

# Automatic Flow Control Valve



Level Control Valve/  
Modulating Float Valve



Electric Actuator Operated  
Pressure Reducing Valve



On/ Off Type  
Pressure Reducing Valve



Dual Solenoid operated  
Flow Control Valve



Electric Actuator Smart  
Control Valve.



WRAS



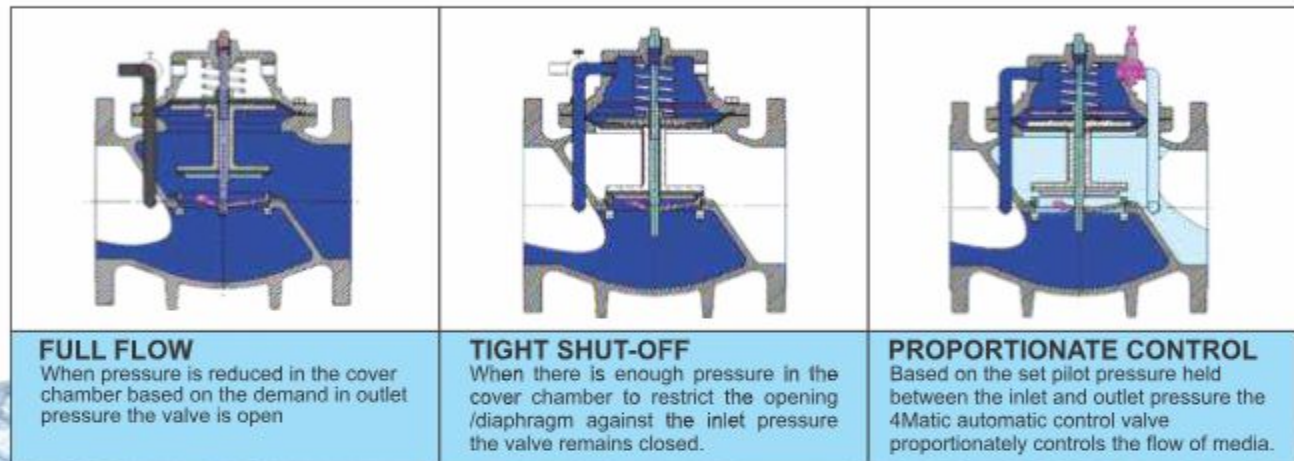
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Approved

[info@4maticvalves.com](mailto:info@4maticvalves.com)

[www.4maticvalves.com](http://www.4maticvalves.com)

## WORKING PRINCIPLE

The 4Matic Automatic Control Valve is a hydraulically operated valve. Also termed as a pressure reducing valve, this valve is used to lower/maintain pipeline pressure to a pre-set value primarily in water applications. Designed to automatically control downstream pressure the valve maintains a pre-set downstream pressure regardless of upstream pressure or fluctuation in flow. The main valve is controlled by a pilot valve. The set pressure on the pilot valve modulates the main valve to maintain the downstream pressure.



## FEATURES

- Pressure Reducing Valves are designed to automatically maintain the outlet "set pressure" (static and residual) within a close range, regardless of fluctuations in the higher pressure inlet line or varying flow rates.
- These valves may be installed in any orientation either vertically or horizontally.
- A Pilot valve provides for any outlet "set pressure", i.e., 80 to 225 psi (5.5 to 15.5 bar)
- Rated for use at a maximum pressure of 250 psi (17.2 bar)
- Designed for easy maintenance and In-line service.

## SIZE RANGE

Flanged Ends	2" to 24"
Screwed/Thread Ends	¼" to 4"

## STANDARDS (Flange Mounting)

ANSI B16.5		
150 Class	300 Class*	NPTF*
250 psi	400 psi*	400 psi*
BS 4504 British Standard		
PN 10	PN 16	BSPF*
17.2 BAR	27.5 BAR	27.5 BAR

\*Consult factory for choice of materials and high pressure requirements

## TEMPERATURE

Seat/Seal Material	Buna Nitrile	EPDM	Viton
Max Temperature (° F)	180° F	225° F	350° F
Max Temperature (° C)	80° C	110° C	180° C

## Flow Control Valve

### Pressure Reducing Valve

The 4MATIC Make Pilot Operated Pressure Reducing Valve is designed for applications where the reduction of high inlet pressures to a safe and stable outlet pressure is required. The pilot assembly reacts to changes in downstream pressure allowing the main valve to modulate between the closed and open position ensuring a constant downstream set pressure. Once the downstream pressure reaches the pilot setting, the main valve will seal shut preventing damage downstream. Pressure regulation is not dependent upon flow rate, resulting in minimal pressure loss through the valve.



### Pressure Relief Valve/PSV- Pressure Sustaining Valve

"4MATIC" Pressure Relief Valve is a pilot operated valve, designed specifically to relieve excess pressure. Pressure Relief Valve is designed to maintain constant upstream pressure within close limits. In operation, the valve is actuated by line pressure through a pilot control system, opening fast to maintain steady line pressure but closing gradually to prevent surges. The pressure-sustaining valves keep constant pressure in a line regardless of variations in inlet pressure. If the inlet pressure increases for any reason the sustaining valve keeps the outlet pressure constant and reduces hammering in the pipe line.

### On/ Off Type Pressure Reducing Valve

"4MATIC" Solenoid Control on/off type Pressure Reducing Valve is designed to provide on/off or open/close with reduction of high Inlet pressures to a safe and stable outlet pressure is required. The pilot assembly reacts to changes in downstream pressure allowing the main valve to modulate between the closed and open position ensuring a constant downstream set pressure. This valve can be control with a PLC Panel and is mostly used in application where remote on/off of pressure reducing valve is required.



## Smart Flow Control Valve

### Electric Actuator Smart Control Valve.

"4MATIC" Automatic Control Valve is a Globe Design Pilot Operated Diaphragm Actuated Valve. An Electric Actuator operated Ball Valve acts as a Pilot valve. These valves are designed specifically for applications where remote control of valve function is preferred. They function as an On/Off valve and as they are pilot operated they Open and Close in Seconds. This Valve Helps the User to On/ Off the valve with PLC panel.



### Dual Solenoid operated Flow Control Valve

"4MATIC" Dual Solenoid operated Flow Control Valve is used for applications where reduction in flow is required. In this valve two solenoid valves are used as pilot valves to control Flow and Pressure of the main valve. When pulse is given to the solenoid valve at the inlet, the main valve will close because the upper chamber will get filled with water and will close the diaphragm. The tension on the spring will close the main valve. When pulse given to the solenoid valve at the outlet, the main valve will gradually open, as the pressure in the upper chamber of main valve is released and the media can flow out from the main valve.



### Electric Actuator Operated Pressure Reducing Valve

"4MATIC" Automatic Control Valve is Globe Design Pilot Operated Diaphragm Actuated Valve. Electric Actuator Operated Pressure Reducing Valve Design in a way where user can adjust the pressure with the Help of PLC panel. In this Valve the Pilot is Electrical Actuator Combined with Pressure Reducing Valve. Electric Actuator Controls the Pressure Reducing Valve and Pressure Reducing Valve controls the Line Pressure and Adjust the Pressure as Desired.



## Flow Control Valve

### Hand Lever Operated Ball Valve

"4MATIC" Automatic Hydraulic Control Valve is a Globe Design Pilot Operated Diaphragm Actuated Valve. A Ball Valve acts as a Pilot designed specifically for applications where Quick Response of valve function is preferred. They function as an On/Off valve and as they are pilot operated they Open and Close in Seconds. It requires less man power and time to operate.



### Solenoid Valve

"4MATIC" Automatic Control Valve is Globe Design Pilot Operated Diaphragm Actuated Valve. Solenoid Valve as in Pilot are designed specifically for applications where remote control of valve function is preferred. They function as an On/Off valve and as they are pilot operated there Open and Close in Seconds. This Valve Helps the User to Open/Close the valve with Electric Current.

### Actuator Operated Ball Valve

"4MATIC" Pneumatic Actuator Operated Hydraulic Control Valve is Globe Design Pilot Operated Diaphragm Actuated Valve. Pneumatic Ball Valve as in Pilot are designed specifically for applications where remote control of valve function is preferred. They function as an On/Off valve and as they are pilot operated there Open and Close in Seconds. More Accessories can be mounted like Limit Switch for On/Off Indication.



### Y Type Control Valve

"4MATIC" Automatic Control Valve is Globe Design Pilot Operated Diaphragm Actuated Valve. A Y-Type Control as in Pilot are designed specifically for applications where there is a requirement for the valve to open when air is supplied and close when air fails. This valve works as Air to open and Air Fail to Close.

## Smart Float Valve

### Float Valve

"4MATIC" Automatic Control Valve is a Globe Design Pilot Operated Diaphragm Actuated Valve. It is installed at the inlet of the tank/reservoir, it allows to keep a constant/ set level of water. As the Float is linked to the Pilot it ensures to stop the flow of water at predetermined Level while realizes water supplement when the float lowers. This Valve helps to keep a Constant level of water in the Tank. This valve can work in a remote location, perfect for all those applications where the water tank is not easily accessible.

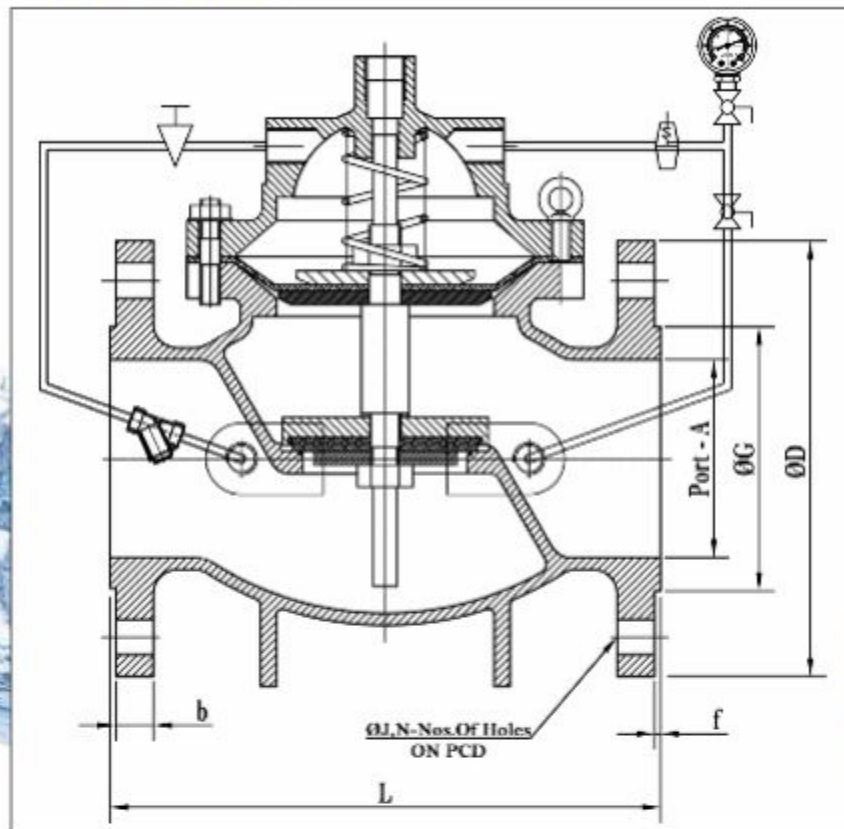


### Level Control Valve / Modulating Float Valve

"4MATIC" Automatic Control Valve is a Globe Design Pilot Operated Diaphragm Actuated Valve. It is installed at the inlet of tank/reservoir, unlike a float valve it allows you to adjust the level of water as desired. As the Level Float is linked to the Pilot it ensures to Stop the Water Filling at predetermined Level while realizes water supplement when the float lowers to the desired level. This Valve helps to keep the optimal Water level in the Tank. The valve can work in remote location and does not require any Power Supply, so it is perfect for all those applications where the water tank is not easily accessible.



## PERFORMANCE SPECIFICATIONS



SIZE		PORT A		L		ØD		b	f	ØG		ØJ		N	PCD		WEIFGT		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch		mm	inch	kg	lbs	
50	2	50	2	214.5	8.58	150	6.00	14.3	0.57	2	92.1	3.68	19.05	0.76	4	120.7	4.83	16	35
65	2.5	64	2.5	237.5	9.50	180	7.20	15.9	0.64	2	104.8	4.19	19.05	0.76	4	139.7	5.59	23	50
80	3	78	3	249	9.96	190	7.60	17.5	0.70	2	127	5.08	19.05	0.76	8	152.4	6.10	32	70
100	4	99.5	4	291	11.64	230	9.20	22.3	0.89	2	157.2	6.29	19.05	0.76	8	190.5	7.62	64	140
125	5	124	5	323	12.92	255	10.20	22.3	0.89	2	185.7	7.43	22.2	0.89	8	215.9	8.64	96	212
150	6	149	6	360	14.40	280	11.20	23.9	0.96	2	215.9	8.64	22.2	0.89	8	241.3	9.65	130	285
200	8	190	8	421	16.84	315	13.80	27	1.08	2	269.9	10.80	22.2	0.89	8	298.5	11.94	227	500
250	10	250	10	450	18.00	405	16.20	28.6	1.14	2	323.8	12.95	25.4	1.02	12	362	14.48	355	780
300	12	298	12	514	20.56	485	19.40	30.2	1.21	2	381	15.24	25.4	1.02	12	431.8	17.27	530	1165
350	14	346	14	672	26.88	535	21.40	33.4	1.34	2	412.8	16.51	28.6	1.14	12	476.3	19.05	727	1600
400	16	400	16	728	29.12	595	23.80	35	1.40	2	469.9	18.80	28.6	1.14	16	539.8	21.59	1030	2265
450	18	439	18	720	28.80	635	25.40	38.1	1.52	2	533.4	21.34	31.75	1.27	16	577.9	23.12	1355	2982
500	20	489	20	790	31.60	700	28.00	41.3	1.65	2	584.2	23.37	31.75	1.27	20	635	25.40	1773	3900
600	24	600	24	967	38.68	815	32.60	46.1	1.84	2	692.2	27.69	34.9	1.40	20	749.3	29.97	2818	6200

## PRESSURE REGULATION SPECIFICATIONS

Nominal Pressure		Shall Test		Sealing Test		Maximum Outlet Pressure		Regular Range of Outlet	
Kg/Cm <sup>2</sup>	PSI	Kg/Cm <sup>2</sup>	PSI	Kg/Cm <sup>2</sup>	PSI	Kg/Cm <sup>2</sup>	PSI	Kg/Cm <sup>2</sup>	PSI
10	14.2	11	156.5	1	156.5	10	142.2	0.9-8	12.8-113.8
16	227.6	17	214.8	17	241.8	16	227.6	10-14	14.2-113.8
25	335.6	27	384.0	27	384.0	26	355.6	1.5-16	21.3-227



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