B

Introduction

Parker manually, pneumatically, and electrically actuated two-way B Series Ball Valves provide quick 1/4 turn on-off control of fluids utilized in process and instrumentation applications. A broad selection of valve body, seat, and seal materials provide a wide range of pressures and temperatures at which the valve may be used.

Features

- Free floating ball design provides seat wear compensation.
- Available in 316 stainless steel and brass construction. Monel® Alloy 400 and Hastelloy® C-276 construction available upon request.
- Micro-finished ball provides a positive seal.
- Straight through flow path for minimum pressure drop.
- Bi-directional flow.
- Wide variety of US Customary and SI ports.
- 90° actuation.
- Panel mountable.
- Adjustable PTFE stem seal can be maintained in-line.
- Handle indicates flow direction.
- Low operating torques.
- Positive handle stops.
- Color coded handles.
- Optional pneumatic and electric actuation.
- Optional live-loaded PTFE stem seals.
- Optional non-adjustable O-ring stem seals.
- Optional upstream and downstream drain models.
- Optional stainless steel and extended handles.

Specifications

Pressure Ratings:

Material	Pressure Rating	with PTFE Seats
316 Stainless Steel	6000 psig (414 bar)*	1500 psig (103 bar)
Brass	3000 psig (207 bar)	1500 psig (103 bar)
Monel® Alloy 400	3000 psig (207 bar)	1500 psig (103 bar)
Hastelloy® C-276	3000 psig (207 bar)	1500 psig (103 bar)

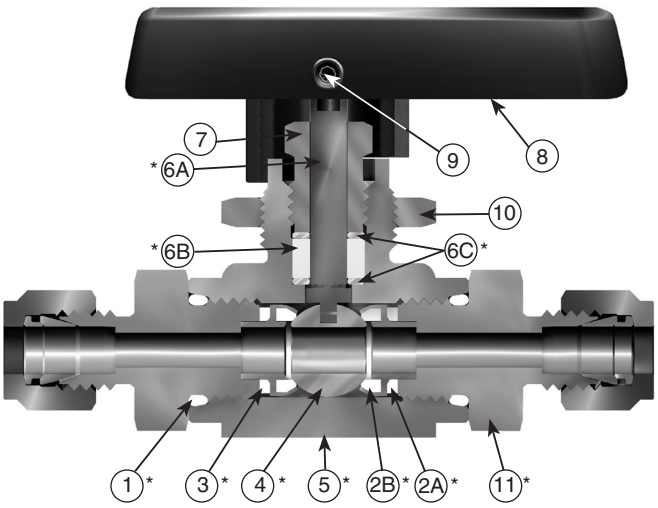
* B6 Series: 6000 psig rating or 4400 psig (303 bar) CWP
B8 Series: 6000 psig rating or 4000 psig (276 bar) CWP

Pressure Rating and Tubing Selection

For working pressures of A-LOK® and CPI™ tube connections, please see the Instrument Tubing Selection Guide (Bulletin 4200-TS), found in the Technical Section of the Parker Instrumentation Process Control Binder, or the Parker Instrument Fitting Installation Manual (Bulletin 4200-B4).

For working pressures of valves with external or internal pipe threads, please see Catalog 4260, Instrumentation Pipe Fittings.

Materials of Construction



Model Shown: 6A-B6LJ-SSP

Materials of Construction

Item #	Part Description	Stainless Steel	Brass
*1	Connector O-Ring	PTFE**	
*2A	Seat Retainer	ASTM A 276 Type 316	ASTM B 16 Alloy C36000
*2B	Seat	PTFE, PCTFE, PEEK	
*3	Retainer Seal	PTFE**	
*4	Ball	316 Stainless Steel	
*5	Body	ASTM A 351 Grade CF3M	ASTM B 283 Alloy C37700
*6A	Stem	ASTM A 276 Type 316	
*6B	Stem Seal	PTFE**	
*6C	Stem Washer	316 Stainless Steel	
7	Packing Nut	ASTM A 479 Type 316	ASTM B 453 Alloy C34000
8	Handle	Nylon 6/6	
9	Handle Set Screw	Stainless Steel	
10	Panel Nut	316 Stainless Steel	
*11	End Connector	ASTM A 479 Type 316	ASTM B 16 Alloy C36000

* Wetted Parts.
** Optional stem seal and body seal materials are described in the How to Order section.
Lubrication: Perfluorinated Polyether.

Hastelloy® is a registered trademark of Haynes International.
Monel® Alloy 400 is a registered trademark of Special Metals Corporation.

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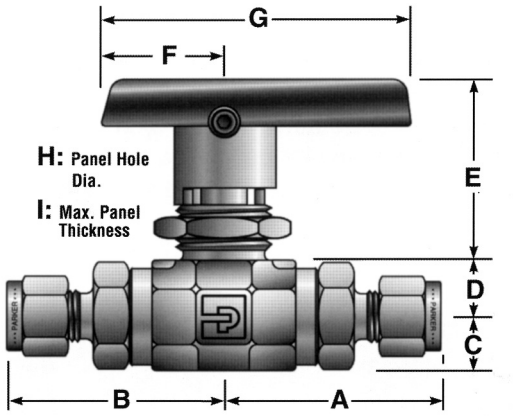
Dimensions & Flow Data



Model Shown: 4A-B6LJ-SSP

Port Size	Basic Part #	Flow Data: Orifice Inch	Orifice mm	Cv	X_T*	End Connections Port 1 Port 2	Dimensions Inches (mm): A†	B†	C	D	E	F	G	H	I
1A	B2L	0.052	1.3	0.06	0.45	1/16" A-LOK®	1.30 (33.0)	1.30 (33.0)	0.33 (8.4)	0.33 (8.4)	0.94 (23.9)	0.75 (19.1)	1.88 (47.8)	0.58 (14.7)	0.13 (3.3)
1Z						1/16" CPI™									
2A		0.093	2.4	0.21	0.47	1/8" A-LOK®	1.36 (34.5)	1.36 (34.5)							
2Z						1/8" CPI™									
2F		0.165	4.2	0.93	0.43	1/8" Female NPT	1.07 (27.2)	1.07 (27.2)							
2M		0.165	4.2	0.93	0.43	1/8" Male NPT	1.18 (30.0)	1.18 (30.0)							
4A		0.165	4.2	0.93	0.43	1/4" A-LOK®	1.48 (37.6)	1.48 (37.6)							
4Z						1/4" CPI™									
4M		0.165	4.2	0.93	0.43	1/4" Male NPT	1.35 (34.3)	1.35 (34.3)							
M3A		0.086	2.2	0.18	0.44	3mm A-LOK®	1.37 (34.8)	1.37 (34.8)							
M3Z						3mm CPI™									
4A	B6L	0.187	4.7	1.04	0.42	1/4" A-LOK®	1.74 (44.2)	1.74 (44.2)	0.42 (10.7)	0.47 (11.9)	1.53 (38.9)	1.00 (25.4)	2.50 (63.5)	0.77 (19.6)	0.25 (6.4)
4Z						1/4" CPI™									
4F		0.250	6.4	2.34	0.29	1/4" Female NPT	1.51 (38.4)	1.51 (38.4)							
4M		0.250	6.4	2.34	0.29	1/4" Male NPT	1.62 (41.1)	1.62 (41.1)							
4V		0.188	4.8	1.04	0.42	1/4" VacuSeal	1.75 (44.5)	1.75 (44.5)							
6A		0.250	6.4	2.34	0.29	3/8" A-LOK®	1.80 (45.7)	1.80 (45.7)							
6Z						3/8" CPI™									
6M		0.250	6.4	2.34	0.29	3/8" Male NPT	1.62 (41.1)	1.62 (41.1)							
M6A		0.187	4.7	1.04	0.42	6mm A-LOK®	1.75 (44.5)	1.75 (44.5)							
M6Z						6mm CPI™									
M8A		0.250	6.4	2.34	0.42	8mm A-LOK®	1.78 (45.2)	1.78 (45.2)							
M8Z						8mm CPI™									
M10A		0.250	6.4	2.34	0.42	10mm A-LOK®	1.81 (46.0)	1.81 (46.0)							
M10Z						10mm CPI™									
6F	B8L	0.406	10.3	6.42	0.37	3/8" Female NPT	1.95 (49.5)	1.95 (49.5)	0.69 (17.5)	0.70 (17.8)	1.74 (44.2)	1.50 (38.1)	4.00 (101.6)	0.90 (22.9)	0.38 (9.7)
8F		0.406	10.3	6.42	0.37	1/2" Female NPT	2.15 (54.6)	2.15 (54.6)							
8A		0.406	10.3	6.42	0.37	1/2" A-LOK®	2.34 (59.4)	2.34 (59.4)							
8Z						1/2" CPI™									
8M		0.406	10.3	6.42	0.37	1/2" Male NPT	2.22 (56.4)	2.22 (56.4)							
8V		0.406	10.3	6.42	0.37	1/2" VacuSeal	2.21 (56.1)	2.21 (56.1)							
12A		0.406	10.3	6.42	0.37	3/4" A-LOK®	2.33 (59.2)	2.33 (59.2)							
12Z						3/4" CPI™									
12F		0.406	10.3	6.42	0.37	3/4" Female NPT	2.25 (57.1)	2.25 (57.1)							
M12A		0.375	9.5	5.57	0.37	12mm A-LOK®	2.33 (59.2)	2.33 (59.2)							
M12Z						12mm CPI™									
M16A		0.406	10.3	6.42	0.37	16mm A-LOK®	2.33 (59.2)	2.33 (59.2)							
M16Z						16mm CPI™									

* Tested in accordance with ISA S75.02. Gas flow will be choked when $P_1 - P_2 / P_1 = x_T$.

† For CPI™ and A-LOK®, dimensions are measured with nuts in the finger tight position

Dimensions in inches/millimeters are for reference only, subject to change.

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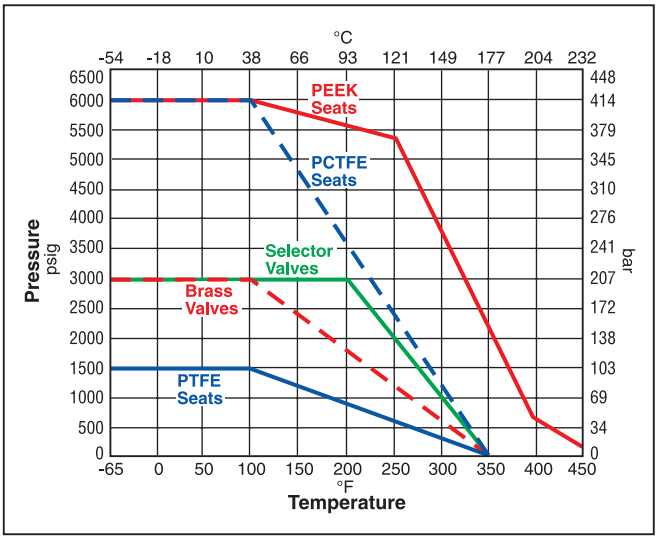
Pressure vs. Temperature



Note: To determine MPa, multiply bar by 0.1

Note: This Pressure versus Temperature chart reflects the maximum temperature range of indicated materials.

When combining seat and seal materials, the most restrictive temperature rating of the seats or seals becomes the limiting factor on valve temperature range.

Elastomeric stem packing and seals are recommended if the application subjects the valve to thermal cycling.

Please see pages 2 and 4 for maximum pressure ratings.

Temperature Ratings:

PTFE ..... -65°F to 350°F (-54°C to 177°C)
PCTFE..... -65°F to 350°F (-54°C to 177°C)
PEEK..... -65°F to 450°F (-54°C to 232°C)
Nitrile Rubber..... -40°F to 250°F (-40°C to 121°C)
Fluorocarbon Rubber..... -15°F to 450°F (-26°C to 232°C)
Ethylene Propylene Rubber.... -65°F to 300°F (-54°C to 149°C)
Highly Fluorinated
Fluorocarbon Rubber ..... -15°F to 200°F (-26°C to 93°C)

Flow Calculations with 1000 psig (69 bar) Inlet Pressure

Two-Way

Valve Series	Max. Cv	Pressure Drop ΔP		Water @ 60°F (16°C)		Air @ 60°F (16°C)	
		psig	bar	gpm	m³/hr	scfm	m³/hr
B2L	0.93	10	0.7	2.9	0.7	92.4	156.2
		50	3.5	6.6	1.5	200.3	338.3
		100	6.9	9.3	2.1	272.0	458.9
B6L	2.34	10	0.7	7.4	1.7	231.7	391.5
		50	3.5	16.5	3.8	494.2	834.7
		100	6.9	23.4	5.3	657.0	1107.9
B8L	6.42	10	0.7	20.3	4.6	637.1	1076.8
		50	3.5	45.4	10.3	1373.6	2320.3
		100	6.9	64.2	14.6	1852.3	3124.8

Three-Way

Valve Series	Max. Cv	Pressure Drop ΔP		Water @ 60°F (16°C)		Air @ 60°F (16°C)	
		psig	bar	gpm	m³/hr	scfm	m³/hr
B2X	0.63	10	0.7	2.0	0.5	62.7	106.0
		50	3.5	4.5	1.0	137.1	231.7
		100	6.9	6.3	1.4	188.4	317.9
B6X	0.87	10	0.7	2.8	0.6	86.7	146.6
		50	3.5	6.2	1.4	190.5	321.8
		100	6.9	8.7	2.0	263.2	444.4
B8X	3.62	10	0.7	11.5	2.6	360.6	609.5
		50	3.5	25.6	5.9	789.7	1343.5
		100	6.9	36.2	8.2	1087.4	1836.6

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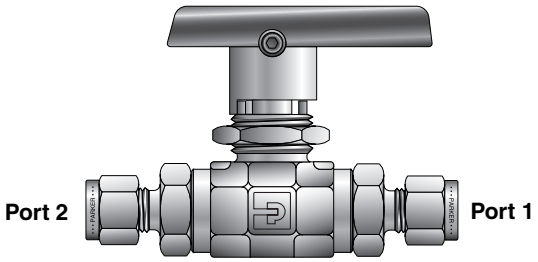
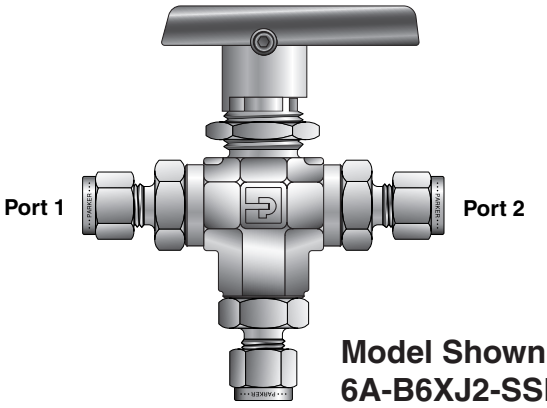
How to Order



Model Shown: 6A-B6LJ2-SSP



Model Shown: 6A-B6XJ2-SSP

Port 1	Port 2	Port 3	–	Valve Series	Seat Material	–	Seal Material	–	Body Material

Ports 1, 2 and 3		Valve Series	Seat Material		Seal Material		Body Material	
1A	1/16" A-LOK®	**B2L**	**J**	PTFE	**(Blank)**	PTFE	**SSP**	316 Stainless Steel
1Z	1/16" CPI™	**B2X**	**J2**	PCTFE	**V**	Fluorocarbon Rubber	**BP**	Brass
2A	1/8" A-LOK®				**EPR**	Ethylene Propylene Rubber	**MP**	Monel® Alloy 400
2Z	1/8" CPI™				**BN**	Nitrile Rubber	**HCP**	Hastelloy® C-276
2F	1/8" Female NPT				**KZ**	Highly Fluorinated Fluorocarbon Rubber		
2M	1/8" Male NPT				**LT**	Live-Loaded PTFE Packing with PTFE Seals		
4A	1/4" A-LOK®				**VLT**	Live-Loaded PTFE Packing with Fluoro carbon Rubber Seals		
4Z	1/4" CPI™				**EPRLT**	Live-Loaded PTFE Packing with Ethylene Propylene Rubber Seals		
4M	1/4" Male NPT				**BNLT**	Live-Loaded PTFE Packing with Nitrile Rubber Seals		
M3A	3mm A-LOK				**KZLT**	Live-Loaded PTFE Packing with Highly Flourinated Fluoro-carbon Rubber Seals		
M3Z	3mm CPI™							
4A	1/4" A-LOK®	**B6L**	**J**	PTFE				
4Z	1/4" CPI™	**B6X**	**J2**	PCTFE				
4F	1/4" Female NPT		**S2**	Spring-Loaded PCTFE				
4M	1/4" Male NPT		**PKR**	PTFE Lubricated PEEK				
4V	1/4" VacuSeal		**SPKR**	Spring-Loaded PTFE Lubricated PEEK				
6A	3/8" A-LOK®							
6Z	3/8" CPI™							
6M	3/8" Male NPT							
M6A	6mm A-LOK®							
M6Z	6mm CPI™							
M8A	8mm A-LOK®							
M8Z	8mm CPI™							
M10A	10mm A-LOK®							
M10Z	10mm CPI™							
6F	3/8" Female NPT	**B8L**	**J**	PTFE				
8A	1/2" A-LOK®	**B8X**	**J2**	PCTFE				
8Z	1/2" CPI™		**S2**	Spring-Loaded PCTFE				
8F	1/2" Female NPT		**PKR**	PTFE Lubricated PEEK				
8M	1/2" Male NPT		**SPKR**	Spring-Loaded PTFE Lubricated PEEK				
8V	1/2" VacuSeal							
12Z	3/4" CPI™							
12F	3/4" Female NPT							
M12A	12mm A-LOK®							
M12Z	12mm CPI™							
M16A	16mm A-LOK®							
M16Z	16mm CPI™							

Notes:
1. Panel Mounting Nut supplied with each valve. Various port combinations are available.
2. See How to order.
3. VacuSeal is not available in Brass.
4. 12F (3/4" Female NPT) not panel mountable.

See examples on page 9. See pages 10 and 11 for information about How to Order Options and Maintenance Kits.

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How to Order (Continued)

Examples: Two-Way Valves

4Z	4F	–	B6L	J	–	BP
Port 1	Port 2		Valve Series	Seat Material	Seal Material	Body Material

Describes a B6L ball valve with a 1/4" CPI™ end connection for port 1 and a 1/4" female NPT end connection for port 2, PTFE seats, PTFE stem and body seals, brass construction, with a panel mounting nut.

8A	*	–	B8L	J	–	BN	–	SSP
Port 1	Port 2		Valve Series	Seat Material		Seal Material		Body Material

Describes a B8L ball valve with a 1/2" A-LOK® end connections for ports 1 and 2, PTFE seats, Nitrile rubber stem and body seals, stainless steel construction, with a panel mounting nut.
*** Note:** If ports 1 and 2 are the same, eliminate the port 2 designator.

M3A	*	–	B2L	J2	–	VLT	–	SSP
Port 1	Port 2		Valve Series	Seat Material		Seal Material		Body Material

Describes a B2L ball valve with 3mm A-LOK® end connections for ports 1 and 2, PCTFE seats, fluorocarbon rubber body seals, PCTFE packing, stainless steel construction, with a panel mounting nut.
*** Note:** If ports 1 and 2 are the same, eliminate the port 2 designator.

Examples: Three-Way Diverter Valves

4Z	4Z	4F	–	B6X	J2	–	V	–	BP
Port 1	Port 2	Port 3		Valve Series	Seat Material		Seal Material		Body Material

Describes a B6X ball valve with 1/4" CPI™ end connections for side ports 1 and 2, 1/4" female NPT end connection for bottom port 3, PCTFE seats, fluorocarbon rubber stem and body seals, brass construction, and a panel mounting nut.

2Z	*	*	–	B2X	J	–	SSP
Port 1	Port 2	Port 3		Valve Series	Seat Material	Seal Material	Body Material

Describes a B2X ball valve with 1/8" CPI™ end connections for ports 1, 2, and 3, PTFE seats, PTFE stem and body seals, stainless steel construction, and a panel mounting nut.
*** Note:** If ports 1, 2, and 3 are the same, eliminate the port 2 and port 3 designators.

Examples: Three-Way Selector Valves

4M	4M	4F	–	B6X	S2	–	EPR	–	SSP
Port 1	Port 2	Port 3		Valve Series	Seat Material		Seal Material		Body Material

Describes a B6X ball valve with 1/4" male NPT end connections for side ports 1 and 2, 1/4" female NPT end connection for bottom port 3, spring-loaded PCTFE seats, ethylene propylene rubber stem and body seals, stainless steel construction, and a panel mounting nut.

8A	*	*	–	B8X	S2	–	BNLT	–	SSP
Port 1	Port 2	Port 3		Valve Series	Seat Material		Seal Material		Body Material

Describes a B8X ball valve with 1/2" A-LOK® end connections for ports 1, 2, and 3, spring-loaded PCTFE seats, Nitrile rubber body seals, live loaded PTFE packing, stainless steel construction, and a panel mounting nut.
*** Note:** If ports 1, 2, and 3 are the same, eliminate the port 2 and port 3 designators.

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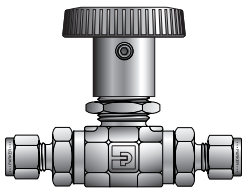
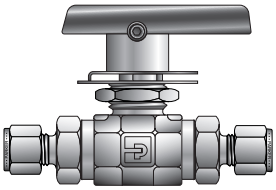
Options

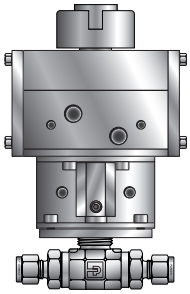


Round Handle

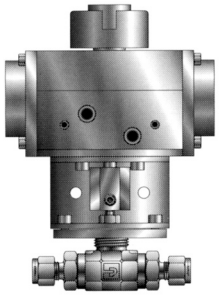


Lock-Out Handle

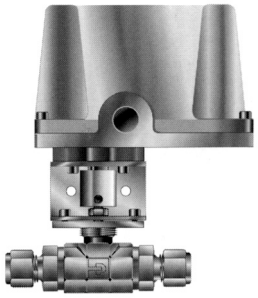
Actuator Options



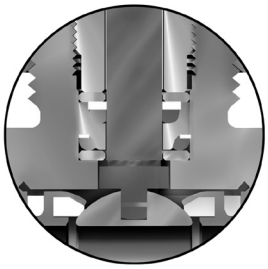
**Double Acting (61AD)
Pneumatic Actuator**



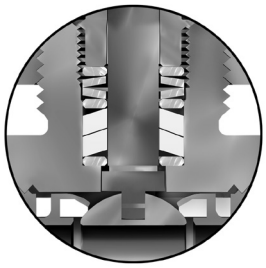
**Spring Returns (61AC & AO)
Pneumatic Actuator**



**70, 80 & 90 Series
Electric Actuator**



O-Ring Stem Seals



Live-Loaded Stem Seals

Two-Way Valve Upstream and Downstream Drain Options

For draining upstream or downstream media on two-way valves at pressures below 150 psig (10 bar), add the suffix **–VBU** (Vented Ball Upstream) or **–VBD** (Vented Ball Downstream). Example: 4Z-B6LJ-SSP-VBU. This option is also suitable to vent the ball cavity in vacuum applications. For pressures up to 3,000 psig (207 bar), select **S2** or **SPKR** spring-loaded seats and add the suffix **–VBU** (Vented Ball Upstream) or **–VBD** (Vented Ball Downstream). Example: 4Z-B6L**S2**-SSP-**VBU**

Note: VBD and VBU are ball cavity vents only.

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How to Order Options

	Examples
Pneumatic Actuators: For detailed actuator information, refer to the Pneumatic Actuators section of this catalog.	
For factory assembly, add the actuator part number as the suffix to the valve part number.	2F-B2XJ2-V-SSP-**61ACX-2**
For field installation, specify the actuator desired.	**61ACX-2**
The appropriate mounting hardware may be obtained by adding the valve series and actuator size to the prefix **MK-**.	**MK-B2X-61**
Electric Actuators: For detailed actuator information refer to the Electric Actuators section of this catalog.	
For factory assembly, add the actuator part number as the suffix to the valve part number.	8A-B8LPKR-BN-SS-**71A**
For field installation, specify the actuator desired.	**71A**
The appropriate mounting hardware may be obtained by adding the valve series and actuator series to the prefix MK-.	MK-**B8L-70**
Oxygen Cleaning: Add the suffix **-C3** to the end of the part number to receive valves cleaned and asembled for oxygen service in accordance with Parker Specification ES8003.	4A-B6LJ-EPR-SSP-**C3**

How to Order Maintenance Kits

Lock-Out Devices: For field installation, simply substitute the correct valve series number after LD.	**LD-B8L**
Metal Oval Handles: NOTE: Not available in size 2.	**B8-OVAL-SS-HANDLE-ASSY**
Colored Round Handle Kits: Series-Handle-Color. (Example consists of a green handle and handle screw.) **NOTE:** Round handles are not recommended for B8 valves with PEEK seats.	**B6-RD-HANDLE-GREEN**
Stainless Steel Handle Kits: Series-Handle-SS. (Example consists of a stainless steel handle and handle screw.)	**B8-HANDLE-SS**
Colored Lever Handle Kits: Series-Handle-Color. Black is standard. B = Blue, G = Green, R = Red (Example consists of a red handle and handle screw.)	**B6-HANDLE-RED**

Two-way Valve Seal Kits:

PTFE Stem Seal Kits: Kit-Valve Series and Seat Material-Body Material. (Consists of one PTFE stem seal, two stem seal washers, two encapsulated PTFE ball seats, two end connector PTFE seals, one assembly mandrel, maintenance instructions.)	**KIT-B2LJ-SS**
Elastomeric Stem Seal Kits: Kit-Valve Series and Seat Material-Elastomer Material-Body Material. (Consists of two stem seal Nitrile rubber O-rings, two PTFE back-up rings, two stem seal washers, two encapsulated PCTFE ball seats, two end connector Nitrile rubber O-ring seals, two seat retainer Nitrile rubber O-ring seals, stem glands and maintenance instructions.)	**KIT-B2LJ2-BN-SS**

Diverter Valve Seal Kits:

PTFE Stem Seal Kits: Kit-Valve Series and Seat Material-Body Material. (Consists of one PTFE stem seal, two stem seal washers, two encapsulated PEEK ball seats, three end connector PTFE seals, one assembly mandrel, maintenance instructions.)	**KIT-B6XPKR-SS**
Elastomeric Stem Seal Kits: Kit-Valve Series and Seat Material-Elastomer-Body Material. (Consists of two stem seal fluorocarbon rubber O-rings, two PTFE back-up rings, two stem seal washers, two encapsulated PTFE ball seats, three end connector fluorocarbon rubber O-ring seals, two seat retainer fluorocarbon rubber O-ring seals, stem glands and maintenance instructions.)	**KIT-B6XJ-V-SS**

Selector Valve Seal Kits:

PTFE Stem Seal Kits: Kit-Valve Series and Seat Material. (Consists of one PTFE stem seal, two stem seal washers, two encapsulated spring-loaded PCTFE ball seats, two seat retainer fluorocarbon rubber O-rings, three end connector PTFE seals, one assembly mandrel, maintenance instructions.)	**KIT-B6XS2-SS**
Elastomeric Stem Seal Kits: Kit-Valve Series and Seat Material-Elastomer. (Consists of two stem seal fluorocarbon rubber O-rings, two PTFE back-up rings, two stem seal washers, two encapsulated spring-loaded PEEK ball seat assemblies, three end connector fluorocarbon O-ring seals, two seat retainer fluorocarbon rubber O-rings, stem glands and maintenance instructions.)	**KIT-B6XSPKR-V-SS**

Live-loaded Seal Kits:

Kit-Valve Series and Seat Material-Seal Material-Body Material. (Consists of one live-loaded PTFE stem packing, two packing springs (B8 series valves have four springs), three packing washers, two PCTFE encapsulated ball seats, two Nitrile rubber end connector O-ring seals, two Nitrile rubber seat retainer O-ring seals, maintenance instructions.)	**KIT-B6LJ2-BNLT-SS**

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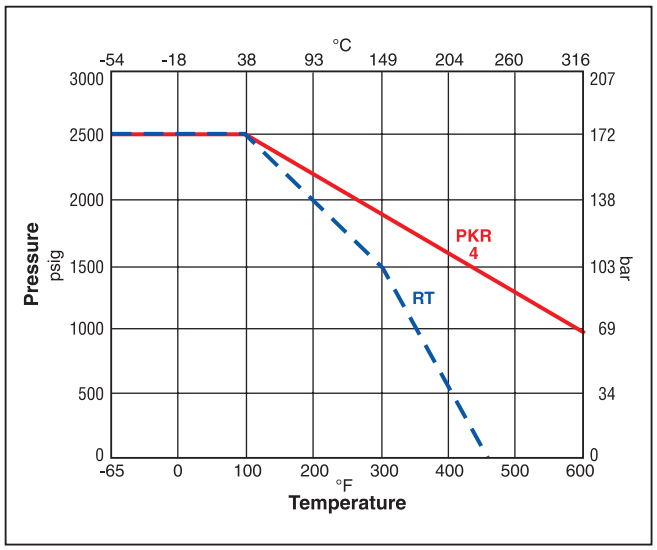
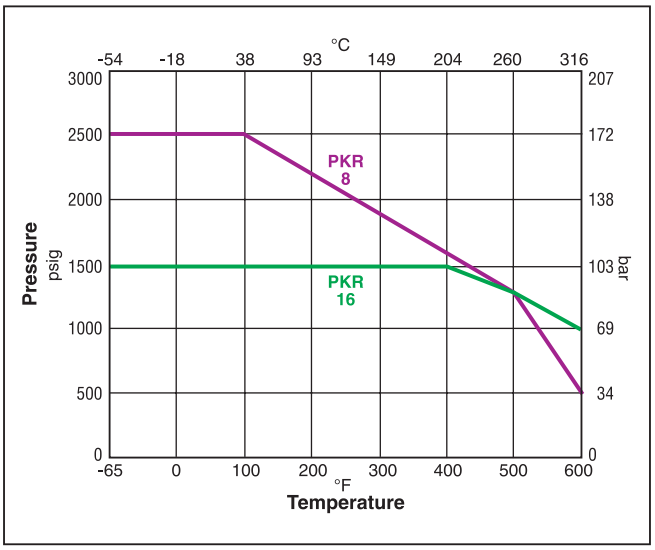
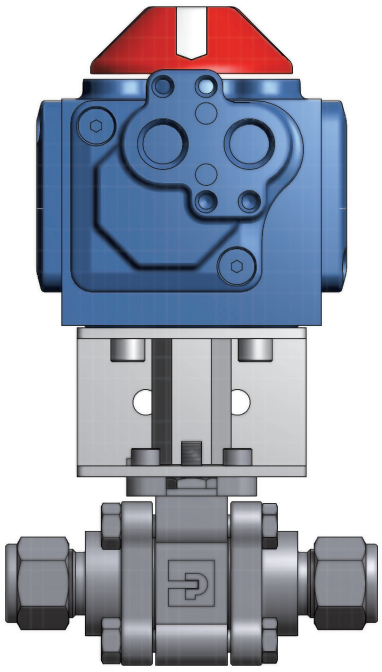
Pressure vs. Temperature



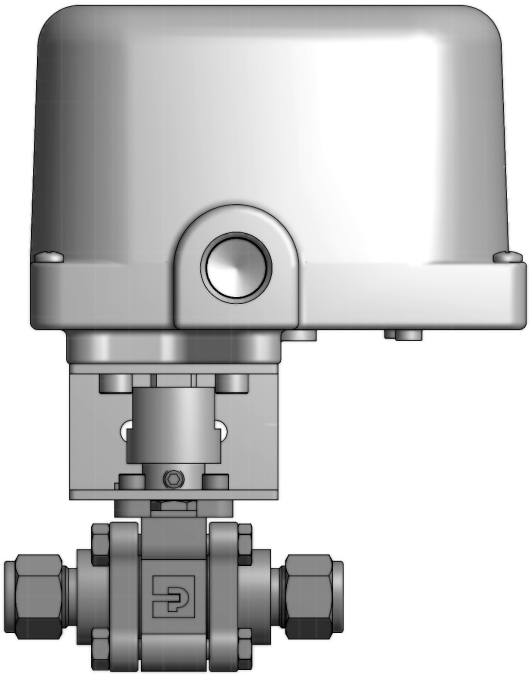


SWB

Note: This Pressure versus Temperature chart reflects the use of indicated seat materials in Stainless Steel valves without consideration of seal materials. When combining seat and seal materials, the most restrictive temperature rating of the seats or seals becomes the limiting factor on temperature range. Please refer to **page 24** for seal temperature ranges.



Pneumatic Actuated Model Shown:
8Z-SWB8L-RT-V-SS-51AD



Electric Actuated Model Shown:
8A-SWB8L-RT-V-SS-71

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Introduction

Parker 60 Series spring return (AC/AO) or double acting (AD) rack and pinion actuators are compact, simply designed devices that are quality engineered to provide high torque outputs and a high cycle, trouble-free life.

A compact, dual opposed rack and pinion design and guide band suspension combine to produce a symmetrically balanced, center mount actuator. In addition, the actuator has a short powerful stroke, rapid response, and fully concentric operating load capability which ensures optimum performance.

Features

- Three point suspension system uses carbon filled PTFE guide bands for piston alignment and rack support
- Dual opposed piston design uses air pressure on two pistons to deliver a balanced force to the pinion gear
- Patented balanced piston design results in even distribution of bearing loads and eliminates piston tilting
- Multiple spring concept permits actuator use at 40 to 120 psig (2.8 to 8.3 bar) air supply requirements
- Suitable for use with dry or lubricated air, non-corrosive gas, or light hydraulic oil
- Aluminum alloy body construction with two component polyurethane coating
- Manual override

Specifications

Operating Pressure

90° Models: 40 to 120 psig (2.8 to 8.3 bar) maximum
AC – Normally Closed Spring Return
AD – Double Acting
AO – Normally Open Spring Return
180° Models: 80 psig (5.5 bar) maximum
ACX – Spring Return
ADX – Double Acting

Temperature Range

-4°F to 175°F (-20°C to 79°C)

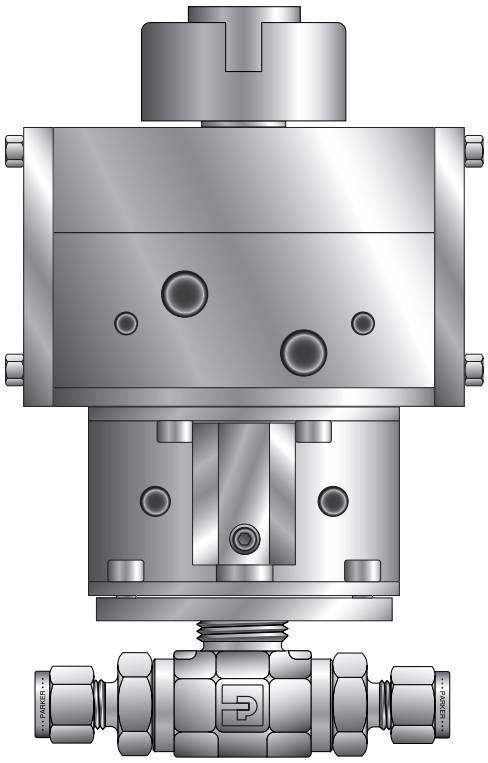
Optional high and low temperature ranges available

Options

- Solenoid valve
- Rotary limit switch with valve position indicator
- Breather block
- Dual mount actuator

Operation

Actuators are manufactured with an integral air manifold and internal porting. The air manifold is designed for direct mounting of solenoid valves. This eliminates the need for external tubing and simplifies installation. For applications not requiring a solenoid valve, the air manifold inlet ports are marked “A” and “B”. Air inlet port “A” will rotate the actuator counter-clockwise. Spring return actuators fail clockwise.



Model Shown: 4Z-B6LJ-V-SS-61AD

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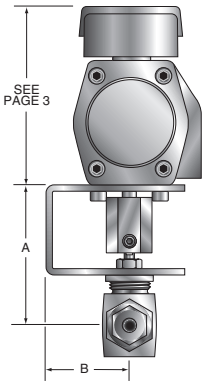
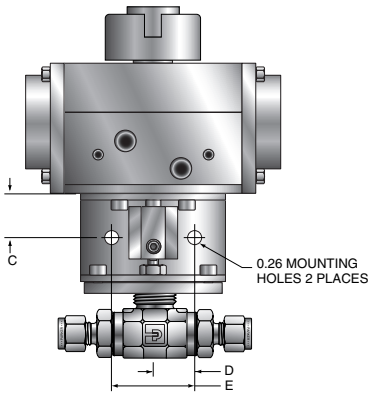
Valve Dimensional Data

Valve Series	A		B		C		D		E	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
B2	2.23	56.6	1.61	40.9	0.80	20.3	0.75	19.1	1.50	38.1
B6	2.49	63.2								
B8	2.91	73.9								
MB2	2.33	59.2								
MB4	2.33	59.2								
MB6	2.48	63.0								
HB4	2.70	68.6								
SWB4	2.57	65.2	1.25	31.7	0.82	20.08				
SWB8	2.79	70.9								
SWB12	2.95	74.9								
SWB16	3.14	79.7								

Dimensions in inches/millimeters are for reference only, subject to change.





Model Shown:
4Z-B6LJ-V-SS-61AC-2

Recommended Actuators*

Valve Series	Double Acting AD	Spring Return AO	Spring Return AC
B2LJ	61AD	61AO-2	61AC-2
B2LJ2	61AD	61AO-2	61AC-2
B2XJ	61ADX	61ACX-2	61ACX-2
B2XJ2	61ADX	61ACX-2	61ACX-2
B6LJ	61AD	61AO-2	61AC-2
B6LJ2	61AD	61AO-2	61AC-2
B6LS2	61AD	61AO-2	61AC-2
B6LPKR	61AD	61AO-2	61AC-2
B6LSPKR	61AD	61AO-2	61AC-2
B6XJ	61ADX	61ACX-2	61ACX-2
B6XJ2	61ADX	61ACX-2	61ACX-2
B6XS2	61ADX	61ACX-2	61ACX-2
B6XPKR	61ADX	61ACX-2	61ACX-2
B6XSPKR	61ADX	61ACX-2	61ACX-2
B8LJ	61AD	61AO-2	61AC-2
B8LJ2	61AD	62AO-3	62AC-3
B8LS2	61AD	62AO-3	62AC-3
B8LPKR	61AD	62AO-3	62AC-3
B8LSPKR	61AD	62AO-3	62AC-3
B8XJ	61ADX	61ACX-2	61ACX-2
B8XJ2	61ADX	ACX64-3	ACX64-3
B8XS2	61ADX	ACX64-3	ACX64-3
B8XPKR	61ADX	ACX64-3	ACX64-3
B8XSPKR	61ADX	ACX64-3	ACX64-3
HB4LPKR	61AD	62AO-3	62AC-3
HB4LK	61AD	61AO-2	61AC-2
HB4XPKR	61ADX	ACX62-3	ACX62-3
HB4XK	61ADX	61ACX-2	61ACX-2
MB2A	61AD	61AO-2	61AC-2
MB2L	61AD	61AO-2	61AC-2
MB2X	61ADX	61ACX-2	61ACX-2
MB4A	61AD	61AO-2	61AC-2
MB4L	61AD	61AO-2	61AC-2
MB4X	61ADX	61ACX-2	61ACX-2
MB6A	61AD	61AO-2	61AC-2
MB6L	61AD	61AO-2	61AC-2
MB6X	61ADX	61ACX-2	61ACX-2
SWB4	61AD	61AO-2	61AC-2
SWB8	61AD	62AO-3	62AC-3
SWB12	61AD	62AO-3	62AC-3
SWB16	62AD	63AO-3	63AC-3

* With 60 psig (4.1 bar) actuation pressure.

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