

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).

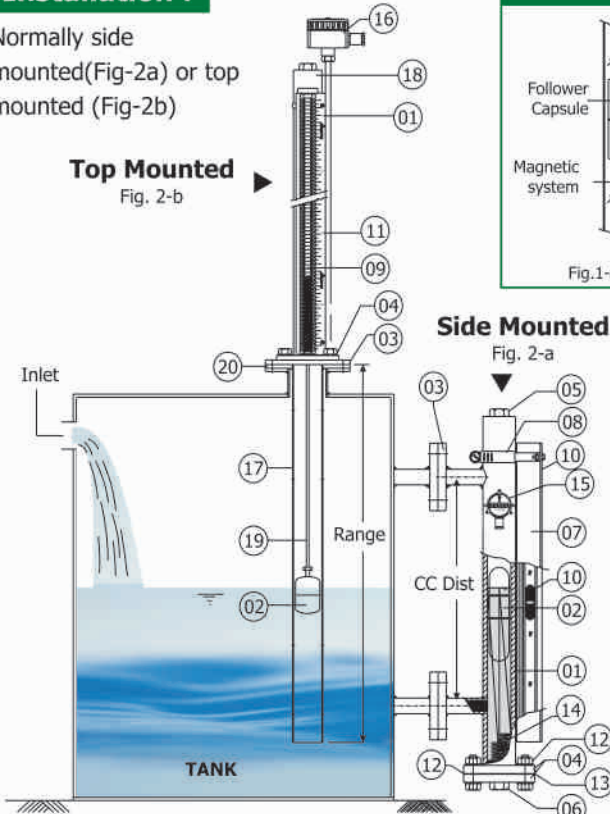


Installation :

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

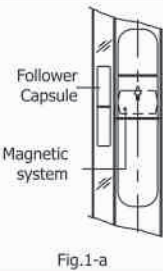
Top Mounted
Fig. 2-b

Side Mounted
Fig. 2-a

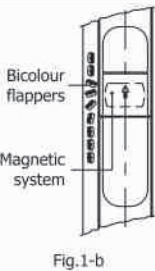


- | | |
|--|-----------------------------|
| 01) Liquid Chamber | 11) Calibrated Scale |
| 02) Float | 12) Nuts, Bolts & Washer |
| 03) Process Flange | 13) Gasket |
| 04) Chamber Flange | 14) Float Retainer (Spring) |
| 05) Vent Plug | 15) Switch (Adjustable) |
| 06) Drain Plug | 16) 'X' Mitter |
| 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 |

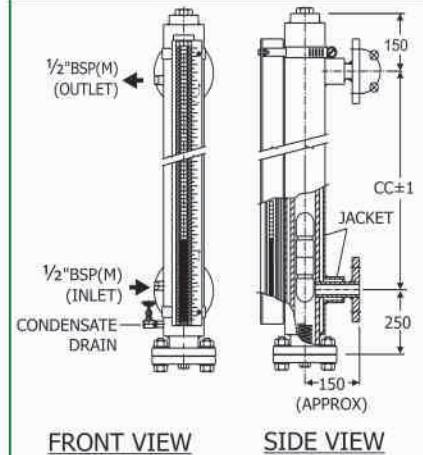
Follower Capsule



Rotary Flappers



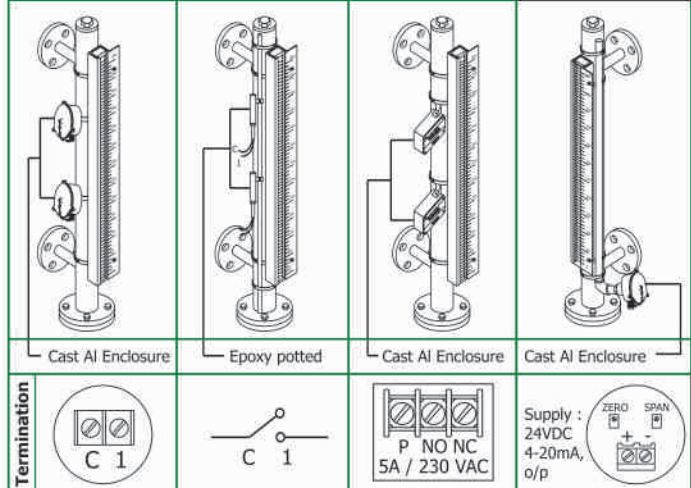
Jacketing Arrangement



Accessories

Magnetic Switches Options

'X' mitter



Model Identification :

MLG - [] [] [] [] [] [] [] [] [] [] [] x CC Dist (mm)



Innovating Level Controls Since 1984
Innovating Level Controls Since 1984

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
Others _____ O

Chamber Type

Top cap with bottom flange _____ A
Top & bottom flanges _____ B

Process Connections

Flanged _____ F
Screwed _____ S
Union _____ U
Others _____ O

Shut off Valves

Not Provided _____ W
Ball Valves (PP - 70°C/ SS - 200°C) _____ B
Globe Valves (SS/CS - 400°C) _____ G
Others _____ O

Vent x Drain

Plug x Plug _____ 1
Plug x Ball Valve _____ 2
Plug (for Top Mtd only) _____ 3
Plug x Globe Valve _____ 4
Others _____ O

Jacketing

Not Provided _____ W
Provided _____ J

Visual Indicator

Not Provided _____ W
PP Follower Capsule, (150°C) _____ C
Plastic Bicolor Flappers, (W-14), 150°C _____ R
SS Bicolor Flappers, (W-14), 250°C _____ S
Plastic Bicolor Rollers, (W-22), 150°C _____ L
Ceramic Bicolor Rollers, (W-22), 400°C _____ F
Others _____ O

Still Well (for Top Mtd)

Without _____ W
CS Still Well _____ 1
SS304 Still Well _____ 2
SS316 Still Well _____ 3
PP Still Well _____ 4
Others _____ O

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 - PG 9 x Monostable - 40VA (N/O) _____ 2
Cast Al, Ex.proof Gr IIB-1/2"NPTx Monostable 40VA (N/O) _____ 3
Cast Al, WP IP-66 - PG 9 x Bistable - 5A, 230 VAC _____ 4
Cast Al, Ex.proof Gr. IIB - 1/2"NPT x Bistable - 5A, 230VAC _____ 5
Others _____ O

No of Switches

One, Two.....Four _____ 1 - 4
Others _____ O

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.IIB x 1/2"NPT _____ E
Others _____ O

Resolution

±12 mm (Std) _____ S
±6 mm (High) _____ H

Level Indicator Controller

Not Provided _____ W
TLIC _____ C
TLPI _____ L
Others _____ O

Specifications :

Installation : Side / Top
Range (C=C Dist) : Max. 3000mm (Follower Capsule)
Max. 5000mm (Bicolour Flappers)
Float Chamber : Ø60.3 in SS304 / SS316 / PP / PVDF
Float : Ø50 mm in SS316 / PP / PVDF (for Side Mtd)
& Ø75mm in SS316 / PP (for Top Mtd)
Visual Indicator : a) PP Follower Capsule (Red) -150°C (in water filled glass tube)
b) PP Bicolor Flappers (White-Red) (Width-14)- 150°C
c) SS Bicolor Flappers (White-Red) (Width-14)- 250°C
d) Ceramic Bicolor Rollers (White-Red) (Width-22)- 400°C
e) Plastic Bicolor Rollers (White-Red) (Width 22)- 150°C
Stillwell (80NB) : CS/ SS304 / SS316 / PP (Top Mtd)
Calibrated scale : White powder coated Aluminium / SS (LC=10mm)
Shut off Valve (Isolation for Gauge) : 20 NB Ball / Globe Valve (SS), 25NB Flanged Ball Valve (PP)
Vent x Drain : 1/2" Threaded Plugs / Valves
Process Connection : 1) 25NB/40NB/50 NB 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 (at amb temp) : 2Kg/cm2 (PP/PVDF)/10Kg/cm2 (SS) or 100Kg/cm2 (SS)
MIn 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- IP66 x PG 9 (Polyamide) OR
Cast AL Ex. Proof Gr IIB x 1/2" NPT (Brass)

Switch rating x Form : 40VA x N/O OR 60VA x C/O

Bistable Micro Switch

Enclosure x Cable Gland : Cast AL WP- IP66 x PG 9 (Polyamide) OR
Cast AL Ex. Proof Gr IIB x 1/2"NPT (Brass)

Switch rating x Form : 5A, 230 VAC x C/O

b) Transmitter

Wiring system : Two wire

Resolution : ±12 OR ±6 mm

Out put : 4-20 mA

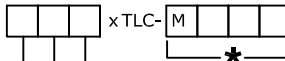
Enclosure x Cable Gland : Cast Al, WP- IP66 x PG 13.5 (Polyamide)
Cast Al. Ex Proof Gr IIB & IIC x 1/2"NPT (Brass)

Applications:

Liquified gases, Lube/ Crude Oil, Dye, Liquor, HCL, H2SO4, Phosphoric Acid, Amonia, Freon, Thermolnol Solvent, Rerlgerat, Downtherm, Gasoline & NaOH

Ordering Information :

Model No x Liquid x Sp.gr x Optg. Temperature & Pressure & CCdstance /Range



* for TLC- [M] [] [] [] Refer catalogue on TECHTROL LEVEL CONTROLLER 'TLC'

* for TLIC- [M] [] [] [] Refer catalogue on TECHTROL LEVEL INDICATOR CONTROLLER 'TLIC'

* for TLPI- Refer catalogue on TECHTROL LOOP POWER INDICATOR 'TLPI'

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