

# ELMLG - 100

## MAGNETIC LIQUID LEVEL GAUGE

### Features

- Commonly used for visual level indication
- Range : Max. 3000mm
- Level Indication : Bi-color bar LED lamps
- Float Chamber MOC : SS304/SS316/PVC
- Float MOC : SS316/PP / PVDF (for Side mounted)
- Vent x Drain : 1/2" Threaded Plugs/Valves
- Max Temp : 70°C ( PP ) / 100°C (PVDF) / 400°C (SS)
- Max Test Pressure : 2 Kg/cm<sup>2</sup> ( PP/PVDF) / 10 Kg/cm<sup>2</sup> (SS)
- Electronic output 4 to 20 mA
- Rugged construction to provide safety in handling toxic, flammable & highly corrosive liquid

### Description

**E**lectronet series Magnetic Liquid Level Gauge ELMLG-100 is an instrument for indicating the fluid level. It has a magnetic float inside of the non-magnetic chamber and an indicator outside of it. The indicator indicates the fluid level by means of magnetic force of the magnet installed inside of the float. The indicator is completely separated from the chamber. The level of liquid and gaseous phases can be distinguished clearly by the Bi-color. Magnetic level indicators are low-maintenance alternatives to sight glasses and other level indicators. They provide non-invasive level indication while reducing leak points and fugitive emissions.



### Technical Specifications

Type	Magnetic float operated (White color to indicate empty space and Red to indicate the liquid column)
Schedule	SCH 10S, 20S, 40S etc.
Probe MOC	SS316
Max. Working Pressure	-600 mm Hg to 10 bar
Max. Working Temperature	400°C
Specific Gravity	Min. 0.34
Center to center length	1000mm, ± 1.5mm
Process connection	1/2 NPT (F) / Flange
Scale	Clamped to the body and adjustable according to the mounting of the level gauge.
Accuracy / Resolution	± 1cm
Power Supply	24 V DC
Output	4 to 20 mA / 1 to 5 V

## Working Principle

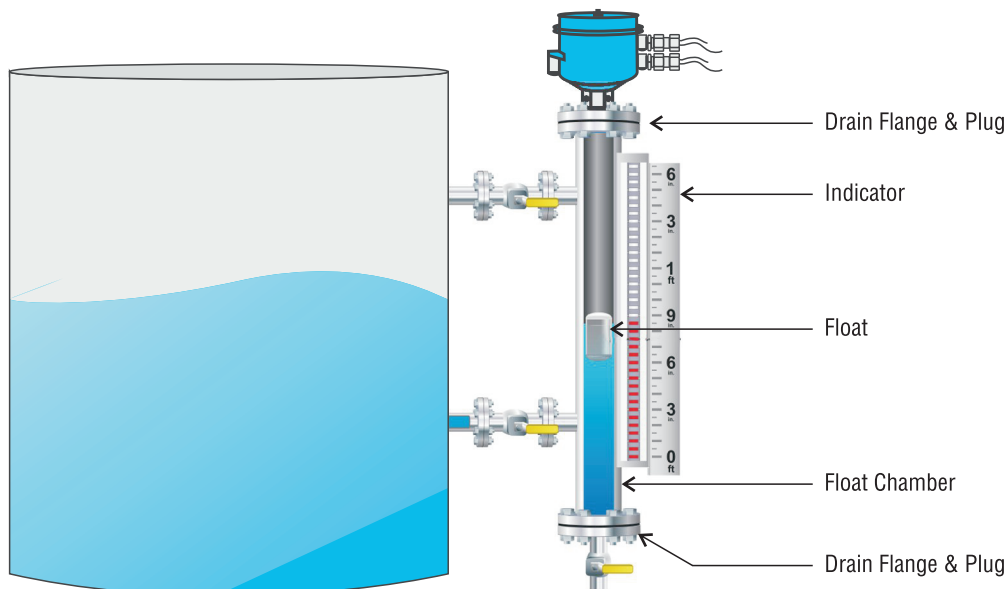
**Magnetic Liquid Level Gauge ELMLG-100 employ two elementary principles.**

- i) Archimedes Principle according to which a body immersed in a liquid receives a buoyancy force equal to the weight of displaced liquid.
- ii) Principle of attraction among dissimilar poles of permanent magnets and that of repulsion between like poles. A float containing magnet follows liquid level in the liquid chamber which corresponds to the level in the tank. Position of the float inside the chamber is indicated outside by Bi-color LED lamp embedded with magnet by 180° rotation and setting into uniform colour along the traverse of the float.

LED BAR Color	Indication
RED	Liquid
WHITE	Vapour / AIR

## How it Works

Electronet magnetic level indicators consist of a chamber, a magnet equipped float which rises and lowers with the fluid level, and an indicator which is mounted to the chamber. The indicator houses a column of small flags which indicate the level of the fluid in the chamber, based on the position of the float. As the fluid level rises and lowers, the float rises and lowers as well, and the flags are tripped from one orientation to the other; typically the red side indicates the liquid level and the white side indicates the vapor space. As the float rises and falls with the process level, tripping the flags, it also stimulates any attached transmitters and switches, providing a signal back to the control system.



## Applications

- Practically for all liquid: inflammable, explosive, poisonous, etc.
- Specially for those which attack glass
- For Inter-Phase
- Upto 2500 psi and upto 300°C
- Specific Gravities 0.34 and above

## Ordering Information

Sample Order Code : 02D-07B-21A-22A-24A-49C-66A-84E-85A

Parameter		Code	Value
02	Measuring Range	02A	300 mm
		02B	1000 mm
		02C	2000 mm
		02D	3000 mm
07	Area Classification	07A	Weather Proof
		07B	Flame Proof
21	Electrical Connection	21A	M20 X 1.5
		21B	½” NPTF
		21X	Other
22	MOC Electronics Enclosure	22A	Die Cast Aluminium
		22B	SS316
24	Power Supply	24A	90 – 250 VAC
		24B	24 VDC

Parameter		Code	Value
49	Output	49A	4 to 20 mA
		49B	4 to 20 mA with HART
		49C	1 to 5V
66	Process Connection	66A	Threaded
		66B	Flanged
84	Probe Type	84D	Radar
		84E	Magnetic Float
		84Z	NA
85	MOC Probe	85A	SS316
		85X	Other

Note :

- Due to our continuous product revisions, design specification and model numbers are subject to change without notice.
- Accuracy defined at Lab Conditions.
- For other requirement please consult factory.

## Applications

Food Industry	Chemical Industry	Atomic Energy	Manufacturing Industry
Automation Industry	Thermal Power Energy	Process Industry	Water Treatment Industry

## ELECTRONET EQUIPMENTS PVT. LTD.

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