

Level
Regulating
Valve type

Type LCD2 • LCD3 Level Regulating Valve

For
liquid



Standard direction of assembly

Features

- Float and valve body connect each other directly.
Easy to use and everlasting due to simple construction which is installed tank directly.
- Control the level correctly and quickly
- Double seated valve allows superior characteristics
- Inspection hole allows to inspect internal without taking off the valve.

Specifications

Type	Internal float		External float	
Model	LCD2		LCD3	
Flow	Outflow	Inflow	Outflow	Inflow
Size	25 – 100			
Inlet max. pressure	1.0MPa			
Max. temperature	185°C			
Material	Body, casing	Cast iron		
	Valve disc, seat	Stainless steel		
	Float	Stainless steel		
Viscosity	200mm ² /s			
Specific gravity	Min. 0.9			
Connection	Flanged JIS10KFF			
Min.controllable flow	Approx. 10% of rated flow			
Seat leakage	0.5% of rated flow or less			

Note : Stainless cast steel body is available on request

Cv values

Size	25	40	50	65	80	100
Max. differential pressure (MPa)	0.9	0.7	0.6	0.45	0.4	0.3
Cv	6	10	16	23	35	50

Dimensions and weights

(mm, kg)

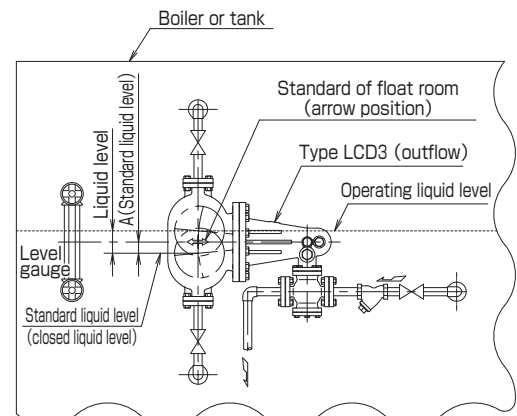
Size	25	40	50	65	80	100
L	180	195	200	220	250	310
H ₁	107	117	117	122	145	160
H ₂	207	217	217	222	244	259
Weight	LCD2	48	52	52	60	135
	LCD3	88	95	95	100	175

Outflow type : The valve will open by the level rising.

Liquid level is controlled by discharging.

Inflow type : The valve will open by the level falling.
Liquid level is controlled by supplying.

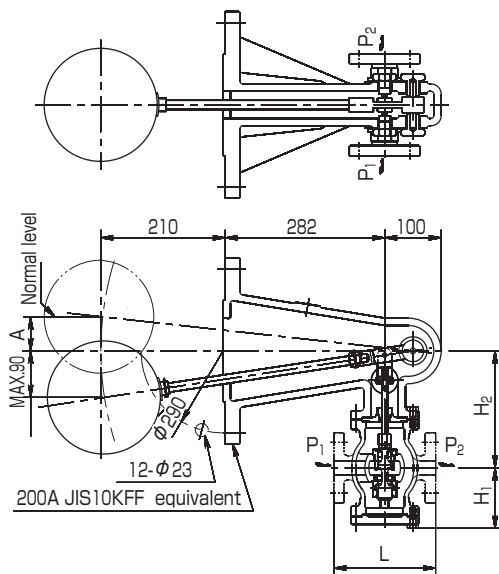
Installation example



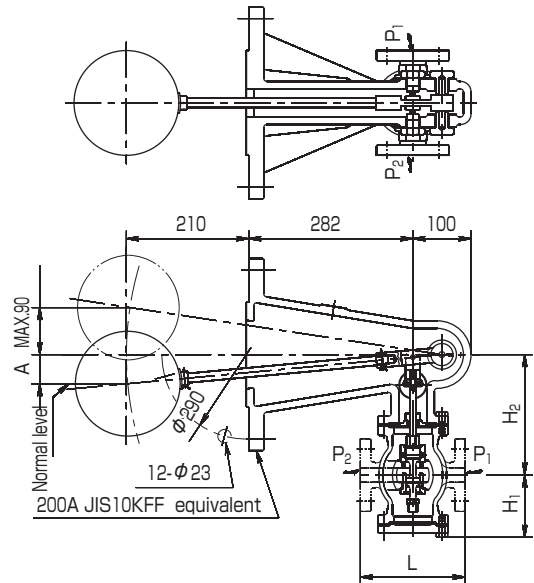
Remark : Direction between the valve body and the float room is different from the standard (upper photograph).

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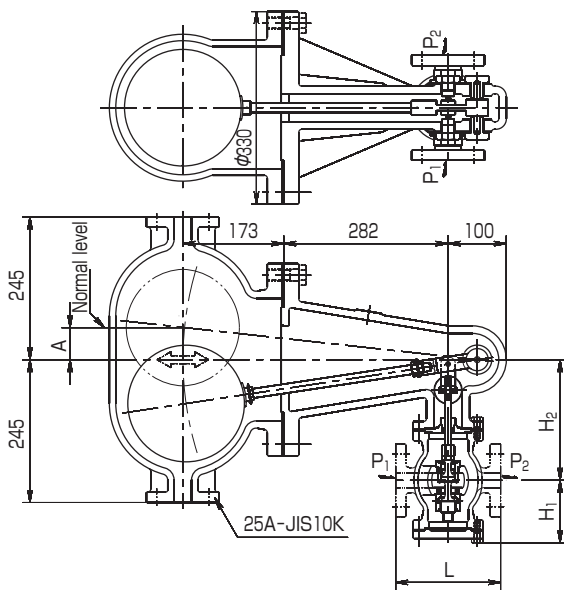
Construction



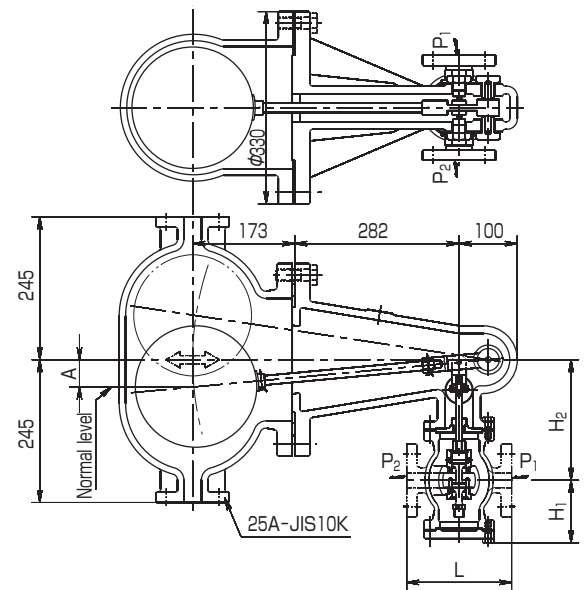
LCD2 (Internal float : Inflow, Push-down open)



LCD2 (Internal float : Outflow, Push-down close)



LCD3 (External float : Inflow, Push-down open)



LCD3 (External float : Outflow, Push-down close)

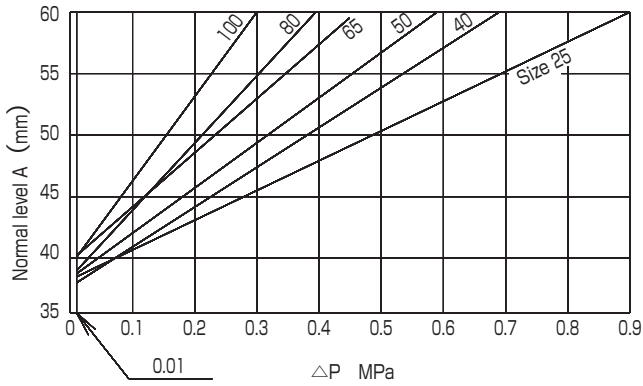
Operation

1. Level regulating valve consist of float and casing to detect liquid level, lever frame work to transmit float movement to valve disc and body to control the flow.
2. Push-down close valve is applied for outflow and push-down open valve is applied for inflow.
3. In case of outflow, rising liquid level make float and lever to rise up, discharge liquid by valve opening and it will make liquid level fall down. Falling level make valve to close and decrease discharge flow.
4. In case of inflow, falling liquid level make float and lever to fall down, supply liquid by valve opening and it will make liquid level rise up. Rising level make valve to close and decrease supply flow.

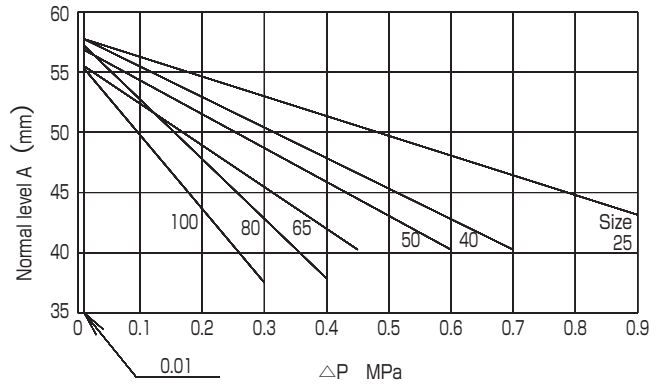
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Normal level A

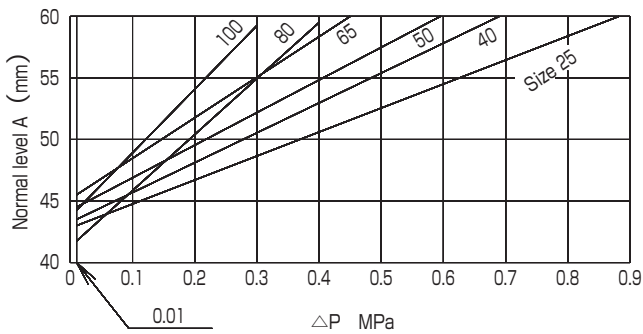
Following charts show the required level A against pressure difference.



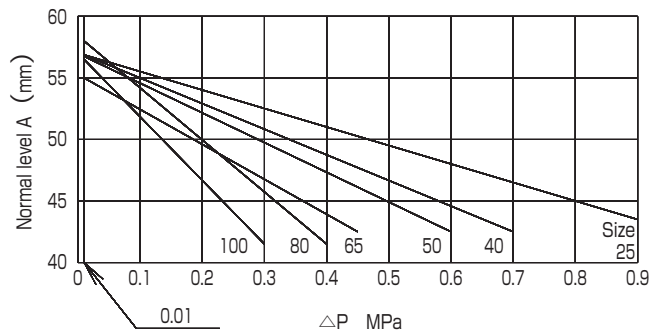
LCD2 (Internal float : Inflow, Push-down open)



LCD2 (Internal float : Outflow, Push-down close)



LCD3 (External float : Inflow, Push-down open)



LCD3 (External float : Outflow, Push-down close)

Sizing

1. Please select suitable size by Cv calculation.
2. Excess pressure difference prevent normal operation.
3. Each construction and part except assembling work are same for both inflow type and outflow type.

Inquiry

Please specify followings at inquiry.

1. Inflow or outflow
2. Valve size or piping size
3. Fluid information : Name, inlet pressure, temperature, flow (max., nor., min.), viscosity
4. Max. allowable pressure drop of valve at max. flow
5. Control range and accuracy of liquid level
6. Material for fluid contact if necessary
7. Connection code
8. Others