ Counter flanges (CS), nuts, bolts (CS) & CAF gaskets ➤ Measuring/ guide nozzles with flange (CS), nuts, bolts (CS) & CAF gaskets 	

Model DE codification

	VIPL-	1 -	A -	2 -	H	-	I -	1 -	M -	2 -	R -	S -	1 -	1 -	A -	I
1. Construction x Pointer Travel																
Guided x Full Travel		1														
Guided x Half Travel		2														
Unguided x Full Travel		3														
2. Float MOC																
SS304			A													
SS316			B													
SS316L			C													
PP			D													
ECTFE coated SS304			E													
ECTFE coated SS316			F													
Others			G													
3. Float Size																
∅ 200 mm				1												
∅ 350 mm				2												
4. Seal Pot																
Without					H											
50 mmWC x Aluminum				1												
50 mmWC x SS316				2												
50 mmWC x PVC coated Aluminum				3												
200 mmWC x CS				4												
200 mmWC x SS316				5												
Others				O												
6. Installation																
Ground Level Tank							I									
Under Ground Tank (Sump)							J									
Elevated Tank							K									
7. Calibrated Gauge Board x Pointer MOC																
Aluminum Gauge Board x CS Pointer								1								
Aluminum Gauge Board x CS Pointer with Pull Chain								2								
SS304 Gauge Board x CS Pointer								3								
SS304 Gauge Board x CS Pointer with Pull Chain								4								
SS304 Gauge Board x SS304 Pointer								5								
SS304 Gauge Board x SS304 Pointer with Pull Chain								6								
8. Process/ Tensioner Connection MOC																
CS									L							
CS A105									M							
SS304									N							
SS316									O							
PP									P							
Others									Q							
9. Process Connection																
¾" NB ASME 150# Flange										1						
1" NB ASME 150# Flange										2						
1-1/2" NB ASME 150# Flange										3						
Others										O						

10. Tensioner Connections (2 nos.)					
Without (Unguided)	R				
¾" NB ASME 150# Flange	1				
1" NB ASME 150# Flange	2				
1-1/2" NB ASME 150# Flange	3				
Others	O				
11. Tensioner (Spring + Enclosure)					
Without (Unguided Construction)	S				
Cadmium plated Steel Spring x CS powder coated Enclosure	1				
Cadmium plated Steel Spring x PP Enclosure	2				
SS304 Spring x SS304 Enclosure	3				
SS316 Spring x SS316 Enclosure	4				
Others	O				
12. Protection Conduit					
GI x ¾" NB Protection Conduit		1			
SS304 x ¾" NB Protection Conduit		2			
GI x ¾" NB Protection Conduit with Extension (Elevated or Underground Tanks)		3			
SS304 x ¾" NB Protection Conduit with Extension (Elevated or Underground Tanks)		4			
PP x ¾" NB Protection Conduit		5			
Others		O			
13. Pulley x Pulley Enclosure					
Cadmium plated steel Pulley x Cast Al powder coated Enclosure			1		
SS304 Pulley x Cast Al powder coated Enclosure			2		
SS304 Pulley x SS304 Enclosure			3		
SS316 Pulley x Cast Al powder coated Enclosure			4		
SS316 Pulley x SS316 Enclosure			5		
PP Pulley x PP Enclosure			6		
14. Anchor					
Without (Unguided)					A
SS304 x Welded					B
SS304 x Weighted					C
SS316 x Welded					D
SS316 x Weighted					E
SS316L x Welded					F
SS316L x Weighted					G
PP x Weighted					H
ECTFE coated SS304 x weighted					I
15. Accessories					
Without					I
Counter Flanges (CS) + Nuts, Bolts (CS) + CAF Gaskets					J
Measuring/Guide Nozzles with Flange (CS) + Nuts, Bolts (CS) + CAF Gaskets					K
Others					L