

BV3L/BV3LZ 600 PSI DIVERTER

Premium Quality 3-Way Aluminum Diverter Valve

Standard PTFE Ball Seals ; L-Bore ; Sizes from ¼" to 3"

Designed as an "L-Bore" Diverter ; Optional "Near Zero Leakage" BV3LZ model.



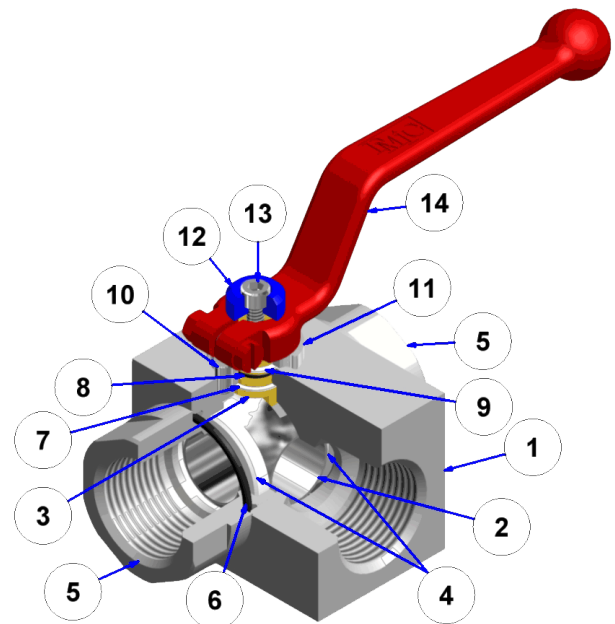
The **BV3L** is an economical U.S. made diverter valve for Filter Duplexing type applications where one input is directed to one of two outputs. Standard "L-Bore" ball with slight port overlap prevents upstream pressure spikes during phase change.

- Straight, non-spherical ball passage improves laminar flow
- Large "L-bore" standard ball porting for low Δp & improved Cv
- Engineered for reliable operation in hydraulic return line applications
- Derived from field-proven **BVAL** for 600 PSI service, Made in U.S.A.
- Standard with Teflon™ (PTFE) Ball Seals for wide fluid applicability
- Accepts full array of DMIC Pre-Engineered Accessories
- Fully serviceable o-ring sealed design, optional EPR for Skydrol systems
- ¼" to 2" rated at 600 PSI, 2½" + rated at 400 PSI.
- Valve series rating valid for near zero leak design.

Valve Cutaway View and Service Parts BOM

BV3L	SERVICE PARTS BOM	
Index	Qty	Description
1	1	Valve Body
2	1	Ball
3	1	Spindle
4	2	Ball Seal
5	*	End Connection(s)
6	*	End Connection O-Ring
7	1	Internal Thrust Washer
8	1	Spindle O-Rings
9	1	External Glide Washer
10	1	Stop Pin
11	1	Stop Washer
12	1	Color Coded Top Cap
13	1	Top Cap Screw
14	1	Handle

* - Quantity depends on size and combination of body



BV3L/BV3LZ 600 PSI DIVERTER

Ordering Codes

See page 14 for accessory codes

BV3LZ
or
BV3L

**** S A 4 3 2 1 * * * * *

Size Codes	
Code	Port Size
0250	1/4"
0375	3/8"
0500	1/2"
0750	3/4"
1000	1"
1250	1 1/4"
1500	1 1/2"
2000	2"
2500	2 1/2"
3000	3"

Call Factory for larger sizes 18"+

Connection Types	
Imperial Threads	
Code	Description
S	SAE ORB
N	NPT
Metric Threads	
B	BSPP
ISO Threads	
IU	ISO6149
Welded	
W*	Socket Weld
Flanged	
A*	ANSI Flanges
F*	SAE 4-Bolt UNC
G*	SAE 4-Bolt Metric
S*	SAE Split

Ball Pattern	
Code	Description
A	L-Bore Diverter
C	T-Bore 90° Action
D	T-Bore 180° Action

O-Ring Material	
Code	Description
1	Buna-N (Standard)
2	EPR
3	Viton™

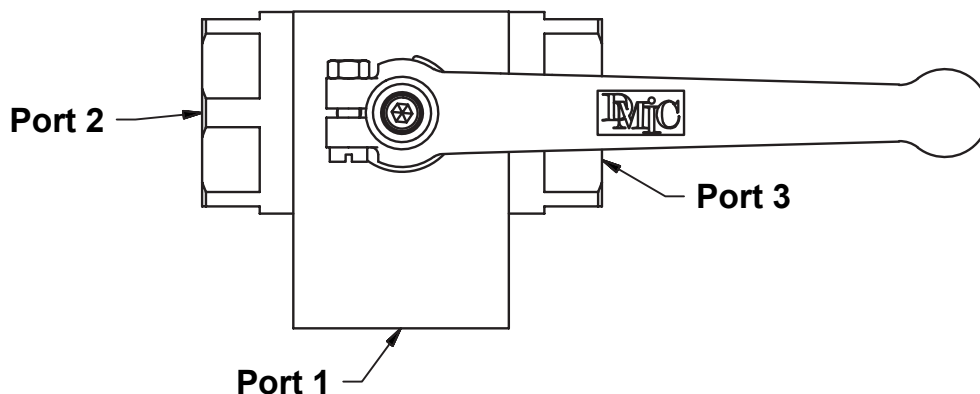
Ball Seal Material	
Code	Description
2	PTFE Teflon™

Ball & Spindle Mat'l	
Code	Description
3	Brass
2	Stainless Steel

Body Material	
Code	Description
4	Aluminum

Note: Changes from Standard Materials may result in changes to temperature and/or pressure rating.

Note: Please refer to page 10 for customizing valve port connections



Q: Can I use a Diverter Valve or do I need a True Multi-Way Valve?

A: The "BV3LZ" version of our diverter valve can take the place of a true multi way valve in many circuits.

Specifically, the question you must ask your application is: "Will pressure ever be applied at port 2 or 3 when the valve is blocked?"

If YES, you must use a "real" 3-way valve, or the "BV3LZ" model. If NO, a Diverter such as "BV3L" or "BV3D" is acceptable.

Due to our policy of continual product improvement, the specifications in this catalog may change without notice. When designing by spec, please request a certified print.

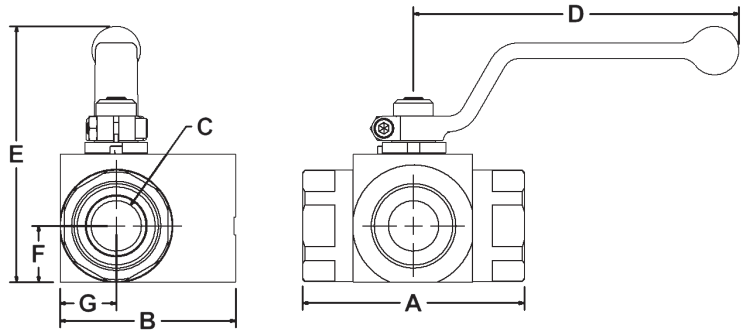


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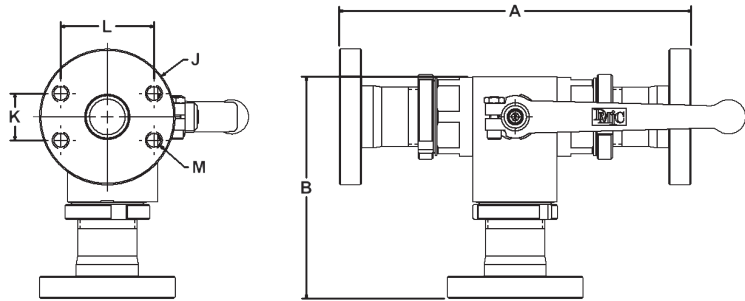
BV3L/ BV3LZ		Dependent Dimensions			
Threaded Connection					
Dimension (Inches)		A		B	
Port Code(s)	Port Size	Overall Length	Overall Length	Width Port 1	Width Port 1
N S B IU	¼"	2.64	2.64	2.26	2.26
	⅜"	2.64	2.64	2.26	2.26
	½"	2.64	2.64	2.26	2.26
	¾"	3.27	3.27	2.50	2.50
	1"	3.47	3.47	2.75	2.75
Threaded Connections	1¼"	3.89	3.89	3.50	3.50
	1½"	4.31	4.31	3.66	3.66
	2"	4.90	4.90	4.13	4.13
SAE 4-Bolt Flange Connection					
Dimension (inches)		A _{FM}	A _{FL}	B _{FM}	B _{FL}
Port Code(s)	Port Size	Overall Length	Overall Length	Width Port 1	Width Port 1
FM/GM FL	¾"	7.59	8.84	4.64	5.27
	1"	7.80	9.04	4.90	5.52
SAE 4-Bolt Comp/Std Flange Connections	1¼"	8.46	9.71	5.77	6.39
	1½"	8.88	9.88	5.94	6.44
	2"	9.47	11.22	6.41	7.29
SAE Split Flange Connection					
Dimension (inches)		A		B	
Port Code(s)	Port Size	Overall Length	Overall Length	Width Port 1	Width Port 1
SM	¾"	8.14	8.14	4.92	4.92
	1"	8.26	8.26	5.13	5.13
	1¼"	9.32	9.32	6.20	6.20
	1½"	9.76	9.76	6.38	6.38
SAE Split Flange Connections	2"	10.85	10.85	7.10	7.10
ANSI & DIN Flange Connection					
Dimension (inches)		-	-	-	-
Port Code(s)	Port Size	Because BV3L is a low pressure valve, DMIC offers only ANSI Class 150 as a BV3L option. Please contact DMIC for a certified print.			
AA / D*	1"				
	1¼"				
	1½"				
ANSI & DIN Flange	2"				
Swivel Socket Weld Connection					
Dimension (inches)		A		B	
Port Code(s)	Port Size	Overall Length	Overall Length	Width Port 1	Width Port 1
W4	¾"	5.84	5.84	3.77	3.77
	1"	6.04	6.04	4.02	4.02
	1¼"	6.71	6.71	4.89	4.89
	1½"	7.13	7.13	5.07	5.07
Socket Weld Connections	2"	7.72	7.72	5.54	5.54

BV3L/ BV3LZ		Common Dimensions					
Part Number	Port Size	Rated Pressure PSI	Dimensions IN				
			C Valve Bore	D Handle Length	E Overall Height	F Bot to Port Ctr	G Back of Body to Center of Port
BV3L-0250****	¼"	600	0.38	3.35	2.70	0.63	0.63
BV3LZ-0250****							
BV3L-0375****	⅜"		0.44	3.35	2.70	0.63	0.63
BV3LZ-0375****							
BV3L-0500****	½"		0.44	3.35	2.70	0.63	0.63
BV3LZ-0500****							
BV3L-0750****	¾"		0.67	5.09	3.76	0.76	0.81
BV3LZ-0750****							
BV3L-1000****	1"		0.79	5.09	4.01	0.88	0.88
BV3LZ-1000****							
BV3L-1250****	1¼"		1.06	6.81	5.59	1.53	1.28
BV3LZ-1250****							
BV3L-1500****	1½"	1.34	6.81	6.27	2.00	1.48	
BV3LZ-1500****							
BV3L-2000****	2"	1.69	6.81	6.91	2.31	1.74	
BV3LZ-2000****							

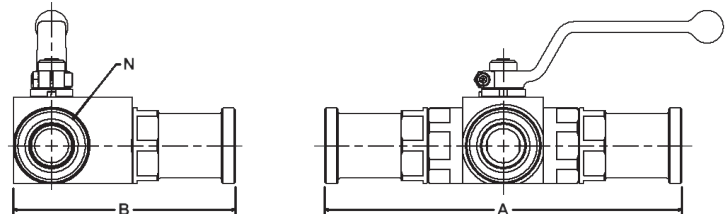
N, S, B, IU THREADED



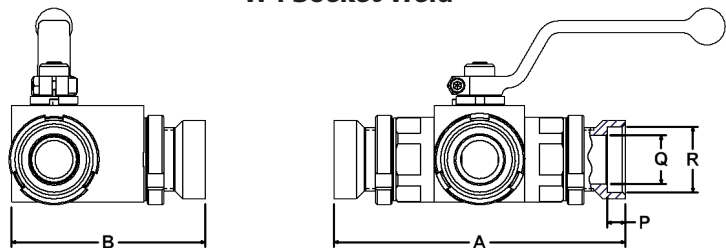
FM/GM/FL SAE 4 BOLT FLANGE (COMP & STD)



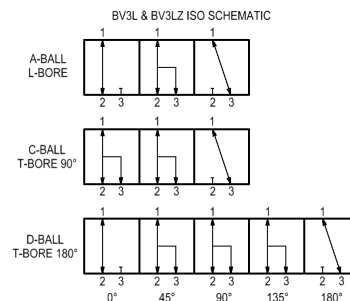
SM SAE SPLIT FLANGE HEAD



W4 Socket Weld



BV3LZ & BV3L for 600 PSI Ball Pattern Schematic



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DMIC BALL VALVES CATALOG
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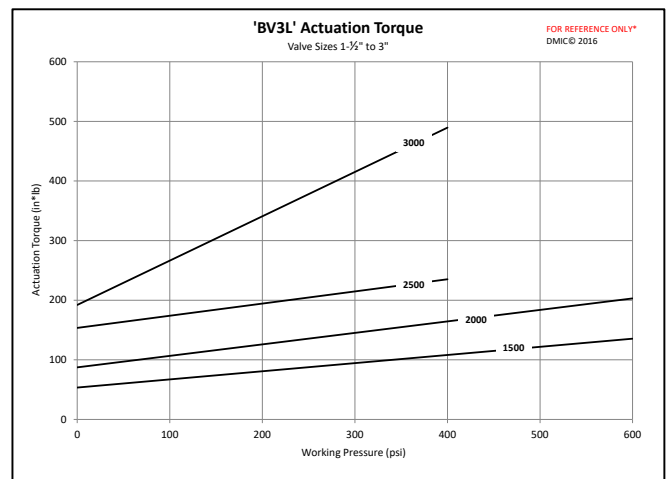
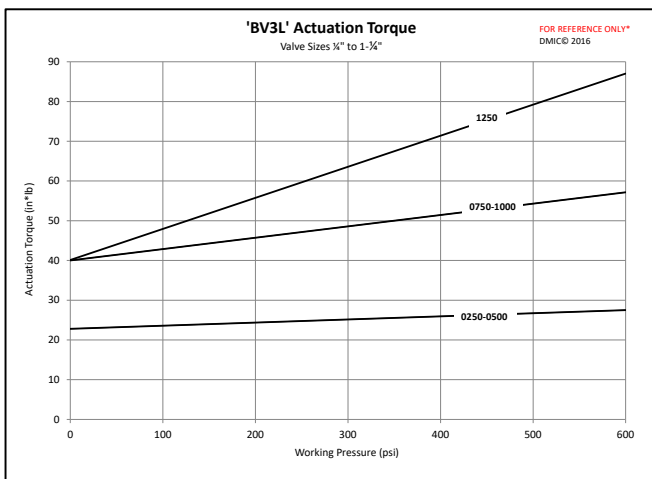
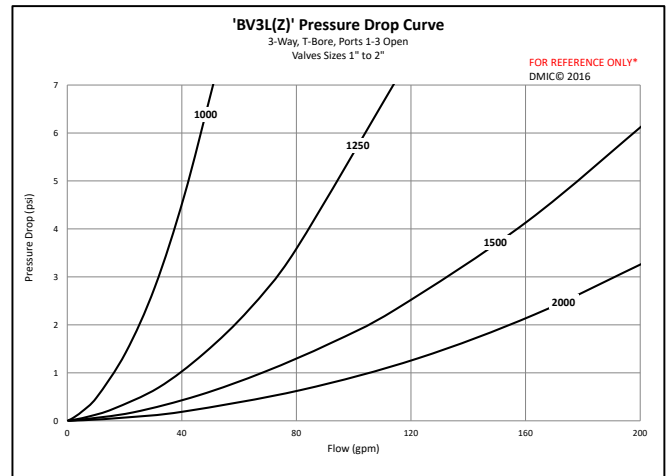
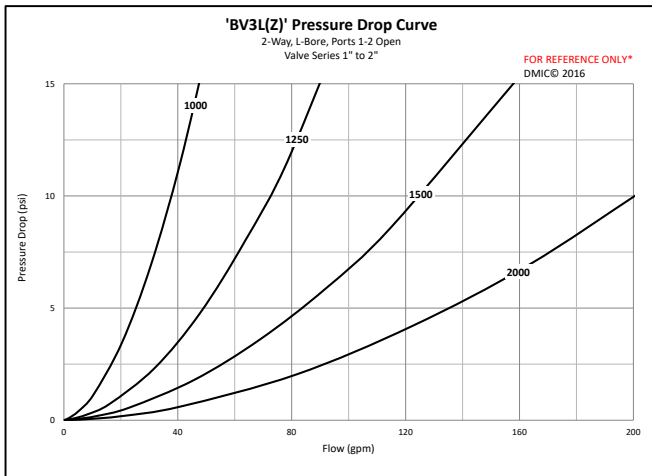
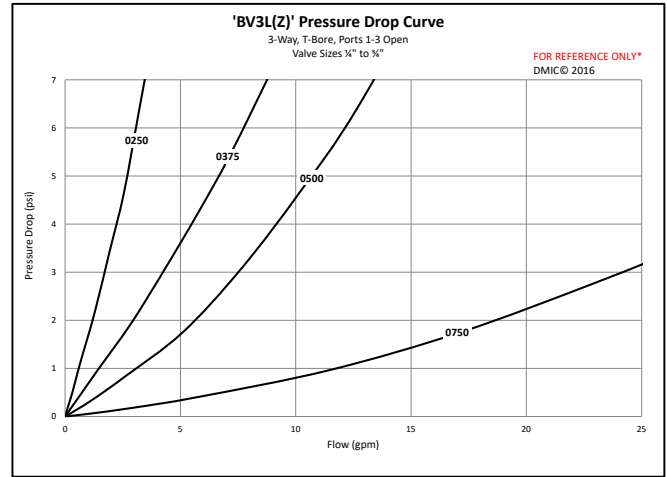
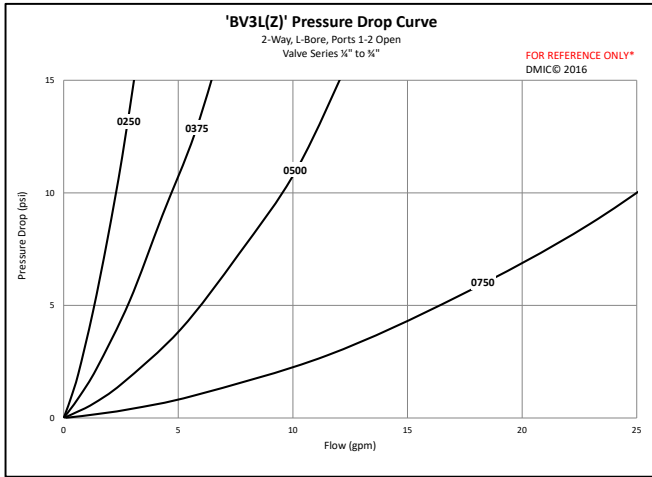
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CALL TOLL FREE 1-800-248-3642
IN CANADA 1-800-320-3642



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Flow Characteristic and Actuation Torque Curves



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