DESPONIA® - Butterfly valve DN 25 - 1800

Description

Centric butterfly valve with elastomer liner for liquids and gases in the industrial range, general services, water treatment, ...



Product features

• Body construction	D1 Wafer DN 25-1000 D3 Lug DN 25-600 D4 U-section DN 150-1800
• Face to face dimension	according to ISO 5752/20, EN 558-1/20
• Design	according to EN 593 / API 609 category A (under request)
• Top flange	according to EN ISO 5211
• Max. working pressure	16 bar (20 bar on request)
• Rating	PN6, PN10, PN16, ANSI cl. 150
• Temperature range	-20°C ÷ 140°C according to material (200°C on request)
• Tightness test	according to EN 12266-1/P12 leakage rate A, test fluid water according to API 598 (under request)
CE	The butterfly valves DESPONIA® meet the safety requirements of the pressure Equipments Directive 2014/68/UE (PED) appendix 1 for fluids of the groups 1 and 2
SIL	Butterfly valves DESPONIA® are suitable to be operated in safety related systems according to IEC 61508 / 61511, Safety Integrity Level SIL 2
EX	Special versions of DESPONIA® valves may be used in potentially explosive atmospheres
FDA & EC 1935/2004	Different liners and disc are in compliance with FDA and EC 1935/2004
Fugitive emission	EN ISO 15848-1 compliant for selected materials
FF and LF	Special executions without painting adhesion interfering substances and without any grease



D1
Wafer



D3
Lug

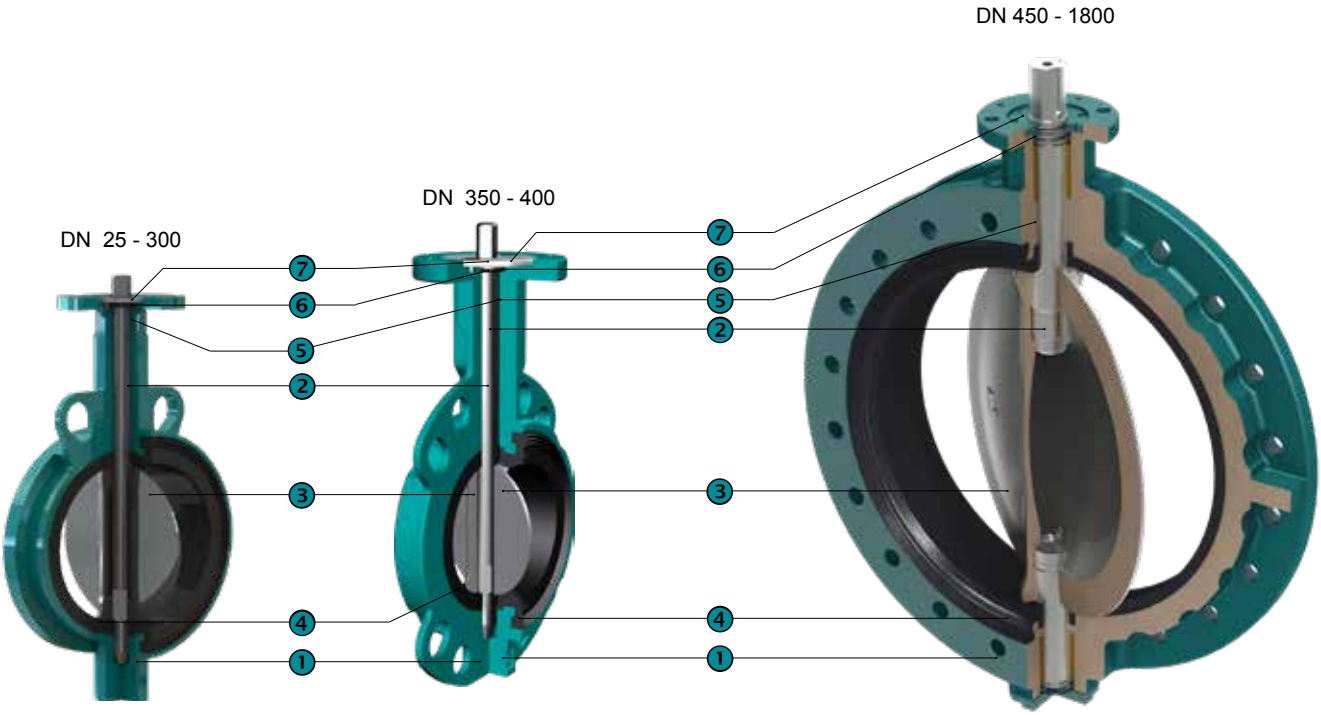


D4
U-section

InterApp

Construction

1	Body (extended valve neck allowing insulation)
2	Blow out proof shaft with position indication
3	Disc
4	Exchangeable liner with sealing grooves on the tightening face
5	Shaft bearing (DN25-400 Resicoat®, DN450-1800 Bronze)
6	External shaft sealing
7	Retaining washer (blow out protection)

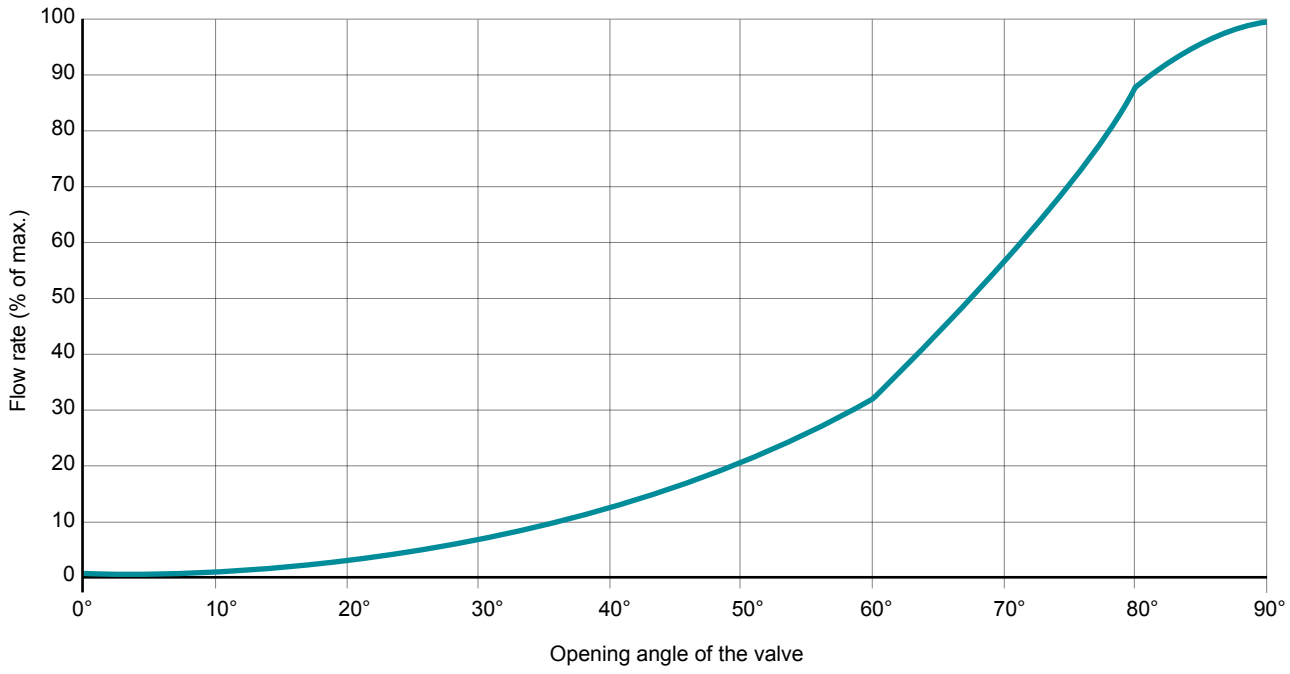


Kv values m^3/h

Opening angle of the valve

DN	20°	30°	40°	50°	60°	70°	80°	90°
25/32		1,5	5	10	15	26	34	40
40		2,7	8,5	16	25	37	46	50
50	2	7	15	28	45	68	88	100
65	3	11	24	48	85	138	180	210
80	8	22	50	83	134	230	312	360
100	15	35	70	130	225	410	585	650
125	28	70	135	230	360	600	920	1050
150	33	95	205	320	580	980	1410	1620
200	60	175	355	580	910	1600	2450	2800
250	132	340	590	940	1480	2550	3950	4480
300	200	505	890	1450	2100	3800	5960	6800
350	280	680	1200	2050	3150	5050	8100	9200
400	365	860	1500	2490	3980	6600	10200	11700
450	465	1080	1900	3150	5050	8700	13300	15200
500	580	1200	2300	3740	6150	11000	16800	18900
600	820	1600	2780	5200	8940	14500	23500	26800
700	890	2050	3450	6050	11050	18800	31500	37100
800	1300	2550	4950	8750	14200	23500	39500	48500
900	1650	3300	6400	11800	19400	31500	52500	61300
1000	2150	4250	8200	15100	23500	39400	65500	80500
1100	3445	6525	11210	18390	30850	50600	88460	107590
1200	4000	7500	12500	19800	34000	55400	98300	119200
1300	4600	8810	15350	26150	42750	72450	120150	140600
1400	5200	10120	18200	32500	51500	89500	142000	162000
1500	6055	11958	21820	38180	60280	102850	166590	192250
1600	7100	14210	26050	45000	71200	118500	196200	228500
1800	9695	19953	37286	62308	98436	156897	271088	322298

Flow rate



Type code

D1	0100	.	3	3	-	2KR	.	41	.	2AR	.	E	-	xx
❶	❷		❸	❹		❺		❻		❼		❽		❾

❶	**Type**	D1	Wafer		DN25-1000
		D3	Lug body		DN25-600
		D4	U-section body		DN150-1800
❷	**Nominal diameter**	0025-1800	mm		
❸	**Working pressure**	0	2,5 bar		DN350-1800
		1	6 bar		DN350-1800
		2	10 bar		DN80-1800
		3	16 bar		DN25-1800
		4	20 bar (on request)		DN25-600
❹	**Flange connection**	**	PN6/10/16 see table below. Other ratings on request		
❺	**Body**	2KR	Ductile iron EN-GJS-400-15, Epoxy (Resicoat®) coated 200µ Wafer and Lug	< 110°C [1]	DN25-300
		2AR	Ductile iron EN-GJS-400-15, Epoxy (Resicoat®) coated 200µ U-shape	< 110°C [1]	DN150-300
			Ductile iron EN-GJS-400-15, Epoxy (Resicoat®) coated 200µ	< 110°C [1]	DN350-400
		2AE	Ductile iron EN-GJS-400-15, Polyurethan coated 80µ	< 140°C	DN450-1800
		2AN	Ductile iron EN-GJS-400-15, Polyurethan coated 250µ	< 140°C	DN450-1800
❻	**Shaft**	41	Stainless steel 1.4021, AISI420		DN25-300
		42	Stainless steel 1.4542 / 17-4PH		DN25-300
		4A	Stainless steel 1.4021, AISI420		DN350-1800
		4L	Stainless steel 1.4542 / 17-4PH		DN350-1800
❼	**Disc**	2AR	Ductile iron EN-GJS-400-15, Rilsan coated 250µ[2]	< 90°C	DN25-700
		2AE	Ductile iron EN-GJS-400-15, Polyurethan coated 80µ	< 120°C	DN800-1800
		2AH	Ductile iron EN-GJS-400-15, Halar coated min.600µ	< 50°C	
		3OD	Carbon steel 1.0552 / GS52.3, Ultralene Coating ™ coated < 80°C, pmax. 10 ≤ DN300 / 6 bar > DN800		DN80-300, 800-1800
		4C0	Stainless steel 1.4408 ≈ CF8M[2]		
		4CP	Stainless steel 1.4408 ≈ CF8M polished Ra < 0.4		DN25-600
		4CQ	Stainless steel 1.4408, PEKK coated min. 600µ	< 160°C	
		4N0	Stainless steel A995 Gr5A		DN40-600
		4S0	Super austenitic steel 1.4588 PREN > 40		
		5C0	Alubronze ASTM B148 C95800 / G-Cu Al 10 Ni		
		7H0	Hastelloy ASTM A494 CW-12MW		≥ DN450 on request
			Other materials on request		
❽	**Liner**	E	EPDM	< 95°C	pmax 16 bar (20 bar on request)
		EE	EPDM DVGW, ACS, NSF-61, EN681-1	< 95°C	pmax 16 bar
		EC	EPDM HT	< 130°C	pmax 16 bar
		NG	Nitrile (NBR gas)	< 90°C	pmax 16 bar (20 bar on request)
		V	FPM (Viton)	< 200°C	pmax DN25-300 = 16 bar, DN350-1800 = 10 bar
			Other materials and white and blue liners (FDA & EC 1935/2004) on request		
❾	**Special execution**	BL	Vulcanized bonded liners on request		DN 450 -1800

1) For temperatures between 110 and 140 °C, the valve is only tight up to next lower pressure class (e.g. PN16 valve, max. 10 bar)
2) NSF-61 approved when used in combination with EE liner

**Rating (Code)

DESPONIA®	DN→	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1100	1200	1300*	1400	1500	1600	1800
 D1	PN6		3							1	3				1						1								
	PN10	3														2													
	PN16	3																											
	ANSI cl. 150	A	3													A													
 D3	PN10	3									2																		
	PN16	3																											
	ANSI cl. 150	A																											
 D4	PN10									3	2																	2	
	PN16									3																		3	
	ANSI cl. 150									A																			A

* For DN1300 and DN1500 size PN10 and PN16 on request.

Max. pressure and temperature limits of application are dependent of the working conditions.

Other executions on request !

Dimensions

D1 Wafer, DN25-1000

DN 25-50



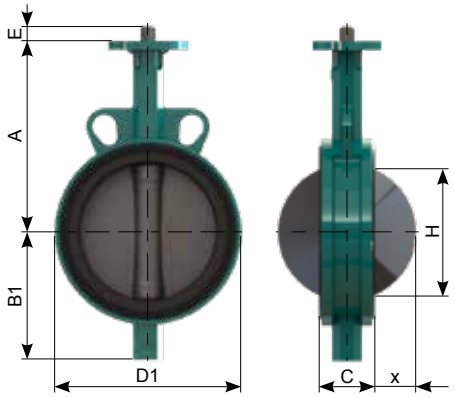
DN 65/80



DN 100



DN 125-300



DN 350/400



DN 450-1000



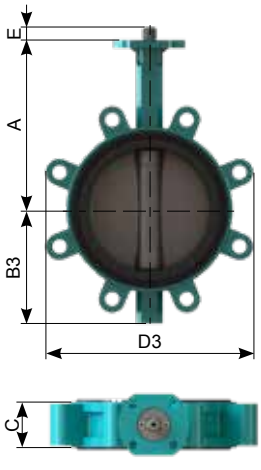
1) DN 450 - 1600, 2 x threads on valve neck and bottom

DN	A	B1	C	D1	E	H*	x*	[kg]
(25)32	110	51	30	101	12	19	3	1,0
40	130	55	33	108	12	28	6	1,3
50	135	72	43	123	12	32	6	1,62
65	150	82	46	138	12	50	11	2,3
80	160	92	46	143	12	69	19	2,3
100	180	110	52	161	12	88	26	3,9
125	195	128	56	181	16	115	36	5,0
150	210	141	56	205	16	141	48	5,9
200	240	174	60	260	19	194	72	9,3
250	279	201	68	310	24	240	91	17,0
300	315	234	78	362	24	290	112	23,7
350	330	268	80	425	40	330	130	41,5
400	365	299	102	475	40	377	145	57,2
450	397	355	113	538	65	425	164	95
500	437	393	126	595	65	474	182	120
600	522	464	153	695	80	569	218	180
700	565	501	168	800	80	660	257	265
800	627	577	190	919	80	774	304	343
900	696	643	204	1015	100	855	337	493
1000	745	693	218	1133	100	960	383	648

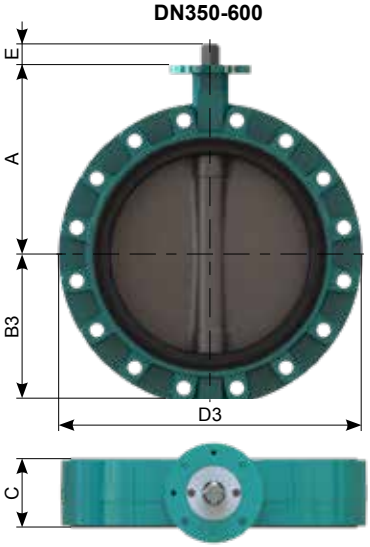
*** When using plastic stubs please check dimension H / x to avoid damaging of disc**

D3 Lug, DN 25-600

DN25-300



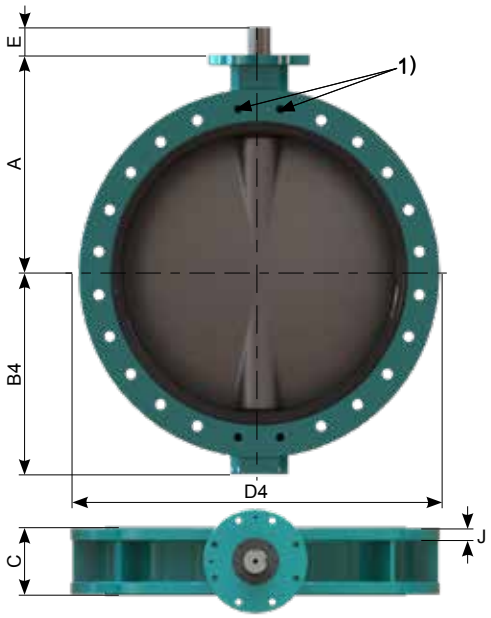
DN350-600



DN	A	B3	C	D3	E	H*	x*	[kg]
25	110	51	30	103	12	19	3	1,4
32	110	51	30	103	12	19	3	1,4
40	130	55	33	110	12	28	6	2
50	135	72	43	123	12	32	6	2,3
65	150	82	46	162	12	50	11	4
80	160	92	46	176	12	69	19	6,1
100	180	110	52	204	12	88	26	8,5
125	195	128	56	232	16	115	36	10
150	210	141	56	256	16	141	48	11
200	240	174	60	322	19	194	72	19,6
250	279	201	68	383	24	240	91	28,7
300	315	234	78	436	24	290	112	41,2
350	330	258	80	520	40	330	130	62
400	365	290	102	584	40	377	145	75
450	397	355	113	655	65	425	164	143
500	437	394	126	712	65	474	182	156
600	522	464	153	829	80	569	218	180

Dimensions

D4 U-section, DN 150-1800



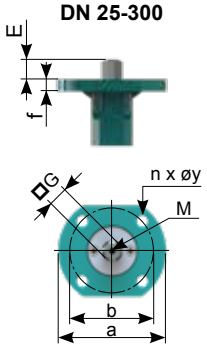
DN	A	B4	C	D4	H*	x*	J	E	[kg]
150	210	143	56	285	141	48	10	16	15
200	240	170	60	340	194	72	12,5	19	19,5
250	279	200	68	406	240	91	15	24	30,5
300	315	239	78	482	290	112	15	24	44
350	330	265	80	533	330	130	18	40	59
400	365	296	102	597	377	145	20	40	82
450	397	355	113	640	425	164	24	65	118
500	437	394	126	715	474	182	26	65	175
600	522	464	153	840	569	218	28,5	80	260
700	565	503	168	927	660	257	31,5	80	345
750	590	541	170	985	730	290	34	80	435
800	627	577	190	1085	774	304	36,5	80	510
900	696	643	204	1170	855	337	38	100	660
1000	745	695	218	1290	960	383	44	100	790
1100	820	738	218	1395	1054	429	44	120	850
1200	881	806	254	1512	1172	462	47	120	1180
1300	996	939	280	1654	1269	510	48	120	1530
1400	990	929	280	1742	1336	543	40	120	1700
1500[2)]	1096	1039	280	1854	1474	610	48	120	1850
1600	1117	1048	318	1924	1568	641	50	155	2600
1800[2)]	1300	1199	457	2199	1700	652	75	200	3940

1) DN 450 - 1800, 2 x threads on valve neck and bottom
2) Dimensions and weight might vary and will be confirmed with the order

Top flange according to ISO 5211

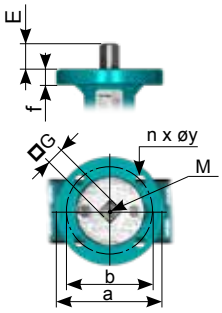
Wafer and Lug

DN 25-300



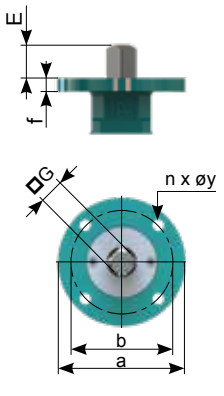
U-section

DN 150-300

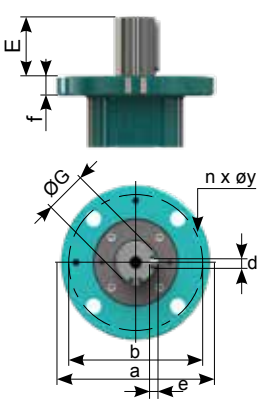


Wafer, Lug and U-section

DN 350-400



DN 450-1800



Wafer and Lug

DN	E	G	M	f	ISO	a	b	n x øy
25-40	12	□ 8	M4	10	F05*	65	50	4 x 7
50-80	12	□ 11	M6	10	F05	65	50	4 x 7
100	12	□ 11	M6	10	F05 / F07	89	50 / 70	4 x 7 / 4 x 9,5
125	16	□ 14	M6	10	F05 / F07	89	50 / 70	4 x 7 / 4 x 9,5
150	16	□ 14	M6	10	F07	89	70	4 x 9,5
200	19	□ 17	M6	10	F07	89	70	4 x 9,5
250-300	24	□ 22	**	18	F10/F12	150	102/125	4 x 11 / 4 x 13

*F04 on request
**Shaft end not threaded

U-section

DN	E	G	M	f	ISO	a	b	n x øy
150	16	□ 14	M6	12	F07	90	70	4 x 9
200	19	□ 17	M6	12	F07	90	70	4 x 9
250-300	24	□ 22	**	18	F10/F12	150	102/125	4 x 11 / 4 x 13

**Shaft end not threaded

Wafer, Lug and U-section

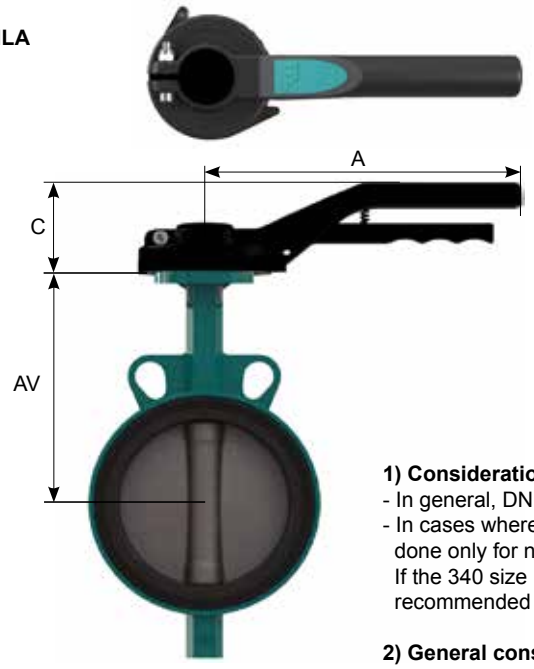
DN	E	G	d	e	f	ISO	a	b	n x øy
350	40	□ 22	-	-	18	F12	155	125	4 x 13
400	40	□ 27	-	-	18	F12	155	125	4 x 13
450-500	65	Ø 45	14	9	25	F14	175	140	4 x 18
600	80	Ø 70	20	12	25	F16	220	165	4 x 22
700	80	Ø 70	20	12	25	F25	300	254	8 x 18
(750)	80	Ø 70	20	12	30	F25	300	254	8 x 18
800	80	Ø 70	20	12	30	F25	300	254	8 x 18
900	100	Ø 80	22	14	30	F30	350	298	8 x 22
1000	100	Ø 80	22	14	30	F30	350	298	8 x 22
(1100)	120	Ø 80	22	14	30	F30	350	298	8 x 22
1200	120	Ø 100	28	16	30	F30	350	298	8 x 22
1300	120	Ø 120	32	18	36	F30	350	298	6 x 22
1400	120	Ø 120	32	18	35	F30	350	298	8 x 22
1500[1)]	120	Ø 120	32	18	35	F30	350	298	8 x 22
1600	155	Ø 130	32	18	40	F35	418	356	8 x 33,5
1800[1)]	200	Ø 180	45	25	50	F40/48	560	406/483	8 x 39 / 12 x 39

1) Dimensions and weight might vary and will be confirmed with the order

Dimensions

Handlever

HLA

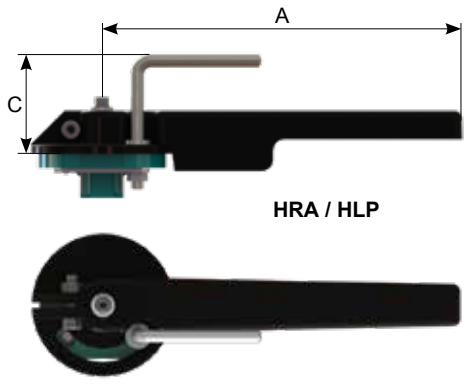


Aluminium, Epoxy coated

DN		AV	A	C	[kg]
25/32	**HLA.F0508.210-C1**	114	210	56	0,4
40		134	210	56	0,4
50	**HLA.F0511.210-C1**	139	210	56	0,4
65		154	210	56	0,4
80		164	210	56	0,4
100	**HLA.F0711.340-C1**	184	340	66	0,7
125 [1)]	**HLA.F0714.340-C1**	199	340	66	0,7
150 [1)]		214	340	66	0,7
200 [1)]	**HLA.F0717.340-C1**	244	340	66	0,7

1) Consideration for DN100
- In general, DN 100 should be used with 340 handlever (HLA.F0711.340-C1).
- In cases where a DN 100 with 210 handlever (HLA.F7011.210-C1) is required, it can be done only for not severe conditions.
  If the 340 size is not possible to be used while working in severe conditions, it is recommended to use a gearbox (i.e GB232-05.F05-F0711.100).

2) General consideration for big sizes (DN 125-DN 200)
- DN 125 and DN 150 PN 16 for severe conditions are recommended to use with a gearbox.
- DN 200 PN 6 - PN10 for normal conditions are recommended to use with a gearbox.
- DN 200 for severe conditions and DN 200 PN16 for normal conditions must be used with a gearbox.



HRA / HLP

Polyamide PA 6, 30% glass fibers reinforced

DN		A	C	[kg]
50-80	**HLP.F0511.240K**	240	61	0,6
100	**HLP.F0711.240K**	240	61	0,6
125-150	**HLP.F0714.390K**	390	66	0,9
200 [1)]	**HLP.F0717.390K**	390	66	0,9

Aluminium, Epoxy coated

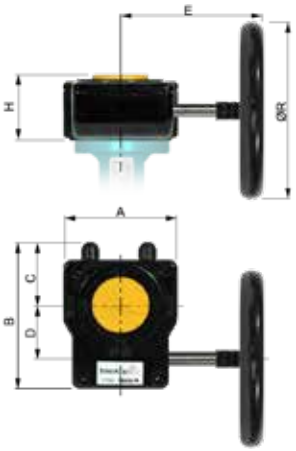
DN		A	C	[kg]
25-40	**HRA.F0508.180-V2** [2)]	180	64	0,4
50-65	**HRA.F0511.180-V2** [2)]	180	64	0,4
80	**HRA.F0511.250-V2** [2)]	250	64	0,5
100	**HRA.F0711.250-V2**	250	38	0,6
125-150	**HRA.F0714.340-V2**	340	38	0,6
200 [1)]	**HRA.F0717.340-V2**	340	38	0,6

1) Use a gearbox for severe conditions, LF and FF executions
2) Sketch of the F05 HRA according HRA datasheet

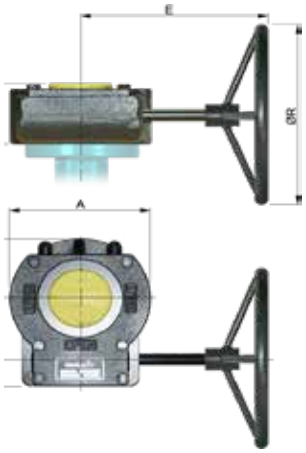
Dimensions

Gearbox

GB 232



GB1250-6800



For liquids 20ºC - 80ºC , p_{max} DN25-300 ...16 bar, DN350-1600 ... 10 bar

DN		A	B	C	D	E	H	ØR	n*	[kg]
25-40	**GB232-05.F05-F0708.100**	80	114	48	42.5	121	53	100	10	0,8
50-100	**GB232-05.F05-F0711.100**	80	114	48	42.5	121	53	100	10	0,8
125-150	**GB232-05.F05-F0714.100**	80	114	48	42.5	121	53	100	10	0,8
200	**GB232-06.F05-F0717.160**	80	114	48	42.5	180	59	160	10	0,9
250-300	**GB232-08.F07-F1022.250**	100	131	56	50	216	67	250	9,25	1,55
350	**GB232-13.F10-F1222.300**	175	209	83	80	361	84	300	10	5,4
400	**GB232-13.F10-F1227.500**	175	209	83	80	396	84	500	10	5,4
450	**GB1250N.F1445.400**	220	258	110	104,5	326	102	400	13.75	22
500	**GB1250N.F1445.400**	220	258	110	104,5	326	102	400	13.75	22
600	**GB2000N.F1670.500**	241	255	106	53	348	121	500	27	24
700	**GB2000NLB.F2570.600-SH100**	285	293	142	53	348	121	600	27	27
750	**GB2000NLB.F2570.700-SH100**	285	293	142	53	348	121	700	27	27
800	**GB1950N/PR4.F2570.500**	285	322,5	142,5	130	417	126	500	54	39
900	**GB1950NLB/PR4.F3080.500-SH100**	350	355	175	130	445	129	500	54	52
1000	**GB6800N/PR4.F3080.500**	370	407	170	182	470	159	500	81	62,5
1100	**GB6800N/PR4.F3080.500**	370	407	170	182	470	159	500	81	62,5
1200	**GB6800N/PR4.F30100.600**	370	407	170	182	480	159	600	117	62,5
1300	**GBA200N/PR10.F30120.400**	440	492	207.5	209	480.5	215	400	182,25	133,4
1400	**GBA200N/PR10.F30120.700**	440	492	207.5	209	490.5	215	700	182,25	134,4
1500	**GBA250N/PR10.F30120.500**	510	585	235	256	530	224	500	182,25	222
1600	**GBIW82/R720.F35130.800**	520	531	260	67	600,5	185	800	130	222
1800	**GB on request**									

Material:
GB232 : Aluminium, Polyurethan coated
GB880-GB6800 : Cast iron, Polyurethan coated

* n = Handwheel turns ON/OFF

Installation at the end of a line



When installing the valve at the end of a line please consult document Installation/Maintenance DESPONIA®.

Further documentation

Pneumatic actuators, Electric actuators, Accessories according separate data sheets.
Installation guide, Maintenance guide, Flanges: Please consult these guides for the installation and maintenance of our butterfly valves.

The technical data are noncommittal and do not assure you of any properties. Please refer to our general sales conditions. Modifications without notice.
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