



BVA300 Series

Pneumatic Actuators for Spirax Sarco Ball Valves

Description

The BVA300 series are pneumatic rotary actuators which automate Spirax Sarco ball valves in a wide range of industrial applications. BVA300 actuators are provided with bi-directional travel stop that allow a rotation of $90^{\circ} \pm 5^{\circ}$. Linkage is made with the new BVL_X kits with extended stem.

The pneumatic actuated ball valve range comprises:-

Actuators combined with three-piece ball valves: M10Vi ISO, M10Si ISO, M10HPi ISO, M10Pi ISO*, M10Ti ISO, M10F ISO, M10Hi ISO, M10HTi, M70i ISO and M80i ISO

Actuators combined with two-piece ball valves: M33V ISO, M33S ISO and M33F ISO

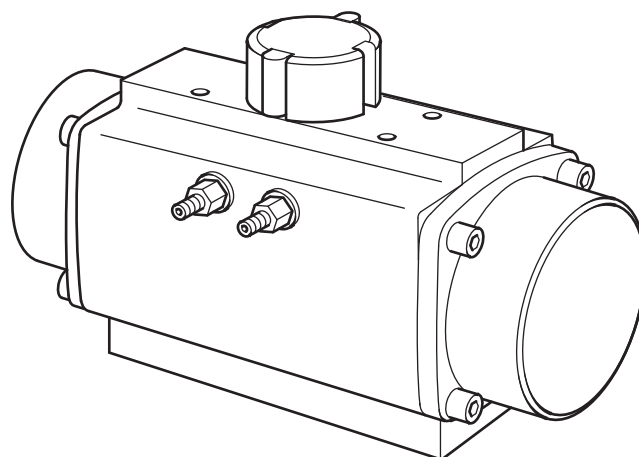
Actuators combined with one-piece ball valves: M21S ISO, M40V ISO, M40S ISO, M40F ISO and M40H ISO*

***BVA300 note:** For use with these valves, contact Spirax Sarco.

Available types of BVA actuator

Double acting: 310D, 315D,
 320D, 325D,
 330D, 335D,
 340D, 345D,
 350D, 355D,
 360D, 365D

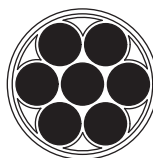
Single acting (spring return): 310S, 315S,
 320S, 325S,
 330S, 335S,
 340S, 345S,
 350S, 355S,
 360S, 365S.



Note: The BVA365D will be selected when higher torques are required for further data contact Spirax Sarco.

Spring quantity selection

According to the available air pressure, the BVA has different spring configurations. For more details, see the Installation and Maintenance Instructions IM-P372-24.



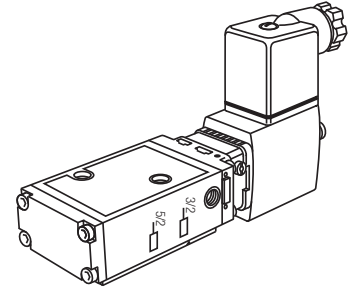
BVA	Springs					
	S/4	S/6	S/8	S/10	S/12	S/14
310	•	•	•			
315 - 365			•	•	•	•

Example: BVA325S/10 has 10 springs.

Optional extras

Solenoid valve: a range of Namur electrical valves with an encapsulation rating to IP65 minimum is available for use with BVA actuators. These can be used to drive actuators with compressed air or non-corrosive gas.

Solenoid	Coil voltage
	220 Vac
3/2 NAMUR for BVAS	110 Vac
	24 Vac/dc
5/2 NAMUR for BVAD	220 Vac
	110 Vac
	24 Vac/dc

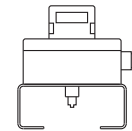


Note: IP65 and IP67 Electric Protection Explosion proof solenoid valves and ASI option available on request.

Limit switch box: a range of limit switch boxes are available to indicate ball valve position. It also allows switching points to be adjustable over the full range of actuators. See TI-P372-26 for details.

Available types

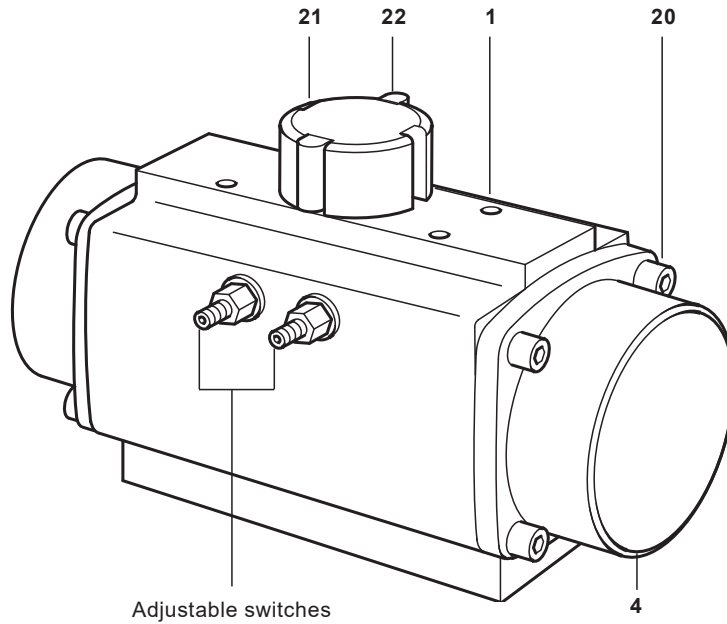
LSB3_IP67 Protection	IP68 (optional)
LSB7_Exp. Proof Exd IIc	T6, IP67 (optional)



Technical data

Maximum pressure	(8 bar g) 120 psi g
Minimal pressure	(3 bar g) 45 psi g
Operating pressure range (standard)	(3, 4, 5 or 6 bar g) 45, 60, 75 or 90 psi g
Operating temperature range	(-30 °C to 100 °C) -22 °F to 212 °F
Note: Other operating temperature ranges available on request.	
Operating media	Compressed air (clean and dry)
	Non corrosive gas
	Light hydraulic oil (must be compatible with 'O' rings)
Rotation 90 ±5°	Anti-clockwise with port 'A' pressurised

Materials



No	Part	Material
1	Body	Aluminium hard anodized
3	Pinion	Nickel plated carbon steel (Note: Item 3 is shown clearly in the spares drawing on page 2.)
4	End caps	Aluminium epoxy coated
20	Bolt	Stainless steel
21	Indicator cap	Polyamide
22	Colored indicator	Polyamide

BVL_X linkage kit components and materials

Note: The BVL_X for the M20 is made in zinc plated carbon steel.

Frame	Stainless steel AISI 304
Stem adapter	Stainless steel AISI 304
Frame-to-actuator screws	Stainless steel Gr. 5
Washers	Stainless steel
Frame-to-valve screws	Stainless steel Gr. 5
Stem nut	Stainless steel

Compressed air consumption

Nm³/stroke

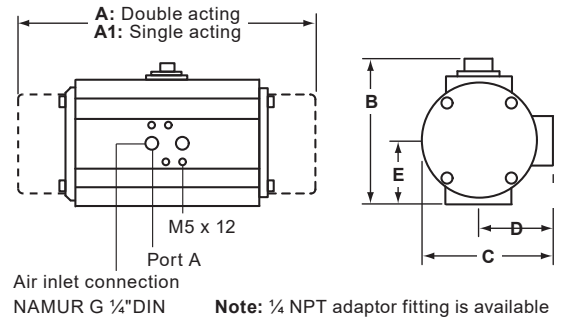
BVA _ _ _	310	315	320	325	330	335	340	345	350	355	360	365
Single Acting	0.0001	0.0002	0.0006	0.0008	0.0011	0.0019	0.0029	0.0047	0.007	0.01	0.02	0.03
Double Acting	0.0002	0.0005	0.0011	0.0015	0.0023	0.0036	0.0056	0.0085	0.01	0.02	0.05	0.06

Notes:

- Normal m³ per open/close cycle when supplied with air at 87 psi g
- Consumption for BVA 315 - BVA 365 considering S/14 spring configuration
- Consumption for BVA 310 considering S/06 spring configuration

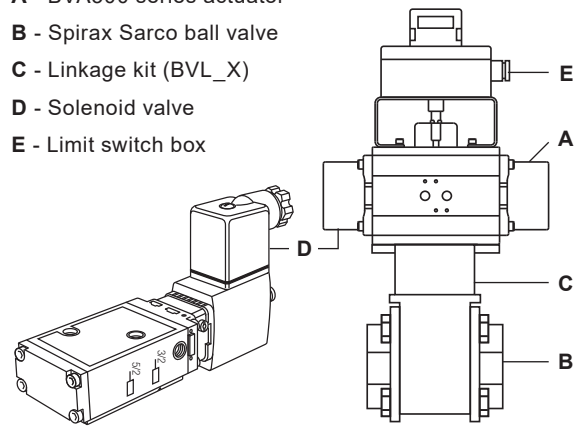
Dimensions / weights approximate in inches (mm) and lbs. (kg)

Type	A1	A	B	C	D	E	Weights	
							Single	Double
BVA310	6.42 (163)	5.71 (145)	3.78 (96)	2.99 (76)	1.89 (48)	1.34 (34)	3.5 (1.6)	3.1 (1.4)
BVA315	7.68 (195)	6.23 (158)	4.53 (115)	3.59 (91)	2.21 (56)	1.77 (45)	5.1 (2.3)	4.6 (2.1)
BVA320	8.55 (217)	6.97 (177)	5.40 (137)	4.37 (111)	2.60 (66)	2.17 (55)	8.2 (3.7)	6.6 (3.0)
BVA325	10.17 (258)	7.72 (196)	5.79 (147)	4.81 (122)	2.80 (71)	2.36 (60)	10.6 (4.8)	8.4 (3.8)
BVA330	11.78 (299)	8.87 (225)	6.50 (165)	5.36 (136)	3.07 (78)	2.76 (70)	16.1 (7.3)	12.3 (5.6)
BVA335	13.75 (349)	10.76 (273)	7.17 (182)	6.03 (153)	3.39 (86)	3.15 (80)	23.8 (10.8)	18.7 (8.5)
BVA340	15.62 (397)	11.96 (304)	7.83 (199)	6.81 (173)	3.77 (96)	3.34 (85)	33.9 (15.4)	24.6 (11.2)
BVA345	18.64 (473)	14.66 (372)	8.71 (221)	7.56 (192)	4.18 (106)	3.86 (98)	49 (22.2)	38 (16.9)
BVA350	22.06 (560)	17.30 (439)	9.81 (249)	8.39 (213)	4.57 (116)	4.49 (114)	76 (34.3)	57 (25.8)
BVA355	23.68 (601)	18.16 (461)	11.03 (280)	9.57 (243)	5.16 (131)	5.12 (130)	102 (46.0)	72 (32.5)
BVA360	29.08 (738)	20.41 (518)	15.09 (383)	14.03 (356)	7.01 (178)	6.97 (177)	221 (99.9)	154 (69.6)
BVA365	37.04 (940)	24.82 (630)	17.10 (434)	16.35 (415)	8.39 (213)	7.92 (201)	404 (183)	286 (129.4)



Typical assembly

- A - BVA300 series actuator
- B - Spirax Sarco ball valve
- C - Linkage kit (BVL_X)
- D - Solenoid valve
- E - Limit switch box



How to order

Note: You will need to refer to the selection tables (on the following pages) before placing an order.

How to order example:

- 1 - Spirax Sarco BVA320S/8 actuator
- 1 - 3/2 NAMUR solenoid 24 VAC
- 1 - BVL337X linkage kit
- 1 - LSB3 limit switch box

Note: Actuated ball valves may be supplied completely assembled to suit the application.

Spare parts

The spare parts available are detailed below. No other parts are supplied as spares.

Available spares

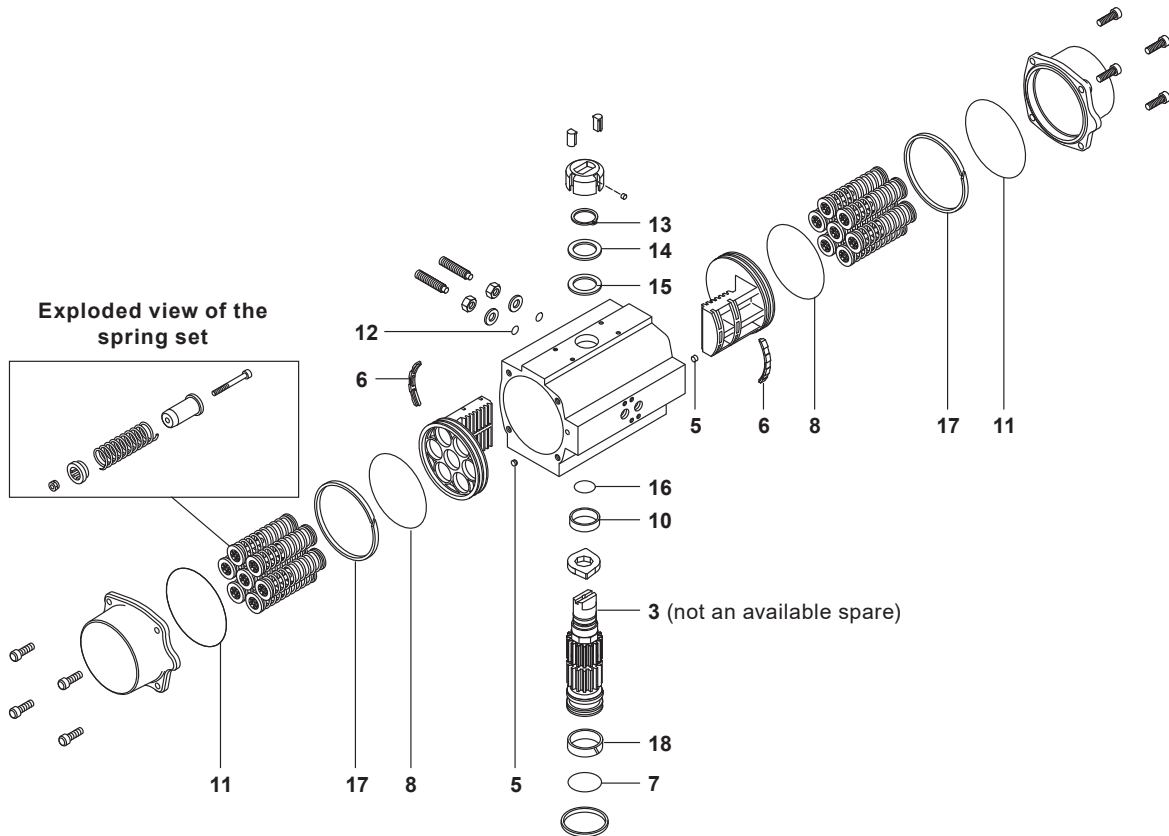
	'O' rings set (available either in NBR, Viton or Silicon)	7, 8, 11, 12, 16
BVA300 series maintenance kit	Pinion washers	13, 14, 15
	Others	5, 6, 10, 17, 18

How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the nomenclature of the pneumatic actuator that they are intended for.

Note: all the spares mentioned above are sold together in one spare part kit.

Example: 1 - BVA300 series maintenance kit with 'O' rings in NBR for a Spirax Sarco BVA320S/08 pneumatic actuator.



Pneumatic actuator selection tables for three-piece ball valves

M10Vi ISO, M10Si ISO and M10Ti ISO ball valves

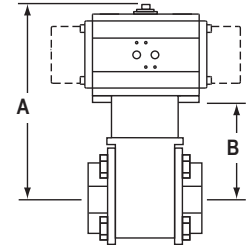
**Actuator operating pressure
(3 bar g) 45 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
1/4" RB - 3/8" RB	310D	300X	310S/4	300X
1/2" RB - 3/8" FB	310D	300X	310S/4	300X
3/4" RB - 1/2" FB	310D	300X	315S/8	300X
1" RB - 3/4" FB	315D	302X	320S/8	303X
1 1/4" RB - 1" FB	320D	311X	325S/8	311X
1 1/2" RB - 1 1/4" FB	330D	305X	340S/8	316X
2" RB - 1 1/2" FB	330D	306X	340S/8	307X
2 1/2" RB - 2" FB	335D	309X	340S/8	309X

**Actuator operating pressure
(4 bar g) 60 psi g**

Double acting		Single acting	
BVA	BVL	BVA	BVL
310D	300X	310S/6	300X
310D	300X	310S/6	300X
310D	300X	315S/10	300X
315D	302X	320S/10	303X
315D	310X	320S/10	311X
325D	305X	335S/10	316X
325D	306X	335S/10	307X
330D	308X	340S/10	309X

Dimensions *



*Note: The dimensions A and B represents the maximum size (mm) for the biggest recommended actuator according to each valve.

**Actuator operating pressure
(5 bar g) 75 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
1/4" RB - 3/8" RB	310D	300X	310S/6	300X
1/2" RB - 3/8" FB	310D	300X	310S/6	300X
3/4" RB - 1/2" FB	310D	300X	310S/6	300X
1" RB - 3/4" FB	315D	302X	320S/12	303X
1 1/4" RB - 1" FB	315D	310X	320S/12	311X
1 1/2" RB - 1 1/4" FB	320D	305X	330S/12	305X
2" RB - 1 1/2" FB	325D	306X	335S/12	307X
2 1/2" RB - 2" FB	325D	308X	335S/12	309X

**Actuator operating pressure
(6 bar g) 90 psi g**

Double acting		Single acting	
BVA	BVL	BVA	BVL
310D	300X	310S/8	300X
310D	300X	310S/8	300X
310D	300X	310S/8	300X
310D	302X	315S/14	302X
315D	310X	320S/14	311X
320D	305X	330S/14	305X
320D	306X	330S/14	306X
325D	308X	335S/14	309X

inches (mm)

DN	A	B
1/4"	(218) 8.59	(122) 4.81
3/8"	(218) 8.59	(122) 4.81
1/2"	(237) 9.34	(122) 4.81
3/4"	(261) 10.28	(124) 4.89
1"	(276) 10.88	(129) 5.09
1 1/4"	(333) 13.12	(134) 5.28
1 1/2"	(336) 13.24	(137) 5.40
2"	(342) 13.48	(143) 5.64
2 1/2"	(356) 14.03	(157) 6.19

M10Pi ISO ball valves

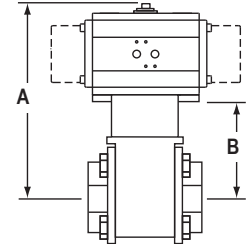
**Actuator operating pressure
(3 bar g) 45 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
1/4" RB - 3/8" RB	310D	490X	310S/4	490X
1/2" RB - 3/8" FB	310D	490X	310S/4	490X
3/4" RB - 1/2" FB	310D	490X	315S/8	490X
1" RB - 3/4" FB	315D	492X	320S/8	493X
1 1/4" RB - 1" FB	320D	494X	325S/8	494X
1 1/2" RB - 1 1/4" FB	330D	496X	340S/8	497X
2" RB - 1 1/2" FB	330D	498X	340S/8	499X
2 1/2" RB - 2" FB	330D	505X	340S/8	502X

**Actuator operating pressure
(4 bar g) 60 psi g**

Double acting		Single acting	
BVA	BVL	BVA	BVL
310D	490X	310S/6	490X
310D	490X	310S/6	490X
310D	490X	315S/10	490X
315D	492X	320S/10	493X
315D	504X	320S/10	494X
325D	496X	335S/10	497X
325D	498X	335S/10	499X
330D	505X	340S/10	502X

Dimensions *



*Note: The dimensions A and B represents the maximum size (mm) for the biggest recommended actuator according to each valve.

**Actuator operating pressure
(5 bar g) 75 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
1/4" RB - 3/8" RB	310D	490X	310S/6	490X
1/2" RB - 3/8" FB	310D	490X	310S/6	490X
3/4" RB - 1/2" FB	310D	490X	310S/6	490X
1" RB - 3/4" FB	315D	492X	320S/12	493X
1 1/4" RB - 1" FB	315D	504X	320S/12	494X
1 1/2" RB - 1 1/4" FB	320D	496X	330S/12	496X
2" RB - 1 1/2" FB	325D	498X	335S/12	499X
2 1/2" RB - 2" FB	325D	505X	335S/12	502X

**Actuator operating pressure
(6 bar g) 90 psi g**

Double acting		Single acting	
BVA	BVL	BVA	BVL
310D	490X	310S/8	490X
310D	490X	310S/8	490X
310D	490X	310S/8	490X
310D	492X	315S/14	492X
315D	504X	320S/14	494X
320D	496X	330S/14	496X
320D	498X	330S/14	498X
325D	505X	335S/14	502X

inches (mm)

DN	A	B
1/4"	(218) 8.59	(122) 4.81
3/8"	(218) 8.59	(122) 4.81
1/2"	(237) 9.34	(122) 4.81
3/4"	(261) 10.28	(124) 4.89
1"	(276) 10.88	(129) 5.09
1 1/4"	(333) 13.12	(134) 5.28
1 1/2"	(336) 13.24	(137) 5.40
2"	(342) 13.48	(143) 5.64
2 1/2"	(356) 14.03	(157) 6.19

Pneumatic actuator selection tables for three-piece ball valves

M10HPi ISO ball valves

**Actuator operating pressure
(3 bar g) 45 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
¼" RB - ⅜" RB	315D	490X	320S/8	491X
½" RB - ⅝" FB	315D	490X	320S/8	491X
¾" RB - 1" FB	315D	490X	325S/8	491X
1" RB - ¾" FB	320D	493X	330S/8	493X
1¼" RB - 1" FB	325D	494X	340S/8	495X
1½" RB - 1¼" FB	330D	496X	340S/8	497X
2" RB - 1½" FB	335D	499X	345S/8	500X

**Actuator operating pressure
(4 bar g) 60 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
¼"	310D	490X	320S/10	491X
½"	310D	490X	320S/10	491X
¾"	315D	490X	320S/10	491X
1"	320D	493X	325S/10	493X
1¼"	325D	494X	335S/10	495X
1½"	325D	496X	335S/10	497X
2"	335D	499X	340S/10	499X

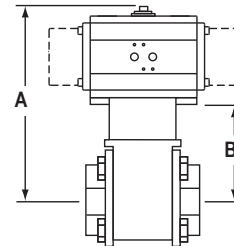
**Actuator operating pressure
(5 bar g) 75 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
¼" RB - ⅜" RB	310D	490X	315S/12	490X
½" RB - ⅝" FB	310D	490X	315S/12	490X
¾" RB - 1" FB	315D	490X	320S/12	491X
1" RB - ¾" FB	315D	492X	325S/12	493X
1¼" RB - 1" FB	320D	494X	330S/12	494X
1½" RB - 1¼" FB	325D	496X	335S/12	497X
2" RB - 1½" FB	330D	498X	340S/12	499X

**Actuator operating pressure
(6 bar g) 90 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
¼"	310D	490X	315S/14	490X
½"	310D	490X	315S/14	490X
¾"	310D	490X	320S/14	491X
1"	315D	492X	320S/14	493X
1¼"	320D	494X	330S/14	494X
1½"	320D	496X	330S/14	496X
2"	330D	498X	340S/14	499X

Dimensions *



*Note: The dimensions A and B represents the maximum size (mm) for the biggest recommended actuator according to each valve.

inches (mm)

DN	A	B
¼"	(259) 10.19	(122) 4.8
⅜"	(259) 10.19	(122) 4.8
½"	(259) 10.19	(122) 4.8
¾"	(271) 10.67	(124) 4.9
1"	(294) 11.57	(129) 5.07
1¼"	(333) 13.11	(134) 5.27
1½"	(336) 13.22	(137) 5.39
2"	(364) 14.33	(143) 5.63

M10Hi ISO and M10HTi ball valves

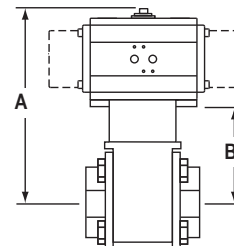
**Actuator operating pressure
(3 bar g) 45 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
¼" RB - ⅜" RB	315D	490X	320S/8	491X
½" RB - ⅝" FB	315D	490X	320S/8	491X
¾" RB - 1" FB	315D	490X	325S/8	491X
1" RB - ¾" FB	320D	493X	330S/8	493X
1¼" RB - 1" FB	325D	494X	340S/8	495X
1½" RB - 1¼" FB	330D	496X	340S/8	497X
2" RB - 1½" FB	330D	498X	340S/8	499X
2½" RB - 2" FB	335D	502X	345S/8	503X

**Actuator operating pressure
(4 bar g) 60 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
¼"	310D	490X	320S/10	491X
½"	310D	490X	320S/10	491X
¾"	315D	490X	320S/10	491X
1"	320D	493X	325S/10	493X
1¼"	325D	494X	335S/10	495X
1½"	325D	496X	335S/10	497X
2"	330D	498X	340S/10	499X
2½"	335D	502X	340S/10	502X

Dimensions *



*Note: The dimensions A and B represents the maximum size (mm) for the biggest recommended actuator according to each valve.

inches (mm)

DN	A	B
¼"	10.19 (259)	(122) 4.8
⅜"	10.19 (259)	(122) 4.8
½"	10.19 (259)	(122) 4.8
¾"	10.67 (271)	(124) 4.9
1"	11.57 (294)	(129) 5.07
1¼"	13.11 (333)	(134) 5.27
1½"	13.22 (336)	(137) 5.39
2"	13.46 (342)	(143) 5.63
2½"	14.03 (356)	(157) 6.19

Pneumatic actuator selection tables for three-piece ball valves

M10F ISO ball valves

Actuator operating pressure
(3 bar g) 45 psi g

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
1/4" RB - 3/8" RB	310D	440X	310S/4	440X
1/2" RB - 3/8" FB	310D	441X	310S/4	441X
3/4" RB - 1/2" FB	310D	442X	315S/8	442X
1" RB - 3/4" FB	315D	443X	320S/8	444X
1 1/4" RB - 1" FB	320D	446X	325S/8	446X
1 1/2" RB - 1 1/4" FB	330D	447X	340S/8	448X
2" RB - 1 1/2" FB	330D	449X	340S/8	450X
2 1/2" RB - 2" FB 335D	452X	340S/8	452X	

Actuator operating pressure
(4 bar g) 60 psi g

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
310D	440X	310S/6	440X	
310D	441X	310S/6	441X	
310D	442X	315S/10	442X	
315D	443X	320S/10	444X	
315D	445X	320S/10	446X	
325D	447X	335S/10	448X	
325D	449X	335S/10	450X	
330D	451X	340S/10	452X	

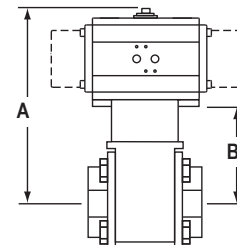
Actuator operating pressure
(5 bar g) 75 psi g

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
1/4" RB - 3/8" RB	310D	440X	310S/6	440X
1/2" RB - 3/8" FB	310D	441X	310S/6	441X
3/4" RB - 1/2" FB	310D	442X	310S/6	442X
1" RB - 3/4" FB	315D	443X	320S/12	444X
1 1/4" RB - 1" FB	315D	445X	320S/12	446X
1 1/2" RB - 1 1/4" FB	320D	447X	330S/12	447X
2" RB - 1 1/2" FB	325D	449X	335S/12	450X
2 1/2" RB - 2" FB	325D	451X	335S/12	452X

Actuator operating pressure
(6 bar g) 90 psi g

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
310D	440X	310S/8	440X	
310D	441X	310S/8	441X	
310D	442X	310S/8	442X	
310D	443X	315S/14	443X	
315D	445X	320S/14	446X	
320D	447X	330S/14	447X	
320D	449X	330S/14	449X	
325D	451X	335S/14	452X	

Dimensions *



*Note: The dimensions A and B represents the maximum size (mm) for the biggest recommended actuator according to each valve.

inches (mm)

DN	A	B
1/4"	(213) 8.3	(117) 4.6
3/8"	(213) 8.3	(117) 4.6
1/2"	(235) 9.2	(120) 4.7
3/4"	(260) 10.2	(123) 4.8
1"	(275) 10.8	(128) 5.0
1 1/4"	(334) 13.1	(135) 5.3
1 1/2"	(336) 13.2	(137) 5.4
2"	(345) 13.6	(146) 5.7
2 1/2"	(358) 14.1	(159) 6.2

M70i ISO ball valve

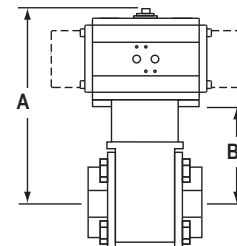
Actuator operating pressure
(3 bar g) 45 psi g

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
1/2"	315D	300X	320S/8	301X
3/4"	315D	300X	325S/8	301X
1"	320D	303X	325S/8	303X
1 1/2"	330D	306X	340S/8	307X
2"	335D	309X	345S/8	318X

Actuator operating pressure
60 psi g (4 bar g)

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
315D	300X	320S/10	301X	
315D	300X	320S/10	301X	
315D	302X	325S/10	303X	
330D	306X	340S/10	307X	
335D	309X	340S/10	309X	

Dimensions *



*Note: The dimensions A and B represents the maximum size (mm) for the biggest recommended actuator according to each valve.

Actuator operating pressure
(5 bar g) 75 psi g

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
1/2"	310D	300X	320S/12	301X
3/4"	315D	300X	320S/12	301X
1"	315D	302X	320S/12	303X
1 1/2"	325D	306X	335S/12	307X
2"	330D	308X	340S/12	309X

Actuator operating pressure
90 psi g (6 bar g)

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
310D	300X	315S/14	300X	
310D	300X	320S/14	301X	
315D	302X	320S/14	303X	
325D	306X	335S/14	307X	
330D	308X	335S/14	309X	

inches (mm)

DN	A	B
1/2"	(259) 10.21	(122) 4.81
3/4"	(271) 10.68	(124) 4.89
1"	(276) 10.88	(129) 5.09
1 1/2"	(342) 13.48	(143) 5.64
2"	(378) 14.90	(157) 6.19

Pneumatic actuator selection tables for three-piece ball valves

M80i ISO ball valve

Actuator operating pressure
(3 bar g) 45 psi g

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
2½"	335D	481X	345S/8	482X
3"	340D	481X	345S/8	482X
4"	340D	484X	350S/8	486X

Actuator operating pressure
60 psi g (4 bar g)

Double acting		Single acting	
BVA	BVL	BVA	BVL
335D	481X	340S/10	481X
335D	481X	345S/10	482X
335D	484X	345S/10	485X

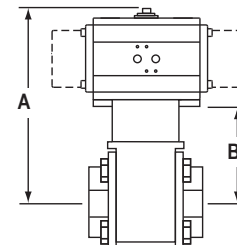
Actuator operating pressure
(5 bar g) 75 psi g

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
2½"	330D	480X	340S/12	481X
3"	335D	481X	340S/12	481X
4"	335D	484X	345S/12	485X

Actuator operating pressure
90 psi g (6 bar g)

Double acting		Single acting	
BVA	BVL	BVA	BVL
330D	480X	340S/14	481X
330D	480X	340S/14	481X
335D	484X	340S/14	484X

Dimensions *



*Note: The dimensions A and B represents the maximum size (mm) for the biggest recommended actuator according to each valve.

DN	inches (mm)	
	A	B
2½"	(407) 16.04	(186) 7.33
3"	(434) 17.10	(213) 8.40
4"	(499) 19.66	(250) 9.85

Pneumatic actuator selection tables for two-piece ball valves

M33V ISO, M33S ISO and M33F ISO ball valves

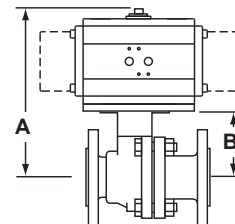
Actuator operating pressure
(3 bar g) 45 psi g

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
2"	330D	510X	340S/8	511X
2½"	335D	513X	345S/8	514X
3"	340D	513X	350S/8	526X
4"	350D	517X	360S/8	527X
6"	360D	520X	365S/8	521X
8"	365D	525X	-	-

Actuator operating pressure
(4 bar g) 60 psi g

Double acting		Single acting	
BVA	BVL	BVA	BVL
330D	510X	335S/10	511X
335D	513X	340S/10	513X
335D	513X	345S/10	514X
345D	516X	355S/10	517X
355D	519X	360S/10	520X
360D	524X	365S/10	525X

Dimensions *



*Note: The dimensions A and B represents the maximum size (mm) for the biggest recommended actuator according to each valve.

Actuator operating pressure
(5 bar g) 75 psi g

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
2"	325D	510X	335S/12	511X
2½"	330D	512X	340S/12	513X
3"	335D	513X	340S/12	513X
4"	345D	516X	355S/12	517X
6"	350D	519X	360S/12	520X
8"	360D	524X	365S/12	525X

Actuator operating pressure
(6 bar g) 90 psi g

Double acting		Single acting	
BVA	BVL	BVA	BVL
325D	510X	335S/14	511X
330D	512X	335S/14	513X
335D	513X	340S/14	513X
345D	516X	350S/14	517X
350D	519X	360S/14	520X
360D	524X	365S/14	525X

inches (mm)

DN	inches (mm)	
	A	B
2"	(356) 14.01	(157) 6.18
2½"	(390) 15.35	(169) 6.65
3"	(426) 16.77	(177) 6.96
4"	(647) 25.47	(264) 10.39
6"	(750) 29.53	(316) 12.44
8"	(785) 30.9	(351) 13.81

Pneumatic actuator selection tables for one-piece ball valves

M40Vi ISO, M40Si ISO and M40Fi ISO ball valve

**Actuator operating pressure
(3 bar g) 45 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
½"	310D	300X	320S/8	301X
¾"	310D	300X	320S/8	301X
1"	315D	302X	320S/8	303X
1¼"	320D	494X	325S/8	494X
1½"	320D	306X	330S/8	306X
2"	320D	306X	330S/8	306X
2½"	330D	510X	340S/8	511X
3"	335D	513X	345S/8	514X
4"	340D	513X	350S/8	526X
6"	345D	516X	350S/8	517X

**Actuator operating pressure
(4 bar g) 60 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
½"	310D	300X	315S/10	300X
¾"	310D	300X	315S/10	300X
1"	315D	302X	320S/10	303X
1¼"	315D	504X	320S/10	494X
1½"	320D	306X	325S/10	306X
2"	320D	306X	330S/10	306X
2½"	325D	510X	335S/10	511X
3"	335D	513X	340S/10	513X
4"	335D	513X	345S/10	514X
6"	340D	515X	350S/10	517X

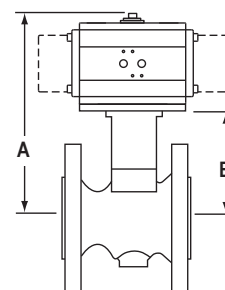
**Actuator operating pressure
(5 bar g) 75 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
½"	310D	300X	315S/12	300X
¾"	310D	300X	315S/12	300X
1"	315D	302X	320S/12	303X
1¼"	315D	504X	320S/12	494X
1½"	315D	506X	325S/12	306X
2"	320D	306X	325S/12	306X
2½"	325D	510X	335S/12	511X
3"	330D	512X	340S/12	513X
4"	335D	513X	340S/12	513X
6"	340D	515X	345S/12	516X

**Actuator operating pressure
(6 bar g) 90 psi g**

DN	Double acting		Single acting	
	BVA	BVL	BVA	BVL
½"	310D	300X	315S/14	300X
¾"	310D	300X	315S/14	300X
1"	310D	302X	315S/14	302X
1¼"	315D	504X	320S/14	494X
1½"	315D	506X	325S/14	306X
2"	315D	506X	325S/14	306X
2½"	320D	510X	330S/14	510X
3"	330D	512X	335S/14	513X
4"	335D	513X	340S/14	513X
6"	335D	515X	345S/14	516X

Dimensions *



*Note: The dimensions A and B represents the maximum size (mm) for the biggest recommended actuator according to each valve.

inches (mm)

DN	A	B
½"	(261) 10.2	(124) 4.8
¾"	(261) 10.2	(124) 4.8
1"	(266) 10.5	(129) 5.0
1¼"	(281) 11.0	(134) 5.2
1½"	(303) 11.9	(138) 5.4
2"	(308) 12.1	(143) 5.6
2½"	(356) 14.0	(157) 6.1
3"	(383) 15.0	(162) 6.3
4"	(426) 16.7	(177) 6.9
6"	(513) 20.2	(264) 10.4