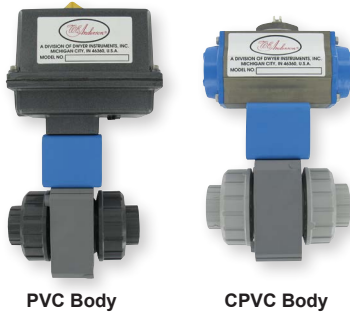




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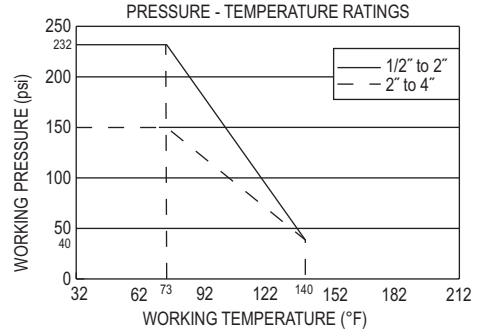
# PLASTIC AUTOMATED BALL VALVES

## Electric and Pneumatic Actuators



PVC Body

CPVC Body



The **Series PBV Plastic Automated Ball Valves** are 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 seats and EPDM seals for longer life, and an all-plastic construction (PVC or CPVC) for heavyweight durability at a lightweight cost. Valves also come standard with selectable NPT or socket process connections. The PBV is an economical automated valve package with either an electric or pneumatic actuator. Electrically actuated models are weatherproof, NEMA 4 (IP56), powered by standard 115 VAC supply, and are available in either two-position or proportional control. Two-position actuators use the 115 VAC input to drive each of the valve ports open or closed, while the modulating actuator accepts a 4 to 20 mA input for infinite valve positioning. Actuator features include thermal overload protection to withstand stall conditions, visual position indication and a permanently lubricated gear train. The pneumatic double acting actuator uses an air supply to drive each of the actuator ports. Spring return pneumatic actuators use the air supply to drive the valve stem one direction, and internally loaded springs return the valve to its original position. Also available is the SV3 solenoid valve to electrically switch the supply pressure between the air supply ports. Actuators are constructed of anodized aluminum and are epoxy coated for years of corrosion free service.

**FEATURES/BENEFITS**

- Shear proof stem
- All plastic construction

**APPLICATIONS**

- Gas or liquid flow control

**OPTIONS**

To order add suffix:	Description	Actuator Size*	Price
-EX	Explosion proof electric actuators	XX1-XX6	+\$273.00 <sup>(B)</sup>

\*Example: Third digit in U12 or V12 is the size

Note: For optional electric actuator supply voltages, contact factory for model number change and **+\$79.00<sup>(B)</sup>**

<sup>(B)</sup> Items are subject to Schedule B discounts.

**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; Seat: TFE; Stem seal: EPDM.  
**Temperature Limit:** 32 to 140°F (0 to 60°C).  
**Other Materials:** Stem bearing: Polypropylene (1-1/4" and up).

**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.

**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: 2.32 in3; DA2: 9.34 in3; DA3: 17.21 in3; DA4: 20.5 in3; SR2: 9.34 in3; SR3: 17.21 in3; SR6: 54.34 in3; SR7: 85.43 in3.  
**Cycle Time:** (per 90°) DA1: .03 s; DA2: .04 s; DA3: .08 s; DA4: .12 s; SR2: .09 s; SR3: .14 s; SR6: .46 s; SR7: .83 s.  
**Housing Material:** Anodized aluminum body and epoxy coated aluminum end caps.  
**Temperature Limit:** -4 to 180°F (-20 to 82°C).  
**Accessory Mounting:** NAMUR standard.  
**Standard Features:** Visual position indicator.

**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": .55 A, 2" to 4": 0.75 A. Modulating: 1/2" to 2": 0.75 A, 2-1/2": 1.1 A, 3" and 4": 0.75 A.  
**Cycle Time:** (per 90°): Two position: 1/2" to 1-1/2": 2.5 s, 2" and 2-1/2": 5 s, 3" and 4": 15 s; Modulating: 1/2" to 2-1/2": 5 s, 3" and 4": 15 s.  
**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).

**MODEL CHART - PVC**

Size	Cv	Double Acting Pneumatic		Spring Return Pneumatic		Two Position Electric		Modulating Electric	
		Model	Price	Model	Price	Model	Price	Model	Price
1/2"	25	PBVPDA102	\$352.00 <sup>(B)</sup>	PBVPSR202	\$407.00 <sup>(B)</sup>	PBVPU1102	\$595.00 <sup>(B)</sup>	PBVPV1202	\$2017.00 <sup>(B)</sup>
3/4"	51	PBVPDA103	374.00 <sup>(B)</sup>	PBVPSR203	429.00 <sup>(B)</sup>	PBVPU1103	621.00 <sup>(B)</sup>	PBVPV1203	2064.00 <sup>(B)</sup>
1"	97	PBVPDA104	402.00 <sup>(B)</sup>	PBVPSR204	459.00 <sup>(B)</sup>	PBVPU1104	648.00 <sup>(B)</sup>	PBVPV1204	2130.00 <sup>(B)</sup>
1-1/4"	204	PBVPDA105	450.00 <sup>(B)</sup>	PBVPSR205	508.00 <sup>(B)</sup>	PBVPU1105	696.00 <sup>(B)</sup>	PBVPV1205	2166.00 <sup>(B)</sup>
1-1/2"	285	PBVPDA206	546.00 <sup>(B)</sup>	PBVPSR306	567.00 <sup>(B)</sup>	PBVPU1106	749.00 <sup>(B)</sup>	PBVPV1206	2222.00 <sup>(B)</sup>
2"	540	PBVPDA207	614.00 <sup>(B)</sup>	PBVPSR307	651.00 <sup>(B)</sup>	PBVPU1207	909.00 <sup>(B)</sup>	PBVPV1207	2262.00 <sup>(B)</sup>
2-1/2"	712	PBVPDA308	1093.00 <sup>(B)</sup>	PBVPSR608	1285.00 <sup>(B)</sup>	PBVPU1308	1483.00 <sup>(B)</sup>	PBVPV1308	3040.00 <sup>(B)</sup>
3"	1294	PBVPDA309	1358.00 <sup>(B)</sup>	PBVPSR609	1566.00 <sup>(B)</sup>	PBVPU1509	2213.00 <sup>(B)</sup>	PBVPV1509	3387.00 <sup>(B)</sup>
4"	2629	PBVPDA410	1866.00 <sup>(B)</sup>	PBVPSR710	2118.00 <sup>(B)</sup>	PBVPU1510	2916.00 <sup>(B)</sup>	PBVPV1510	4123.00 <sup>(B)</sup>

Note: All spring return actuators are factory standard as spring (fail) close. For spring (fail) open valves, add suffix "-FO" to the model number.

<sup>(B)</sup> Items are subject to Schedule B discounts.

**MODEL CHART - CPVC**

Size	Cv	Double Acting Pneumatic		Spring Return Pneumatic		Two Position Electric		Modulating Electric	
		Model	Price	Model	Price	Model	Price	Model	Price
1/2"	25	PBVCDA102	\$382.00 <sup>(B)</sup>	PBVCSR202	\$460.00 <sup>(B)</sup>	PBVVCU1102	\$623.00 <sup>(B)</sup>	PBVCV1202	\$2008.00 <sup>(B)</sup>
3/4"	51	PBVCDA103	415.00 <sup>(B)</sup>	PBVCSR203	496.00 <sup>(B)</sup>	PBVVCU1103	655.00 <sup>(B)</sup>	PBVCV1203	2037.00 <sup>(B)</sup>
1"	97	PBVCDA104	455.00 <sup>(B)</sup>	PBVCSR204	533.00 <sup>(B)</sup>	PBVVCU1104	686.00 <sup>(B)</sup>	PBVCV1204	2076.00 <sup>(B)</sup>
1-1/4"	204	PBVCDA105	616.00 <sup>(B)</sup>	PBVCSR205	707.00 <sup>(B)</sup>	PBVVCU1105	851.00 <sup>(B)</sup>	PBVCV1205	2233.00 <sup>(B)</sup>
1-1/2"	285	PBVCDA206	689.00 <sup>(B)</sup>	PBVCSR306	754.00 <sup>(B)</sup>	PBVVCU1106	869.00 <sup>(B)</sup>	PBVCV1206	2258.00 <sup>(B)</sup>
2"	540	PBVCDA207	791.00 <sup>(B)</sup>	PBVCSR307	838.00 <sup>(B)</sup>	PBVVCU1207	1077.00 <sup>(B)</sup>	PBVCV1207	2356.00 <sup>(B)</sup>
2-1/2"	712	PBVCDA308	1500.00 <sup>(B)</sup>	PBVCSR608	1666.00 <sup>(B)</sup>	PBVVCU1308	1854.00 <sup>(B)</sup>	PBVCV1308	3288.00 <sup>(B)</sup>
3"	1294	PBVCDA309	1669.00 <sup>(B)</sup>	PBVCSR609	1843.00 <sup>(B)</sup>	PBVVCU1509	2161.00 <sup>(B)</sup>	PBVCV1509	3437.00 <sup>(B)</sup>
4"	2629	PBVCDA410	2642.00 <sup>(B)</sup>	PBVCSR710	2857.00 <sup>(B)</sup>	PBVVCU1510	3713.00 <sup>(B)</sup>	PBVCV1510	4819.00 <sup>(B)</sup>

Note: All spring return actuators are factory standard as spring (fail) close. For spring (fail) open valves, add suffix "-FO" to the model number.

<sup>(B)</sup> Items are subject to Schedule B discounts.

Filters and Regulators: See pages 483-484