

# Magnetic Level Indicator



Magnetic Level Indicator / Gauge provides clear, high quality indication, are principally designed as an alternative to glass level gauges. Magnetic Level Gauge is available in Top and Side mounted construction. Magnetic Level Gauge consists of three major components : Float chamber, Float and Indicator system. The visual indicator is available in two types Follower Capsule and Bi-Colour Flapper.

Magnetic Level Indicator operates on principles of magnetic field coupling, to provide fluid level information. Float chamber is typically constructed with non magnetic pipe having process connection that matches to the vessel connections. Float size and weight is determined by the process fluid, pressure, temperature and the specific gravity of process fluid. Float contains magnets to provide 360° magnetic flux field.

Simple non magnetic pipe with flange allows a magnet connected to the Float move up and down inside the tube. An external Bi-Colour Flapper channel or Follower Capsules indicates the level based on magnet position.

## Bi-Colour Flapper Design :

Indicator system consists of Bi-Colour Flapper equipped with magnets mounted on rail inside the housing. As the level starts rising or falling magnetic Float also travels with liquid level in non magnetic chamber. The magnetic interaction between magnets in Float and Bi-Colour Flapper causes each Flapper to rotate 180°.

## Follower Capsule Design :

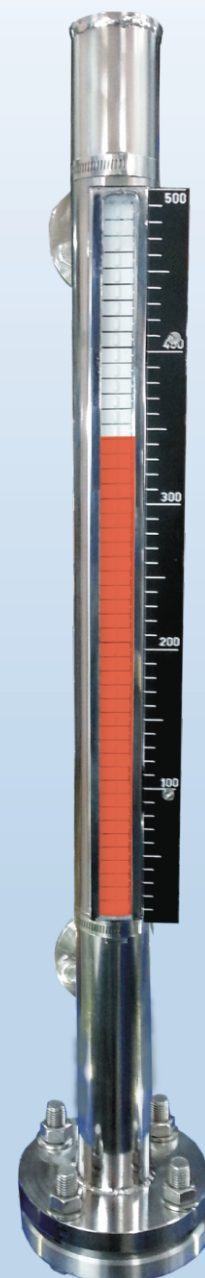
Indicator system consists of colour Follower Capsule which moves in glass tube inside the housing. As the level starts rising or falling, magnetic Float also travels with liquid level in non magnetic chamber. The magnetic interaction between magnets in Float and Capsule causes Capsule to travel along with magnetic Float.

## Accessories :

For application where high and low electrical signals are required adjustable limit switch assemblies are provided. In application where continuous output is required, Reed transmitter are supplied.

## Application :

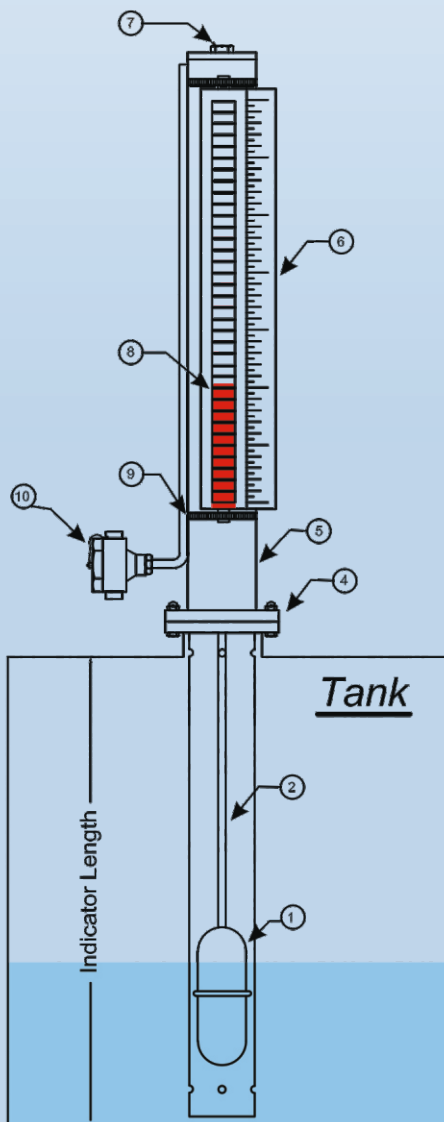
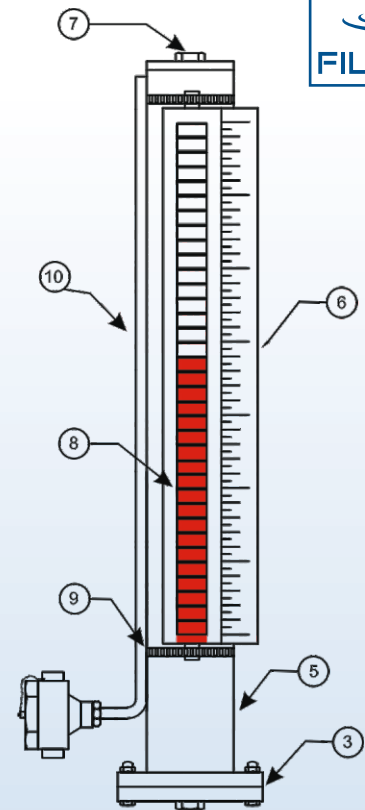
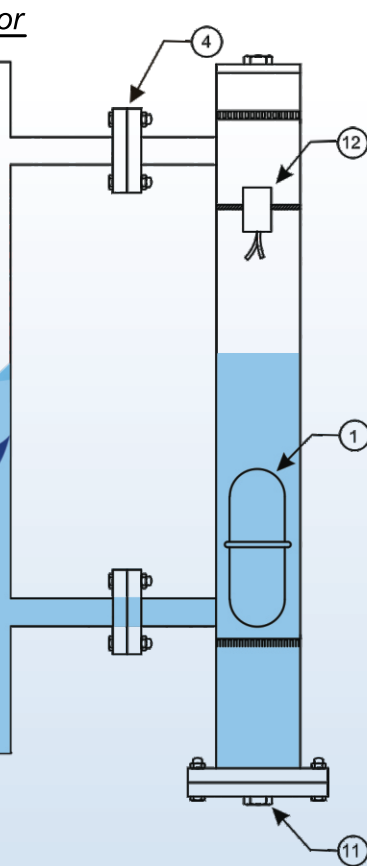
Suitable for aggressive, combustible, toxic, high pressure & high temperature liquid storage tanks. It is most widely used in Fuels, Oil, Chemical, Acids, Solvents, Syrups, Beverages, Water, dyes.



## Side Mounted Magnetic Level Indicator



Top Mounted magnetic Level Indicator



### Detail view of Indicator

12	Level Switch
11	Drain Plug
10	Level Transmitter
09	Mounting Clamp
08	Flapper
07	Vent Plug
06	Scale
05	Float Chamber
04	Process Connection
03	Chamber Flange
02	Float Rod
01	Float
Sl.No.	Part

# Accessories for Magnetic Level Gauge

## 1 Reed Level Transmitter

### Principle of Operation:

Reed Level Transmitter works on the principle of Variable Resistance where resistors are connected to reed switches in a ladder network. The magnet inside the Float chamber actuates the Reed switch thereby providing a variable resistance output proportional to float position. This resistance is connected to electronic board which converts it into analogue output.

### Specification:

Input: 24V DC

O/p: 4-20mA, 0-10V DC, RS 485

Resolution: 5mm, 10mm

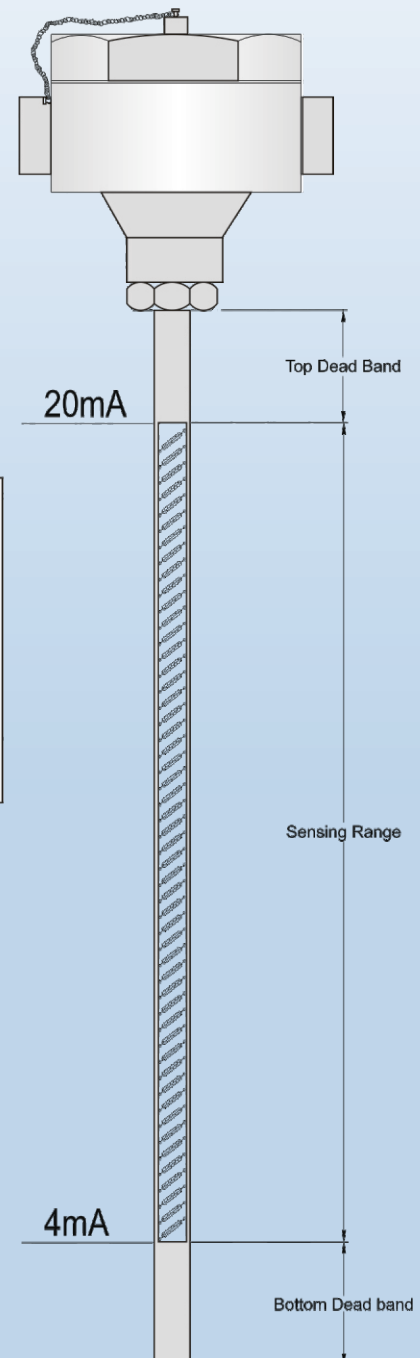
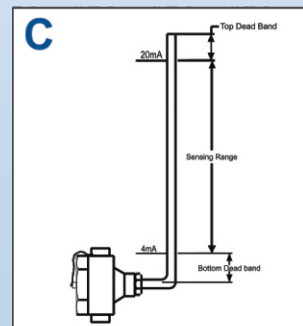
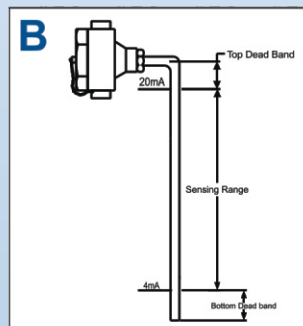
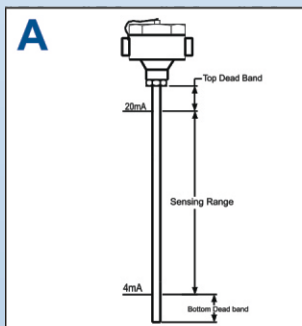
Max. temperature : 150° C

C/C: 100mm to 6000mm

Enclosure: Weatherproof, Flameproof

MOC: SS 304, SS 316, PP

### Mounting Options :



## 2 Magnetic Reed Switch

### Specification:

24 V DC 700mA

reed switch housing

5 mtr. Cable

## 3 Micro Switch

### Specification:

Snap acting 1 SPDT

Micro Switch 5A, 230VAC

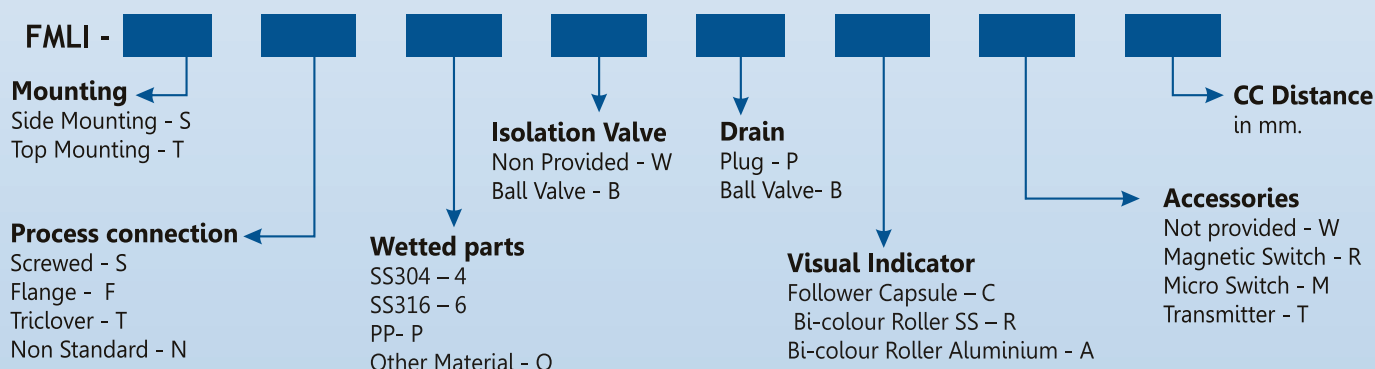
Enclosure : Weather proof / Flame proof



## Specifications

<b>Mounting Type</b>	: Top / Side
<b>Indicator length ( c/c distance)</b>	: 300mm to 6000mm
<b>Indicator System</b>	: Bi-colour Flapper/Follower Capsule
<b>Housing for Indicator</b>	: SS Housing for SS Flapper, Aluminium Housing for Aluminium Flapper Follower Capsule-Glass Tube in Aluminium / SS Channel
<b>MOC of Bi-Colour Flapper</b>	: SS 304 / Aluminium
<b>Float Chamber</b>	: 50NB Non Magnetic Standard Pipe (Other size on request)
<b>MOC of Float Chamber</b>	: SS 304, SS 316, SS 316L, PP, PVDF, Others on request
<b>Float</b>	: SS 304, SS 316, SS 316L, PP, PVDF, Others on request
<b>Scale</b>	: Aluminium / SS / Acrylic engraved in mm
<b>Process Connection</b>	: Flange / Thread/ Triclover / Union in various sizes
<b>Vent</b>	: ½" Plugged / ½" Ball Valve
<b>Drain</b>	: ½" Plugged / ½" Ball Valve
<b>Maximum Temperature</b>	: 70°C for PP, 150°C for SS, (350°C) Higher temperature on request
<b>Maximum pressure</b>	: 1kg/cm <sup>2</sup> for PP, 10 kg/cm <sup>2</sup> for SS, (150kg/cm <sup>2</sup> ) More pressure on request.

## Ordering Information



## Accessories Option

Not provided	<b>W</b>
<b>Magnetic Reed Switch</b>	<b>R</b>
24 V DC 700mA reed switch housing	<ul style="list-style-type: none"> <li>• Epoxy potted - A</li> <li>• Aluminium die cast weatherproof - B</li> <li>• Aluminium die cast Ex-proof suitable for group IIA, IIB - C</li> </ul>
<b>Micro Switch</b>	<b>M</b>
Snap acting 1 SPDT Micro Switch 5A, 230VAC	<ul style="list-style-type: none"> <li>• Aluminium die cast weatherproof - B</li> <li>• Aluminium die cast Ex-proof suitable for group IIA, IIB - C</li> </ul>
No. of switches	• 1 to 4

<b>Transmitter</b>	<b>T</b>
A. Enclosure	<ul style="list-style-type: none"> <li>• Weather proof - WP</li> <li>• Explosion proof - EP</li> <li>• Special enclosure - SP T</li> </ul>
B. Resolution	<ul style="list-style-type: none"> <li>• 5 mm - 5</li> <li>• 10 mm - 10</li> </ul>
C. Output	<ul style="list-style-type: none"> <li>• 2 wire 4-20mA - I</li> <li>• 3 wire 0-10 V - V</li> <li>RS 485 - R</li> </ul>

**Note :** If you select any accessories kindly mention along with ordering information

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An ISO 9001:2008  
Company