

AUTOMATIC CONTROL VALVES



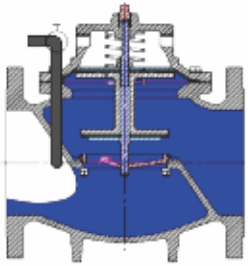
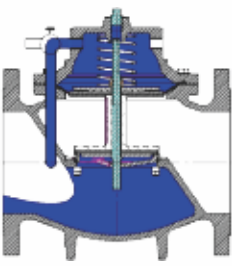
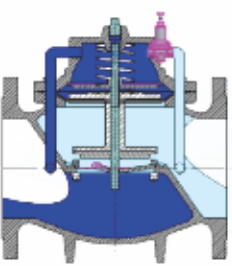
**PRESSURE
REDUCING VALVE**
HYDRAULIC OPERATION

- Float Valve
- Solenoid Control Valve
- Flow Control Valve
- Pressure Relief Valve
- Pressure Reducing Valve



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.

		
<p>FULL FLOW When pressure is reduced in the cover chamber based on the demand in outlet pressure the valve is open.</p>	<p>TIGHT SHUT-OFF When there is enough pressure in the cover chamber to restrict the opening/diaphragm against the inlet pressure the valve remains closed.</p>	<p>PROPORTIONATE CONTROL Based on the set pilot pressure held between the inlet and outlet pressure the 4Matic automatic control valve proportionately controls the flow of media.</p>

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)

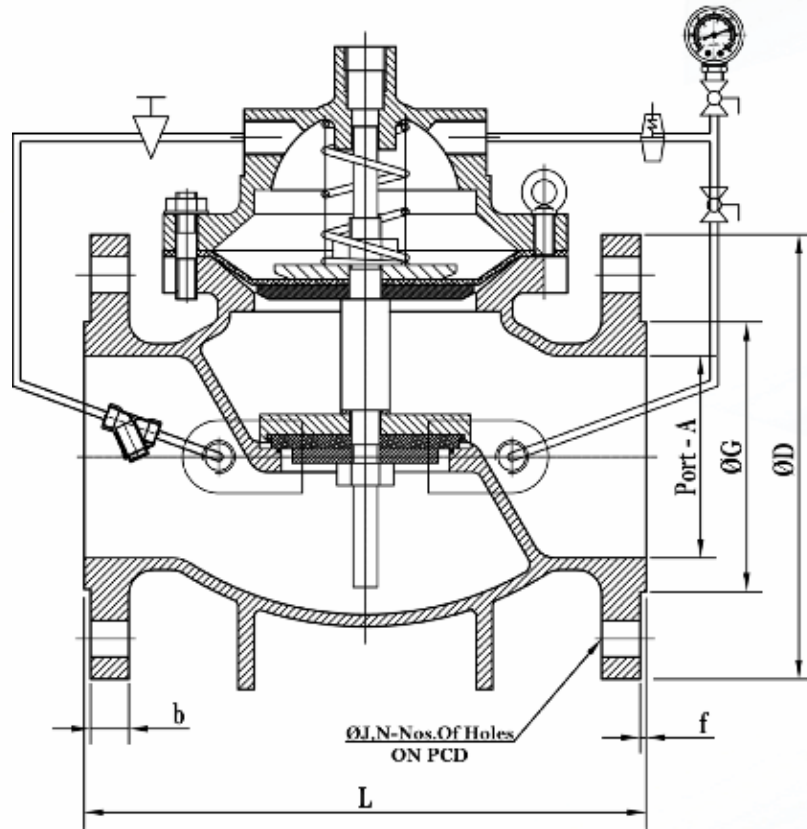
ANSI B16.5		
150 Class	300 Class*	NPTF*
250 psi	400 psi*	400 psi*
BS 4504 British Standard		
PN 10	PN 16	BSPF*
17.2 BAR	27.5 BAR	27.5 BAR

*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

PERFORMANCE SPECIFICATIONS



SIZE		PORT A		L		ØD		b		f	ØG		ØJ		N	PCD		WEIGHT	
mm	inch	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	98.5	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	345	13.80	27	1.08	2	269.9	10.90	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	18.90	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		Shell Test		Sealing Test		Maximum Outlet Pressure		Regular Range of Outlet	
Kg/Cm ²	PSI	Kg/Cm ²	PS	Kg/Cm ²	PSI	Kg/Cm ²	PSI	Kg/Cm ²	PSI
10	14.2	11	156.5	1	156.5	10	142.2	0.9-8	12.8-113.8
16	227.6	17	241.8	17	241.8	16	227.6	10-14	14.2-113.8
25	335.6	27	384.0	27	384.0	26	355.6	1.5-6	21.3-227

PRESSURE REDUCING VALVES



Direct Activated Pressure Reducing Valve



Pilot Operated Pressure Reducing Valve



MANUFACTURING FACILITY AT CARY IL USA.

4Matic
Industrial Valves and Valve Automation

Aira 4Matic Valve Automation

176 Detroit St Unit 1
Cary IL 60013 USA

O 1 773 856 3555
F 1 773 856 3550
info@4maticvalvesusa.com



www.4maticvalvesusa.com