

BVM Series (ANSI 150) Flanged Industrial Control Ball Valves

2-Way • 2-1/2"- 12"

Application

The BVM Series of Flanged Industrial Ball Valves are ideally suited to a wide range of steam and water applications that require a high degree of rangeability. These valves provide exceptional characterized control, flow capacity and pressure drops; all with bi-directional ANSI class VI shut off.

Our exclusive Thrust Washer and Thrust Washer Protector design combine to provide a primary seal, reduce torque and prevent galling. The BVM Series ball valves also feature a floating ball design for low torque and increased cycle life. Characterized V-Balls and full port versions provide multiple Cv values in each size.

Features and Benefits

High Cycle Packing Design

Years of trouble free service

Bubble Tight Shut-Off with Zero Leakage

Energy efficient

Independent Packing Gland

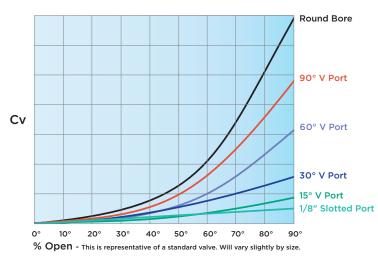
Allows in-line servicing

- Phosphate Coated Carbon Steel Bodies For cost effective applications up to 225°F at 285 PSI
- Available NEMA 4 Actuators

Reliable, cost effective control

Flow Curve Chart

These curves of standard ports are general guidelines and are not specific to any particular valve size.

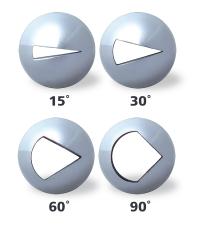






Increased Linear Response

Due to the in-line design inherent with characterized control ball valves, line media flows linearly through the piping system. The direct pattern provides increased media control and rapid response times to controller commands.



o Bray COMMERCIAL

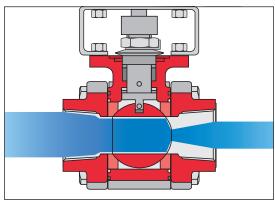
BVM Series - Specifications

Technical Specifications -	BVM Flanged Indust	rial Ball Valve Body					
		V-Port	Full- Port				
Service		Chilled/Hot Water, 50/50 Glyd	col Solutions & Saturated Steam				
Size Range	2-Way	2-1/2" to 12"	Flanged Valves				
Valve Fluid	Water	Meets ASME Clas	s 150 temperatures				
Temperature Limits	Saturated Steam	100 PSI (689 kPa)					
Valve Body Pressure Rating		ANSI (Class 150				
Maximum Close-Off Pressure		285 PSI ((1,965 kPa)				
Maximum Recommended	Water	80 PSI (551 kPa)					
Operating Pressure Drop	Steam	50 PSI ((344 kPa)				
	V15 Port	Linear	N/A				
Flow Characteristic	V30 Port	Modified Equal Percentage	N/A				
	V60 & 90 Port	Equal Percentage	N/A				
Rangeability		20	00:1				
Leakage		Bubble Tigh	t per API 598				
End Connections		ANSI	Class 150				
Ambient Operating Temperature Range			ator Rating mounting kit may be required)				
	Body	WCB Ca	rbon Steel				
	Ball & Stem	316 Stair	nless Steel				
Materials	Seat	Tek-Fil	TFM				
raterials	Stem Seal/Packing	P.	TFE				
	Body Seal	316/G	iraphite				
	Body Bolts	ASTM	A 193 B7				
Warranty		3 Years limited from time of sl	nipment.				

Disclaimer - The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the local Bray office. Bray, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

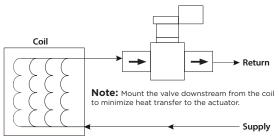
BVM - Piping Diagram

- V-Port Valves Note the arrow engraved on the ends which shows the flow going from the bolt head to the nut so that the V-ball is downstream.
- Full Port Valves are bi-directional.

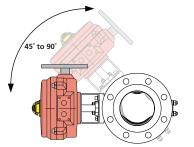


Media Flow entering valve from left. Installing the V downstream is preferred.

BVM - Mode of Actuation Typical Two-Way Ball Valve Application



BVM - For Steam Applications Install valve with stem at 45° to 90° from vertical.



вум

5 Bray COMMERCIAL www.braycommercialdivision.com BCDSales@Bray.com 1-888-412-2729

BVM Series - Cut Away View

The **BVM Flanged Series Ball Valves** feature a floating ball design for low torque and increased cycle life. Most standard large size valves feature trunnion-type ball support. These rugged ball valves are ideal for heavy commercial and industrial-type applications.



Stem Seals

BVM Flanged Series Valves 2¹/₂" - 12" valves utilize an independent packing gland which can be easily adjusted without removing mounting hardware or operator. The packing gland is contoured to more uniformly distribute the load across the packing. The primary stem seal is a combination of a thrust washer and a thrust washer protector. An adjustable stem packing creates a secondary seal between the stem and body. The stem packing is composed of RPTFE V-rings as standard – graphite stem packing is standard on all Fire Safe valves.

Ball

BVM Flanged Series Valves balls are precision machined and mirror finished for bubble-tight shut off and less operating torque. As an added safety feature, a hole in the stem slot of each ball equalizes pressure between the body cavity and the line media flow.

Seat

The seat design ensures bi-directional, bubble-tight sealing with low operating torque. All resilient seats feature relief slots or seat O.D. clearance to relieve pressure past the upstream seat, and positive preloading to ensure low pressure/vacuum sealing.

Stem Assemblies

BVM Flanged Series Valves are heavy duty, high quality stems with double "D" connection to ball and operator mounting. Stems are mated with the ball to ensure positive contact. All stems are internal entry and blowout proof for maximum safety.

Stem Packing

An adjustable V-ring design creates a multiple seal between the stem and body. Each stem assembly is composed of three or four (dependent on valve size) rings providing a very high cycle life by resisting creep and cold flow. The Thrust Washer and the Thrust Washer Protector combine to provide a primary seal, reduce torgue and prevent galling.



BCDSales@Bray.com 1-888-412-2729 **The Bray COMMERCIAL**

13788 West Road, Suite 200A Houston, Texas 77041 BVM 3

BVM Series - 2-Way with On/Off Series 70 Actuators Close-Off Charts

2-Way, 24 VAC and 120 VAC, On/Off Actuators (100 PSI Steam and 285 PSI Water)

	Actuator Model Details													
Model		alve ize	V-Cut	Flow Coefficient		Series 70/AU Actuators On/Off, 120VAC	Series 70 Actuators On/Off, 24VAC							
Number	In.	mm	VCut	Cv	Kv	Model	Model							
BVM250-CF15-27			15°	27.2	23.5	70-0081H	70-24-0081H							
BVM250-CF15-56			30°	56.3	48.5	70-0081H	70-24-0081H							
BVM250-CF15-114	2.5	15	60°	113.7	98.0	70-0081H	70-24-0081H							
BVM250-CF15-177			90°	177.3	152.8	70-0081H	70-24-0081H							
BVM250-CF15-780			Full Port	780.0	672.4	70-0081H	70-24-0081H							
BVM3-CF15-32			15°	31.8	27.4	70-0121H	70-24-0201H							
BVM3-CF15-70			30°	69.8	60.1	70-0121H	70-24-0201H							
BVM3-CF15-150	3	80	60°	149.9	129.2	70-0121H	70-24-0201H							
BVM3-CF15-237			90°	237.3	204.6	70-0121H	70-24-0201H							
BVM3-CF15-1150			Full Port	1150.0	991.3	70-0121H	70-24-0201H							
BVM4-CF15-76			15°	75.5	65.1	70-E301H	70-24-E301H							
BVM4-CF15-159]		30°	158.5	136.7	70-E301H	70-24-E301H							
BVM4-CF15-330	4	100	60°	329.5	284.0	70-E301H	70-24-E301H							
BVM4-CF15-547			90°	546.6	471.2	70-E301H	70-24-E301H							
BVM4-CF15-2100			Full Port	2100.0	1810.2	70-E301H	70-24-E301H							
BVM6-CF15-134	_		15°	134.4	115.9	70-0651H	70-24-0501H*							
BVM6-CF15-282			30°	282.3	243.3	70-0651H	70-24-0501H*							
BVM6-CF15-587	6	150	60°	586.8	505.8	70-0651H	70-24-0501H*							
BVM6-CF15-974			90°	973.5	839.2	70-0651H	70-24-0501H*							
BVM6-CF15-5000			Full Port	5000.0	4310.0	70-0651H	70-24-0501H*							
BVM8-CF15-346			15°	345.5	297.8	70-1300H	-							
BVM8-CF15-481			30°	480.5	414.2	70-1300H	-							
BVM8-CF15-999	8	200	60°	998.7	860.9	70-1300H	-							
BVM8-CF15-1657			90°	1656.8	1428.2	70-1300H	-							
BVM8-CF15-9600			Full Port	9600.0	8275.2	70-1300H	-							
BVM10-CF15-545			15°	545.0	469.8	AU-2130	-							
BVM10-CF15-751			30°	750.7	647.1	AU-2130	-							
BVM10-CF15-1561	10	250	60°	1560.5	1345.2	AU-2130	-							
BVM10-CF15-2589			90°	2588.7	2231.5	AU-2130	-							
BVM10-CF15-15000			Full Port	15000.0	12930.0	AU-2130	-							
BVM12-CF15-1101			15°	1101.1	949.1	AU-4068	-							
BVM12-CF15-1051			30°	1051.0	906.0	AU-4068	-							
BVM12-CF15-2185	12	300	60°	2184.6	1883.2	AU-4068	-							
BVM12-CF15-3624			90°	3624.2	3124.0	AU-4068	-							
BVM12-CF15-21000			Full Port	21000.0	18102.0	AU-4068	-							
Ontions (Addens	1													

Options/Adders

For Battery Back-Up Failsafe Option (BBU) option on 24VAC actuators, add "-BBU".
 Add "SEI5" in place of CEIE for Stainland Charles of the black.

Add "SF15" in place of CF15 for Stainless Steel body option.

*

 Steam Only
 **For normally Closed, add a "C" to the end of the valve part number, i.e. BVM250-CF15-27C, otherwise normally open. Fail safe models only. V-port ball valves have a 20 to 85% max angle of controllability.

5 Bray COMMERCIAL www.braycommercialdivision.com

2-Way, 24 VAC and 120 VAC, Modulating Actuators (100 PSI Steam and 285 PSI Water)

Model Number Size V-Cut Coefficient Modulating, 120VAC Modulating, 24VAC BVM250-CF15-27 In. mm Cv Kv Model Model BVM250-CF15-27 S 70-0081SVH 70-24-0081SVH 70-24-0081SVH BVM250-CF15-114 2.5 15 60° 113.7 98.0 70-0081SVH 70-24-0081SVH BVM250-CF15-177 BVM350-CF15-70 90° 177.3 152.8 70-0081SVH 70-24-0081SVH BVM3-CF15-150 BV 90° 177.3 152.8 70-0081SVH 70-24-0081SVH BVM3-CF15-150 BV 90° 177.3 152.8 70-0121SVH 70-24-0201SVH BVM3-CF15-150 BV 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM3-CF15-150 BV 60° 150.0 991.3 70-0121SVH 70-24-0201SVH BVM4-CF15-30 4 10° 60° 329.5 284.0 70-6230SVH 70-24-2301SVH BVM4-CF15-547 90° 158.5	Actuator Model Details													
Number In. mm Cv Kv Model Model BVM250-CF15-27 BVM250-CF15-56 BVM250-CF15-177 2.5 15° 2.7.2 23.5 70-0081SVH 70-24-0081SVH BVM250-CF15-760 BVM250-CF15-770 BVM3-CF15-32 2.5 15 60° 113.7 98.0 70-0081SVH 70-24-0081SVH BVM250-CF15-780 BVM3-CF15-780 Full Port 780.0 672.4 70-0081SVH 70-24-0201SVH BVM3-CF15-780 BVM3-CF15-150 3 80 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM3-CF15-150 3 80 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM4-CF15-76 Full Port 115° 75.5 65.1 70-2012ISVH 70-24-0201SVH BVM4-CF15-59 A 15° 158.5 136.7 70-2130SVH 70-24-2201SVH BVM4-CF15-591 BV 60° 529.5 284.0 70-6301SVH 70-24-E301SVH BVM4-CF15-597 6 15° 134.4 115.9 70-2651SVH <td< th=""><th></th><th></th><th></th><th>V-Cut</th><th colspan="2"></th><th>-</th><th>Series 70 Actuators Modulating, 24VAC</th></td<>				V-Cut			-	Series 70 Actuators Modulating, 24VAC						
BVM250-CF15-56 BVM250-CF15-114 BVM250-CF15-770 2.5 15 30° 56.3 48.5 70-0081SVH 70-24-0081SVH BVM250-CF15-770 BVM250-CF15-780 2.5 15 60° 113.7 98.0 70-0081SVH 70-24-0081SVH BVM250-CF15-780 90° 177.3 152.8 70-0081SVH 70-24-0081SVH BVM3-CF15-32 717.3 152.8 70-0081SVH 70-24-0081SVH BVM3-CF15-70 70 70 70-0121SVH 70-24-0201SVH BVM3-CF15-70 70 70 70-0121SVH 70-24-0201SVH BVM3-CF15-70 70 70 70 70-0121SVH 70-24-0201SVH BVM3-CF15-76 70 70 70 70 70 70 BVM4-CF15-76 70 70 70 70 70 70 70 BVM4-CF15-320 70 70 70 70 70 70 70 70 70 BVM4-CF15-321 70 70 70 70 70 70 70 <th>Number</th> <th>In.</th> <th>mm</th> <th></th> <th>Cv</th> <th>Kv</th> <th>Model</th> <th>Model</th>	Number	In.	mm		Cv	Kv	Model	Model						
BVM250-CF15-114 BVM250-CF15-770 2.5 15 60° 113.7 98.0 70-0081SVH 70-24-0081SVH BVM250-CF15-780 90° 177.3 152.8 70-0081SVH 70-24-0081SVH BVM250-CF15-780 Full Port 780.0 672.4 70-0081SVH 70-24-0081SVH BVM3-CF15-70 BVM3-CF15-70 80 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM3-CF15-70 80 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM3-CF15-70 80 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM4-CF15-76 80 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM4-CF15-76 80 60° 150.0 991.3 70-0121SVH 70-24-201SVH BVM4-CF15-76 80 70 158.5 136.7 70-E301SVH 70-24-E301SVH BVM4-CF15-714 80° 50° 30° 128.2 70-651SVH 70-24-E301SVH BVM6-CF15-547 60°<	BVM250-CF15-27			15°	27.2	23.5	70-0081SVH	70-24-0081SVH						
BVM250-CF15-177 90° 177.3 152.8 70-0081SVH 70-24-0081SVH BVM250-CF15-780 Full Port 780.0 672.4 70-0081SVH 70-24-0081SVH BVM3-CF15-32 BVM3-CF15-70 BSVM3-CF15-150 3 80 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM3-CF15-150 BVM3-CF15-76 BVM3-CF15-76 Full Port 1150.0 991.3 70-0121SVH 70-24-0201SVH BVM4-CF15-76 BVM4-CF15-76 BVM4-CF15-76 Full Port 1150.0 991.3 70-0121SVH 70-24-0201SVH BVM4-CF15-750 BV Full Port 1150.0 991.3 70-0121SVH 70-24-20201SVH BVM4-CF15-76 BV Full Port 1150.0 991.3 70-0121SVH 70-24-E301SVH BVM4-CF15-76 BV Full Port 1150.0 991.3 70-0121SVH 70-24-E301SVH BVM4-CF15-76 BV Full Port 200.0 1810.2 70-E301SVH 70-24-E301SVH BVM6-CF15-134 BV Full Port 2100.0	BVM250-CF15-56	2.5		30°	56.3	48.5	70-0081SVH	70-24-0081SVH						
BVM250-CF15-780 Full Port 780.0 672.4 70-0081SVH 70-24-0081SVH BVM3-CF15-32 J 30° 69.8 60.1 70-0121SVH 70-24-0201SVH BVM3-CF15-70 J 30° 69.8 60.1 70-0121SVH 70-24-0201SVH BVM3-CF15-70 J 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM3-CF15-75 J 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM4-CF15-76 Full Port 1150.0 991.3 70-0121SVH 70-24-0201SVH BVM4-CF15-76 J Full Port 1150.0 991.3 70-0121SVH 70-24-0201SVH BVM4-CF15-76 J J S0° 158.5 136.7 70-E301SVH 70-24-E301SVH BVM4-CF15-515 J S0° 158.5 136.7 70-E301SVH 70-24-E301SVH BVM4-CF15-2100 Full Port 2100.0 1810.2 70-E301SVH 70-24-E301SVH BVM6-CF15-324 Full Port 130° 282.3	BVM250-CF15-114		15	60°	113.7	98.0	70-0081SVH	70-24-0081SVH						
BVM3-CF15-32 A IS° 31.8 27.4 70-0121SVH 70-24-0201SVH BVM3-CF15-70 3 30° 69.8 60.1 70-0121SVH 70-24-0201SVH BVM3-CF15-70 3 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM3-CF15-76 90° 237.3 204.6 70-0121SVH 70-24-0201SVH BVM4-CF15-76 70 75.5 65.1 70-0121SVH 70-24-0201SVH BVM4-CF15-76 75.5 65.1 70-0121SVH 70-24-0201SVH 70-24-0201SVH BVM4-CF15-537 75.5 65.1 70-E301SVH 70-24-E301SVH BVM4-CF15-547 90° 546.6 471.2 70-E301SVH 70-24-E301SVH BVM6-CF15-134 70 70 830.2 70-0651SVH 70-24-0501SVH BVM6-CF15-282 70 15° 134.4 115.9 70-0651SVH 70-24-0501SVH BVM6-CF15-374 70° 90° 973.5 839.2 70-0651SVH 70-24-0501SVH BVM8-CF15-481	BVM250-CF15-177			90°	177.3	152.8	70-0081SVH	70-24-0081SVH						
BVM3-CF15-70 3 3 80 30° 69.8 60.1 70-0121SVH 70-24-0201SVH BVM3-CF15-150 3 80 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM3-CF15-237 90° 237.3 204.6 70-0121SVH 70-24-0201SVH BVM4-CF15-76 Full Port 1150.0 991.3 70-0121SVH 70-24-0201SVH BVM4-CF15-159 J Full Port 1150.0 991.3 70-0121SVH 70-24-0201SVH BVM4-CF15-530 J S0° 158.5 136.7 70-E301SVH 70-24-E301SVH BVM4-CF15-547 B0° 546.6 471.2 70-E301SVH 70-24-E301SVH BVM6-CF15-134 J Full Port 2100.0 1810.2 70-E301SVH 70-24-E301SVH BVM6-CF15-387 G I5° 134.4 115.9 70-0651SVH 70-24-0501SVH BVM6-CF15-587 G G0° 586.8 505.8 70-0651SVH 70-24-0501SVH BVM8-CF15-974 B° 90	BVM250-CF15-780			Full Port	780.0	672.4	70-0081SVH	70-24-0081SVH						
BVM3-CF15-150 3 80 60° 149.9 129.2 70-0121SVH 70-24-0201SVH BVM3-CF15-237 90° 237.3 204.6 70-0121SVH 70-24-0201SVH BVM3-CF15-1150 Full Port 1150.0 991.3 70-0121SVH 70-24-0201SVH BVM4-CF15-76 Full Port 1150.0 991.3 70-0121SVH 70-24-0201SVH BVM4-CF15-159 J S0° 158.5 136.7 70-E301SVH 70-24-E301SVH BVM4-CF15-547 S0° 546.6 471.2 70-E301SVH 70-24-E301SVH BVM4-CF15-547 90° 546.6 471.2 70-E301SVH 70-24-E301SVH BVM6-CF15-134 J Full Port 2100.0 1810.2 70-E301SVH 70-24-E301SVH BVM6-CF15-282 J S0° 282.3 243.3 70-0651SVH 70-24-0501SVH BVM6-CF15-587 G I5° 345.5 297.8 70-0651SVH 70-24-0501SVH BVM6-CF15-5481 J S0° 90° 134.4 115.9	BVM3-CF15-32			15°	31.8	27.4	70-0121SVH	70-24-0201SVH						
BVM3-CF15-237 90° 237.3 204.6 70-0121SVH 70-24-0201SVH BVM3-CF15-1150 Full Port 1150.0 991.3 70-0121SVH 70-24-0201SVH BVM4-CF15-76 Full Port 1150.0 991.3 70-0121SVH 70-24-0201SVH BVM4-CF15-76 Joo° 158.5 65.1 70-E301SVH 70-24-E301SVH BVM4-CF15-730 Joo° 158.5 136.7 70-E301SVH 70-24-E301SVH BVM4-CF15-730 Joo° 546.6 471.2 70-E301SVH 70-24-E301SVH BVM4-CF15-700 Full Port 2100.0 1810.2 70-E301SVH 70-24-E301SVH BVM6-CF15-714 Joo° 546.6 471.2 70-651SVH 70-24-E301SVH BVM6-CF15-828 Joo° 282.3 243.3 70-0651SVH 70-24-0501SVH BVM6-CF15-974 Joo° 90° 973.5 839.2 70-0651SVH 70-24-0501SVH BVM8-CF15-481 Joo° 480.5 414.2 70-1300SVH - BVM8-CF15-545 Joo° <td< td=""><td>BVM3-CF15-70</td><td></td><td></td><td>30°</td><td>69.8</td><td>60.1</td><td>70-0121SVH</td><td>70-24-0201SVH</td></td<>	BVM3-CF15-70			30°	69.8	60.1	70-0121SVH	70-24-0201SVH						
BVM3-CF15-1150 Full Port 1150.0 991.3 70-0121SVH 70-24-0201SVH BVM4-CF15-76 15° 75.5 65.1 70-E301SVH 70-24-E301SVH BVM4-CF15-330 4 15° 75.5 65.1 70-E301SVH 70-24-E301SVH BVM4-CF15-330 4 10° 60° 329.5 284.0 70-E301SVH 70-24-E301SVH BVM4-CF15-547 90° 546.6 471.2 70-E301SVH 70-24-E301SVH BVM6-CF15-2100 Full Port 2100.0 1810.2 70-E301SVH 70-24-E301SVH BVM6-CF15-328 Full Port 15° 134.4 115.9 70-0651SVH 70-24-E301SVH BVM6-CF15-887 6 15° 134.4 115.9 70-0651SVH 70-24-0501SVH BVM6-CF15-587 6 15° 586.8 505.8 70-0651SVH 70-24-0501SVH BVM6-CF15-5900 15° 345.5 297.8 70-0651SVH 70-24-0501SVH BVM8-CF15-481 8 20° 60° 988.7 860.9	BVM3-CF15-150	3	80	60°	149.9	129.2	70-0121SVH	70-24-0201SVH						
BVM4-CF15-76 4 15° 75.5 65.1 70-E301SVH 70-24-E301SVH BVM4-CF15-330 4 30° 158.5 136.7 70-E301SVH 70-24-E301SVH BVM4-CF15-330 4 60° 329.5 284.0 70-E301SVH 70-24-E301SVH BVM4-CF15-547 90° 546.6 471.2 70-E301SVH 70-24-E301SVH BVM6-CF15-134 90° 546.6 471.2 70-E301SVH 70-24-E301SVH BVM6-CF15-387 6 150° 134.4 115.9 70-0651SVH 70-24-E301SVH BVM6-CF15-587 6 150° 282.3 243.3 70-0651SVH 70-24-0501SVH BVM6-CF15-974 60° 586.8 505.8 70-0651SVH 70-24-0501SVH BVM6-CF15-346 150° 90° 973.5 839.2 70-0651SVH 70-24-0501SVH BVM8-CF15-346 8 15° 345.5 297.8 70-1300SVH - BVM8-CF15-9600 8 480.5 414.2 70-1300SVH - <td>BVM3-CF15-237</td> <td></td> <td></td> <td>90°</td> <td>237.3</td> <td>204.6</td> <td>70-0121SVH</td> <td>70-24-0201SVH</td>	BVM3-CF15-237			90°	237.3	204.6	70-0121SVH	70-24-0201SVH						
BVM4-CF15-159 4 100 30° 158.5 136.7 70-E301SVH 70-24-E301SVH BVM4-CF15-330 90° 546.6 471.2 70-E301SVH 70-24-E301SVH BVM4-CF15-2100 90° 546.6 471.2 70-E301SVH 70-24-E301SVH BVM6-CF15-134 Full Port 2100.0 1810.2 70-E301SVH 70-24-E301SVH BVM6-CF15-282 Full Port 30° 282.3 243.3 70-0651SVH 70-24-E301SVH BVM6-CF15-587 60° 586.8 505.8 70-0651SVH 70-24-0501SVH BVM6-CF15-5000 150° 345.5 297.8 70-0651SVH 70-24-0501SVH BVM8-CF15-346 Full Port 500.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-481 S0° 90° 973.5 839.2 70-0651SVH 70-24-0501SVH BVM8-CF15-481 S0° 480.5 414.2 70-1300SVH - BVM8-CF15-9600 Full Port 90° 1656.8 1428.2 70-1300SVH - </td <td>BVM3-CF15-1150</td> <td></td> <td></td> <td>Full Port</td> <td>1150.0</td> <td>991.3</td> <td>70-0121SVH</td> <td>70-24-0201SVH</td>	BVM3-CF15-1150			Full Port	1150.0	991.3	70-0121SVH	70-24-0201SVH						
BVM4-CF15-330 4 100 60° 329.5 284.0 70-E301SVH 70-24-E301SVH BVM4-CF15-547 90° 546.6 471.2 70-E301SVH 70-24-E301SVH BVM4-CF15-2100 Full Port 2100.0 1810.2 70-E301SVH 70-24-E301SVH BVM6-CF15-134 Pull Port 2100.0 1810.2 70-6531SVH 70-24-E301SVH BVM6-CF15-282 Pull Port 30° 282.3 243.3 70-0651SVH 70-24-0501SVH BVM6-CF15-587 6 15° 134.4 115.9 70-0651SVH 70-24-0501SVH BVM6-CF15-587 6 586.8 505.8 70-0651SVH 70-24-0501SVH BVM6-CF15-346 Pull Port 500.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-481 Pull Port 5000.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-1657 Pull Port 5000.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-9600 Pull Port 500.0 480.5 414.2 70-1300SVH	BVM4-CF15-76			15°	75.5	65.1	70-E301SVH	70-24-E301SVH						
BVM4-CF15-547 90° 546.6 471.2 70-E301SVH 70-24-E301SVH BVM4-CF15-2100 Full Port 2100.0 1810.2 70-E301SVH 70-24-E301SVH BVM6-CF15-134 Full Port 2100.0 1810.2 70-651SVH 70-24-E301SVH BVM6-CF15-282 Full Port 30° 282.3 243.3 70-0651SVH 70-24-0501SVH BVM6-CF15-587 Full Port 500° 586.8 505.8 70-0651SVH 70-24-0501SVH BVM6-CF15-5974 Full Port 5000.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-346 Full Port 5000.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-481 S S 30° 480.5 414.2 70-1300SVH - BVM8-CF15-9600 S 60° 998.7 860.9 70-1300SVH - BVM10-CF15-545 Full Port 90° 1656.8 1428.2 70-1300SVH - BVM10-CF15-545 Full Port 9600.0 8275.2 70-1300SVH	BVM4-CF15-159			30°	158.5	136.7	70-E301SVH	70-24-E301SVH						
BVM4-CF15-2100 Full Port 2100.0 1810.2 70-E301SVH 70-24-E301SVH BVM6-CF15-134 J<	BVM4-CF15-330	4	100	60°	329.5	284.0	70-E301SVH	70-24-E301SVH						
BVM6-CF15-134 A 15° 134.4 115.9 70-0651SVH 70-24-0501SVH BVM6-CF15-282 30° 282.3 243.3 70-0651SVH 70-24-0501SVH BVM6-CF15-587 60° 586.8 505.8 70-0651SVH 70-24-0501SVH BVM6-CF15-974 60° 586.8 505.8 70-0651SVH 70-24-0501SVH BVM6-CF15-5000 40° 90° 973.5 839.2 70-0651SVH 70-24-0501SVH BVM8-CF15-346 500.0 4310.0 70-0651SVH 70-24-0501SVH 70-24-0501SVH BVM8-CF15-481 500.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-999 8 200 15° 345.5 297.8 70-1300SVH - BVM8-CF15-9600 8 480.5 414.2 70-1300SVH - BVM8-CF15-9600 8 15° 545.0 469.8 AU-2130SV - BVM10-CF15-751 10 250 60° 1560.5 1345.2 AU-2130SV -	BVM4-CF15-547			90°	546.6	471.2	70-E301SVH	70-24-E301SVH						
BVM6-CF15-282 6 50 282.3 243.3 70-0651SVH 70-24-0501SVH BVM6-CF15-587 60° 586.8 505.8 70-0651SVH 70-24-0501SVH BVM6-CF15-974 90° 973.5 839.2 70-0651SVH 70-24-0501SVH BVM6-CF15-5000 Full Port 500.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-346 Full Port 5000.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-481 A 5000.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-999 A 70 345.5 297.8 70-1300SVH - BVM8-CF15-999 B A 60° 998.7 860.9 70-1300SVH - BVM8-CF15-9600 Full Port 90° 1656.8 1428.2 70-1300SVH - BVM10-CF15-545 Full Port 9600.0 8275.2 70-1300SVH - BVM10-CF15-751 10 Y 545.0 469.8 AU-2130SV -	BVM4-CF15-2100			Full Port	2100.0	1810.2	70-E301SVH	70-24-E301SVH						
BVM6-CF15-587 6 150 60° 586.8 505.8 70-0651SVH 70-24-0501SVH BVM6-CF15-974 90° 973.5 839.2 70-0651SVH 70-24-0501SVH BVM6-CF15-5000 Full Port 5000.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-346 Full Port 5000.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-481 A S 345.5 297.8 70-1300SVH - BVM8-CF15-999 B A 480.5 414.2 70-1300SVH - BVM8-CF15-9600 P0° 1656.8 1428.2 70-1300SVH - BVM10-CF15-545 Full Port 9600.0 8275.2 70-1300SVH - BVM10-CF15-751 T5° 545.0 469.8 AU-2130SV - BVM10-CF15-1561 10 250 60° 1560.5 1345.2 AU-2130SV -	BVM6-CF15-134			15°	134.4	115.9	70-0651SVH	70-24-0501SVH*						
BVM6-CF15-974 90° 973.5 839.2 70-0651SVH 70-24-0501SVH BVM6-CF15-5000 Full Port 500.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-346 Full Port 500.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-481 Full Port 30° 480.5 297.8 70-1300SVH - BVM8-CF15-999 8 60° 998.7 860.9 70-1300SVH - BVM8-CF15-9600 60° 998.7 860.9 70-1300SVH - BVM8-CF15-9600 Full Port 90° 1656.8 1428.2 70-1300SVH - BVM10-CF15-545 Full Port 9600.0 8275.2 70-1300SVH - BVM10-CF15-751 T5° 545.0 469.8 AU-2130SV - BVM10-CF15-1561 10 250 60° 1560.5 1345.2 AU-2130SV -	BVM6-CF15-282			30°	282.3	243.3	70-0651SVH	70-24-0501SVH*						
BVM6-CF15-5000 Full Port 5000.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-346 4 5000.0 4310.0 70-0651SVH 70-24-0501SVH BVM8-CF15-346 5000.0 480.5 297.8 70-1300SVH - BVM8-CF15-481 5000.0 480.5 414.2 70-1300SVH - BVM8-CF15-9999 60° 998.7 860.9 70-1300SVH - BVM8-CF15-9600 60° 998.7 860.9 70-1300SVH - BVM8-CF15-9600 Full Port 9600.0 8275.2 70-1300SVH - BVM10-CF15-545 545.0 469.8 AU-2130SV - BVM10-CF15-751 750.7 647.1 AU-2130SV - BVM10-CF15-1561 10 250 60° 1560.5 1345.2 AU-2130SV -	BVM6-CF15-587	6	150	60°	586.8	505.8	70-0651SVH	70-24-0501SVH*						
BVM8-CF15-346 A 15° 345.5 297.8 70-1300SVH - BVM8-CF15-481 30° 480.5 414.2 70-1300SVH - BVM8-CF15-999 60° 998.7 860.9 70-1300SVH - BVM8-CF15-9600 90° 1656.8 1428.2 70-1300SVH - BVM8-CF15-9600 Full Port 9600.0 8275.2 70-1300SVH - BVM10-CF15-545 15° 545.0 469.8 AU-2130SV - BVM10-CF15-751 250 60° 1560.5 1345.2 AU-2130SV -	BVM6-CF15-974			90°	973.5	839.2	70-0651SVH	70-24-0501SVH*						
BVM8-CF15-481 A 30° 480.5 414.2 70-1300SVH - BVM8-CF15-999 60° 998.7 860.9 70-1300SVH - BVM8-CF15-1657 90° 1656.8 1428.2 70-1300SVH - BVM8-CF15-9600 Full Port 9600.0 8275.2 70-1300SVH - BVM10-CF15-545 15° 545.0 469.8 AU-2130SV - BVM10-CF15-751 750.7 647.1 AU-2130SV - BVM10-CF15-1561 10 250 60° 1560.5 1345.2 AU-2130SV -	BVM6-CF15-5000			Full Port	5000.0	4310.0	70-0651SVH	70-24-0501SVH*						
BVM8-CF15-999 8 200 60° 998.7 860.9 70-1300SVH - BVM8-CF15-1657 90° 1656.8 1428.2 70-1300SVH - BVM8-CF15-9600 Full Port 9600.0 8275.2 70-1300SVH - BVM10-CF15-545 15° 545.0 469.8 AU-2130SV - BVM10-CF15-751 30° 750.7 647.1 AU-2130SV - BVM10-CF15-1561 10 250 60° 1560.5 1345.2 AU-2130SV -	BVM8-CF15-346			15°	345.5	297.8	70-1300SVH	-						
BVM8-CF15-1657 90° 1656.8 1428.2 70-1300SVH - BVM8-CF15-9600 Full Port 9600.0 8275.2 70-1300SVH - BVM10-CF15-545 15° 545.0 469.8 AU-2130SV - BVM10-CF15-751 30° 750.7 647.1 AU-2130SV - BVM10-CF15-1561 10 250 60° 1560.5 1345.2 AU-2130SV -	BVM8-CF15-481			30°	480.5	414.2	70-1300SVH	-						
BVM8-CF15-9600 Full Port 9600.0 8275.2 70-1300SVH - BVM10-CF15-545 15° 545.0 469.8 AU-2130SV - BVM10-CF15-751 30° 750.7 647.1 AU-2130SV - BVM10-CF15-1561 10 250 60° 1560.5 1345.2 AU-2130SV -	BVM8-CF15-999	8	200	60°	998.7	860.9	70-1300SVH	-						
BVM10-CF15-545 Image: Marcol Mar	BVM8-CF15-1657			90°	1656.8	1428.2	70-1300SVH	-						
BVM10-CF15-751 30° 750.7 647.1 AU-2130SV - BVM10-CF15-1561 10 250 60° 1560.5 1345.2 AU-2130SV -	BVM8-CF15-9600			Full Port	9600.0	8275.2	70-1300SVH	-						
BVM10-CF15-1561 10 250 60° 1560.5 1345.2 AU-2130SV -	BVM10-CF15-545			15°	545.0	469.8	AU-2130SV	-						
	BVM10-CF15-751			30°	750.7	647.1	AU-2130SV	-						
BVM10-CE15-2589 90° 25887 22315 AU-21305V -	BVM10-CF15-1561	10	250	60°	1560.5	1345.2	AU-2130SV	-						
50 2300.7 2231.3 AU-21303V	BVM10-CF15-2589			90°	2588.7	2231.5	AU-2130SV	-						
BVM10-CF15-15000 Full Port 15000.0 12930.0 AU-2130SV -	BVM10-CF15-15000			Full Port	15000.0	12930.0	AU-2130SV	-						
BVM12-CF15-1101 15° 1101.1 949.1 AU-4068SV -	BVM12-CF15-1101			15°	1101.1	949.1	AU-4068SV	-						
BVM12-CF15-1051 30° 1051.0 906.0 AU-4068SV -	BVM12-CF15-1051			30°	1051.0	906.0	AU-4068SV	-						
BVM12-CF15-2185 12 300 60° 2184.6 1883.2 AU-4068SV -	BVM12-CF15-2185	12	300	60°	2184.6	1883.2	AU-4068SV	-						
BVM12-CF15-3624 90° 3624.2 3124.0 AU-4068SV -	BVM12-CF15-3624			90°	3624.2	3124.0	AU-4068SV	-						
BVM12-CF15-21000 Full Port 21000.0 18102.0 AU-4068SV -	BVM12-CF15-21000			Full Port	21000.0	18102.0	AU-4068SV	-						

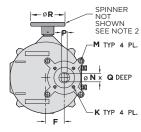
Options/Adders

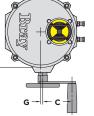
 For Battery Back-Up Failsafe Option (BBU) option on 24VAC actuators, add "-BBU".
 Add "SF15" in place of CF15 for Stainless Steel body option.
 Steam Only
 **For normally Closed, add a "C" to the end of the valve part number, i.e. BVM250-CF15-27C, otherwise normally open. Fail safe models only. V-port ball valves have a 20 to 85% max angle of controllability.

BVM Series - 2-Way - Flanged Ball Valve/70 Series Actuator Dimensions

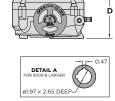
70-0081 TO 70-0651

Actuator										К	М					Weight
Model Number	øA	в	с	D	E	F	G	н	J	UNC x B.C. (MM x B.C.)	UNC x B.C. (MM x B.C.)			øR	lbs. (kg)	
S70-0081	7.5 (191)	5.8 (147)	3.0 (76)	5.6 (141)	1.9 (48)	1.94 (49.2)	.19 (4.7)	1/2 (M20 x 1.5)	2.2 (55)	5/16-18 x ø2.76 [M8 x 1.25 x ø70]		.75 (19.0)	.51 (13.0)	1.75 (44.5)	3.5 (89)	13 (6)
S70-0121 S70-0201 S70-E301	10.1 (256)	7.8 (198)	3.7 (93)	6.6 (168)	2.4 (62)	2.69 (68.3)	.56 (14.3)	3/4 (M25 x 1.5)	2.6 (66)	5/16-18 x ø2.76 [M8 x 1.25 x ø70]	1/2-13 x ø4.92 [M12 x 1.75 x ø125]	1.18 (30.0)	.87 (22.0)	2.22 (56.3)	8.0 (203)	28 (13)
S70-0501 S70-0651	12.1 (308)	9.5 (241)	5.5 (139)	7.2 (183)	2.9 (73)	3.19 (80.9)	.56 (14.3)	3/4 (M25 x 1.5)	3.1 (78)	1/2-13 x ø4.92 [M12 x 1.75 x ø125]	3/4-10 x ø6.50 [M20 x 2.5 x ø165]	See Detail A		12.0 (305)	48 (22)	

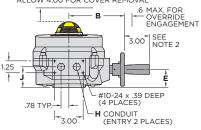




øA



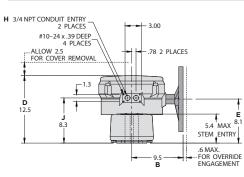
1.36

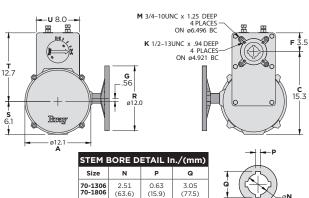


ALLOW 4.00 FOR COVER REMOVAL

70-1300 TO 70-1800

Series 7	eries 70 Actuator - DIMENSIONS In./(mm)																		
Actuator Model Number	øA	в	с	D	E	F	G	н	J	K UNC x B.C. (MM x B.C.)	M UNC x B.C. (MM x B.C.)	N	Ρ	Q	øR	s	т	U	Weigh Ibs. (kg)
S70-1300 S70-1800		9.5 (241)	15.3 (389)	12.5 (316)	8.1 (206)	3.5 (89)	.56 (14.3)	3/4 (M25 x 1.5)	8.3 (211)	1/2-13 x ø4.921 F12 (12 x 125 BC x 23.9)	3/4-10 x ø6.496 F16 (20 x 165 BC x 31.8)		e Ste e De		12.0 (305)	6.1 (155)	12.7 (322)	8.0 (203)	118 (54)

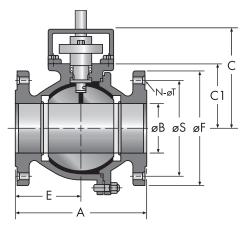




0.47 (12.0)

2.38 (60.6)

VALVE BODY



ANSI C	lass 15	0 in. (r	nm)							
SIZE	А	øB	с	C1	E	øF	øS	N / ØT	Cv (Kv)	Weight LBS (KG)
2-1/2"	7.5	2.6	7.4	3.4	3.1	7.0	5.5	4 x 0.75	780	36
(65)	(191)	(65)	(188)	(86)	(78)	(178)	(140)	(4 x 19.0)	(675)	(16)
3″	8.0	3.0	7.7	3.7	3.7	7.5	6.0	4 x 0.75	1150	45
(80)	(203)	(76)	(196)	(93)	(95)	(191)	(152)	(4 x 19.0)	(995)	(20)
4"	9.0	4.0	8.4	4.4	4.5	9.0	7.5	8 x 0.75	2100	65
(100)	(229)	(101)	(224)	(112)	(114)	(229)	(191)	(8 x 19.0)	(1817)	(30)
6″	15.5	6.0	11.2	7.2	7.6	11.0	9.5	8 x 0.88	5000	157
(150)	(394)	(152)	(284)	(182)	(194)	(279)	(241)	(8 x 22.0)	(4325)	(71)
8″	18.0	7.9	11.6	7.6	8.4	13.5	11.8	8 x 0.88 (8	9600	290
(200)	(457)	(200)	(295)	(193)	(212)	(343)	(299)	x 22.0)	(8304)	(132)
10"	21.0	9.8	15.9	9.9	10.5	16.0	14.3	12 x 1.00	15000	500
(250)	(533)	(250)	(404)	(251)	(266)	(406)	(362)	(12 x 25.0)	(12975)	(227)
12"	24.0	11.8	17.5	11.5	12.0	19.0	17.0	12 x 1.00	21000	700
(300)	(610)	(300)	(445)	(291)	(305)	(483)	(432)	(12 x 25.0)	(18165)	(318)

(63.6)

1.97 (50.0)

70-1316 70-1816

в**V**М 6

5 Bray COMMERCIAL www.braycommercialdivision.com

BCDSales@Bray.com 1-888-412-2729

øΝ

STEM BORE DETAIL

The Bray COMMERCIAL

Building

Types

Bray Commercial provides automated Butterfly, Ball, Globe and Pressure Independent Control Valves to the commercial building HVAC market throughout the world Where ever valve performance is required to maintain climate controlled environments, Bray can provide the required automated valves to meet the demanding flow applications of chiller/boiler isolation, air handlers and terminal units for new construction, retrofit and/or LEED certification applications in buildings. Healthcare

- Data Centers
- Government and Municipal
- Sports/Entertainment/ Convention Centers
- K-12 and University Education
 - Transportation
 - Hotels
 - Office Buildings
 - Retail



All statements, technical information, and recommendations in this bulletin are for general use only. Consult Bray representatives or factory for the specific requirements and material selection for your intended application. The right to change or modify product design or product without prior notice is reserved. Patents issued and applied for worldwide. Bray^{*} is a registered trademark of Bray International, Inc.

© 2022 BRAY INTERNATIONAL, INC. ALL RIGHTS RESERVED.





This Page Intentionally Left Blank

