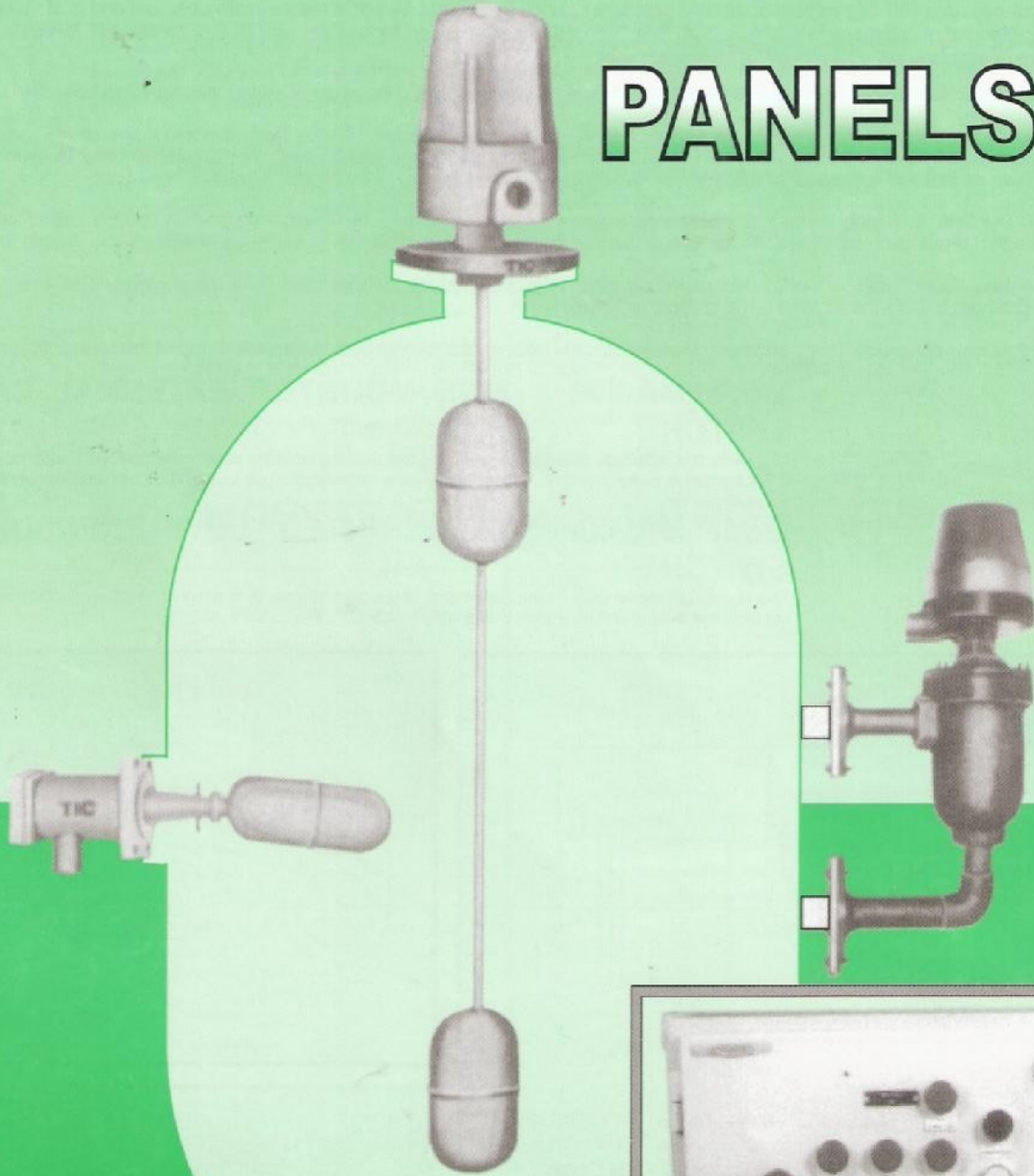


TELETROL

LEVEL SWITCHES & PANELS



**FOR PROCESS
INDUSTRIES**



CONTROL PANEL

Model MA 100 / MA 200 SIDE MOUNTED LEVEL SWITCH



MAGTROL Level switches are suitable for fitting into tanks and pressure vessels for indicating and or controlling the level under atmospheric, vacuum and pressure conditions, Magnetic switches are snap action and glandless and eliminates any chance of leakage. These are suitable for temperatures upto 400 degree centigrade and pressure upto 40 kg per cm² Switch is magnetically operated and is of micro, Mercury or air vaive type. Material of construction is of S.S. 304, S.S. 316 or bronze. Mountion flanges are of C.S., S.S. Or bronze. Switch housing is of cast aluminium or stainless steel flame - proof / weather-proof.

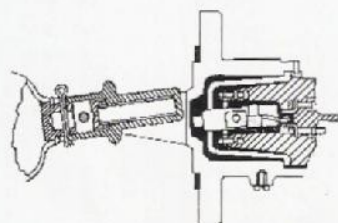
Appilication include low/high level alarm, pump control, motorised valve control, diaphragm or piston, control valve operation.

These switches are normally mounted into the sides of tanks or pressure vessels. These level switches are of low differential and are normally used for single level control. They can be mounted externally through isolating valves for application like Boilers, Reaction-Kettles etc. Which can be isolated for regular servicing

Operation: The float assembly carries a permanent magnet which is opposed by a similar magnet in switch assembly. The adjacent poles of magnet repel each other through the wall of the switch housing. This principle gives snap action of the switch contacts.

The standard level switch can be modified for providing adjustable differentials by extended float modification. The extension rod can be increased in length to 0.5 mtrs for differential of upto 300mm.

Submerged models of level switches are recommended in case level switch cannot be fitted to side or top of the tank or for underground tanks.



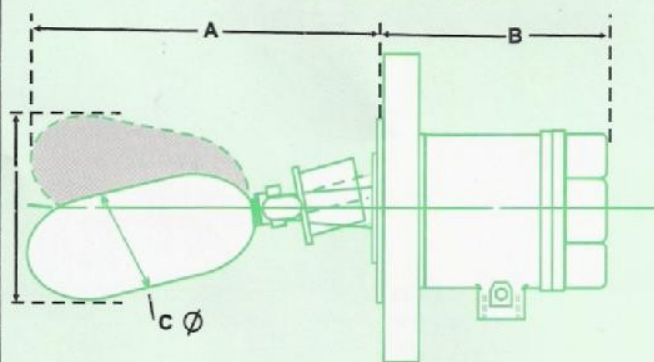
Model MA 300 : SIDE MOUNTED EXTERNAL CAGE LEVEL SWITCH

This switch is externally mounted by providing two isolating valves and the level switch can be attended to even when the tank is under pressure. This switch is ideal for installation on boilers and chambers are constructed as per indian boiler regulation.

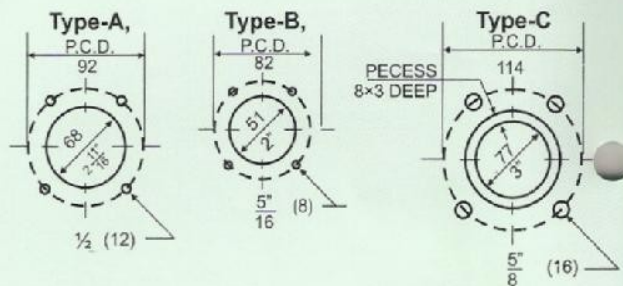
Model MA 400 SIDE MOUNTED LOW PRESSURE LEVEL SWITCH

This is a simple model wherein the reed switch is operated directly by a magnet installed in float assembly. Single N.O. contacts are available. This switch is available in S.S. P.P., PVC. HDPE, etc.

Section showing operation of swith.



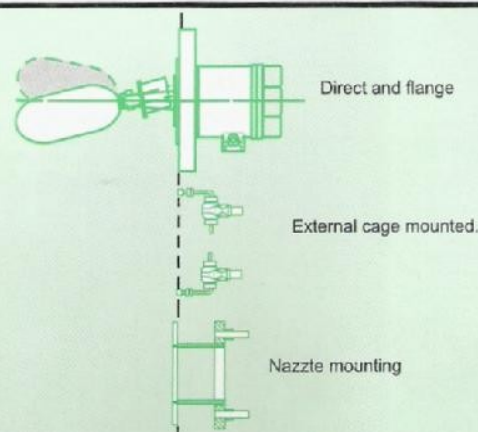
Mounting flange details



	STANDARD (MA 100)	MINIATURE (MA 120)	SPECIAL FOR LOW GRAVITY (MA 130)
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*Differential	13mm	6mm	20mm
min. Sp. gr.	0.7	0.95	0.5
max. pr.	600 P.S.I.G.	150 P.S.I.G.	150 P.S.I.G.
Max. Temp	400°C	200°C	200°C
A	248 (9 3/4")	127 (5")	300 (12")
B	125 (5")	100 (4")	125 (5")
C	63.5 (2 1/2")	45 (1 3/4")	75 (2 15/16")
D	111 (4 3/8")	66 (2 5/8")	120 (4 3/4")
Mounting flange type	A	B	C

* Differential can be adjusted by providing longer connecting rod.



Model MB 100 EXTERNAL CAGE VERTICAL LEVEL SWITCH



This is one of the most widely specified controls. This is designed for control of specific gravity 0.4 above. This level switch in its various models (MB100, 200, 300, 400) is used at working pressure ranging from vacuum to 3000 psi. This switch is externally mounted and can be piped anywhere near the tank or a distance from it. They are easy to install. High and low levels are indicated on the outside of the switch. Fine adjustments can be made by moving the switch assembly up or down on the enclosing tube, assuring exact liquid level control.

Several units can also be ganged for multi-level control. Cooling fins can be provided for higher temperatures. Explosion-proof housing is provided for the switch.

Operation: The float in the chamber responds to the changing liquid level, raising or lowering the magnetic piston inside the enclosing tube. Magnetic proximity switch or mercury switch is fastened to the external of enclosing switch and can be adjusted and locked at the desired actuating level. Then (depending upon the application) the magnetic piston attracts or releases the switch.

Applications: This switch is designed for external installation on receivers, scrubbers, storage vessels and for alarms, solenoid valves, pumps, and pneumatic devices and all low specific gravity (min. 0.4) applications.

Model MB 400 :

This model is similar to the above models except that it is used for higher differential by providing two switch assemblies on the enclosing tube operated by a single float or two switch assemblies installed on the enclosing tube operated by double tandem mounted float. A single switch can be used for both high and low level with large differential.

TOP MOUNTED LEVEL CONTROLLERS

Model MC 100 : TOP MOUNTED SINGLE LEVEL CONTROL SWITCH

This model is designed for vertical mounting at the top of the vessel. Connection is through screwed or flanged ends. And is suitable for liquids with specific gravity of 0.5 to 1.4. The switch is operated by magnetic piston which actuates the magnetic proximity switch. This switch is normally used for single level control and suitable for high immersion depths upto one mtr.



Model Mc 120 : TOP MOUNTED MULTI LEVEL CONTROL SWITCH

This level control switch puts the high and low level limit control in one compact connection. This level control switch employs two switches and two float mechanisms to indicate high and low level and the thereby allowing separate switch action. The tandem float assemblies are provided for independent switch actuation.



Model MC 200 : TOP MOUNTED CENTRE GUIDED REED CONTROL SWITCH :

The float is guided by central tube. The float carries a magnet which moves up and down the central guide and actuates a reed switch provided at intervals enclosed in the central tube. The float diameter is approx. 62 mm. The central guide tube diameter is 20 mm.

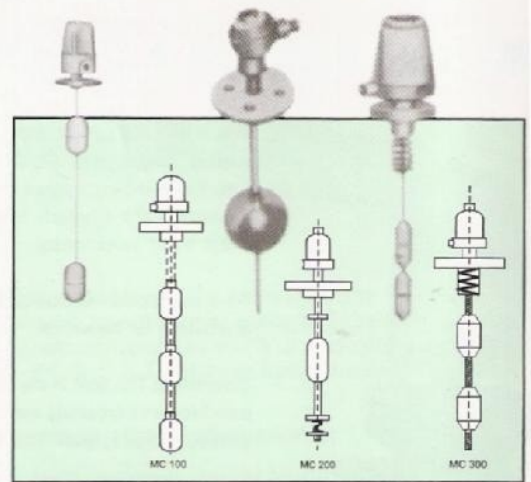
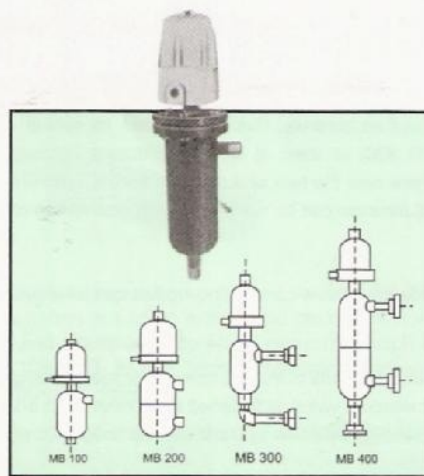
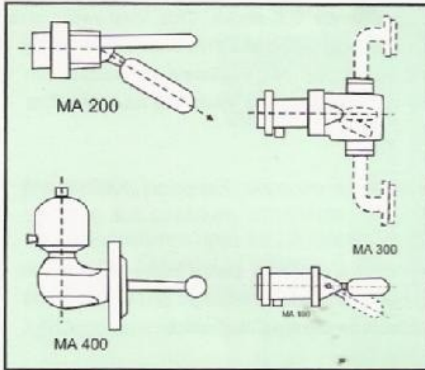


Model MC 300 : TOP MOUNTED FREE GRAVITY DISPLACER TYPE

This top mounted level switch is operated by S. S. or porcelain displacers which are suspended by a wire rope. The displacers can be mounted on the wire rope at different intervals. The rising liquid on reaching the displacer creates an upward buoyancy force which releases spring loaded magnetic piston in the enclosing tube. This actuates one or more proximity switches. This is ideal for underground tanks with very high depths. One or more switch assemblies can be provided for single or multi level control.

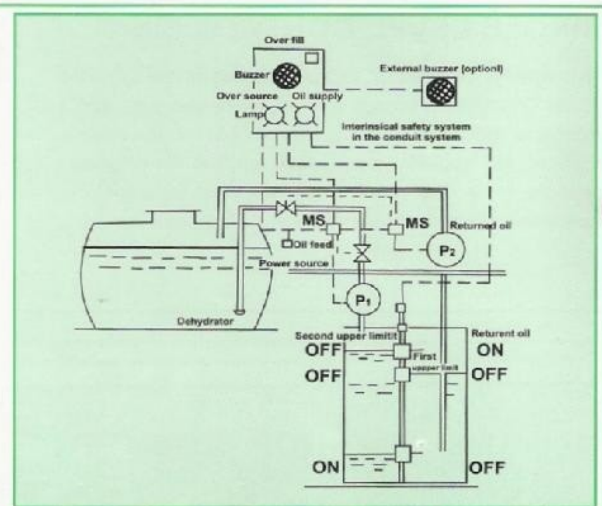
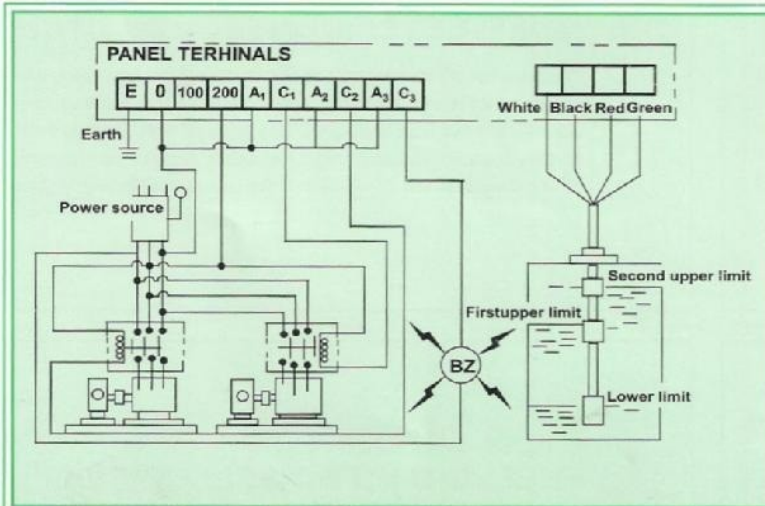


SELECTION GUIDE



MODEL	TYPE	CONNECTION	DIFFERENTIAL	FLOATS/ DISPLACER	SWITCH	FLOAT GUIDE
MA 100	Internal	Side	Low	Single	Mercury/ Micro Air valve	Not reqd
MA 200	Internal	Side	Low	Single	Road	Not reqd
MA 300	External	Side	Low	Single	Mercury/ Micro Air valve	Provided
MA 400	Internal	Side	Low	Single	-Do-	Not reqd
MB 100	External	Side & Bottom	Low	Single	Mercury Micro Air valve	Provided
MB 200	External	Side	Low	Single	-Do-	Provided
MB 300	External	Side flanged	Low	Single	-Do-	Provided
MB 400	External	Side flanged	High	Single/double	-Do-	Provided
MC 100	Internal	Top	Low	Single	-Do-	Free gravity displacer
MC120	Internal	Top	High	Multiple	-Do-	-Do-
MC 200	Internal	Top	High	Single/double	Reed	Free gravity displacer
MC300	Internal	Top	High	Multiple	Mercury/ Micro Air valve	Free gravity displacer

CONTROL PANEL : Provided with Indication Lamps for HL/VHL/LL/VLL, Power on/off, Pump on/off; Automatic control of pump/s with manual override; alarm buzzer or external buzzer with Acknowledge & Reset button; Automatic operation and control of Solenoid Valves, Control Valves, Flow Switches, etc.



OUR OTHER PRODUCTS: Level Gauges, level Switch, Flow Switches Orifice Plates, Monometer, Rotameters, Gate-Globe-Check Valves, Flame Arrestors, Flush Bottom Valves Instrumentation Valves & Manifolds, Safety Valves, Breather Valves Strainers, & Filters, etc.