

Magnetic, Liquid Level Gauge-MLG



SINCE 1984

It is commonly used for visual level indication of liquids, which attack glass or are hazardous, flammable, toxic, aggressive, agitated, contaminated and under high temperature & pressure i.e. for services, where glass gauges are unsafe.

Features :

- Rugged gland less construction to provide safety in handling toxic, flammable & highly corrosive liquid.
- Suitable for glass attacking liquid, where conventional gauge glass can not be used.
- Option of providing continues transmitter for remote indication & control and adjustable level switch for alarm & control.

Construction & Operations :

It consists of a chamber and an internal float in non-magnetic material, compatible with the liquid. The float containing a magnetic system rides on the liquid level and is coupled to an external visual indicator, which comes in two options. The simpler & economical design consists of a RED magnetic follower capsule, that moves within a glass tube filled with water (to reduce friction) (fig. 1-a) and can be read against a scale. The other system is expensive and consists of a series of bicolour flappers. WHITE on front side and contrasting RED on the reverse. These flappers rotate corresponding to float movement, thus changing their colour from WHITE to RED as the float rises and vice-versa when the float falls. As such the liquid level represented by an external RED column (fig. 1-b).

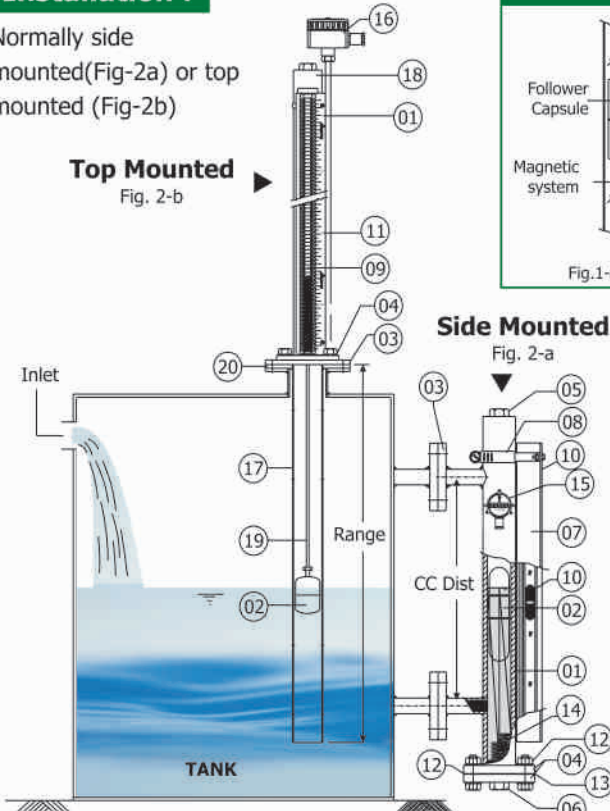


Installation :

Normally side mounted (Fig-2a) or top mounted (Fig-2b)

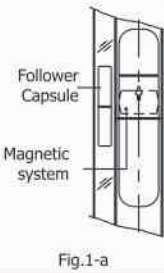
Top Mounted
Fig. 2-b

Side Mounted
Fig. 2-a

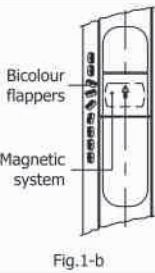


- | | |
|--|-----------------------------|
| 01) Liquid Chamber | 11) Calibrated Scale |
| 02) Float | 12) Nuts, Bolts & Washer |
| 03) Process Flange | 13) Gasket |
| 04) Chamber Flange | 14) Float Retainer (Spring) |
| 05) Vent Plug | 15) Switch (Adjustable) |
| 06) Drain Plug | 16) 'X' Mitter |
| 07) Local Indicator Housing | 17) Perforated Steel Well |
| 08) Indicator mtg. clamps | 18) Magnetic Chamber |
| 09) Local Indicator Flappers | 19) Stem |
| 10) Local Indicator (Follower Capsule) | 20) Still Well Flange |

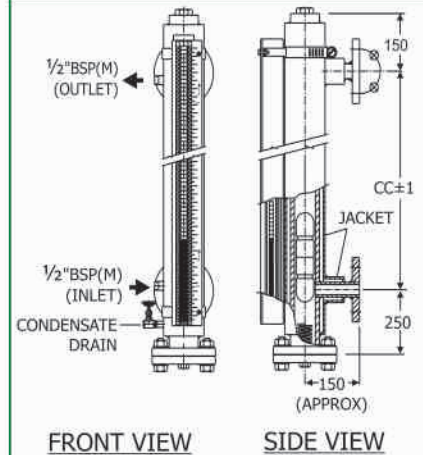
Follower Capsule



Rotary Flappers



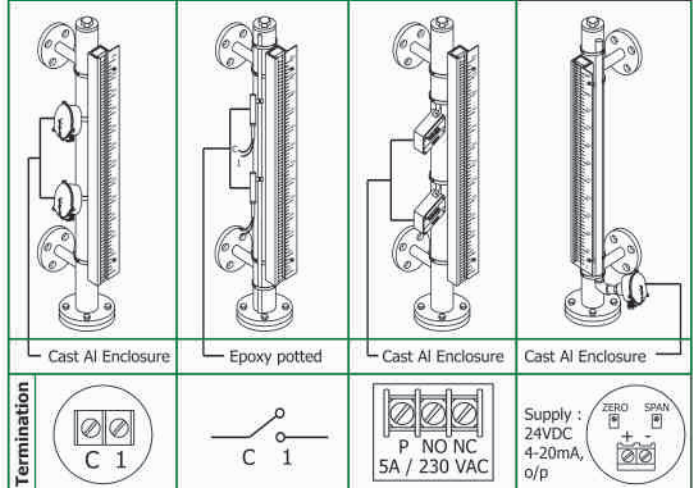
Jacketing Arrangement



Accessories

Magnetic Switches Options

'X' mitter



Model Identification No. MLG									
Mounting									
Side Mtd	S								
Top Mtd (for sumps)	T								
Wetted Parts									
SS 304	N								
SS 316	S								
PP (Max-70°C)	P								
PVDF (Max-100°C)	T								
Non Std	O								
Chamber Type									
Top cap with bottom flange	A								
Top & bottom flanges	B								
Process Connections									
Flanged	F								
Screwed	S								
Union	U								
Non-Std.	O								
Shut off Valves									
Not Provided	W								
Ball Valves (PP - 70°C/ SS - 200°C)	B								
Globe Valves (SS/CS - 400°C)	G								
Non Std	O								
Vent x Drain									
Plug x Plug	1								
Plug x Ball Valve	2								
Plug (for Top Mtd only)	3								
Plug x Globe Valve	4								
Non Std	0								
Jacketing									
Not Provided	W								
Provided	J								
Visual Indicator									
Not Provided	W								
Magnetic Follower Capsule (PP-150°C)	C								
Bicolour Rotating Flappers (Plastic-150°C)	R								
Bicolour Rotating Flappers (SS-250°C)	S								
Bicolour Rotating Flappers (Ceramic-400°C)	F								
Still Well (for Top Mtd only)									
Without	W								
CS Still Well	1								
SS304 Still Well	2								
SS316 Still Well	3								
PP Still Wel	4								
others	0								
Accessories									
Not Provided	W								
Magnetic Switch	1								
'X' mitter	2								
Magnetic Switch + 'X' Mitter	3								
Magnetic Switch									
Epoxy Potted x Monostable x 40VA (N/O)	1								
Cast Al, WP IP-66 x Monostable - 40VA (N/O)	2								
Cast Al, Ex.proof Gr. IIA & IIB x Monostable - 40VA (N/O)	3								
Cast Al, WP IP-66 x Bistable - 5A, 230 VAC	4								
Cast Al, Ex.proof Gr. IIA & IIB x Bistable - 5A, 230VAC	5								
Non Std	0								
No.of Switches									
One, Two.....Four	1-4								
Non Std	0								
Level Controller (TLC)									
Not Provided	W								
Provided	C								
'X' mitter Enclosure									
Cast Al. W.proof IP-66 x PG 13.5	J								
Cast Al. Ex.proof Gr. IIA & IIB x 1/2"NPT	E								
Non std	O								
Resolution									
±12 mm (Std)	S								
±6 mm (High)	H								
Level Indicator Controller									
Not Provided	W								
TLIC	C								
TLPI	L								
Non std	O								

Dist / Range(mm)

Specifications	
Installation	: Side / Top
Range (C=C DIST)	: Max. 3000mm (Magnetic follower capsule) Max. 5000mm (Bicolour rotating flappers)
Level Indication	: a) Red PP Follower Capsule -150°C in Toughened glass tube (H ₂ O filled) b) Bicolour Rotating PP Flappers - 150°C (White & Red) c) Bicolour Rotating Ceramic Flappers - 400°C (White & Red) Fitted externally to the float chamber
Float Chamber	: Ø 60.3 mm in SS304/SS316/PP/PVDF
Float	: Ø 50 mm in SS316/PP/PVDF (for Side mounted) & Ø 75 mm in SS316/ PP (for Top mounted)
Still Well	: CS/SS304/SS316/PP (80NB)
Calibrated Scale	: White powder coated Aluminium /SS (LC-10mm)
Shut off Valve	: 20 NB Ball/Globe Valves (SS)
(Isolation for Gauge)	: 25NB flanged Ball Valve (PP)
Vent x Drain	: 1/2" Threaded Plugs/Valves
Process Connection	: 1) 25NB/40NB/50NB Flanges for Side Mtd to BS/ANSI/DIN or 100NB Flange for Top Mtd. to BS/ANSI/DIN 2) 1/2"/ 3/4"/ 1" BSP or NPT (M/F) Screwed 3) 1/2"/ 3/4"/ 1" BSP or NPT (M/F) Union
Max Temp	: 70°C (PP) /100°C (PVDF)/400°C (SS)
Max Test Pressure	: 2 Kg/cm ² (PP/PVDF)/10 Kg/cm ² (SS) or (at amb. temp)
Min. Liquid Sp. Gr.	: 0.7 - Side Mtd., 0.8 - Top Mtd.

Accessories	
a) Adjustable Switch	
Monostable Reed Switch	
Enclosure x Cable Gland	: Epoxy potted or Cast AL WP-IP-66 x PG 9 (Polymer) or Cast AL Ex. Proof Gr. IIA & IIB x 1/2" NPT (Brass)
Switch rating x Form	: 40 VA X N/O (SPST) or 60 VA X C/O (SPDT)
Bistable Micro Switch	
Enclosure x Cable Gland	: Cast AL WP IP66 x PG 9 (Polymer) or Cast AL Ex. Proof Gr. IIA & IIB x 1/2" NPT (Brass)
Switch rating x Form	: 5A, 230VAC X C/O (SPDT)
b) Transmitter	
Wiring System	: Two wire
Resolution	: ±12 or ±6 mm
Out put	: 4 -20 mA
Enclosure x Cable Gland	: Cast AL, WP-IP66 x PG13.5 (Polymer) or Cast AL Ex. Proof Gr. IIA-IIB & IIC x 1/2" NPT(Brass)

Services	
Liquified Gases, Lube/Crude Oil, Dye Liquor, HCL, H ₂ SO ₄ , Phosphoric Acid, Ammonia, Freon, Therminol, Solvent, Refrigerant, Dowtherm, Gasoline & NaOH.	

Ordering Info :
Specify Model No. x Liquid x Sp. Gr. Optg Temperature, Pressure & CC Dist / Range

x TLC- **M**

x TLIC- **M**

- * For TLC - **M** Refer catalogue on LEVEL CONTROLLER 'TLC'
- * For TLIC- **M** Refer catalogue on LEVEL INDICATOR CONTROLLER 'TLIC'
- * For TLPI - Refer catalogue on LOOP POWERED INDICATOR 'TLPI'

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R A T E D
NSIC-CRISIL SE-1A

All dimensions in mm, except specified.