

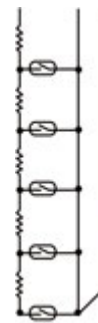
## Principle of Operation:

Mahalaxmi make level transmitter works on the principle of reed resistance/permanent magnet basis. Reed-switches function like the center arm (as shown in fig. 1) of a potentiometer. As per liquid level float moves up or down, magnet inside the float operates the reed-switches thereby causing a change in resistance value. Change in the resistance is measured by the electronics unit and conditioned as a current output of 4 to 20 mA. Signal conditioner is head mounted and of 2-wire loop powered suitable for 12 to 24 VDC giving output of 4 to 20 mA.

## Technical Specification: Our Standard Product

Model **(VMT-04-F65-AW)** , **(VMT-04-F92-AW)** top mounted magnetic reed/resistance cascade type loop powered 2 wire level transmitter. Process Connection flange 78 or 120 mm diameter with 4 bolt holes of 6mm or 14 mm dia on 65 or 92 mm PCD respectively. Wetted parts flange & float stopper in SS 304. Float material SS 316L and diameter 41, 53 or 68 mm. Operating pressure 10kg/sq.cm and Temperature 125 deg.C. Maximum.

<b>Specific Gravity</b>	Suitable Down to 0.7 (Upto 0.5 optional)
<b>Range</b>	0-150 mm upto 0-3000 mm.
<b>Resolution</b>	Better than $\pm 10$ mm.
<b>Span Suppression</b>	Max. 25% of Span
<b>Zero Elevation</b>	Max. 25% of Span
<b>Excitation Voltage</b>	12 - 36 V DC
<b>Loop Resistance</b>	Max. 600 OHMs.



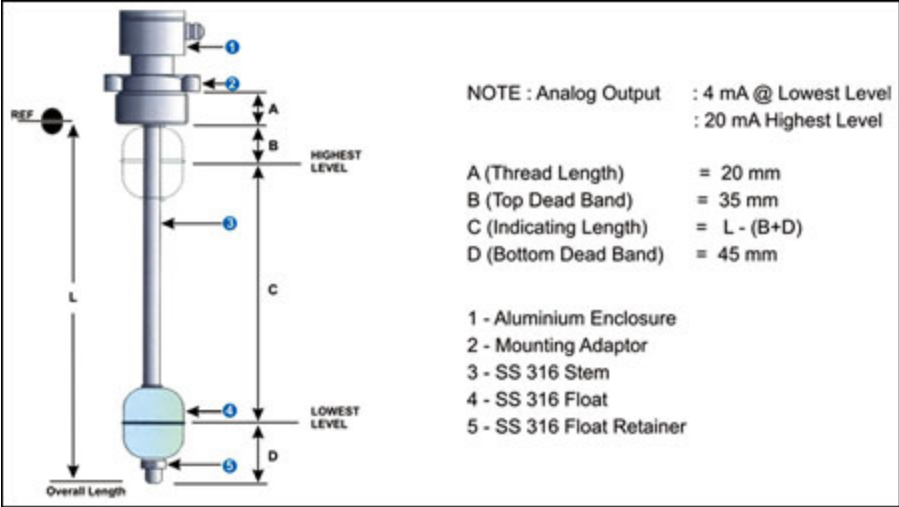
**FIG 1**

## Salient Features:

- Reedswitches are hermetically sealed-in glass under an inert gas and therefore protected from contamination.
- Reedswitches used by us are suitable for maximum working voltage of 150 VDC and current 1 Ampere. But in our circuitry they are subjected to maximum of 3 VDC and current 1 mA in case of resistance output and maximum of 24 VDC and 20 mA when used in conjunction with a signal conditioner for current output. This ensures long life of the product.
- Reedswitches are UL approved and ISO certified for quality management.
- Operating temperature range of reedswitches are -40 deg. C. to 125 deg. C.
- Reed Switches are enclosed in a moulded glass filled nylon capsule and therefore protected from mechanical shocks or damage. Moreover the stainless steel float-guide pipe, containing the PCB of reedswitches and resistances, is solidly filled with MgO Powder. Hence this is suitable for sub zero temperatures.
- Reedswitches are protected against mechanical damage and contact corrosion & vibration.
- Since an outer protection tube is provided (for applications like LPG, where external cage is not possible) the reedswitch sensor assembly can be replaced without disturbing the process.
- Since the float is of 200mm dia with specific gravity -0.4 (for LPG) it will have higher buoyant force. For standard applications float shall be of 48 mm Or 68 mm in diameter.
- Above all float is the only moving part. No wear and tear.

**Application:**

- Applicable in environment with high temp., high pressure, strong acid, strong alkaline and hazardous locations.
- Multiple applications for textile dyeing, sewage water processing, power generating, boiler and petrochemical industries.



## LED & DIGITAL LEVEL INDICATORS



<b>LED Type Level Indicators</b>	<b>Model LLI-10 &amp; LLI -12</b>
<b>Overall Dimension</b>	48 x 96 x 60 or 110 mm
<b>Mains Power Supply</b>	230 VAC /12 or 24 VDC
<b>Input Signal</b>	3-wire-Resistance from Transmitter (Resistance Value depends on Range)
<b>Display</b>	3 mm dia LED-11 nos- 10 for Level and 1 for Power On.
<b>Range</b>	0 to 100%, in 10 equal steps of Height i.e, Millimetres or Litres
<b>Mountin</b>	Flush Panel or Projection



<b>Level Indicator</b>	<b>Model DPI-480</b>
<b>Overall Dimension</b>	48 x 96 x 60 or 110 mm
<b>Mains Power Supply</b>	230 VAC / 24 VDC
<b>Input Signal</b>	4 to 20 mA
<b>Loop Supply</b>	24VDC - Built in
<b>Display</b>	0.5" Seven Segment LED, 3 1/2" or 4 digits.
<b>Unit of Display</b>	0-100%, Millimetres, Litres as required
<b>Mounting</b>	Flush Panel



<b>Level Indicator</b>	<b>Model DPI-48</b>
<b>Overall Dimension</b>	48 x 96 x 60 or 110 mm
<b>Mains Power Supply</b>	230 VAC / 24 VDC
<b>Input Signal</b>	Resistance
<b>Display</b>	0.5" Seven Segment LED, 3 1/2" or 4 digits.
<b>Unit of Display</b>	Millimetre i.e., Height of Liquid column.
<b>Mounting</b>	Flush Panel



<b>Level Indicating Controller</b>	<b>Model LC 504/2F</b>
<b>Overall Dimension</b>	96 x 96 x 110 mm
<b>Mains Power Supply</b>	230 VAC /12 or 24 VDC
<b>Input Signal</b>	4 to 20 mA
<b>Display</b>	0.5", Seven Segment LED, 3 1/2" or 4 digits.
<b>Unit of Display</b>	0-100% /Millimetres / Litres
<b>No of Set Points</b>	2
<b>Set Point adjustment</b>	Push Button / Potentiometer
<b>Output</b>	2 change over Relay contacts-rated 5 Amps at 230 VAC resistive.
<b>Mounting</b>	Flush Panel