

spirax sarco®

BVA200 Series Pneumatic Actuator with M10S ISO or M10F ISO Ball Valve

Selection tables

Ball valve and actuator tables for operating air pressure of 60, 75 or 90 psig..

Key: Light service (LS), Heavy service (HS), Double acting (D), Single acting with return spring (S), Reduced bore (RB), Full bore (FB).

Operating pressure: 60psig

Valves M10S ISO / M10F ISO Size	BVA actuator			
	Double acting		Single acting	
	LS	HS	LS	HS
1/4"RB - 3/8" RB	210 D	210 D	210 S/4	210 S/4
1/2"RB - 3/8" FB	210 D	210 D	215 S/4	215 S/4
3/4"RB - 1/2" FB	210 D	210 D	215 S/4	215 S/4
1"RB - 3/4" FB	215 D	215 D	220 S/4	220 S/4
1-1/4"RB - 1" FB	215 D	220 D	220 S/4	220 S/4
1-1/2"RB - 1-1/4" FB	220 D	220 D	220 S/4	225 S/4
2"RB - 1-1/2" FB	220 D	225 D	225 S/4	230 S/4
2-1/2"RB - 2" FB	225 D	230 D	230 S/4	235 S/4

Operating pressure: 75 psig

Valves M10S ISO / M10F ISO Size	BVA actuator			
	Double acting		Single acting	
	LS	HS	LS	HS
1/4"RB - 3/8" RB	210 D	210 D	210 S	210 S
1/2"RB - 3/8" FB	210 D	210 D	210 S	210 S
3/4"RB - 1/2" FB	210 D	210 D	215 S	210 S
1"RB - 3/4" FB	215 D	215 D	220 S	220 S
1-1/4"RB - 1" FB	215 D	220 D	220 S	220 S
1-1/2"RB - 1-1/4" FB	220 D	220 D	220 S	225 S
2"RB - 1-1/2" FB	220 D	225 D	225 S	230 S
2-1/2"RB - 2" FB	225 D	230 D	230 S	235 S

Operating pressure: 90 psig

Valves M10S ISO / M10F ISO Size	BVA actuator			
	Double acting		Single acting	
	LS	HS	LS	HS
1/4"RB - 3/8"RB	210 D	210 D	210 S	210 S
1/2"RB - 3/8"FB	210 D	210 D	210 S	210 S
3/4"RB - 1/2"FB	210 D	210 D	210 S	210 S
1"RB - 3/4"FB	210 D	215 D	215 S	215 S
1-1/4"RB - 1"FB	215 D	215 D	215 S	220 S
1-1/2"RB - 1-1/4"FB	215 D	215 D	220 S	220 S
2"RB - 1-1/2"FB	220 D	220 D	220 S	225 S
2-1/2"RB - 2"FB220 D	225 D	225 S	230 S	230S

BVL Linkage kit selection table

Valves M10S ISO or M10F ISO size	BVA actuator							
	210	215	220	225	230	235	240	245
1/4" RB - 3/8" RB	200							
1/2" RB - 3/8" FB	200	200						
3/4" RB - 1/2" FB	200	200						
1" RB - 1" FB	202	202	203					
1-1/4" RB - 1" FB		204	205					
1-1/2" RB - 1-1/4"FB		208	209	209				
2" RB - 1-1/2" FB			210	210	210			
2-1/2" RB - 2" FB			211	211	211	216		

Conditions

Light service (LS)

- Clean, low viscosity fluid, without solids in suspension.
- Maximum saturated steam pressure 45 psig.
- Maximum working temperature 290°F at 150 psig.
- Maximum differential pressure 300 psig at 100°F.
- Frequent operation.

Heavy service (HS)

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

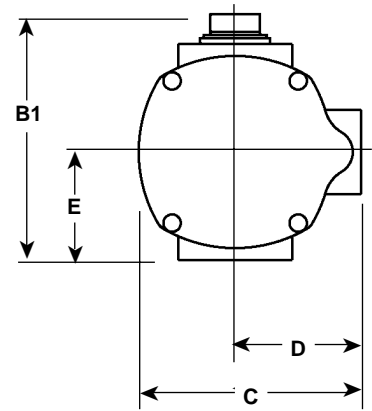
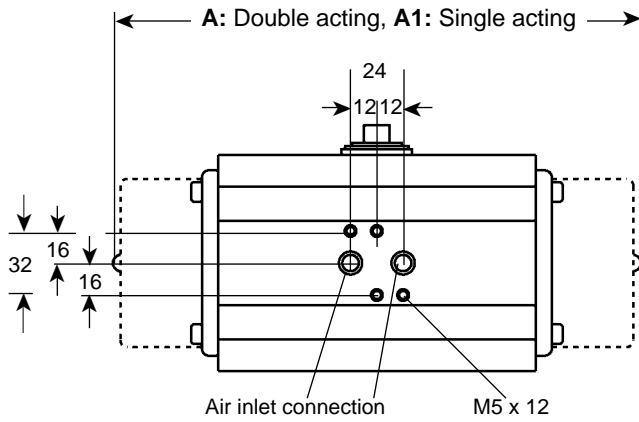
Example

Select an actuator and linkage kit for the following application
Valve required: 1-1/2" screwed NPT M10S2FB ISO ball valve.
Available air pressure: 90 psig.
Light service, double acting actuator.

1. Select from 90 psig operating pressure table an actuator for a 1-1/2" FB ball valve, light service (LS), double acting: **BVA 220D**
2. Select from BVL linkage kit selection table a BVL suitable for a 1-1/2" FB ball valve and BVA 220 actuator: **BVL 210**

How to order

Example: 1- Spirax Sarco 1-1/2" screwed NPT M10S2FB ISO ball valve, with BVA 220D actuator and BVL 210 linkage kit, operating with 90 psig air pressure.



BVA actuators

Type	Actuator weight		B1	C	D	E	Actuator weight	
	Double acting	Single acting					Double acting	Single acting
BVA 210	130	215	96	76	48	34	1.1	1.5
BVA 215	144	232	115	90	56	45	1.7	2.3
BVA 220	162	270	137	111	66	55	2.6	4.0
BVA 225	182	297	146	121	71	60	3.4	5.5
BVA 230	211	332	165	135	78	70	5.1	8.4
BVA 235	245	371	182	151	86	80	7.6	12.1
BVA 240	275	420	199	172	96	85	10.5	16.5
BVA 245	336	474	217	192	106	98	16.0	24.0
BVA 250	420	578	249	212	116	114	26.0	38.0
BVA 255	462	614	280	242	131	131	36.5	52.0

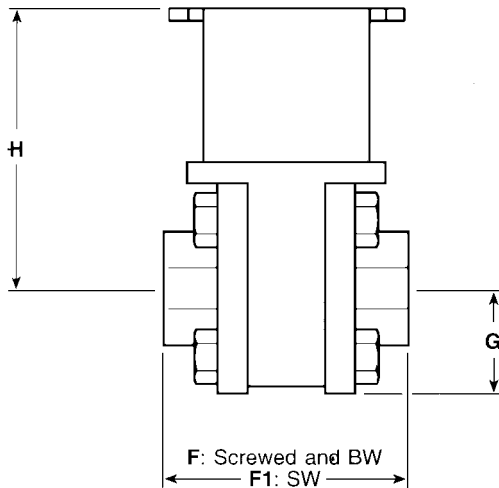
BVL linkage kit with M10S or M10F ISO ball valve

Reduced bore

Size (Valve)	F	F1	G	H	Weight (Valve)
1/4"	60	49	26	75	0.92
3/8"	60	49	26	75	0.92
1/2"	60	49	26	75	0.92
3/4"	66	58	28	78	0.95
1"	80	78	33	84	1.65
1-1/4"	96	91	36	90	2.30
1-1/2"	102	96	41	93	3.05
2"	118	112	47	101	4.60
2-1/2"	146	146	57	140	7.95

Full bore

Size (Valve)	F	F1	G	H	Weight (Valve)
1/4"	60	49	26	75	0.92
3/8"	60	49	26	75	0.92
1/2"	66	58	28	78	0.95
3/4"	80	78	33	84	1.65
1"	96	91	36	90	2.30
1-1/4"	102	96	41	93	3.05
1-1/2"	118	112	47	101	4.60
2"	146	146	57	140	7.95



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 screw (4)	Stainless steel Gr5
Washer (4)	Stainless steel
Frame-to-valve screw (4)	Stainless steel Gr5
Washer (4)	Stainless steel
Stem nut (1) or locking plate (1)	Stainless steel