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PENTAIR

AQUAMATIC® V42 SOLENOID-OPERATED SERIES
DIAPHRAGM VALVES

GREAT FIT FOR WATER TREATMENT AUTOMATED PROCESS SYSTEMS

MADE IN THE USA
OF FOREIGN & DOMESTIC PARTS

FEATURES/BENEFITS

Unique Y-pattern design with large seat opening and high lift disc permits higher flow rates at lower pressure loss than other comparable valves

All components can be serviced while the valve is in-line

Pre-formed, stress-relieved diaphragm minimizes fatigue, maximizes valve responsiveness and diaphragm lifetime

Cast iron, brass, stainless steel, and nitrile elastomer components for unparalleled service

3/4"-3" threaded [NPT or BSP]

3"-4" flange drilled in accordance with ASA16.1 class 125, or BSP4504

Adaptable to a wide variety of control devices

OPTIONS

Spring-assist closed

Spring-assist open

Limit stop for flow control

Seal and diaphragm materials for special applications

TYPICAL APPLICATIONS

Agricultural Irrigation

Air Control Systems

Car Wash Systems

Concrete Additive

Control Systems

Conveyor Systems

Cooling Towers

Dust Suppression

Fuel Handling

Laundry Equipment

Process Water Systems

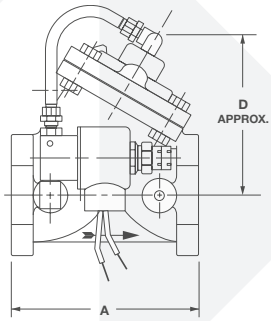
Pump Controls

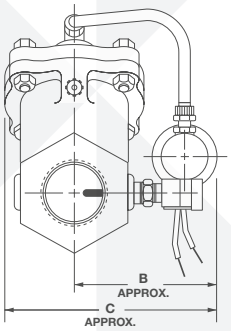
Turf Irrigation

DIMENSIONS

MODEL #	PIPE SIZE	Cv*	DIMENSIONS (APPROXIMATE)			
			A	B	C	D
V42B	3/4"	11.4	3.69" (94 mm)	3.25" (82.5 mm)	4.63" (117.5 mm)	3.81" (96.8 mm)
V42C	1"	12.8	3.69" (94 mm)	3.25" (82.5 mm)	4.63" (117.5 mm)	3.81" (96.8 mm)
V42D	1-1/4"	26.5	4.75" (121 mm)	3.56" (90.5 mm)	5.31" (134.9 mm)	4.56" (115.9 mm)
V42E	1-1/2"	32.5	4.75" (121 mm)	3.56" (90.5 mm)	5.31" (134.9 mm)	4.56" (115.9 mm)
V42F	2"	56	6.62" (168 mm)	3.94" (100.0 mm)	6.63" (168.3 mm)	5.94" (150.8 mm)
V42G	2"	68	7.37" (187 mm)	4.19" (106.4 mm)	7.25" (184.2 mm)	6.25" (158.8 mm)
V42H	2-1/2"	84	7.37" (187 mm)	4.19" (106.4 mm)	7.25" (184.2 mm)	6.25" (158.8 mm)
V42J	3" (flanged)	134	9.00" (229 mm)	4.63" (117.6 mm)	8.25" (209.5 mm)	7.00" (117.8 mm)
V42J	3" (flanged)	134	10.62" (298 mm)	4.63" (117.6 mm)	8.25 (209.5 mm)	7.00" (117.8 mm)
V42K	4"	275	11.75" (432 mm)	5.13" (130.3 mm)	9.50" (241.3 mm)	8.75" (222.3 mm)

*Cv = Flowrate (gal/minute) of water at 60°F (15.5°C) at a 1 psi pressure drop.Liters/minute = gal/minute x 3.78





CURRENT DRAIN (AMPERES)

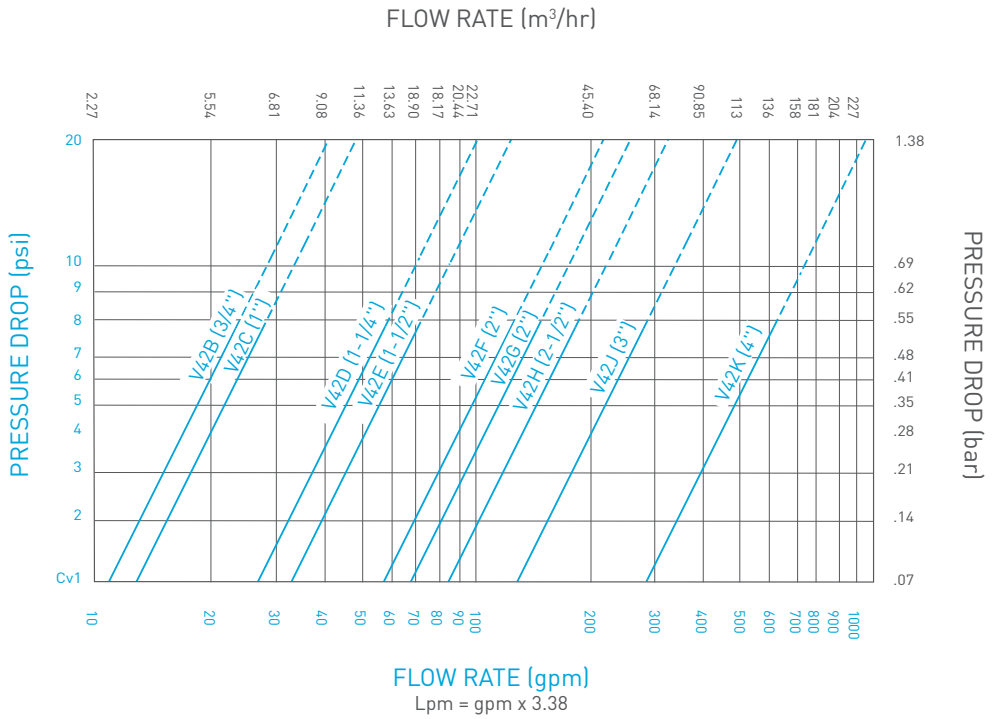
Voltage	Inrush	Holding
24V 60 Hz	1.1	0.65
120V 60 Hz	0.2	0.1
220V 50 Hz	0.1	0.07
12 VDC	–	0.6
24 VDC	–	0.3

OPERATING SPECIFICATIONS

Working Pressure	125 psi (8.6 bar)
Max Temperature	150°F (65°C)

Energized to open:
Line pressure is directed through the solenoid to the upper diaphragm chamber, closing the valve. Activating the solenoid vents the upper diaphragm chamber, allowing the valve to open.

Energized to close:
The upper diaphragm chamber is vented, allowing the valve to open. Activating the solenoid pressurizes the upper diaphragm chamber, closing the valve.

Independent control pressure:
An independent source of pressure is used through the solenoid to control the diaphragm valve.

PERFORMANCE DATA