

Aramak



Magnetic Level Gauge

Solution for high temperature and pressure level indication



INTRODUCTION

The ARAMAK magnetic liquid level gauge used to determine the volume of liquid contained within a tank. Because the magnetic level eliminates the need for glass, high pressure applications and hazardous locations are protected from the danger of a chemical spill due to glass failure.

DESCRIPTION

The Magnetic level Gauge utilizes three major components:

the gauge housing chamber, the magnetic float, and the magnetic flag assembly.

The gauge housing chamber is mounted adjacent to the side of the tank. It is constructed to withstand the same temperatures and pressures as the tank itself. It is equipped with the appropriate tank mounting connections for easy installation and to allow equalization of liquid level in tank and gauge.

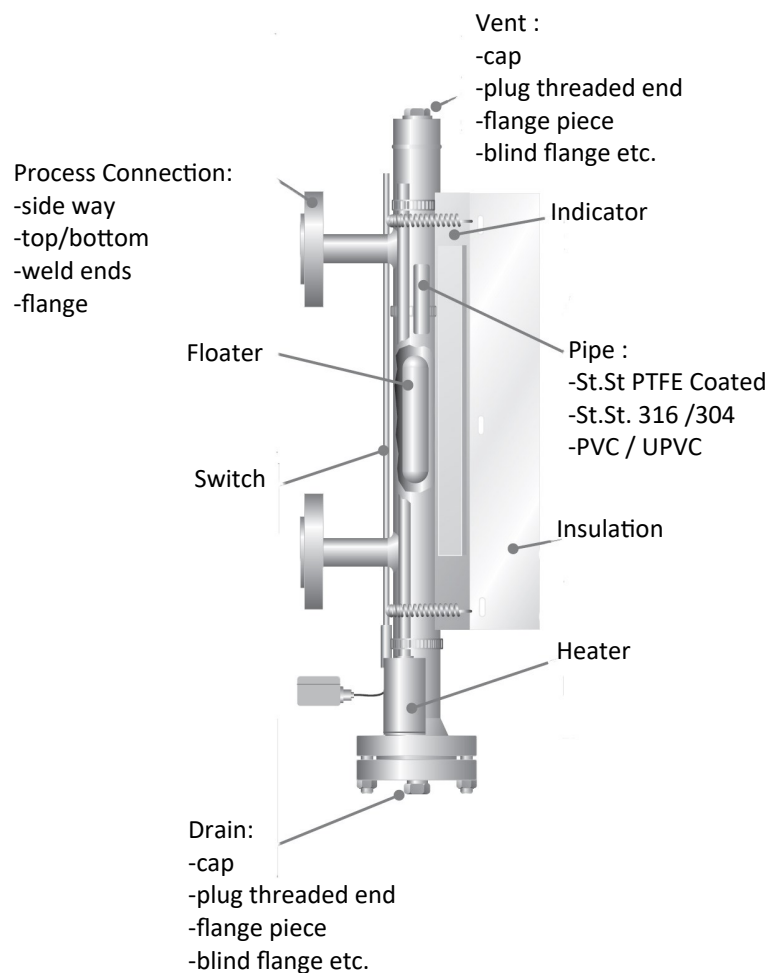
Inside the gauge housing chamber is the magnetic float, which contains radially-positioned magnets to provide a 360 degree magnetic flux field. Each float is internally weighted based on specific gravity so that the liquid level in the gauge coincides with the location of the magnets inside the float.

Attached to the gauge housing chamber is the magnetic flag assembly.

This is the visual means of liquid level indication for the Magnetic Level. The assembly is made up of a series of bicolored, fluorescent flags. As the magnetic float rises and falls with the liquid level in the gauge housing chamber, a magnet embedded in each flag reacts to the 360 degree magnetic flux of the float. This magnetic interaction causes each flag to rotate 180 degrees. The flags below the magnetic flux of the float will flip to fluorescent Red, while those flags above the float level remain bright white.

OPERATION:

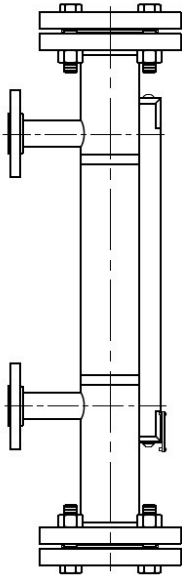
- Maximum safety – No glass is used in the construction
- Optimum visibility – Fluorescent flags are visible from great distances
- Float with 360 degree – Maintains a strong magnetic field in all directions; turbulent liquids will not cause flag assembly to give an inaccurate level indication
- Double flag protection
- Adjustable viewing angles – Flag assembly can be rotated to any angle to provide maximum visibility .
- Multiple mounting options – Engineered construction allows for a variety of mounting configurations
- Compatibility – A broad range of materials can be used to withstand harsh chemicals
- High/Low level switches – Explosion-proof switches can signal an alarm, operate a pump/valve or act as an emergency shut down
- Convenience – Easy installation and very low maintenance



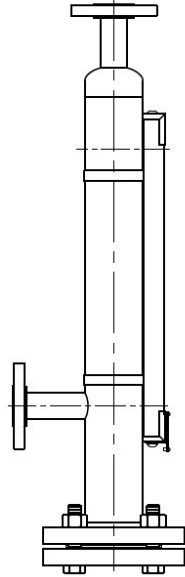
MOUNTING /HOUSING CONFIGURATION:

OTHER GAUGE HOUSING CONFIGURATIONS

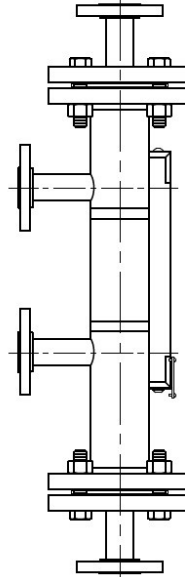
(Housing can be modified as required to meet your specific needs)



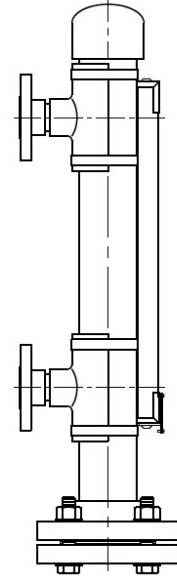
**Removable Flange
Top Connection**



**Fixed Flange
Vent Connection**



**Removable Flange
Vent Connection**



**PVC/CPVC
Gauge Housing**

Materials / Specifications:

Connections between housing and cocks:

- with grinded pipes and stuffing box (view can be turned can be positioned by the customer during installation)
- fixed centre-to-centre distance with metal seal (view can be turned can be positioned during manufacture)

Wetted parts:

- standard: galvanized ASTM A105 or A105 LF2 carbon steel, ASTM A182 F316L stainless steel
- additional options: on request

Non-wetted parts:

- standard: galvanized carbon steel, AISI 316/316L stainless steel -
- additional options: on request

Gaskets:

- standard: graphite/copper (ASTM A105), graphite/AISI 316 (A105 LF2 and ASTM A182 F316L)
- additional options: PTFE; other extras on request
- Glasses: transparent borosilicate glasses, thermally pre-stressed and extra hard as per the DIN 7081 standard

Shut-off:

- Standard: upper valve and lower valve (side/side, top/bottom)
- additional options: on request

Drain:

- standard: threaded valve
- additional options: on request

Vent:

- standard: blind (for grinded pipes version)
- threaded with plug (for fixed centre-to-centre version)
- additional options: on request

Tank connections:

Flanged:

- UNI standard: PN40 DN15 / DN20 / DN25
- ANSI standard: #150 / #300 / #600 DN ½" / ¾" / 1"
- additional options: on request

Threaded:

- BSP (GAS) standard: ½"-M / ¾"-M - NPT
- standard: ½"-M / ¾"-M
- Weld-on: from ½" to 1" BW or SW
- Option: further connections type or direct connections to the process without shut-off cocks

Accessories:

Switches :

All magnetic operated liquid level gauges can be equipped with one or more switches. Detailed information's please send us your inquiry. The switches can be used e.g. for high or low level alarms, pump switching and for fill or drain operations

Remote Control:

All magnetically operated liquid level gauges can be equipped with sensors to get an analogue signal.

MLG-		
Mounting Style Options:	FNPT End Connections	A
	MNPT Side Connections	B
	Flanged Side Connections	C
	Top of Tank	D
	Removable Flange Top Connection	E
	Fixed Flange Vent Connection	F
	Removable Flange Vent Co nnection	G
	Special	X
C-C Length :	Center to Center Distance (mm)	XXXX
Process Connection:	½"	F00
	¾"	F01
	1"	F02
	1 ½"	F10
	2"	F11
	Option	FXX
Pipe Flange Class:	150 # R.F.	1
	300# R.F.	3
	600# R.F.	6
	Option	XX
Pipe Material :	316 SS	1S
	304 SS	2S
	UPVC	UP
	PVC	PV
	PTFE Lined 316 SS	P1S
	PTFE Lined 304 SS	P2S
	Special	XXX
Vent/Drain	None	NON
	½"	F00
	¾"	F01
	1"	F02



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