Automated Ball Valve — Two-Way Plastic

**Electric and Pneumatic Actuators**

The Series PBV is ideal for services in industrial, chemical, turf and irrigation, and pool and spa applications, as well as for use with potable water. The valve features a shear-proof stem designed to prevent leakage in the event of damage, reinforced TFE seals and EPDM seals for longer life, and an all-plastic construction (PVC or CPVC) for heavyweight durability. Valves also come standard with selectable NPT or socket process connectors. The PBV is an economical automated valve package with either an electric or pneumatic actuator. Electrically actuated models are weatherproof, NEMA 4, powered by standard 115 VAC, 12 VDC, and 24 VDC. Normal Supply Pressure: 80 psi (5.5 bar). Maximum Supply Pressure: 120 psig (8 bar).

**SPECIFICATIONS**

- **Service:** Compatible liquids or gases.
- **Body:** 2-way.
- **Line Size:** 1/2” to 4”.
- **End Connections:** Female NPT or socket (field selectable).
- **Pressure Limit:** 1/2” to 2”: 232 psi (16.0 bar) @ 73°F (23°C); 2-1/2” to 4”: 150 psi (10.3 bar) @ 73°F (23°C) WOG. Vacuum: 29” Hg.
- **Wetted Materials:** Body, end connectors: PVC or CPVC; Ball, stem: PVC or CPVC; Seal: TFE; Stem seal: EPDM.
- **Temperature Limit:** 32 to 140°F (0 to 60°C).
- **Other Materials:** Stem bearing: Polypropylene (1-1/4” and up).

**ACTUATORS**

**Electric**

- **Power Requirements:** 120 VAC, 50/60 Hz, single phase. Optional 220 VAC, 24 VAC, 12 VDC, and 24 VDC.
- **Power Consumption:** (Locked rotor current): Two position: 1/2” to 1-1/2”: 0.55A, 2” to 4”: 0.75A. Modulating: 1/2” to 2”: 0.75A, 2-1/2”: 1.1A, 3” and 4”: 0.75A.
- **Cycle Time:** (per 90°): Two position: 1/2” to 1-1/2”: 5.5 sec.; 2” to 2-1/2”: 232 psi (16.0 bar) @ 73°F (23°C); 2-1/2” to 4”: 150 psi (10.3 bar) @ 73°F (23°C) WOG. Vacuum: 29” Hg.
- **Wetted Materials:** Body, end connectors: PVC or CPVC; Ball, stem: PVC or CPVC; Seal: TFE; Stem seal: EPDM.
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- **Other Materials:** Stem bearing: Polypropylene (1-1/4” and up).

**Pneumatic “DA” and “SR” Series**

- **Type:** DA series is double acting and SR series is spring return (rack and pinion).
- **Normal Supply Pressure:** 80 psi (5.5 bar).
- **Maximum Supply Pressure:** 120 psig (8 bar).
- **Air Connections:** DA/SR1 to 5: 1/8” female NPT, all other sizes: 1/4” female NPT.
- **Air Consumption:** (per stroke) DA1: 40 cu. in.; DA2: 24 cu. in.; DA3: 12 cu. in.; DA4: 6 cu. in.
- **Cycle Time:** (per 90°) DA1: .06 sec.; DA2: .12 sec.; DA3: .20 sec.; DA4: .32 sec.
- **Duty Cycle:** Two position: 1/2” to 1-1/2”: 75%; 2” to 4”: 25%. Modulating: 75%; Enclosure Rating: NEMA 4. Optional NEMA 7 (Class 1, Div. II groups A, B, C, D).
- **Housing Material:** Aluminum with thermal bonding polyester powder finish.
- **Temperature Limit:** 0 to 150°F (-18 to 65°C).
- **Conduit Connection:** 1/2” female NPT. Modulating Input: 4 to 20 mA.
- **Standard Features:** Manual override and visual position indicator except modulating units.

**OPTIONS**

- **Explosion Proof Electric Actuators**
  - Add “EX” to model number
- **Optional Electric Actuator Supply Voltages**
  - Contact factory for model number change

**Solenoid Valve**

- See Model SV3.

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