



Series  
BV2-F1

# Automated Ball Valve – Two-Piece SS Flange

## Electric and Pneumatic Actuators

CLEARANCE REQUIRED FOR COVER REMOVAL: 3.000"

Electric								
A	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
B	8.210	9.010	9.340	13.060*	13.900*	14.970*	15.680*	18.900*
C	4.000	4.250	4.250	7.000	7.000	7.000	7.000	10.000
D	4.250	4.620	5.000	6.500	7.000	7.500	7.500	9.000
E	5.630	6.880	6.880	7.000	7.000	7.000	7.000	10.000
F	2.310	2.430	2.430	2.380	2.380	2.380	2.380	3.750
ACT.	U11, V12	U12, V12	U12, V12	U13, V13	U15, V15	U15, V15	U16, V16	U17, V17

\*Includes de clutchable manual override and handwheel.

Pneumatic Double Acting								
A	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
B	7.390	7.450	7.780	8.860	9.200	11.760	12.980	13.590
C	2.800	2.800	2.800	3.170	3.170	4.170	4.840	4.840
D	4.250	4.620	5.000	6.500	7.000	7.500	8.000	9.000
E	6.810	6.810	6.810	9.550	9.550	9.840	11.690	11.690
ACT.	DA2	DA2	DA2	DA3	DA4	DA5	DA5	DA7

Pneumatic Spring Return								
A	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
B	7.760	7.880	8.210	10.360	10.700	13.530	15.810	16.420
C	3.170	3.170	3.170	4.840	4.840	5.830	7.360	7.360
D	4.250	4.620	5.000	6.500	7.000	7.500	8.000	9.000
E	7.720	7.720	9.550	11.690	11.690	15.910	20.550	20.550
ACT.	SR2	SR3	SR4	SR4	SR6	SR7	SR8	SR9

### BV2-F1 Series Automated Ball Valves

- 150# full port flanged ball valve
- 2-piece stainless steel investment cast body
- PTFE seats and seals
- Ideal for industrial operations
- Electric or Pneumatic actuators

Our **Series BV2-F1** ball valves offer ANSI 150# flanged ends for easy installation. 1/2" through 4" sizes are standard for great flow rates with minimal pressure drop. The valve features a blowout-proof stem for added safety, reinforced TFE 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 BV2-F1 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:** 2 – piece.
- Line Size:** 1/2" to 4".
- End Connections:** 150# Flange.
- Pressure Limit:** 150 psi (10.3 bar).
- 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.

### 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": 0.55A, 3/4" and 1": 0.75A, 1-1/2": 0.99A, 2" and 2-1/2": 0.75A, 3": 1.1A. Modulating: 1/4" to 3/4": 0.55A, 1" to 1-1/2": 0.75A, 2": 0.75A, 2-1/2": 0.75A, 3" and 4": 1.1A.
- Cycle Time (per 90°):** Two position: 1/2": 2.5 sec., 3/4" to 1-1/2": 5 sec., 2" to 3": 15 sec., 4": 30 sec. Modulating: 1/2" to 1-1/2": 10 sec., 2" and 2-1/2": 20 sec., 4": 30 sec.
- Duty Rating:** Two position: 1/2": 75%, 3/4" to 4": 25%. Modulating: 75%.
- Enclosure Rating:** NEMA 4. Optional NEMA 7.
- 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):** DA2, SR2: 9.34 cu. in.; DA3, SR3: 17.21 cu. in.; DA4, SR4: 20.5 cu. in.; DA5, SR5: 39.54 cu. in.; SR6: 54.37 cu. in.; SR7: 85.43 cu. in.; SR8: 122.05 cu. in.; SR9: 215.11 cu. in.
- Cycle Time (per 90°):** DA1: .03 sec.; DA2: .05 sec.; DA3: .06 sec.; DA5: .08 sec.; DA6: .18sec.; SR2: .07 sec.; SR3: .13 sec.; SR4: .17 sec.; SR5: .28 sec.; SR6: .39 sec.; SR7: .60 sec.; SR8: .90 sec.; SR9: 1.75 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.

Size	Cv	Double Acting Pneumatic	Spring Return Pneumatic	Two Position Electric	Modulating Electric	OPTIONS
		Model	Model	Model	Model	
1/2"	15	BV2DA202F1	BV2SR202F1	BV2U1102F1	BV2V1202F1	<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.
3/4"	40	BV2DA203F1	BV2SR303F1	BV2U1203F1	BV2V1203F1	
1"	70	BV2DA204F1	BV2SR404F1	BV2U1204F1	BV2V1204F1	
1-1/2"	240	BV2DA306F1	BV2SR406F1	BV2U1306F1	BV2V1306F1	
2"	400	BV2DA407F1	BV2SR607F1	BV2U1507F1	BV2V1507F1	
2-1/2"	700	BV2DA508F1	BV2SR708F1	BV2U1508F1	BV2V1508F1	
3"	980	BV2DA509F1	BV2SR809F1	BV2U1609F1	BV2V1609F1	
4"	1700	BV2DA710F1	BV2SR910F1	BV2U1710F1	BV2V1710F1	

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

