

PNEUMATIC AND ELECTRIC ACTUATED BALL VALVES

BVP80 Series
Starts at
\$415

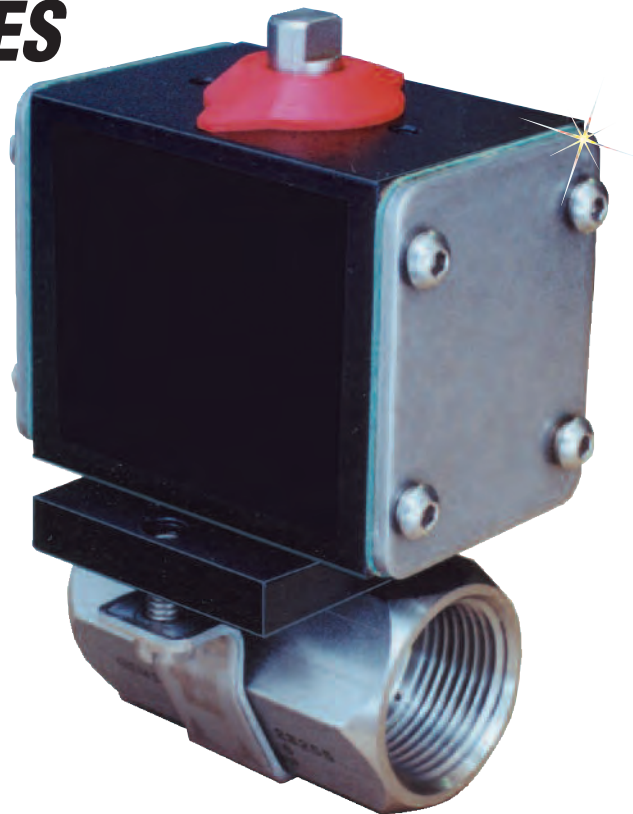


- ✓ **Compact Size and Lightweight Construction**
- ✓ **Reliable, Long Lasting Performance**
- ✓ **Standard “In Line” or “Cross Mount” Valve to Actuator Configurations**
- ✓ **Spring-Return Design Accommodates Air Supply as Low as 3.5 bar (50 psi)**
- ✓ **Stainless Steel External Trim and FKM O-Rings Standard**
- ✓ **Direct Valve Stem Coupling to Actuator Shaft Minimizes Backlash**
- ✓ **Manual Override Standard**
- ✓ **Electric Actuators Feature Two ½ NPT Conduit Ports and Integral Thermal Overload Protection**

The pneumatic actuators on the BVP/BVPS80 and BVP/BVPS70 Series offer the latest technology for pneumatically actuating BV80 Series ball valves with NPT threads and BV70 Series with compression fittings. The BVP80 and BVP70 Series are a combination of the three key elements for long, reliable, trouble free life—a premium quality ball valve, a quality actuator designed to meet the torque requirements of the valve, and a mounting system which assures alignment and rigidity.

The BV80 and BV70 ball valves low operating torque makes possible a compact actuator that is both economical to install and operate. Precise machining of all the valve components, including the seats, controls the sealing preload. This assures bubble-tight sealing, minimizes the operating torque and optimizes the valve life.

The mounting system precisely couples the actuator drive shaft to the valve stem. Additionally, the valve stem nut is fixed within the actuator shaft. These features combined with a rigid mounting bracket, results in a pneumatically actuated ball valve which minimizes backlash, assures optimum stem seal life and eliminates any possibility of stem nut backing off while in service.



BVP82-SS, \$445, shown smaller than actual size.

The BVPS80 and BVPS70 Series offers a spring-return model requiring only 3.5 bar (50 psi) supply air that can spring to open or close without loss of output torque from the air operated side. This is achieved by two opposing lightweight nylon resin housed spring modules that are fully compressed by air operated diaphragm pistons.

All BVPS80 and BVPS70 Series are designed to operate using an air supply of 3.5 to 8.6 bar (50 to 125 psi). The air can be delivered by direct mounting pilot valves having NAMUR interfaces or from remote pilot valves connected via means of ½ NPT female threaded orifices in the actuator face plates.

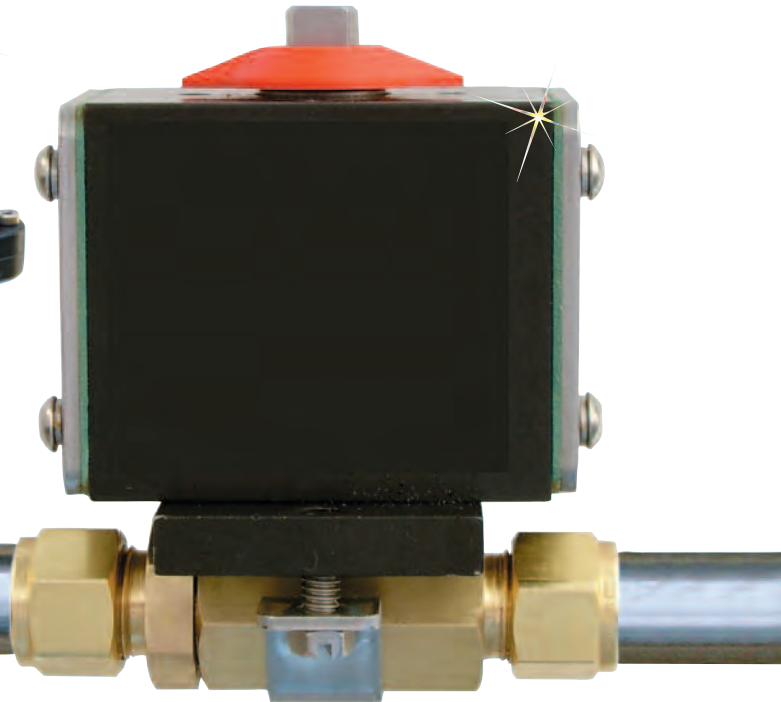
Caution: Care must be taken to assure that the output torque of the BVP80 Series actuator selected is adequate to turn the valve or device to be operated.

A Limit Switch accessory is offered for the pneumatic actuators. The BVLS limit switch is easily mounted to any pneumatic actuator and provides a means to remotely display valve position or to interconnect the valve with related equipment such as pumps or other valves.

The limit switch accessory utilizes two mechanical S.P.D.T. (Single-Pole, Double-Throw) micro switches that respond to actuators' fully open or fully closed position by means of a cam fitted to the actuator top shaft. The switches are rated at 10 amp 250 Vac max.



BVE83-SS, \$650,
shown smaller
than actual size.



BVP71, \$470, shown
smaller than actual size.

The limit switch is totally enclosed and may be used in applications where a dust tight or weather tight enclosure is required as well as in those locations where general purpose enclosures will serve. The housing, like our pneumatic actuators, is made from 6061-T6 aluminum and has a PTFE impregnated hard-anodized surfaces to enhance corrosion resistance.

The BVE80 and BVE70 Series electric actuated ball valves are a compact mounting system that assures rigid and precise coupling of the actuator to the valve. The unique system features machined alignment brackets oriented with precision locator elements that serve to absorb the reaction torque independent of the mounting bolts. The end result is a system that eliminates the common problem of the mounting bolts loosening while in service. Additional features include thermal overload protection and manual override.

SPECIFICATIONS **(BVE80 and BVE70 Series)**

Materials of Construction

Enclosure: FR50 Cover, PTFE coated cast aluminum base

Shaft: 18-8 Stainless Steel

External Trim: 300 Series Stainless Steel

Temperature: 4.4 to 65.5°C (40 F to 150°F)

Motor: Reversing, brushless, capacitor-run with auto-reset thermal overload protection

Gear Train: Permanently lubricated, maintenance free

Power: 120 Vac 50/60 Hz single phase

Ports: (2) ½ NPT conduit

Cycle Time: 6 seconds

Duty Cycle: Models smaller than 25 mm (1"):100%, models 32 mm (1¼") and larger: 75%

Torque Output:

150 in-lbs: models smaller than 25 mm (1")

300 in-lbs: models 1¼" and larger

SPECIFICATIONS **(BVP/BVPS80 and BVP/BVPS70 Series)**

Materials of Construction

Body: Aluminum with PTFE impregnated hard anodized surfaces

External Hardware: (pinion shaft, driver, end caps) 300 Series Stainless Steel

Spring Modules: Nylon resin housing, 300 SS hardware

External Trim: 300 Series Stainless Steel

Temperature: -28.8 to 176.6°C (-20 to 350°F)

Power: 3.4 to 8.6 bar (50 to 125 psi) air. Sufficient air delivery must be available at the actuator to ensure dependable operation. The following precautions should be observed: Air supply should be clean and free of moisture. When dirty or wet air is a problem; a filter/separator should be specified; these units are most effective when installed as closely as possible to the actuator. A filter, when used, should permit a minimum flow of 4 scfm at an upstream pressure of 4 bar (60 psi). Eliminate severe restrictions to air flow (certain solenoid valves and fittings). The most restricted passage must have an area no smaller than 0.012 in², the area of 3 mm (⅜") diameter orifice. If more than a single actuator is to be supplied by an individual pilot, the minimum passage requirement applies per actuator.

Port Connections: ½ NPT

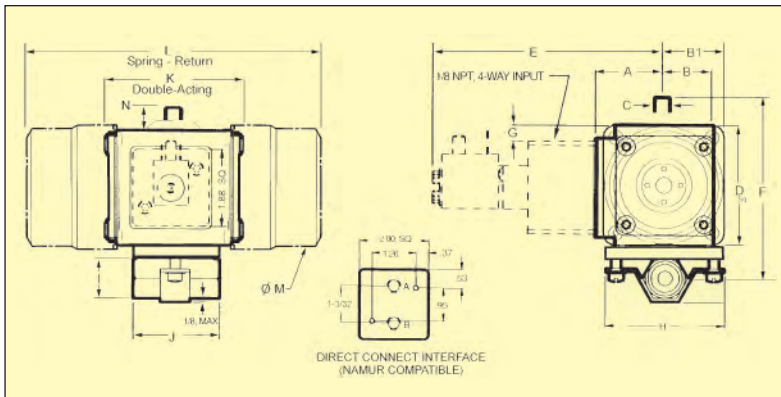
Tubeing: For short runs up to 1.5 m (5'), 4 mm (⅝") I.D. is suitable, 6 mm (¼") I.D. will serve up to 9 m (30'). For longer runs, use 10 mm (⅜") I.D. or larger.

Interface: NAMUR

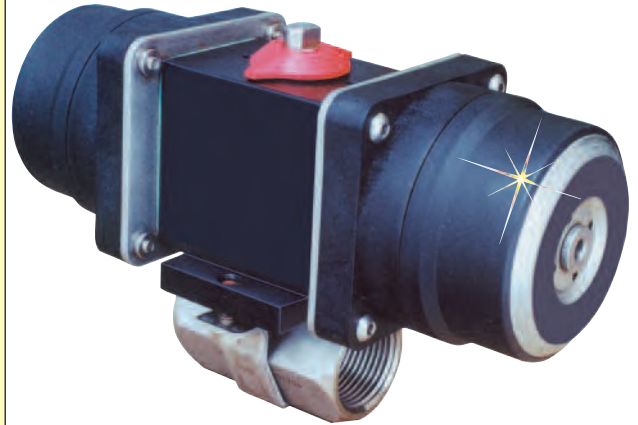
Duty Cycle: 100%

Cycle Time: (To open or close) approx ½ to 1 second*

* *Dependent upon actuator model, air pressure and delivery*



BVP80/BVPS80 Dimensions

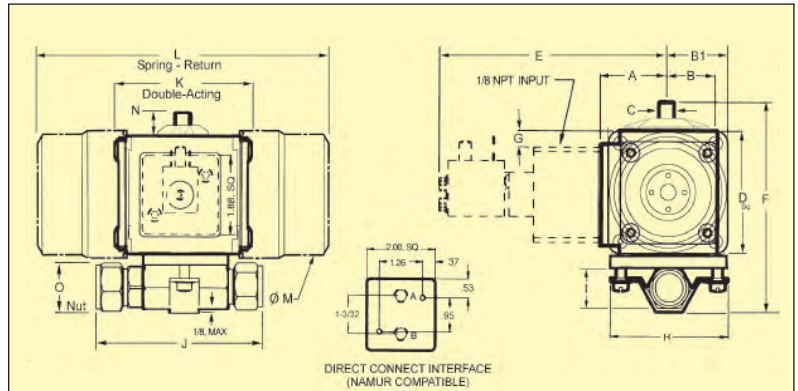
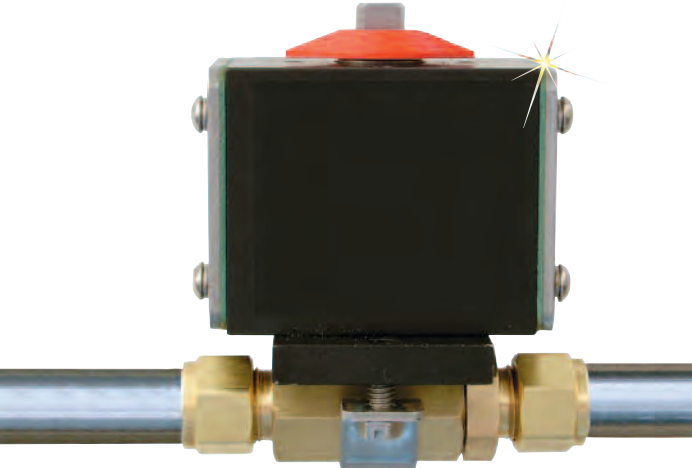


BVP82-SS, \$665, shown smaller than actual size.

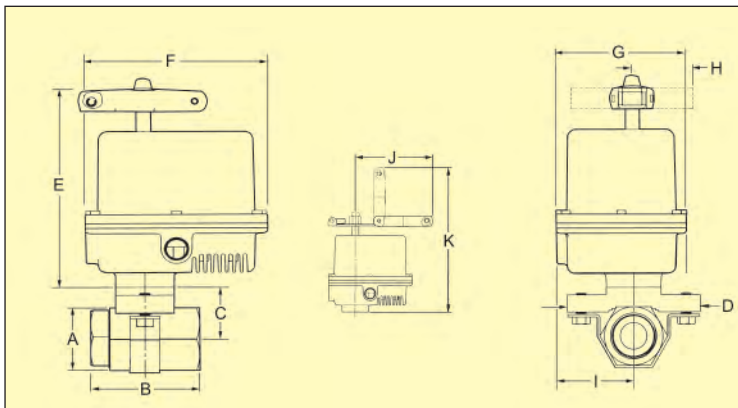
Valve Size	Actuator Model	Approximate Dimensions, Inches														
		A	B	B1	C	D	E	F	G	H	I	J	K	L	M	N
1/4 & 3/8	Spring Return Double Acting	1.36	1.00	1.53	.31	3.06	4.67	.32	3.00	1.00	2.22	3.62	8.31	2.81	.57	3.88
1/2																4.06
3/4																4.38
1																6.44
1-1/4																7.59
-1/2																8.09
2																8.47

BVP70/BVPS70 Dimensions

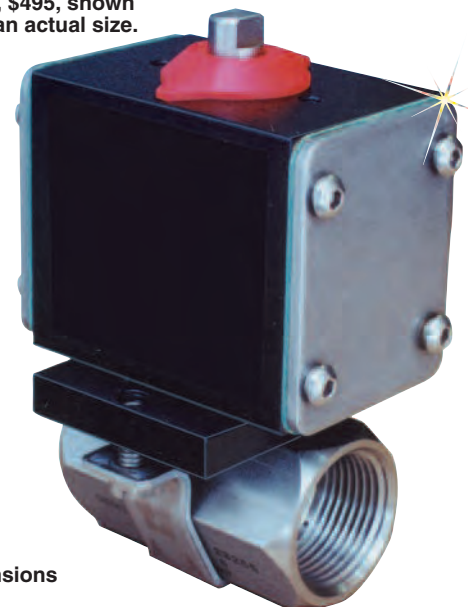
BVP71, \$470, shown smaller than actual size.



Tube Size	Actuator Model	Approximate Dimensions - Inches															
		A	B	B1	C	D	E	F	G	H	I	J	K	L	M	N	O
1/4	Spring Return Double Acting	1.46	1.00	1.53	.31	3.06	4.67	.32	3.00	4.51	1.00	3.72	3.62	8.31	2.81	.57	9/16
3/8										4.51	1.00	3.70					11/16
1/2										4.61	1.00	3.94					7/8
3/4										4.91	1.19	4.17					1-1/8
1										5.37	1.50	4.92					1-1/2

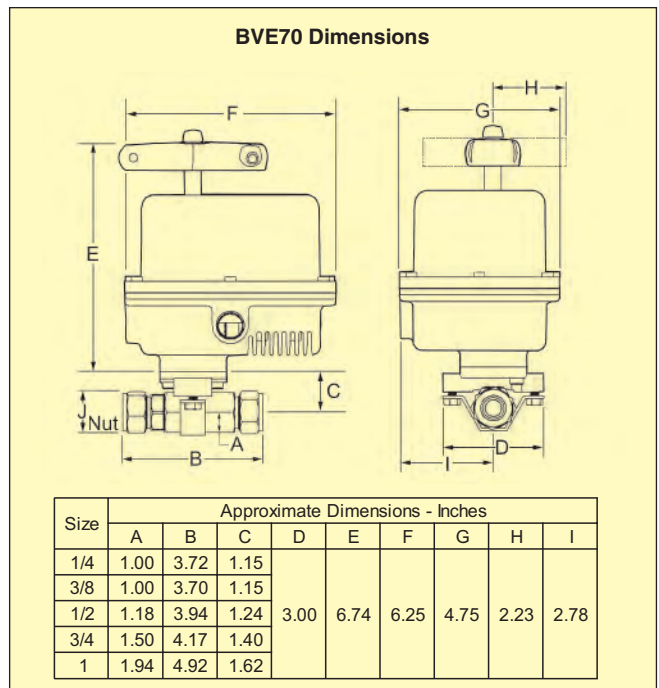
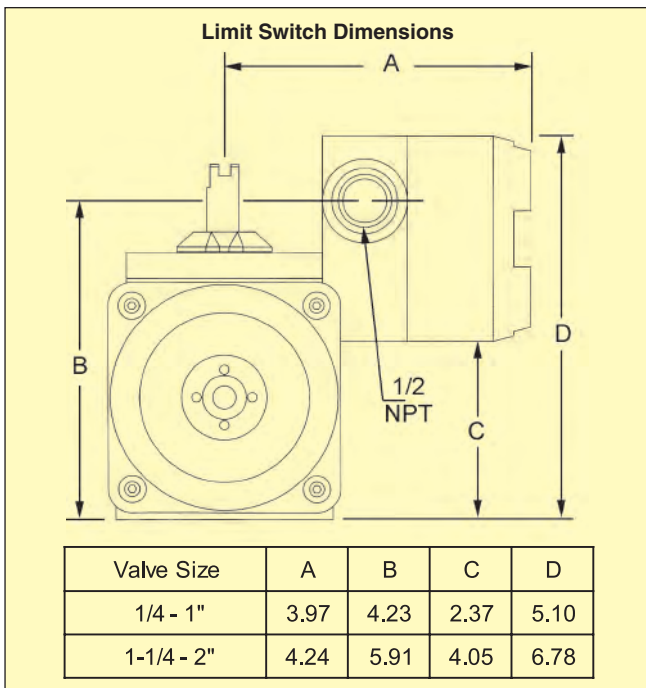


BVP84-SS, \$495, shown smaller than actual size.



BVE80 Dimensions

Valve Size	Dimensions - Inches										
	A	B	C	D	E	F	G	H	I	J	K
1/4 & 3/8	1.00	2.22	1.15	3.00	6.74	6.25	4.75	2.23	2.78	5.77	10.35
1/2	1.18	2.61	1.24	3.00	6.74	6.25	4.75	2.23	2.78	5.77	10.35
3/4	1.50	2.94	1.40	3.00	6.74	6.25	4.75	2.23	2.78	5.77	10.35
1	1.94	3.32	1.62	3.00	6.74	6.25	4.75	2.23	2.78	5.77	10.35
1-1/4	2.12	3.70	1.76	4.80	7.24	6.25	4.75	2.23	2.78	5.77	10.85
1-1/2	2.62	4.25	2.02	4.80	7.24	6.25	4.75	2.23	2.78	5.77	10.85
2	3.00	4.57	2.21	4.80	7.24	6.25	4.75	2.23	2.78	5.77	10.85



☐ **MOST POPULAR MODELS HIGHLIGHTED!**

To Order (Specify Model Number)												
Pneumatic Double-Acting with Integral Pilot 120 Vac				Pneumatic Spring-Return with Integral Pilot 120 Vac				Electric 120 Vac				
NPT Connection		Compression Fitting Connection		NPT Connection		Compression Fitting Connection		NPT Connection		Compression Fitting Connection		
Brass												
Model No.	Price	Model No.	Price	Model No.	Price	Model No.	Price	Model No.	Price	Model No.	Price	Size
BVP81	\$415	BVP71	\$470	BVPS81	\$635	BVPS71	\$690	BVE81	\$595	BVE71	\$650	1/4
BVP82	415	BVP72	475	BVPS82	635	BVPS72	695	BVE82	595	BVE72	650	3/8
BVP83	430	BVP73	480	BVPS83	650	BVPS73	700	BVE83	605	BVE73	655	1/2
BVP84	435	BVP74	525	BVPS84	655	BVPS74	745	BVE84	615	BVE74	705	3/4
BVP85	460	BVP75	560	BVPS85	680	BVPS75	780	BVE85	640	BVE75	735	1
BVP86	725			BVPS86	1065			BVE86	735			1 1/4
BVP87	755			BVPS87	1090			BVE87	760			1 1/2
BVP88	810			BVPS88	1150			BVE88	820			2
316 Stainless Steel												
Model No.	Price	Model No.	Price	Model No.	Price	Model No.	Price	Model No.	Price	Model No.	Price	Size
BVP81-SS	\$445	BVP71-SS	\$505	BVPS81-SS	\$665	BVPS71-SS	\$725	BVE81-SS	\$625	BVE71-SS	\$685	1/4
BVP82-SS	445	BVP72-SS	510	BVPS82-SS	665	BVPS72-SS	730	BVE82-SS	625	BVE72-SS	690	3/8
BVP83-SS	470	BVP73-SS	525	BVPS83-SS	690	BVPS73-SS	745	BVE83-SS	650	BVE73-SS	700	1/2
BVP84-SS	495	BVP74-SS	590	BVPS84-SS	715	BVPS74-SS	810	BVE84-SS	670	BVE74-SS	770	3/4
BVP85-SS	540	BVP75-SS	650	BVPS85-SS	760	BVPS75-SS	870	BVE85-SS	720	BVE75-SS	830	1
BVP86-SS	830			BVPS86-SS	1165			BVE86-SS	840			1 1/4
BVP87-SS	910			BVPS87-SS	1245			BVE87-SS	915			1 1/2
BVP88-SS	1075			BVPS88-SS	1415			BVE88-SS	1085			2

Accessories

Model No.	Price	Description
BVLS1	\$365	Limit switch for 1/4 to 1" pneumatic valves
BVLS2	405	Limit switch for 1 1/4 to 2" pneumatic valves

Comes complete with operator's manual. **BVP** and **BVPS** pneumatic units include solenoid valve.

Ordering Examples: **BVP86-SS**, 316SS 1 1/4 FNPT ball valve with pneumatic actuator, **\$830**.

BVE85, Brass 1 FNPT ball valve with electric actuator, **\$640**.

Recommended Reference Book: Valve Selection Handbook, **CM-4449**, \$105.
Visit omega.com/bobi for Additional Books





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