



BVM Series ANSI 300 – Submittal/Technical Data

2-Way – 2-1/2" to 12"

Technical Specifications - BVM Flanged Industrial Ball Valve Body (BVM = "Equivalent to Bray/FlowTek F15 Series")			
		V-Port	Full- Port
Service		Chilled/Hot Water, 50/50 Glycol Solutions & Saturated Steam	
Size Range	2-Way	2-1/2" to 12" Flanged Valves	
Valve Fluid Temperature Limits	Water	-20° to 450°F at 600 psi (-28° to 232°C at 4,136kPa)	
	Saturated Steam	100 psi (689 kPa)	
Valve Body Pressure Rating		ANSI Class 300	
Maximum Close-Off Pressure		600 psi (4,136 kPa)	
Maximum Recommended Operating Pressure Drop	Water	80 psi (551 kPa)	
	Steam	50 psi (344 kPa)	
Flow Characteristic	V15 Port	Linear	N/A
	V30 Port	Modified Equal Percentage	N/A
	V60 & 90 Port	Equal Percentage	N/A
Rangeability		200:1	
Leakage		Bubble Tight per API 598	
End Connections		ANSI Class 300	
Ambient Operating Temperature Range		See Actuator Rating (Optional high temperature mounting kit may be required)	
Materials	Body	WCB Carbon Steel	
	Ball & Stem	316 Stainless Steel	
	Seat	Tek-Fil	TFM
	Stem Seal/Packing	RPTFE	
	Body Seal	316/Graphite	
	Body Bolts	ASTM A 193 B7	
Warranty		3 Years limited from time of shipment.	

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.

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**

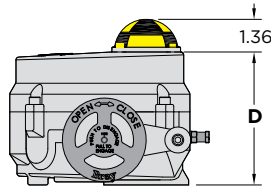
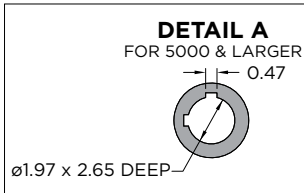
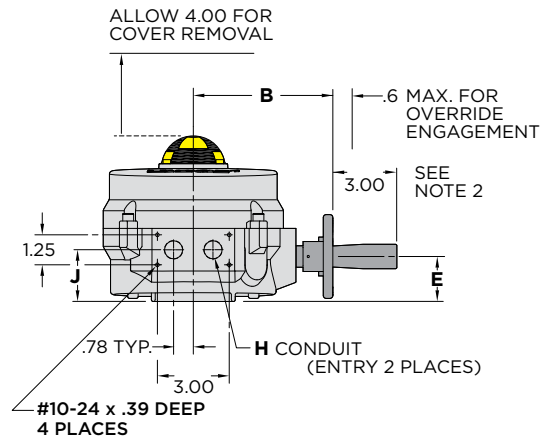
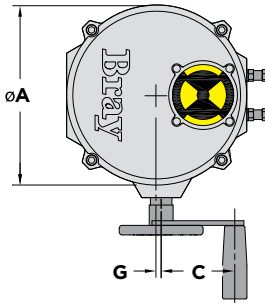
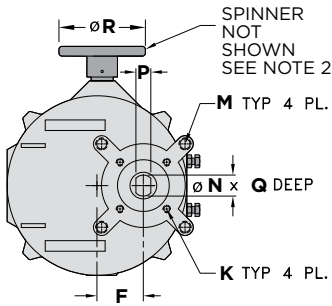
Reliable, cost effective control

BVM Series - Dimensions

70-0081 TO 70-0651

Series 70 Actuator - DIMENSIONS In./(mm)

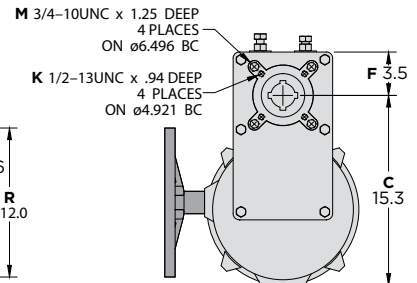
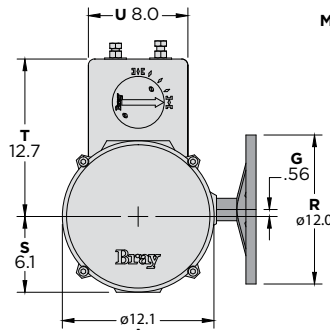
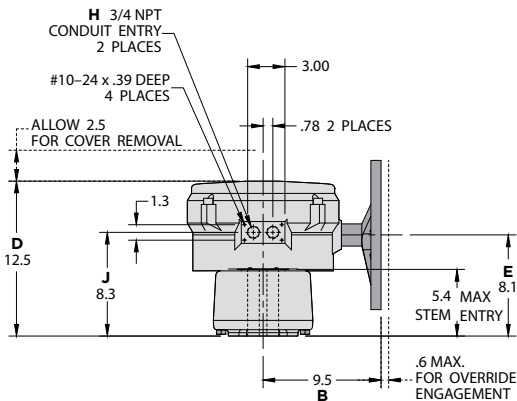
Actuator Model Number	øA	B	C	D	E	F	G	H	J	K UNC x B.C. (MM x B.C.)	M UNC x B.C. (MM x B.C.)	N	P	Q	øR	Weight lbs. (kg)
S70-0081	7.5 (191)	5.8 (147)	3.0 (76)	5.6 (141)	1.9 (48)	1.94 (49.2)	.19 (4.7)	1/2 (M20 x 1.5)	2.2 (55)	5/16-18 x ø2.76 [M8 x 1.25 x ø70]	—	.75 (19.0)	.51 (13.0)	1.75 (44.5)	3.5 (89)	13 (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)



70-1300 TO 70-1800

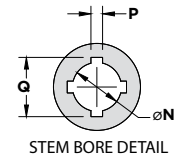
Series 70 Actuator - DIMENSIONS In./(mm)

Actuator Model Number	øA	B	C	D	E	F	G	H	J	K UNC x B.C. (MM x B.C.)	M UNC x B.C. (MM x B.C.)	N	P	Q	øR	S	T	U	Weight lbs. (kg)
S70-1300 S70-1800	12.1 (308)	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)	See Stem Bore Detail			12.0 (305)	6.1 (155)	12.7 (322)	8.0 (203)	118 (54)



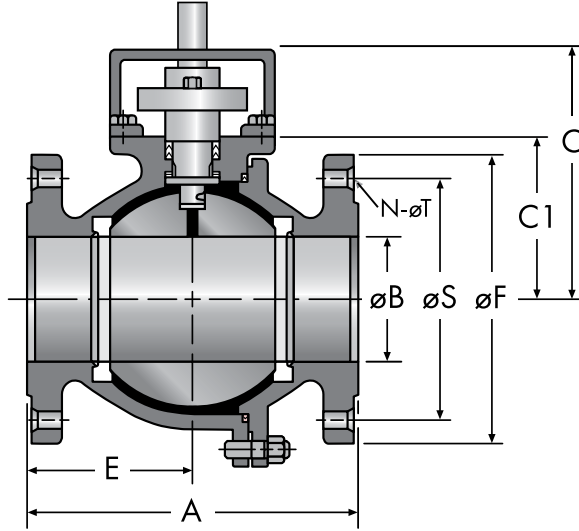
STEM BORE DETAIL In./(mm)

Size	N	P	Q
70-1306 70-1806	2.51 (63.6)	0.63 (15.9)	3.05 (77.5)
70-1316 70-1816	1.97 (50.0)	0.47 (12.0)	2.38 (60.6)



BVM Series - Dimensions

VALVE BODY



ANSI Class 300 - in. (mm)

Actuator Model Details														
Model Number	Valve Size		V-Cut	Flow Coefficient		A	øB	C	C1	E	øF	øS	N/øT	Weight lbs. (kg)
	In.	mm		100%	60%									
BVM250-CF30-27	2.5	15	15°	31.30	11.73	9.5 (241)	2.6 (65)	7.4 (188)	3.4 (86)	4.2 (106)	7.5 (191)	5.9 (149)	8 x 0.88 (8 x 22.0)	44 (20)
BVM250-CF30-56			30°	76.95	20.05									
BVM250-CF30-114			60°	162.50	37.92									
BVM250-CF30-177			90°	239.45	53.53									
BVM250-CF30-780			Full Port	780.00	363.90									
BVM3-CF30-32	3	80	15°	38.31	13.42	11.1 (283)	3.0 (76)	7.7 (196)	3.7 (95)	5.6 (142)	8.3 (210)	6.6 (168)	8 x 0.88 (8 x 22.0)	61 (28)
BVM3-CF30-70			30°	85.91	26.78									
BVM3-CF30-150			60°	193.20	46.32									
BVM3-CF30-237			90°	359.21	69.27									
BVM3-CF30-1150			Full Port	1150.00	531.50									
BVM4-CF30-76	4	100	15°	96.37	27.91	12.0 (305)	4.0 (101)	8.4 (224)	4.3 (111)	6.0 (151)	10.0 (254)	7.9 (200)	8 x 0.88 (8 x 22.0)	96 (44)
BVM4-CF30-159			30°	196.35	58.60									
BVM4-CF30-330			60°	437.29	106.26									
BVM4-CF30-547			90°	830.86	240.51									
BVM4-CF30-2100			Full Port	2100.00	1035.80									
BVM6-CF30-134	6	150	15°	171.62	49.70	15.9 (403)	6.0 (152)	11.2 (284)	7.2 (183)	7.6 (193)	12.5 (318)	10.6 (270)	12 x 0.88 (12 x 22.0)	243 (110)
BVM6-CF30-282			30°	349.69	104.37									
BVM6-CF30-587			60°	800.80	189.24									
BVM6-CF30-974			90°	1479.70	280.37									
BVM6-CF30-5000			Full Port	5000.00	2392.50									
BVM8-CF30-346	8	200	15°	692.07	84.58	19.8 (502)	7.9 (200)	11.6 (295)	8.6 (220)	9.3 (237)	15.0 (381)	13.0 (330)	12 x 1.00 (12 x 25.0)	430 (195)
BVM8-CF30-481			30°	595.11	177.62									
BVM8-CF30-999			60°	1325.18	322.06									
BVM8-CF30-1657			90°	2518.18	477.14									
BVM8-CF30-9600			Full Port	9600.00	4768.20									
BVM10-CF30-545	10	250	15°	856.36	132.15	22.4 (569)	9.8 (250)	15.7 (399)	9.7 (246)	11.2 (284)	17.5 (445)	15.3 (387)	16 x 1.12 (16 x 28.5)	610 (277)
BVM10-CF30-751			30°	929.87	277.53									
BVM10-CF30-1561			60°	2070.90	503.22									
BVM10-CF30-2589			90°	3934.65	745.53									
BVM10-CF30-15000			Full Port	15000.00	7591.50									
BVM12-CF30-1101	12	300	15°	1638.90	185.01	25.5 (648)	11.8 (300)	17.3 (439)	11.3 (286)	12.8 (325)	20.5 (521)	17.8 (451)	16 x 1.25 (16 x 31.8)	950 (431)
BVM12-CF30-1051			30°	1301.81	388.54									
BVM12-CF30-2185			60°	2899.26	704.51									
BVM12-CF30-3624			90°	5508.51	1043.74									
BVM12-CF30-21000			Full Port	21000.00	10430.50									