



BYV Series Butterfly Valves

2" TO 12" CPVC BODY WITH CPVC DISC

KEY FEATURES & BENEFITS

- One Piece Injection Molded CPVC Body
- CPVC Disc Materials
- Viton®, EPDM and Nitrile Seat Materials
- NSF / ANSI 61-G Listed (4" - 12")
- Hand Lever with 19 Lockable Stop Positions & 360° Interlocking Splines
- External Disc Position and Flow Indication
- Hydro-dynamic Centric Disc for Increased Flow Performance
- Over-Sized Liner Face Maximizes Surface Contact with Flanges
- 1-Piece 316 Stainless Steel Stem with Threaded Retaining Gland
- Stem Bearing and Seal Retainer for Absolute Stem Position and Sealing
- ISO 5211 Top Flange and Stem Drive
- All Sizes Meet ANSI B16.10 / ISO 5752 Narrow Face-to-Face Dimensions
- Pressure Rated at 150 PSI / 10 Bar in All Sizes @ 70°F Non-Shock

OPTIONS

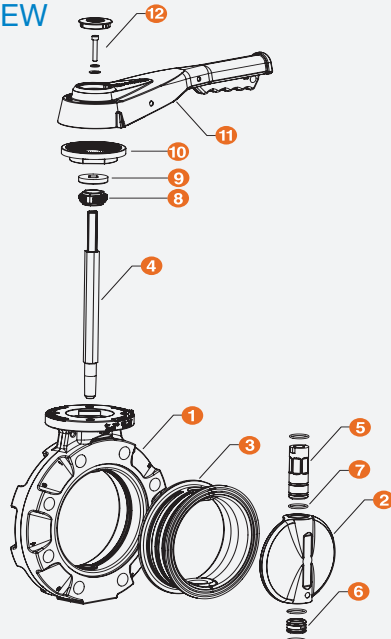
- Over-Molded or Field Mountable 316 Stainless Steel Lugs
- Gear Operators
- Complete Range of Pneumatic or Electric Actuators
- Stem Extensions
- 2" Square Operating Nut
- Chain Operator for Gear Box

MATERIALS

- CPVC Cell Class 23447 per ASTM D1784
- Viton®, EPDM or Nitrile Liners

TECHNICAL INFORMATION

EXPLODED VIEW



SELECTION CHART

SIZE	BODY MATERIAL	DISC MATERIAL	LINER MATERIAL	PRESSURE RATING
2" – 12" (DN50 – DN300)	CPVC	CPVC	Viton®, EPDM or Nitrile	150 PSI @ 70°F Non-Shock

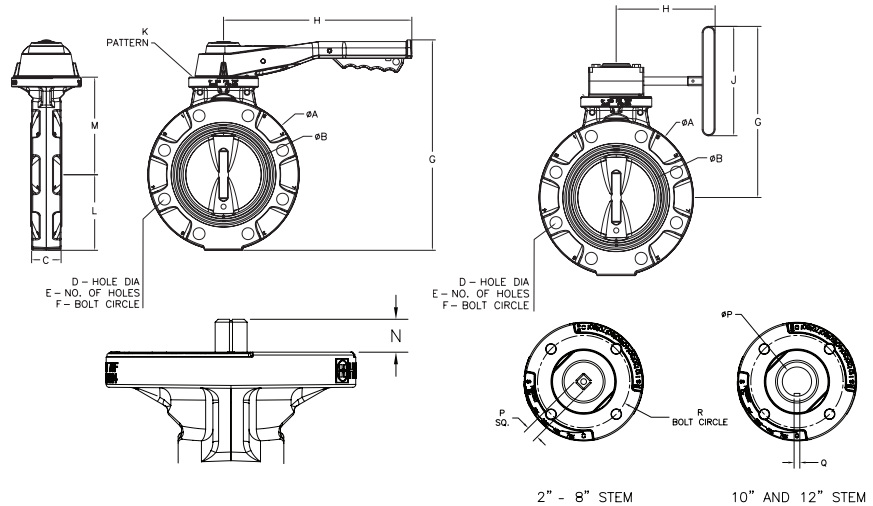
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2" TO 12" (DN50-DN300) CPVC BODY WITH CPVC DISC

TECHNICAL INFORMATION, CONTINUED

PARTS LIST / 2D DRAWINGS

1. Body
2. Disc
3. Liner
4. Stem
5. Upper Stem Bearings
6. Seal Retainer
7. O-Rings (4)
8. Threaded Retaining Gland
9. Weather Seal
10. Splined Throttle Plate (Ultem®)
11. Hand Lever Assembly
12. Bezel, Washers, Socket Head Cap Screw



DIMENSIONS – INCHES / MILLIMETERS

SIZE	A	B	C (1)	D, ANSI (2)	E	F, ANSI (2)	G		H		J	K (4) ISO 5211	L	M	N	P	Q, 10" & 12", SQUARE KEY	R	WEIGHT w LEVER	WEIGHT w GEAR
in / DN	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm		in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	lbs / Kg
2 / 50	6.12 / 155	2.03 / 52	1.69 / 43	0.75 / 19	4 / 4	4.75 / 121	7.53 / 191	6.25 / 159	4.75 / 121	10.5 / 267	5 / 125	F07-D11	3.17 / 81	3.97 / 101	0.51 / 13	0.430-0.433 / 10.92-11	-	2.76 / 70	4.0 / 1.8	5.8 / 2.6
2.5 / 65	7.25 / 184	2.50 / 64	1.81 / 46	0.75 / 19	4 / 4	5.50 / 140	7.96 / 202	6.67 / 169	4.75 / 121	10.5 / 267	5 / 125	F07-D11	3.63 / 92	4.40 / 112	0.51 / 13	0.430-0.433 / 10.92-11	-	2.76 / 70	4.9 / 2.2	6.7 / 3.0
3 / 80	7.75 / 197	3.25 / 83	1.81 / 46	0.75 / 19	4 / 8	6.00 / 152	8.31 / 211	7.00 / 178	4.75 / 121	10.5 / 267	5 / 125	F07-D11	3.88 / 99	4.75 / 121	0.51 / 13	0.430-0.433 / 10.92-11	-	2.76 / 70	5.2 / 2.4	7.0 / 3.2
4 / 100	9.13 / 232	4.12 / 105	2.06 / 52	0.75 / 19	8 / 8	7.50 / 191	9.29 / 236	8.00 / 203	7.28 / 185	12.00 / 305	5 / 125	F07-D14	4.57 / 116	5.69 / 145	0.68 / 17	0.548-0.551 / 13.92-14	-	2.76 / 70	7.7 / 3.5	11.1 / 5
6 / 150	11.25 / 286	5.98 / 152	2.19 / 56	0.88 / 22	8 / 8	9.50 / 241	12.35 / 314	10.00 / 254	7.75 / 197	14.00 / 356	8 / 200	F10-D14	5.63 / 143	7.25 / 184	0.68 / 17	0.548-0.551 / 13.92-14	-	4.02 / 102	12.7 / 5.8	16.2 / 7.4
8 / 200	13.75 / 349	7.75 / 197	2.38 / 60	0.88 / 22	8 / 8	11.75 / 298	13.48 / 342	11.18 / 284	7.75 / 197	16.00 / 406	8 / 200	F10-D17	6.88 / 175	8.38 / 213	0.77 / 20	0.666-0.669 / 16.92-17	-	4.02 / 102	18.5 / 8.4	21.9 / 10.0
10 / 250	16.13 / 410	9.63 / 245	2.69 / 68	1.00 / 25	12 / 12	14.25 / 362	16.37 / 416	N/A	9.00 / 229	N/A	10 / 250	F12-V28	8.06 / 205	10.88 / 276	2.24 / 57	1.102 DIA. / 28 DIA.	0.25 / 6.35	4.92 / 125	N/A	34.2 / 15.5
12 / 300	19.13 / 486	11.37 / 289	3.06 / 78	1.00 / 25	12 / 12	17.00 / 432	17.87 / 454	N/A	9.00 / 229	N/A	10 / 250	F12-V36	9.56 / 243	12.38 / 314	2.24 / 57	1.417 DIA. / 36 DIA.	0.25 / 6.35	4.92 / 125	N/A	50.4 / 22.9

1) Dimension per ASME B16.10 Class 150, Steel, Narrow

4) ISO 5211 Flange and Drive

2) ANSI dimension per ASME B16.5, Class 150

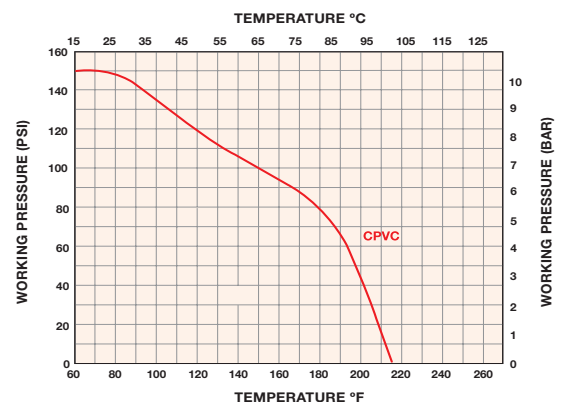
5) All weights are for non-lugged versions

3) Dimension per DIN 2501, PN10

Cv VALUES

SIZE	DISC ANGLE					FULL OPEN POSITION	PRESSURE LOSS CALCULATION FORMULA
in / DN	15°	30°	45°	60°	75°		
2 / 50	0.2	15	37	65	88	92	$\Delta P = \left[\frac{Q}{C_v} \right]^2$ ΔP = Pressure Drop Q = Flow in GPM C_v = Flow Coefficient
2-1/2 / 65	1.1	24	45	80	145	165	
3 / 80	3.1	28	36	83	182	250	
4 / 100	20	58	84	183	390	470	
6 / 150	30	105	200	458	1000	1510	
8 / 200	125	203	375	770	1650	2820	
10 / 250	123	289	644	1396	3003	4723	
12 / 300	154	435	1011	2189	4586	6400	

OPERATING TEMPERATURE / PRESSURE



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