

**MLG28**  
MAGNETIC TYPE LIQUID-LEVEL  
INDICATOR

**iSOLV**

INNOVATIVE SOLUTIONS



analytical

bulk flow

distance

flow

**LEVEL**

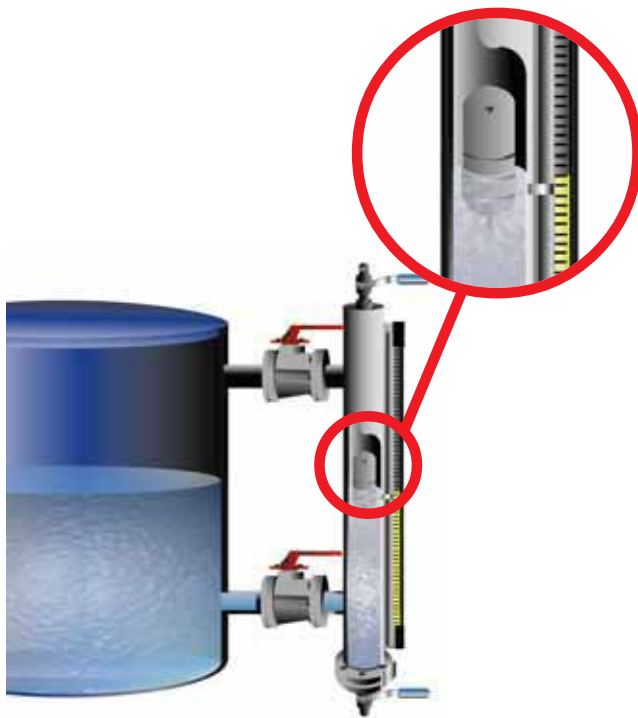
pressure

temperature

industrial  
communication

**FLOTECH**

PROCESS CONTROL & INSTRUMENTATION



## MLG28

### Magnetic Type Liquid-Level Indicator

**Accurate, Reliable and Stable** Level Indicator

#### Measuring Principle

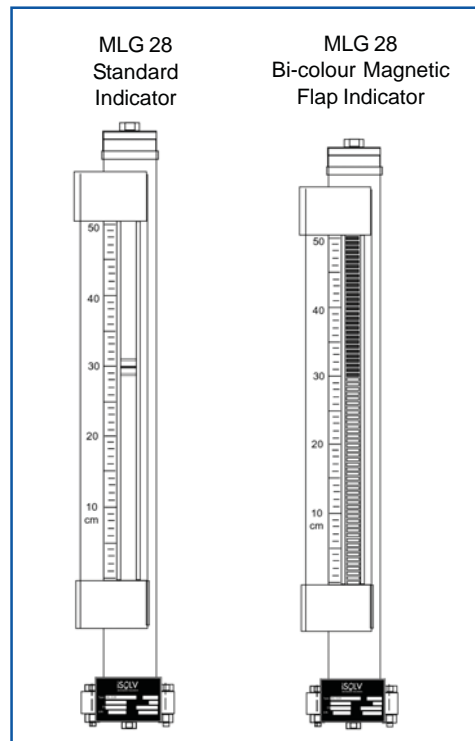
Based on a single float and magnetic flaps or float indicator. The measuring tube that carries a float is installed like an external chamber to the side of a tank.

The magnet inside the float actuates the magnetic flaps or float indicator according to change in liquid level in the measuring tube.

The float or column of yellow coloured flaps indicates the liquid level in the tank which corresponds to the liquid level in the measuring tube.

#### Applications

- Rugged construction for the roughest industrial applications. These indicators perform in high temperature, high pressure, and many other applications requiring robust and high-quality design
- Level measurement for low and medium height vessel or tank.
- Measurement unaffected by presence of mechanical agitator or color of the fluid.
- Can be used for interface level measurement. For example oil/water and foam/liquid.



**Chemical**

Pharmaceutical

Pulp and paper

**Water/wastewater**

Oil & Gas

**Food and beverage**

## Features

- Different wetted part materials are available. For example Stainless Steel, PTFE and PVC
- Little or no maintenance required and less risk of leakage than a sight glass
- Add-on switches for alarms and level control
- Add-on 4-20mA transmitter for continuous level control or remote indication
- Level gauge with 4-20mA transmitter suitable for temperature up to 200°C with special heat insulated cover on the measuring tube (see page 5)

## Instrument Versions

Version	Flange	Gasket	Measuring Tube	Maximum Allowable Operating Pressure**	Maximum Fluid Temperature
MLG28/SS	SS 316L	PTFE	SS 316 L	40 bar	200°C
MLG28/PTFE	SS304L - with PTFE Liner	PTFE	SS304L - with PTFE Liner	40 bar	200°C
MLG28/PVC	PVC	PTFE	PVC	6 bar	40°C

\*\*Depending on material and flange pressure selection

## Specifications

Accuracy	± 5 mm of actual level
Maximum Fluid Viscosity	5000 cP
Maximum Allowable Operating Pressure	40 bar - depend on material, flange pressure rating (higher pressure on request)
Measuring Range	0.3 to 6m (for SS and PTFE version) 0.3 to 3m (for PVC version)
Maximum Fluid Temperature	Standard: -20°C to +200°C Option: -20°C to +400°C
Minimum Fluid Density (Float)	≤0.55 kg/l (SS/PTFE) , ≤0.85 kg/l (PVC)
Process Connection	DN15...50 PN 16/40; 1/2" ...2" ANSI 150/300lbs, others on request
Float Material	316 SS, PVC, PTFE, Titanium
Gasket Material	PTFE (standard), Steel*
Flange Material	316 SS, PVC
Indicator Type	Bi-flap or float* indicator
Mounting Position	Vertical - side/side, top/bottom and others on request
Ingress Protection (Indicator)	IP 68 (Equivalent to NEMA 6)
Optional Features	Limit switch (bi-stable switch) Remote signal transmitter (4-20mA) Isolation valves Vent / drain valves

\*Selection for operating temperature above 200°C

## Limit Switch (Option)

For liquid level control, level switch can be easily retrofitted onto measuring tube and are adjustable over the whole measuring range. These limit switches are bi-stable contact that are actuated directly by the magnets in the float. The switching state is maintained until the magnet system again actuates the limit switch in the opposite direction.

### Model - LS18MC

Maximum Switching Capacity	1000 VA (Isolation switching) 4A, 250V (Amplifier required)
Ambient Temperature	-20°C to 120°C
Process Temperature	<250°C
Protection Category	IP 65 (NEMA 4/4x)
Cable Entry	PG 13.5
Housing Material	Polycarbonate
Weight	130g



### Model - BRX

Maximum Switching Capacity	20 VA 1.5 A, 250 VAC
Ambient Temperature	-20°C...60°C
Process Temperature	<200°C
Protection Category	IP 65 (NEMA 4/4x)
Cable Entry	M 25 x 1.5
Housing Material	Aluminum (Ex-proof with <b>NEPSI</b> approval EEx d IIC T6)
Weight	1200g



## Remote Signal Transmitter - RST (Option)

The MLG 28 can be retrofitted with an electrical remote signal transmitter.

The transmitter consists of a tube that is clamped onto the measuring tube and a resistance to current converter. Internally, the tube is fitted with reed contacts and a series of resistors. The magnet in the float of the MLG 28 actuates the reed switches according to the liquid level and thus changes the value of the resistor chain as a function of the liquid level.

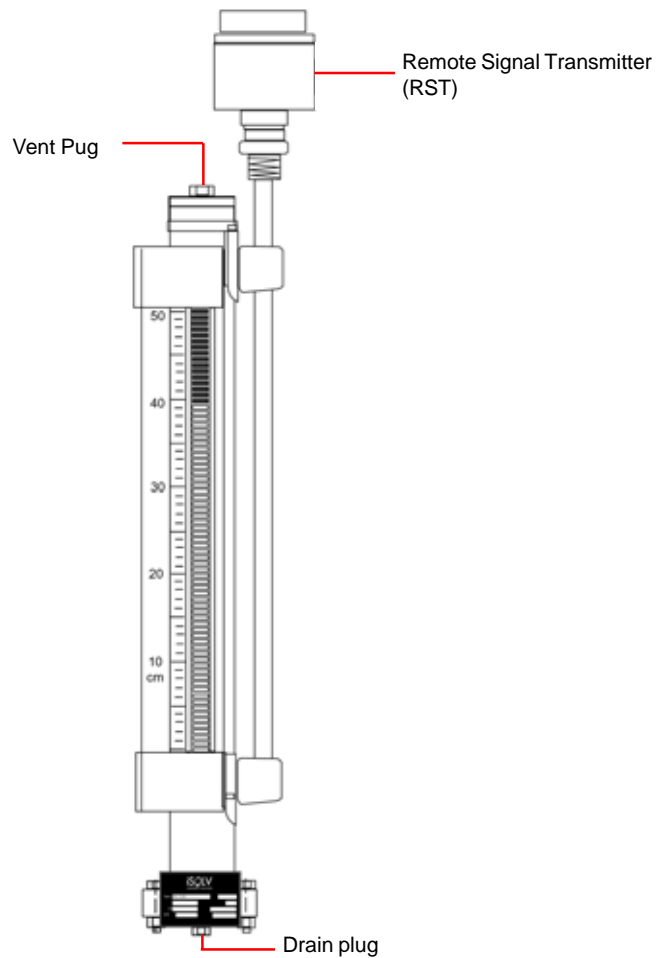
Resistance is converted to a standard 4-20mA current output.

### Model - RST

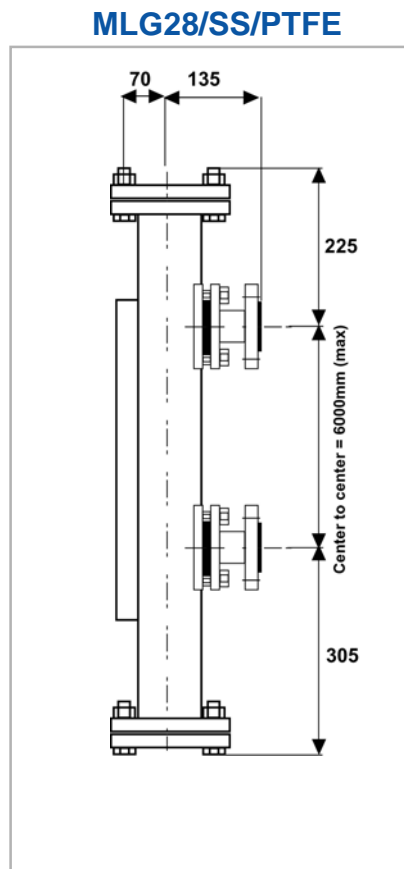
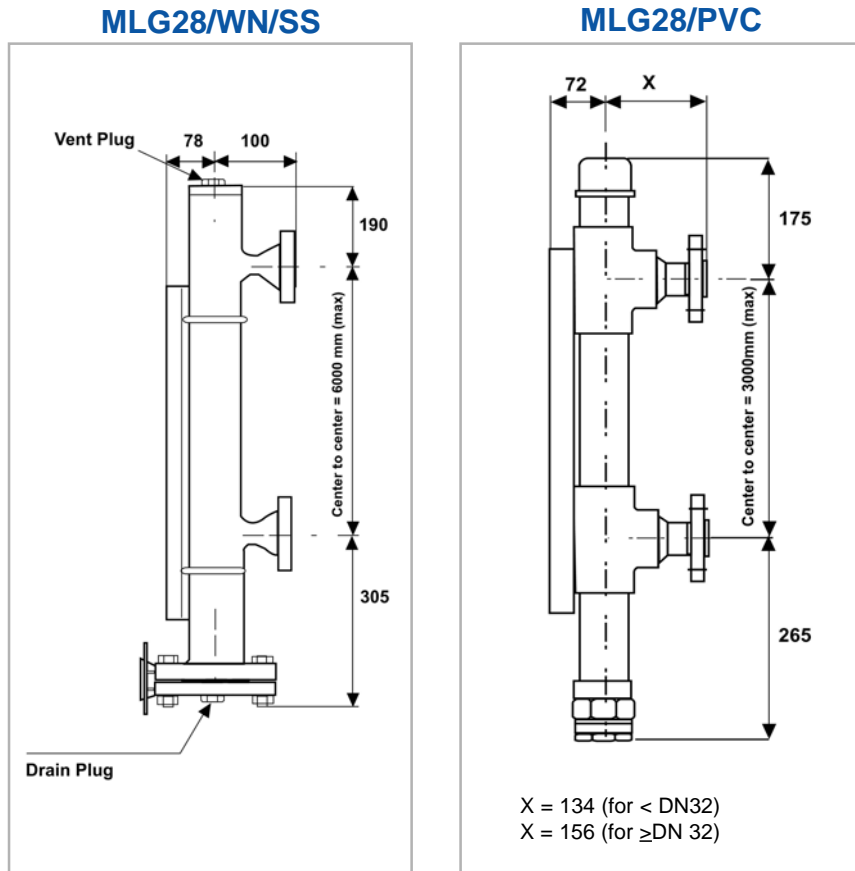
Maximum Length	6000mm
Accuracy	± 10mm
Maximum Ambient Temperature	60°C
Current Output	4 to 20 mA (2 wire)
Power Supply	24 VDC
Maximum Load	500 Ohms
Process Temperature	-20°C to +200°C



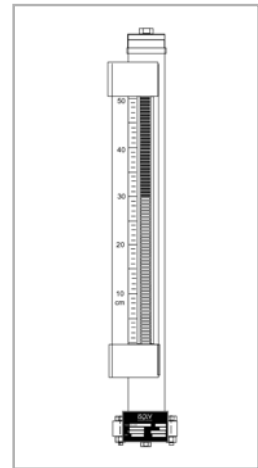
MLG28 with special heat insulation measuring tube



Dimensions in mm

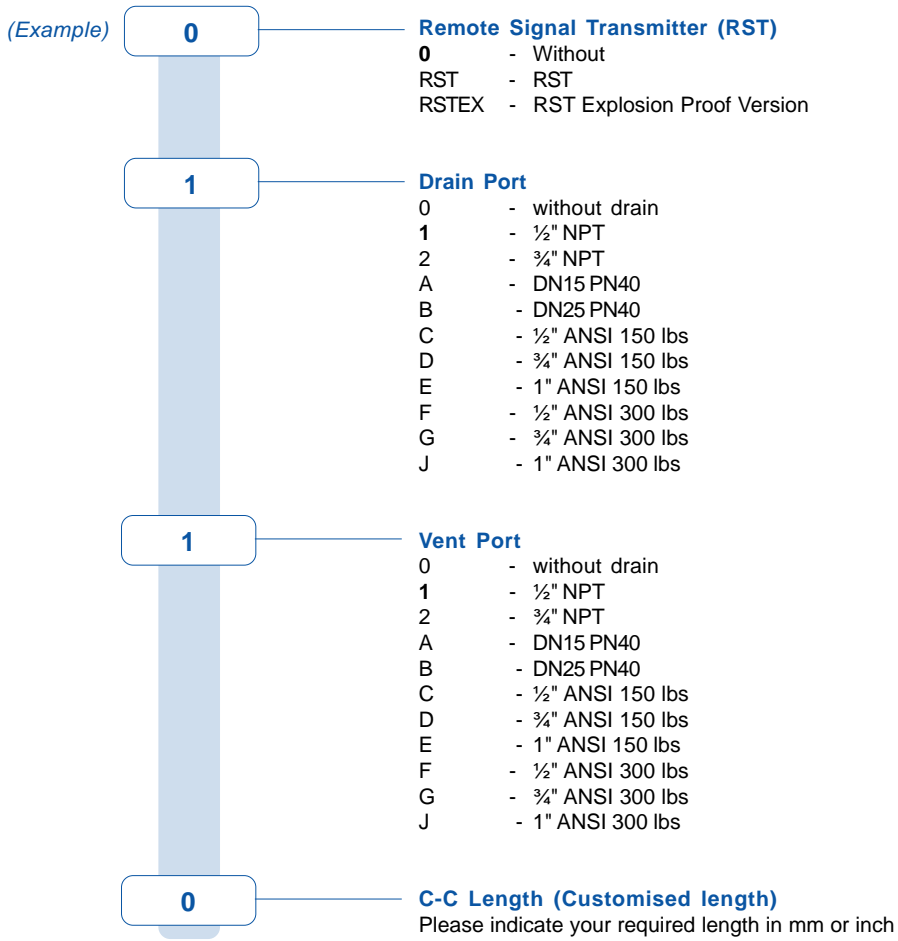


<p>(Example) <b>MLG28</b></p> <p><b>PVC</b></p> <p><b>G</b></p> <p><b>B</b></p> <p><b>2</b></p> <p><b>S5</b></p>	<p><b>MLG28</b></p> <p><b>Version</b></p> <p>SS - SS (Standard)  <b>PVC</b> - PVC  PT - PTFE lined &amp; SS Float with PTFE coating  SST - Stainless Steel and Titanium Float  SSP - Stainless steel &amp; SS Float with PTFE coating</p> <p><b>Process Connection Type &amp; Size</b></p> <p>F - DN15 PN40, WN flange  <b>G</b> - DN20 PN40, WN flange  H - DN25 PN40, WN flange  V - DN32 PN40 WN flange  I - DN40 PN40, WN flange  J - DN50 PN40, WN flange  L - ¾" ANSI 150 lbs, WN flange  M - 1" ANSI 150 lbs, WN flange  N - 1½" ANSI 150 lbs, WN flange  O - 2" ANSI 150 lbs, WN flange  P - ½" ANSI 300 lbs, WN flange  Q - ¾" ANSI 300 lbs, WN flange  R - 1" ANSI 300 lbs, WN flange  S - 1-½" ANSI 300 lbs, WN flange  T - 2" ANSI 300 lbs, WN flange  W - 2" ANSI 600 lbs, WN flange  X - ½" ANSI 600 lbs, WN flange  Y - ¾" ANSI 600 lbs, WN flange  Z - 1" ANSI 600 lbs, WN flange  U - 50A JIS 10K</p> <p><b>Indication</b></p> <p><b>B</b> - Bi-Colour Flap Graduation (m/cm)  BP - Bi-Colour Flap Graduation (% percentage)  BF - Bi-Colour Flap Graduation (inch/feet)  BV - Bi-Colour Flap Graduation (volume)  F - Float Indicator Graduation (m/cm)  FP - Float Indicator Graduation (% percentage)  FF - Float Indicator Graduation (inch/feet)  FV - Float Indicator Graduation (volume)</p> <p><b>Gasket</b></p> <p>0 - PTFE (Standard)  <b>2</b> - Steel Gasket - For High Temp Application (up to 400 °C)  Other upon request</p> <p><b>Limit Switch</b></p> <p>0 - Without  S1 - With Limit Switch (No.) (LS18MC)  S2 - With 2 Limit Switches (No.) (LS18MC)  S3 - With 3 Limit Switches (No.) (LS18MC)  S4 - With 4 Limit Switches (No.) (LS18MC)  <b>S5</b> - With 5 Limit Switches (No.) (LS18MC)  S1 EX - Explosion Proof Limit Switch (BRX)  S2 EX - With 2 Explosion Proof Limit Switch (BRX)  S3 EX - With 3 Explosion Proof Limit Switch (BRX)  S4 EX - With 4 Explosion Proof Limit Switch (BRX)  S5 EX - With 5 Explosion Proof Limit Switch (BRX)</p>
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MLG28

Continue to the next page



**Ordering Code: (Example)**

MLG28	PVC	G	B	2	S5	0	1	1	0
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PROCESS CONTROL & INSTRUMENTATION

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