

spirax/sarco®

BVA200 Series Pneumatic Actuator with M70i Ball Valve

Selection tables

How to choose:

Ball valve and actuator tables for operating air pressure 60, 75, 90 psig (4, 5 or 6 barg.)

Key: Light service (LS), Heavy service (HS), Double acting (D), Single acting with return spring (S).

Operating pressure: 60 psig (4 barg)

Valve size	BVA actuator			
	Double acting		Single acting	
	LS	HS	LS	HS
1/2" FB	210D	215D	215S/4	220S/4
3/4" FB	215D	215D	220S/4	220S/4
1" FB	215D	220D	220S/4	225S/4
1-1/2" FB	225D	230D	235S/4	235S/4
2" FB	230D	235D	235S/4	240S/4

Operating pressure: 75 psig (5 barg)

Valve size	BVA actuator			
	Double acting		Single acting	
	LS	HS	LS	HS
1/2" FB	210D	215D	215S	220S
3/4" FB	210D	215D	220S	220S
1" FB	215D	215D	220S	220S
1-1/2" FB	225D	230D	235S	235S
2" FB	230D	235D	235S	240S

Operating pressure: 90 psig (6 barg)

Valve size	BVA actuator			
	Double acting		Single acting	
	LS	HS	LS	HS
1/2" FB	210D	215D	215S	215S
3/4" FB	210D	215D	215S	220S
1" FB	215D	215D	220S	220S
1-1/2" FB	225D	225D	230S	235S
2" FB	225D	230D	235S	235S

BVL_ Linkage kit selection table

Valve size	BVA _ actuator							
	210	215	220	225	230	235	240	245
1/2" FB	300	300	301					
3/4" FB	300	300	301					
1" FB		302	303	303				
1-1/2" FB				306	306	307		
2" FB				308	308	309	309	

Conditions

Light service (LS)

- Clean, low viscosity fluid, without solids in suspension.
- Maximum saturated steam pressure 45 psig (3 bar g).
- Maximum working temperature 290°F at 145 psig (143°C at 10 barg).
- Maximum differential pressure 290 psig at 100°F (20 barg at 38°C).
- Frequent operation.

Heavy service (HS):

All those applications where at least one of the above mentioned conditions is exceeded.

Example

Select an actuator and linkage kit for the following application:

Valve required: 1-1/2" M70i ball valve.

Available air pressure: 90 psig (6 barg).

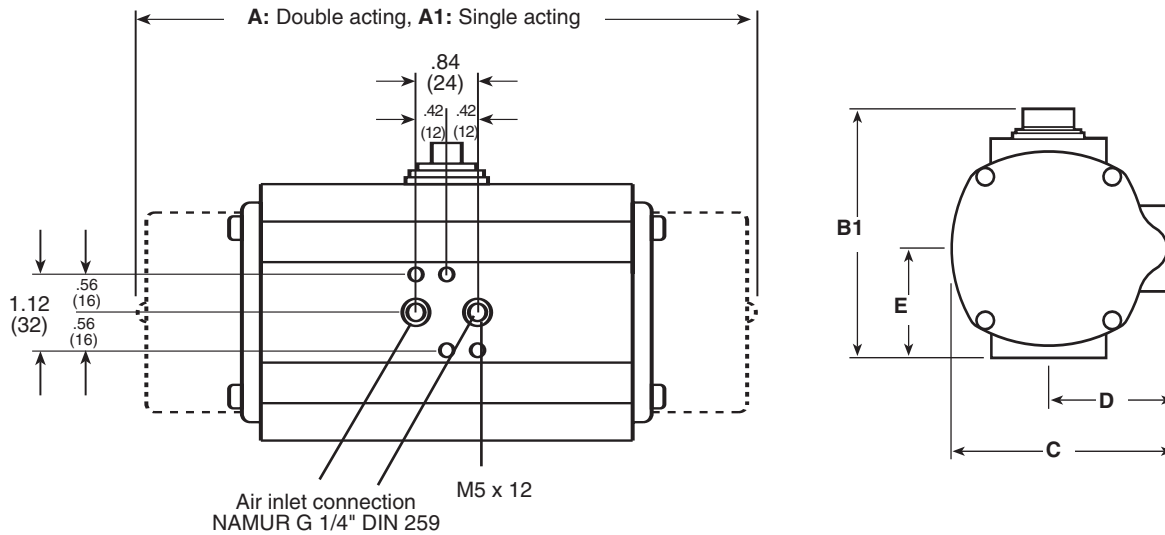
Light service, double acting actuator.

1. Select from 90 psig (6 barg) operating pressure table an actuator for a 1-1/2" FB ball valve, light service (LS), double acting: **BVA225D**
2. Select from BVL linkage kit selection table a BVL suitable for a 1-1/2" FB ball valve and BVA225 actuator: **BVL**

How to order

Example: 1 - Spirax Sarco 1-1/2" M70i ball valve, with BVA225D actuator and BVL linkage kit, operating with 90 psig (6 barg) air pressure.

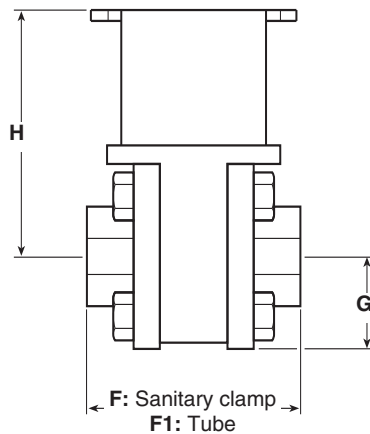
BVA200 Series Pneumatic Actuator with M70i Ball Valve



BVA200 Series actuators approximate in inches (mm) and lbs (kg)

Type	A		B1	C	D	E	Actuator weight	
	Double acting	A1 Single acting					Double acting	Single acting
BVA210	5.12 (130)	8.41 (215)	3.78 (96)	2.99 (76)	1.89 (48)	1.34 (34)	2.4 (1.1)	3.3 (1.5)
BVA215	5.67 (144)	9.14 (232)	4.53 (115)	3.55 (90)	2.21 (56)	1.77 (45)	3.7 (1.7)	5.1 (2.3)
BVA220	6.38 (162)	10.64 (270)	5.40 (137)	4.37 (111)	2.60 (66)	2.17 (55)	5.7 (2.6)	8.8 (4.0)
BVA225	7.17 (182)	11.70 (297)	5.75 (146)	4.77 (121)	2.80 (71)	2.36 (60)	7.5 (3.4)	12.1 (5.5)
BVA230	8.31 (211)	13.08 (332)	6.50 (165)	5.32 (135)	3.07 (78)	2.76 (70)	11.2 (5.1)	18.5 (8.4)
BVA235	9.65 (245)	14.62 (371)	7.17 (182)	5.95 (151)	3.39 (86)	3.15 (80)	16.8 (7.6)	26.7 (12.1)
BVA240	10.84 (275)	16.55 (420)	7.84 (199)	6.78 (172)	3.78 (96)	3.35 (85)	23.1 (10.5)	36.4 (16.5)

BVL linkage kit with M70i ball valve approximate in inches (mm) and lbs (kg)



Valve size	F	F1	G	H	Weight (Valve)
1/2"	3.50 (89.0)	5.52 (140.0)	0.95 (24)	3.07 (78)	2.1 (0.95)
3/4"	4.00 (101.6)	6.00 (152.4)	1.02 (26)	3.31 (84)	3.7 (1.65)
1"	4.50 (114.2)	6.50 (165.0)	1.22 (31)	3.55 (90)	5.1 (2.30)
1-1/2"	5.50 (139.6)	7.50 (190.4)	1.89 (48)	3.98 (101)	10.2 (4.60)
2"	6.25 (158.7)	8.00 (203.1)	2.25 (57)	5.52 (140)	17.6 (7.95)

Note: Weights including BVL are available upon request.

Linkage kit description

BVL Linkage kit components and materials are as follows

Frame (1)	Stainless steel	AISI 304
Stem adapter (1)	Stainless steel	AISI 304
Frame-to-actuator screws (4)	Stainless steel	Gr. 5
Washers (4)	Stainless steel	
Frame-to-valve screws (4)	Stainless steel	Gr. 5
Washers (4)	Stainless steel	
Stem nut (1) or locking plate (1)	Stainless steel	