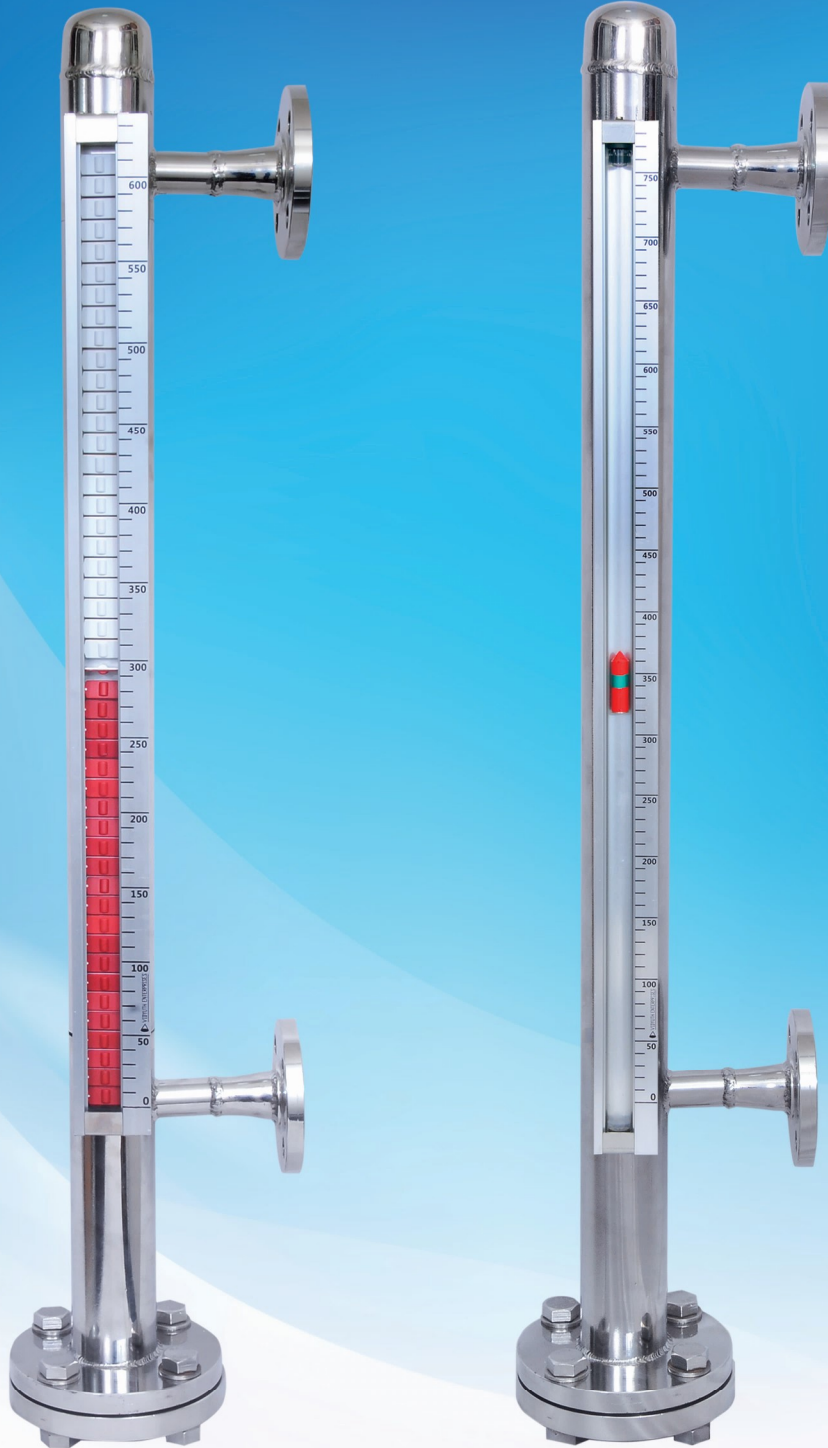


# MAGNETIC LEVEL INDICATORS



## MAGNETIC LEVEL INDICATORS:

Magnetic Level Indicators are used for visual level indication of liquids where high degree of isolation is called for between service liquid and indicating unit. Magnetic Level Indicators are safe alternative to cloudy, breakable sight glasses.

## SALIENT FEATURES:

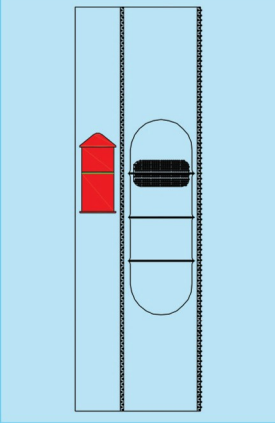
- Compatible alloy selection for wetted parts provide years of maintenance free service.
- Monitored liquid contained inside pressure tight housing provides environmental safety.
- Optional external point level switches and/or continuous level transmitters extend capabilities beyond visual indication.
- Continuous level indication without external power.

## CONSTRUCTION AND OPERATION:

Magnetic Level Indicator consists of non magnetic float containing permanent magnet system within a chamber with provision for process connection. Float within chamber tracks the liquid level.

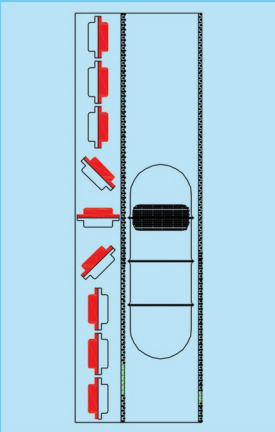
The magnet system of float is coupled to two types of external indicators viz.

- a) Capsule Type
- b) Flapper Type



### a) CAPSULE TYPE:

This is simple and economical version consisting of magnet encapsulated capsule contained in a glass tube filled with water. The capsule is coupled magnetically with float magnet system thereby tracking the float movement. This provides visual indication of the liquid level.



### b) FLAPPER TYPE:

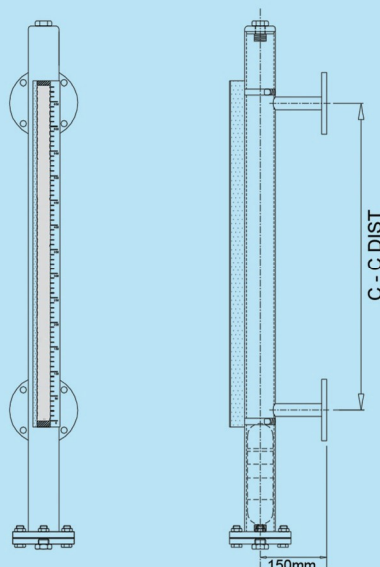
This consists of series of magnet encapsulated flappers which forms a secure magnetic interlock with adjacent flappers. The flappers are white color on outside and red color on inside. As liquid level raises, float containing magnet system inverts the magnetic flapper in the external indicator to red side out. The flappers remain magnetically interlocked in the external indicator until again inverted to white side out by the float as liquid level falls. Liquid level is indicated by the interface of the white flapper and red flapper.

## SPECIFICATIONS:

Installation	: Side / Top
Range (C - C DIST)	: 300 - 5000 mm ( Flappers Type ) 300 - 3000 mm ( Capsule Type )
Process Connection	: For Side Mounting - Flange / Threaded / Union For Top Mounting - Flange
Level Indication Display	: a) Bi-Colour Flappers Type - ABS / SS 304 b) Capsule Type - Aluminium
Calibrated Scale	: Aluminium (LC - 10 mm)
Maximum Operating Pressure	: Upto 25 Kg / Cm <sup>2</sup>
Minimum Liquid Sp. Gravity	: 0.7*

\*For other Sp. Gravity consult Factory

## TYPICAL CONSTRUCTION



# ORDERING INFORMATION:

FIELD: A B C D E F G H  
 ML:  - M  - C  - V  - D  - S  - N  - X

**FIELD : A**

**MOUNTING TYPE**

Side : **S**

Top : **T**

**FIELD : B**

**MATERIAL OF CONSTRUCTION**

SS 304 : **4**

SS 316 : **6**

SS 316L : **7**

**FIELD : G**

**NO. OF EXTERNAL SWITCHES**

None : **0**

One : **1**

Two : **2**

Three : **3**

**FIELD : C**

**PROCESS CONNECTION**

**# For selection S in Field A**

Flange Connection (150# ANSI RF)

1" : **1**

1½" : **2**

2" : **3**

Male Connection (BSP M)

¾" : **4**

1" : **5**

Union Connection (BSP)

¾" : **6**

1" : **7**

**# For Selection T in Field A**

Flange connection (150# ANSI RF)

2½" : **8**

3" with still well : **9**

Note :  
 If above process connections are not as per requirement, consult us for customization.

**FIELD : D**

**VENT CONNECTION**

Flat with ½" Plug : **1**

Reducer with ½" Plug : **2**

Dished end : **3**

**FIELD : E**

**DISPLAY INDICATOR**

NOT PROVIDED : **0**

CAPSULE : **1**

ABS Flapper (Upto 150°C) : **2**

SS Flapper (upto 400°C) : **3**

SS Flapper (Outdoor use) : **4**

**FIELD : F**

**EXTERNAL SWITCH (adjustable)**

Not selected : **0**

Microswitch (TYPE - M) : **1**

Reed Switch (TYPE - R) : **2**

**FIELD : H**

**TRANSMITTER**

Not selected : **0**

**# 4...20mA Output two wire transmitter**

10 mm resolution (150°C) : **1**

06 mm resolution (150°C) : **2**

10 mm resolution (400°C) : **3**

06 mm resolution (400°C) : **4**

**# 0...10V DC Output three wire transmitter**

10 mm resolution (150°C) : **5**

06 mm resolution (150°C) : **6**

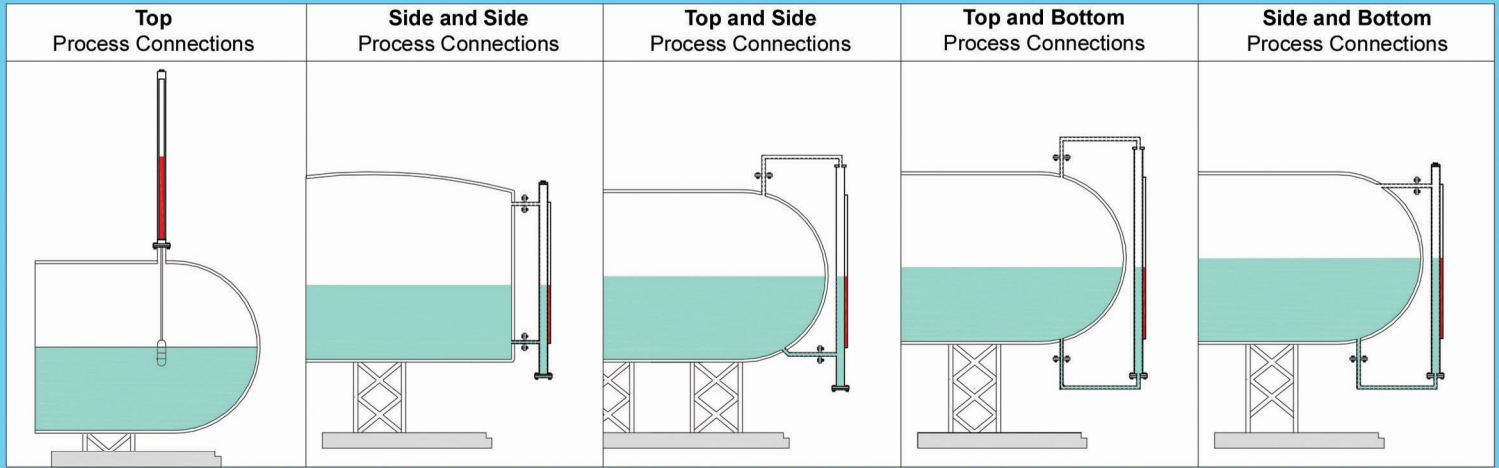
10 mm resolution (400°C) : **7**

06 mm resolution (400°C) : **8**

Note :  
 1) Transmitters rated upto 150°C are provided with Flameproof Gr. IIA - IIB, Weatherproof IP 66 Construction  
 2) Transmitter rated upto 400°C are provided with Weather Proof IP 55 Construction

ALONG WITH ORDERING INFORMATION, SPECIFY C-C DIST., LIQUID SP.GRAVITY, OPERATING TEMPERATURE & PRESSURE

## TYPICAL MOUNTING TYPES:



Please contact us if above parameters and specifications do not meet your requirements.

## CONTROL ACCESSORIES:

### TYPE - M :



#### **Adjustable Micro Switch (Bistable)**

Enclosure : Cast Aluminium Enclosure  
Flame Proof Gr.IIA - IIB.  
Weather Proof IP66 Construction  
with  $\frac{3}{4}$ " ET Gland (Brass)

Switch rating : 5A @ 230V AC SPDT Switch

### TYPE - R :



#### **Adjustable Reed Switch (Bistable)**

PVC Housing with Nylon  
DIN Connector - PG 7Gland

Switching Voltage : 230V AC / DC  
Switching Current : 1.0A  
Contact Rating : 60 VA  
Contact Form : SPDT

### TRANSMITTER



#### **Transmitter**

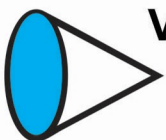
Input Voltage Range : 24V DC  $\pm$  5%

Output : 4....20mA / 0.....10V DC

Enclosure : Cast Aluminium Enclosure  
with  $\frac{3}{4}$ " ET Gland (Brass)

since continuous development is our policy, the above specification and details may change without prior notice

CT-15/MLI/01-19/R 00



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