



Series
BV3

Automated Ball Valve – Three-Piece SS NPT

Electric and Pneumatic Actuators

CLEARANCE REQUIRED FOR COVER REMOVAL: 3.000"

Electric										
A	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
B	6.274	6.274	6.274	6.432	7.427	7.663	8.057	8.411	12.570*	12.970*
C	4.000	4.000	4.000	4.000	4.250	4.250	4.250	4.250	7.000	7.000
D	2.362	2.362	2.592	3.149	3.543	4.330	4.724	5.511	6.540	7.400
E	5.600	5.600	5.600	5.600	6.880	6.880	6.880	6.880	7.000	7.000
F	2.300	2.300	2.300	2.300	2.430	2.430	2.430	2.430	2.380	2.380
ACT.	U11, V12	U11, V12	U11, V12	U11, V12	U12, V12	U12, V12	U12, V12	U13, V13	U15, V15	U16, V16

*Includes declutchable manual override and handwheel.

Pneumatic Double Acting										
A	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
B	4.524	4.524	4.524	4.682	5.687	6.103	6.497	7.281	8.860	9.260
C	1.770	1.770	1.770	1.770	2.800	2.800	2.800	3.170	4.170	4.170
D	2.362	2.362	2.952	3.149	3.543	4.330	4.724	5.511	6.540	7.400
E	4.330	4.330	4.330	4.330	6.810	6.810	6.810	7.720	9.840	9.840
ACT.	DA1	DA1	DA1	DA1	DA2	DA2	DA3	DA3	DA5	DA5

Pneumatic Spring Return										
A	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
B	5.394	5.394	5.394	5.552	6.297	6.533	6.927	8.271	10.190	10.590
C	2.800	2.800	2.800	2.800	3.170	3.170	3.170	4.170	5.390	5.390
D	2.362	2.362	2.952	3.149	3.543	4.330	4.724	5.511	6.540	7.400
E	6.810	6.810	6.810	6.810	7.720	7.720	9.550	9.550	13.580	13.580
ACT.	SR2	SR2	SR2	SR2	SR3	SR3	SR4	SR5	SR7	SR7

BV3 Series Automated Ball Valves

- Ideal for food or chemical processing
- 3-piece stainless steel investment cast body
- Internal entry blow-out stem
- 100% factory hydro-tested
- Polished stem for high cycling
- 1000 WOG PSI, 125 psi steam

Series BV3 incorporates a full port three piece stainless steel ball valve for great flow rates with minimal pressure drop. The valve features a blowout proof stem for added safety, reinforced PTFE seats and seals for longer life, and a 316SS (ASTM A351 GR CF8M) ball for better performance. Actuators are direct mounted creating a compact assembly for tight spaces. Double o-ring stem seals assure leak free operation.

The BV3 Series 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 supply, and are available in either two-position or proportional control. Two-position actuators use the 115 VAC input to drive the valve open or closed, while the modulating actuator accepts a 4 to 20 mA input for infinite valve positioning. Actuator features thermal overload protection and a permanently lubricated gear train.

The pneumatic double acting actuator uses an air supply to drive the valve open and closed. The actuator has two supply ports with one driving the valve open and the other driving the valve closed. Spring return pneumatic actuators use the air supply to open the valve and internally loaded springs return the valve to the closed position. Also available is the SV3 solenoid valve to electrically switch the air supply pressure between the air supply ports for opening and closing the valve. Actuators are constructed of anodized and epoxy coated aluminum for years of corrosion free service.

SPECIFICATIONS

Body: 3 – piece.
Line Size: 1/4" to 3".
End Connections: Female NPT.
Pressure Limit: 1/4" to 2": 1000 psi (69 bar) WOG, 2-1/2" to 3": 800 psi (55 bar) WOG.

Wetted Materials:

Body, End Cap, Stem: 316 Stainless Steel.
Ball: 316 Stainless Steel.
Seat, Stem Seal: PTFE.
Temperature Limit: -40 to 450°F (-40 to 232°C).
Other Materials: Body Seal, Body O-ring, Stem O-ring: Fluoroelastomer.

Housing Material: Aluminum with thermal bonding polyester powder finish.

Temperature Limit: 0 to 150°F (-18 to 65° C).

Electrical Connection: 1/2" female NPT.

Modulating Input: 4 to 20 mA.

Standard Features: Manual override and 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: 130 psig (9.0 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 cu. in.; DA2, SR2: 9.34 cu. in.; DA3, SR3: 17.21 cu. in.; DA4, SR4: 17.15 cu. in.; DA5, SR5: 39.54 cu. in.; SR6: 54.37 cu. in.; SR7: 103.74 cu. in.

Cycle Time (per 90°): DA1: .03 sec.; DA2: .05 sec.; DA3: .06 sec.; DA5: .18 sec.; SR2: .09 sec.; SR3: .13 sec.; SR4: .17 sec.; SR5: .28 sec.; SR6: .39 sec.; SR7: .60 sec.

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: 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: 1/4" to 3/4": 0.55A, 1" to 1-1/2": 0.75A, 2": 0.75A, 2-1/2": 0.75A, 3": 1.1A. Modulating: 1/4" to 3/4": 0.55A, 1" to 1-1/2": 0.75A, 2" and 2-1/2": 0.75A; 3": 1.1A.

Cycle Time (per 90°): Two position: 1/4" to 3/4": 2.5 sec., 1" to 2": 5 sec., 2-1/2" and 3": 15 sec. Modulating: 1/4" to 2": 10 sec., 2-1/2": 20 sec., 3": 30 sec.

Duty Rating: Two position: 1/4" to 3/4": 75%, 1" to 3": 25%. Modulating: 75%.

Enclosure Rating: NEMA 4. Optional NEMA 7.

Size	Cv	Double Acting Pneumatic	Spring Return Pneumatic	Two Position Electric	Modulating Electric	OPTIONS
		Model	Model	Model	Model	
1/4"	10	BV3DA100	BV3SR200	BV3U1100	BV3V1200	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Explosion Proof Electric Actuators -add "-EX" to model number </div> Optional Electric Actuator Supply Voltages -Contact factory for model number change Solenoid Valve - See Model SV3.
3/8"	10	BV3DA101	BV3SR201	BV3U1101	BV3V1201	
1/2"	18	BV3DA102	BV3SR202	BV3U1102	BV3V1202	
3/4"	40	BV3DA103	BV3SR203	BV3U1103	BV3V1203	
1"	70	BV3DA204	BV3SR304	BV3U1204	BV3V1204	
1-1/4"	120	BV3DA205	BV3SR305	BV3U1205	BV3V1205	
1-1/2"	210	BV3DA306	BV3SR406	BV3U1206	BV3V1206	
2"	340	BV3DA307	BV3SR507	BV3U1307	BV3V1307	
2-1/2"	400	BV3DA508	BV3SR708	BV3U1508	BV3V1508	
3"	675	BV3DA509	BV3SR709	BV3U1609	BV3V1609	

NOTE: All spring return actuators are factory standard as spring (fail) close.