F700L/G

WRAS APPROVED PRODUCT

Ductile Iron Wafer Butterfly Valve

PN16

Size 2½" to 24"

TECHNICAL DATASHEET

Specifications:

IVAL® Butterfly Valve, Wafer Type with Ductile Iron Body and Ductile Iron Disc. Design to BS EN593.

Coating: Fusion Bonded Epoxy (FBE) complies with ANSI/AWWA C550 (DFT 250 to 350 µm).

End Connection: Compatible with BS EN1092-2.

Top Flange Standard: ISO 5211

Operator: Trigger Lever or Gear.

WRAS Approved.

Features:

- Valves are suitable for use with flanges conforming to BS EN 1092-2 PN16.
- Ductile Iron Disc.
- EPDM Seat Vulcanized on Valve Body.
- 420 Stainless Steel Shafts for superior strength.
- Design BS EN593, generally conforms to MSS SP-67.
- Lengths to BS EN 558-20.

Pressure/Temperature Ratings:

Temperature (°C)	-10 to +100
Pressure (Bar)	16

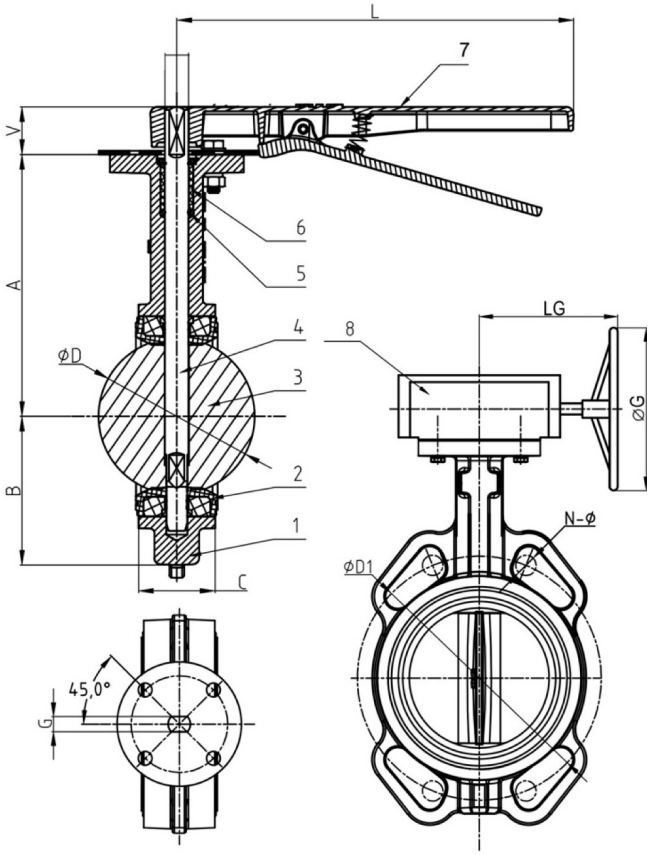
Test Pressures:

Each valve is individually hydrostatically tested at the following test:
(HYDRAULIC) Shell: 24 bar - **Seat:** 17.6 bar

Suitable for: water, -10°C to +100°C, below 0°C only for water with added antifreeze fluids.
Not suitable for: gases group 1 & 2, liquids group 1 (Dir. 2014/68/EU)

Materials:

No.	Description	Material	Specification
1	Valve Body	Ductile Iron	EN-GJS-450-10
2	Seat	EPDM	-
3	Disc	Ductile Iron	EN-GJS-450-10
4	Stem	Stainless Steel	AISI 420
5	O-Ring	NBR	-
6	Bushing	PTFE	-
7	Lever	Ductile Iron	EN-GJS-450-10
8	Gear Device	Cast Iron	-



Dimensions[1]:

DN		Dimensions (mm)										Weight* (Kg)
Inch	mm	A	B	C	G	ØD	ØD1	N-Ø	L	LG	ØG	
2.5"	**65**	153	72	46	9.53	65.2	145	4-Ø19	267	158	150	3.6 / 6.3
3"	**80**	157.5	86	46	9.53	79.7	160	8-Ø19	267	158	150	3.9 / 6.8
4"	**100**	176	100	52	11.14	105	180	8-Ø19	267	158	150	5.0 / 8.7
5"	**125**	191	112	56	11.14	130	210	8-Ø19	267	158	150	6.1 / 10.6
6"	**150**	202.5	128	56	12.7	156	240	8-Ø23	267	158	150	7.9 / 13.8

*Weight for version with lever / Weight for version with gear

ISOLATION VALVES

Email: info@ival-hydronics.co.uk – **Website:** www.ival-hydronics.co.uk

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Dimensions[2]:

DN		Dimensions (mm)										Weight* (Kg)
Inch	mm	A	B	C	G	ØD	ØD1	N-Ø	L	LG	ØG	
8"	**200**	243.5	162	60	20.6	206.7	295	12-Ø23	356	239	300	13.9 / 19.8
10"	**250**	273	194	68	20.6	253.3	355	12-Ø28	356	239	300	17.7 / 25.2
12"	**300**	311	223	78	22.1	301.9	410	12-Ø28	490	229	300	26.2 / 37.3
14"	**350**	340	267	78	22.1	333.9	470	16-Ø28	-	229	300	- / 54.2
16"	**400**	400	319.5	102	27	389.6	525	16-Ø31	-	288	380	- / 108.4
18"	**450**	422	345.2	114	27	441	577.9	16-Ø33	-	288	380	- / 113.9
20"	**500**	480	380	127	-	492.4	635	20-Ø33	-	325	380	- / 158.8
24"	**600**	562	441	154	-	592.8	749.3	20-Ø36	-	340	380	- / 252.7

*Weight for version with lever / Weight for version with gear

Flow Characteristics:

Size	Kv (m³/h)								
	10°	20°	30°	40°	50°	60°	70°	80°	90°
DN65 – 2.1/2"	0.11	7	13	26	46	76	120	179	197
DN80 – 3"	0.21	10	19	40	71	117	184	276	303
DN100 – 4"	0.31	18	37	79	140	231	365	547	601
DN125 – 5"	0.51	30	62	134	238	393	621	931	1,023
DN150 – 6"	0.81	35	96	154	258	423	707	1,155	1,580
DN200 – 8"	3	57	155	252	423	694	1,159	1,893	2,166
DN250 – 10"	4	88	239	386	655	1,074	1,795	2,932	3,354
DN300 – 12"	5	154	418	682	1,146	1,880	3,143	5,133	5,828
DN350 – 14"	8.5	190	558.6	875.2	1,462.5	2,408.5	4,074.4	6,783.1	8,053
DN400 – 16"	12	246.6	750	1,149.1	1,911.7	3,149.7	5,358.8	9,000	10,741.2
DN450 – 18"	16.1	310.5	972.5	1,461	2,421.2	3,990.8	6,824	11,549.3	13,848.4
DN500 – 20"	21	381.7	1,227	1,811.2	2,991	4,931.7	8,471	14,436.3	17,382.4
DN600 – 24"	33.4	545.4	1,834.5	2,627	4,311.6	7,113.7	12,314.4	21,239	25,758.5

Formula linking flow **Q (in l/s)** and theoretical valve head loss **ΔP (in KPa)**: $\Delta P = \left(\frac{36.Q}{K_v}\right)^2$

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