



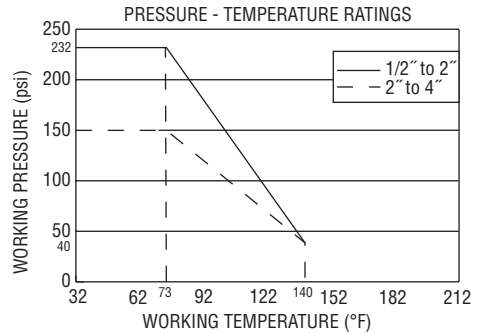
# 3-WAY PLASTIC AUTOMATED BALL VALVE

Electric and Pneumatic Actuators



Cv Values

Size	Position				
	A	B	C	D	E
1/2"	3.85	2.45	4.55	13.7	5.11
3/4"	9.50	6.65	10.2	26.6	10.5
1"	14.4	9.80	17.2	53.2	18.6
1-1/4"	27.3	18.9	32.2	73.5	33.3
1-1/2"	33.3	23.1	42.0	119	43.4
2"	63.0	43.4	84.0	224	85.4



The **SERIES 3PBV** is ideal for mixing or diverting services in industrial, chemical, turf and irrigation, and pool and spa applications, as well as for use with potable water. The valve features a 3-seat design for efficient automation, reinforced TFE seats and EPDM seals for longer life, and an all PVC construction for heavyweight durability at a lightweight cost. Valves also come standard with field selectable NPT or socket process connections.

The 3PBV 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.

**HOW TO ORDER:**

1. Select **Model Number** to specify pipe size and actuator.
2. Choose a **Port Configuration** to determine valve flow path.  
**Example:** 3PBVPSR204-L1

**SPECIFICATIONS**

**Service:** Compatible liquids or gases.  
**Body:** 3-way.

**Line Size:** 1/2" to 2".

**End Connections:** Female NPT or socket (field-selectable).

**Pressure Limit:** 1/2" to 1": 232 psi (16.0 bar) @ 73°F (23°C); 1-1/4" to 2": 150 psi (10.3 bar) @ 73°F (23°C) WOG; Vacuum: 29" Hg. See chart for curve.

**Wetted Materials:** Body, end connectors: PVC; Ball, stem: PVC; Seat: TFE; Stem seal: EPDM.

**Temperature Limit:** 32 to 140°F (0 to 60°C).

**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 in<sup>3</sup>; DA2, SR2: 9.34 in<sup>3</sup>; SR3: 17.21 in<sup>3</sup>.

**Cycle Time (per 90°):** DA1: .03 s; DA2: .04 s; SR2: .09 s; SR3: .14 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": 0.75 A; Modulating: 0.75 A.

**Cycle Time (per 90°):** Two position: 1/2" to 1-1/2": 2.5 s, 2": 5 s; Modulating: 5 s.

**Duty Cycle:** Two position: 1/2" to 1-1/2": 75%, 2": 25%; Modulating: 75%.

**Enclosure Rating:** NEMA 4. Optional NEMA 7 (Class 1, Div. II groups A, B, C, D).

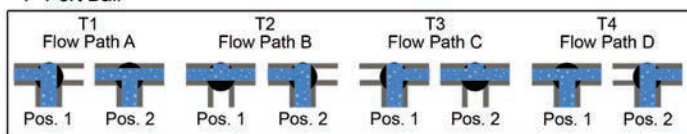
**Housing Material:** Aluminum with thermal bonding polyester powder finish.

**MODEL CHART**

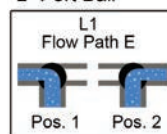
Size	Cv	Double Acting Pneumatic	Spring Return Pneumatic	Two Position Electric	Modulating Electric
		Model*	Model*	Model*	Model*
1/2"	See Chart Below	3PBVPDA102	3PBVPSR202	3PBVPU1102	3PBVPV1202
3/4"		3PBVPDA103	3PBVPSR203	3PBVPU1103	3PBVPV1203
1"		3PBVPDA104	3PBVPSR204	3PBVPU1104	3PBVPV1204
1-1/4"		3PBVPDA105	3PBVPSR205	3PBVPU1105	3PBVPV1205
1-1/2"		3PBVPDA206	3PBVPSR306	3PBVPU1206	3PBVPV1206
2"		3PBVPDA207	3PBVPSR307	3PBVPU1207	3PBVPV1207

\*Complete model includes **Port Configuration** - see "How to Order".

**"T" Port Ball**



**"L" Port Ball**



**OPTIONS**

To order add suffix:	Description	Actuator Size*
-EX	Explosion proof electric actuators	XX1-XX6
*Example: Third digit in U12 or V12 is the size		
Note: For optional electric actuator supply voltages, contact factory for model number change		