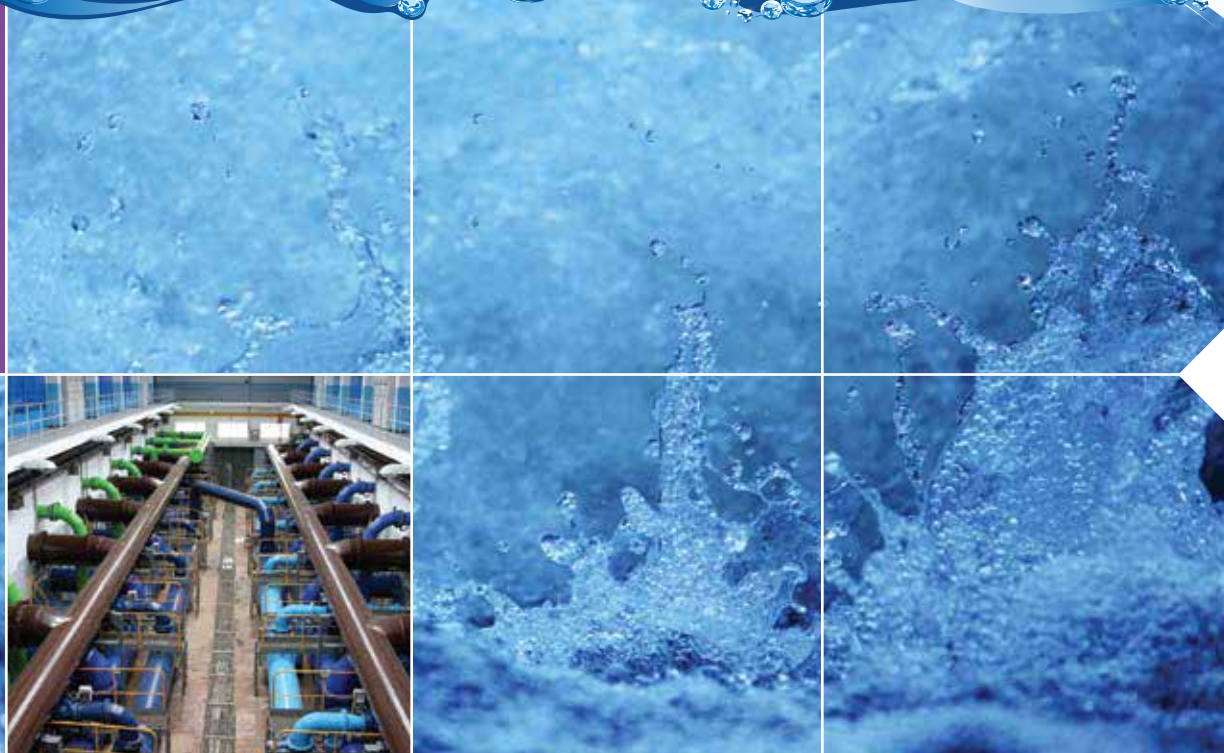


**COMMERCIAL  
CONTROL  
VALVES**


# AquaMatic® Diaphragm Valves

## V42 Series



AquaMatic Series Diaphragm Valves are equipped with a 3-way solenoid for direct or remote control. The solenoid can be actuated by a timer, pressure or temperature sensor or liquid-level switch. These valves are ideal for automated process systems.

In addition to the water treatment process systems, the valves are used in wide variety of applications.

### Typical Applications

- Concrete Additive
- Agricultural Irrigation
- Turf Irrigation
- Pump Controls
- Fuel Handling
- Cooling Towers
- Level Control Systems
- Car Wash Systems
- Process Water Systems
- Laundry Equipment
- Conveyor Systems
- Air Control Systems
- Dust Suppression



**COMMERCIAL  
CONTROL  
VALVES**

# AquaMatic® Diaphragm Valves

**V42 Series**

**Options**

- Spring-assist closed
- Spring-assist open
- Limit stop
- Adjustable flow rate control
- Seal and diaphragm materials for special applications

**Operating Specifications**

|  |  |
|--|--|
| Working Pressure   | 125 psi (8.6 bar)  |
| Maximum Temperature  | 150°F (65°C)   |
| Operation  | The AquaMatic Diaphragm Valve is a normally open valve, controlled by a 3-way universal solenoid, supplied as a complete assembly.   |
| Three basic models are available: energized to open, energized to close and independent control pressure. Principle of operation for the three models are: |  |
| 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   | Line pressure is directed through the solenoid to upper diaphragm chamber, closing the valve. Deactivating the solenoid vents the upper diaphragm chamber, allowing the valve to open.   |
| Independent Control Pressure   | An independent source of pressure is used through the solenoid to control the diaphragm valve.   |

**Features and Benefits**

- Low Pressure Loss –**  
 The unique AquaMatic Diaphragm Valve's y-pattern design, with large seat opening and high lift disc, permits higher flow rates at lower pressure loss than other comparable valves.
- Durable –** The AquaMatic V42 Valve features cast iron, brass, stainless steel, and nitrile elastomer components. The valve features an average life of 3 years or longer depending upon cycling rate and environment.
- Cost-Effective Design –**  
 The AquaMatic V42 Valve is a cost-effective solution in initial purchase price as well as in lifetime maintenance. All components can be serviced while the valve is in-line.
- Pipe Sizes –** 3/4- to 3-inch threaded (NPT or BSP); 3- to 4-inch flanged drilled in accordance with ASA16.1 class 125, or BSP4504.
- Adaptable to a Wide Variety of Control Devices**
- Design/Application Engineering Service**

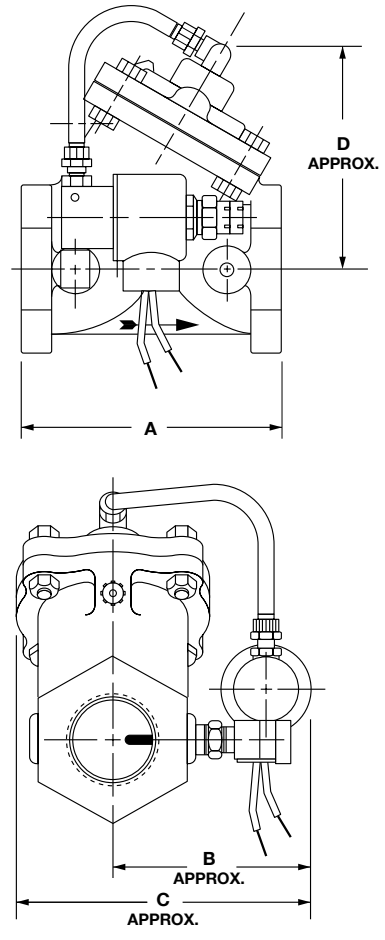


### Dimensions for V42 Series Valves

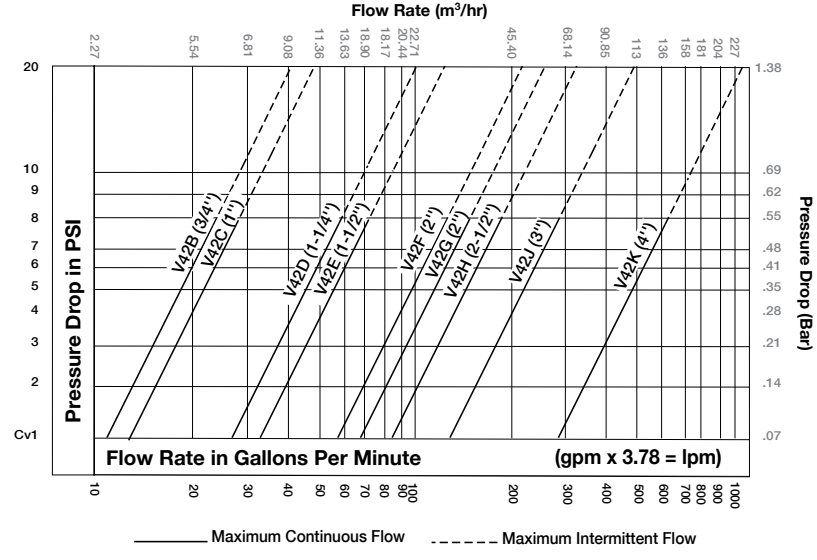
| Valve Series | Pipe Size      | Cv*  | Units        | Dimensions (Approximate) |               |               |               |
|--------------|----------------|------|--------------|--------------------------|---------------|---------------|---------------|
|              |                |      |              | A                        | B             | C             | D             |
| V42B         | 3/4"           | 11.4 | inches<br>mm | 3.69<br>93.7             | 3.25<br>82.5  | 4.63<br>117.5 | 3.81<br>96.8  |
| V42C         | 1"             | 12.8 | inches<br>mm | 3.69<br>93.7             | 3.25<br>82.5  | 4.63<br>117.5 | 3.81<br>96.8  |
| V42D         | 1-1/4"         | 26.5 | inches<br>mm | 4.75<br>120.6            | 3.56<br>90.5  | 5.31<br>134.9 | 4.56<br>115.9 |
| V42E         | 1 1/2"         | 32.5 | inches<br>mm | 4.75<br>120.6            | 3.56<br>90.5  | 5.31<br>134.9 | 4.56<br>115.9 |
| V42F         | 2"             | 56   | inches<br>mm | 6.62<br>168.3            | 3.94<br>100.0 | 6.63<br>168.3 | 5.94<br>150.8 |
| V42G         | 2"             | 68   | inches<br>mm | 7.38<br>187.3            | 4.19<br>106.4 | 7.25<br>184.2 | 6.25<br>158.8 |
| V42H         | 2 1/2"         | 84   | inches<br>mm | 7.38<br>187.3            | 4.19<br>106.4 | 7.25<br>184.2 | 6.25<br>158.8 |
| V42J         | 3"<br>threaded | 134  | inches<br>mm | 9.00<br>228.6            | 4.63<br>117.6 | 8.25<br>209.5 | 7.00<br>117.8 |
| V42J         | 3"<br>flanged  | 134  | inches<br>mm | 10.62<br>269.9           | 4.63<br>117.6 | 8.25<br>209.5 | 7.00<br>117.8 |
| V42K         | 4"             | 275  | inches<br>mm | 11.75<br>298.5           | 5.13<br>130.3 | 9.50<br>241.3 | 8.75<br>222.3 |

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

### Standard Valves (Models V42B-V24K)



### Performance - Flow Rate Characteristics



### Current Drain (Amperes)

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