Description

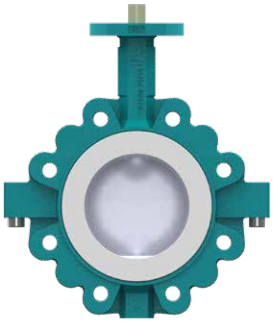
Centric butterfly valve fluoropolymer lined for shut-off and control service in for aggressive and corrosive fluids and high purity applications. Designed and manufactured in Switzerland since 1995.

Product features

• Body construction	B1 Wafer DN 32-600 B3 Lug DN 32-400 B4 U-section DN 400-900
• Face to face dimension	according to ISO 5752/20, EN 558-1/20
• Top flange	according to EN ISO 5211
• Max. working pressure	16 bar (DN 32-300) 10 bar (DN 350-600) 6 bar (DN 700-900)
• Flange connection	PN10, PN16, ANSI cl. 150 AS 2129 table D + E, JIS 10K and others
• Temperature range	-20°C ÷ 200°C according to working conditions, lower temperatures on request, with corresponding impact test certificates
• Factory tests	Porosity check of the liner and overmoulded disc according to DIN EN 60243-1. Test certificates on request. Tightness test according to EN 12266-1 leakage rate A. The torque of each valve is recorded.
CE	BIANCA butterfly valves meet the safety requirements of the Pressure Equipment Directive 2014/68/EU (PED) appendix 1 for fluids of the groups 1 and 2.
SIL	BIANCA Butterfly valves are suitable to be operated in safety related systems according to IEC 61508 / 61511, Safety Integrity Level SIL 3.
EX	Special versions of the Bianca valves may be used in potentially explosive atmospheres.
Fugitive emission	EN ISO 15848-1 as an available option
FDA and (EU) No. 10/2011	The Teflon® used for the Bianca is in compliance with FDA 21 CFR 177.1550 and (EU) No. 10/2011.

CE

B1
Wafer



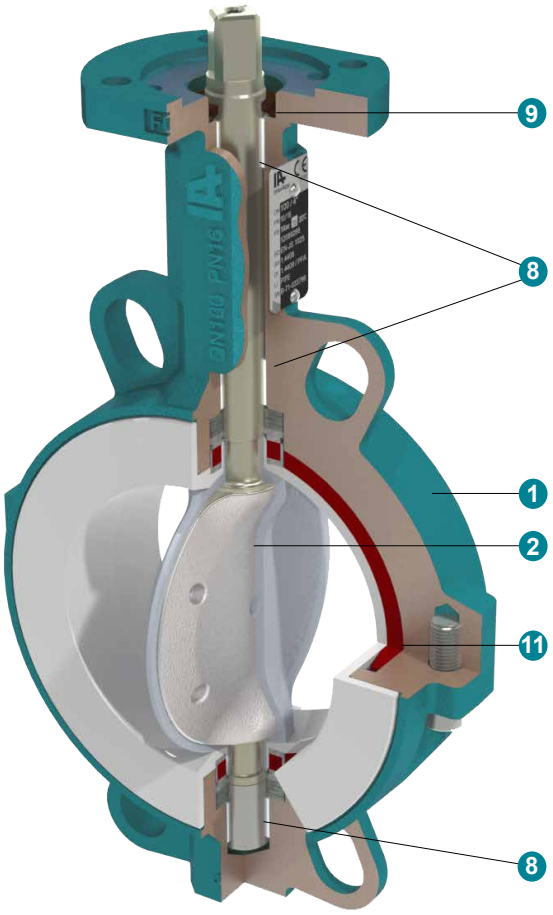
B3
Lug

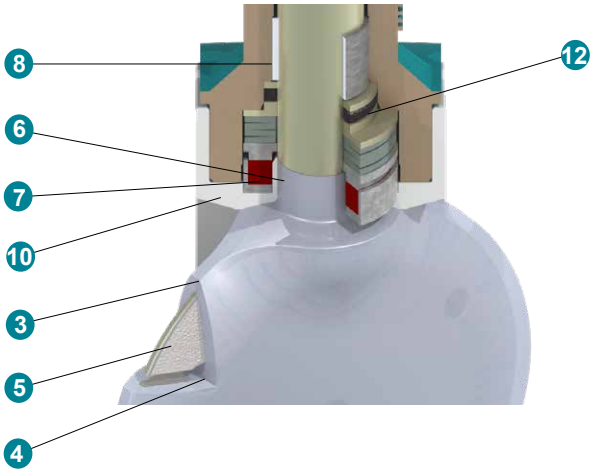
B4
U-section

InterApp

A dedicated member of the AVK Group

Construction





1	Two-piece body in ductile iron EN-JS 1025
2	One-piece, blow out proof disc/shaft
3	Overmoulding with a min. thickness of 3 mm
4	Overmoulding is mechanically locked on the disc
5	Thin core, allows high k_V flow rate
6	Shaft overmoulded in the shaft sealing area
7	Life loaded safety shaft sealing
8	Self-lubricating shaft bushing
9	External shaft seal
10	Chambered liner, prevents radial cold-flow
11	Elastomer backliner, immersed in body
12	EN ISO 15848-1 packing optional

BIANCA HP cleanroom production

Cleansing the parts with ultrapure water

Material lock

Assembly, testing, packaging in clean room class 10'000 / ISO Class 7

Thigthness test with ultrapure air

Torques with PTFE liner, safety factor included

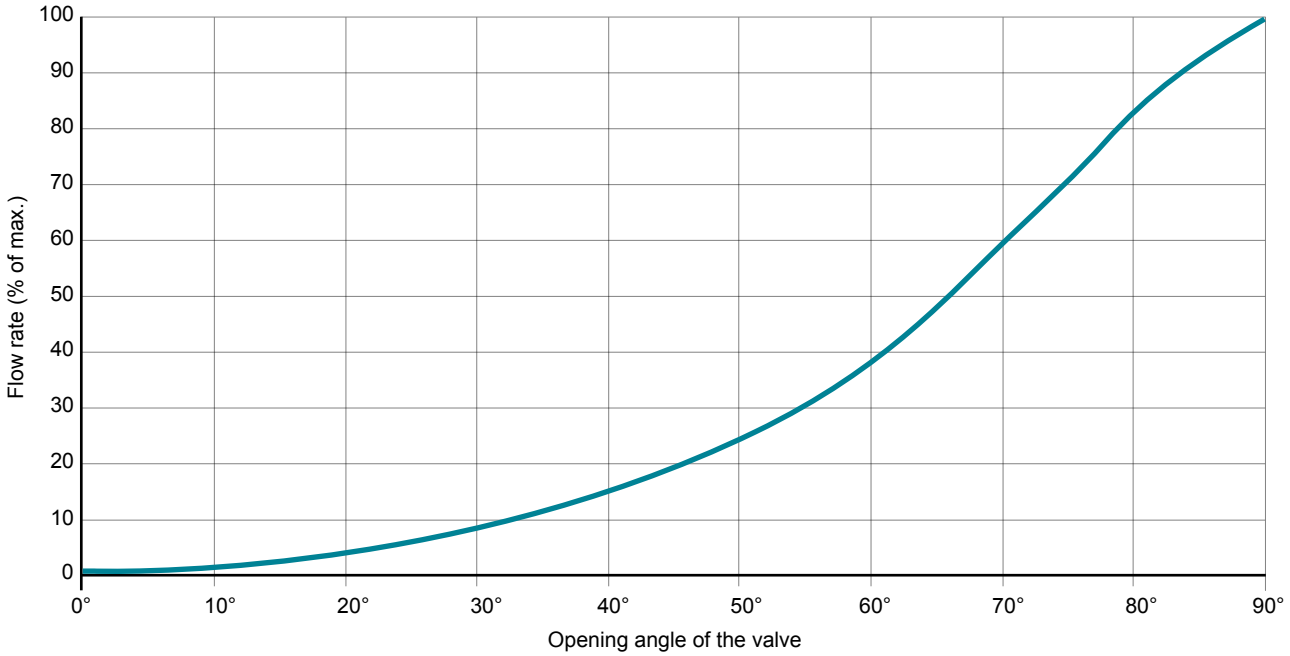
DN	32/40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900
6 bar											675	900	1100	1300	1750	2100	2800	3100	4000
10 bar								189	330	476	810	1080	1320	1560	2100				
16 bar	21	25	39	43	73	87	146	227	396	571									

Kv values m^3/h

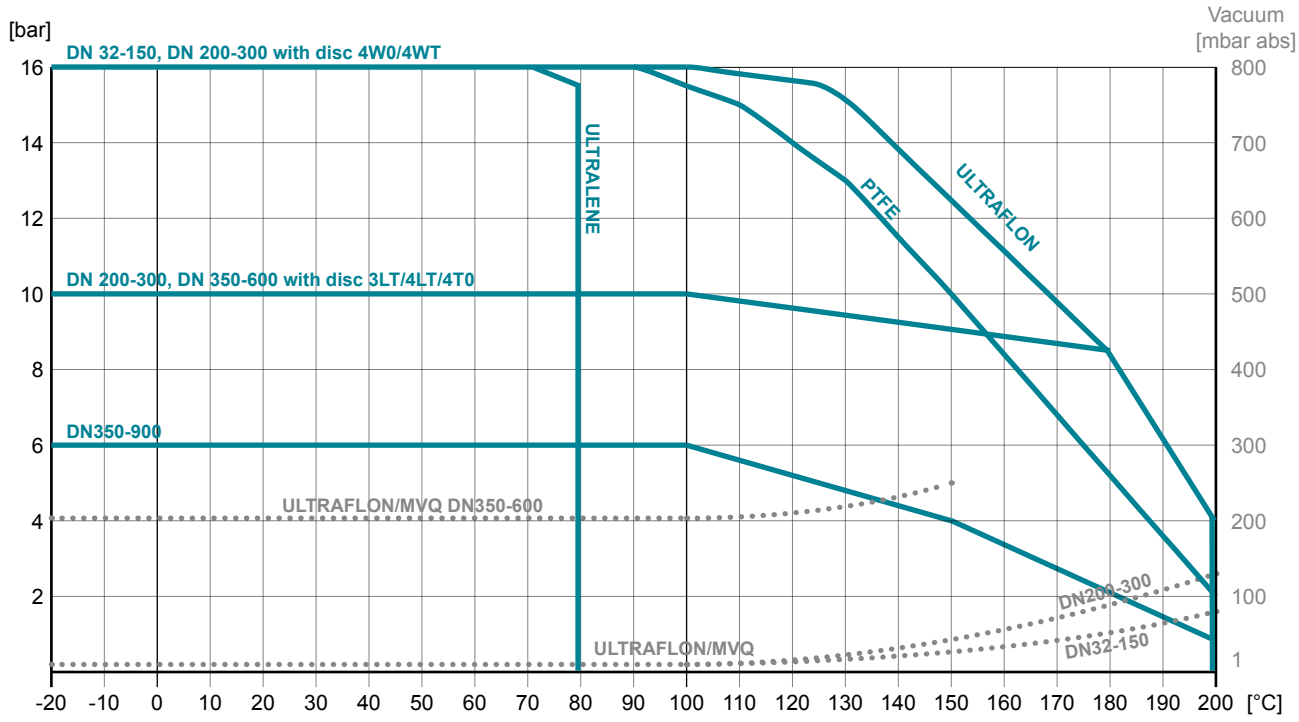
	Opening angle of the valve							
DN	20°	30°	40°	50°	60°	70°	80°	90°
32/40	4	8	17	30	45	65	85	95
50	5	11	24	42	64	92	118	134
65	8	19	41	70	108	155	200	227
80	15	33	72	125	190	270	335	392
100	20	48	95	162	255	385	485	585
125	38	82	165	255	455	645	815	1015
150	60	130	235	395	645	955	1220	1495
200	95	230	465	795	1180	1815	2410	3050
250	175	350	710	1160	1610	2420	3650	4510
300	265	522	995	1720	2665	3965	5960	7210
350	350	660	1180	1800	2880	4550	7180	8760
400	510	985	1480	2450	4230	6550	9250	11350
450	665	1255	2230	3850	6250	9200	12250	14900
500	890	1620	2980	5350	8150	11800	15560	18000
600	970	2150	4180	7420	11350	16450	21200	24500
700	1060	2560	4868	8412	14359	23901	37638	48633
750	1217	2939	5588	9675	16484	27437	43207	55829
800	1402	3328	6351	11169	19073	32074	51820	63905
900	1915	4259	7897	13849	23887	41112	66771	81016

$c_v = k_v \cdot 1{,}16$

Flow rate



Pressure / temperature diagram

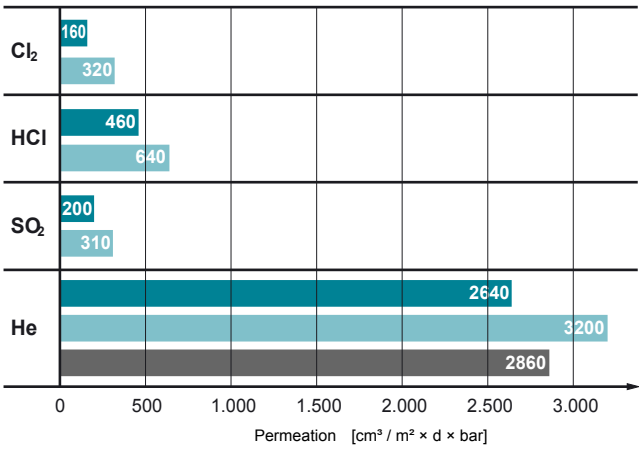


Please consult our technical department for higher temperatures.

Advantage of ULTRAFLON® liner

Permeation

Comparison of **ULTRAFLON®** - **PTFE** - **PFA** (film thickness 1mm)

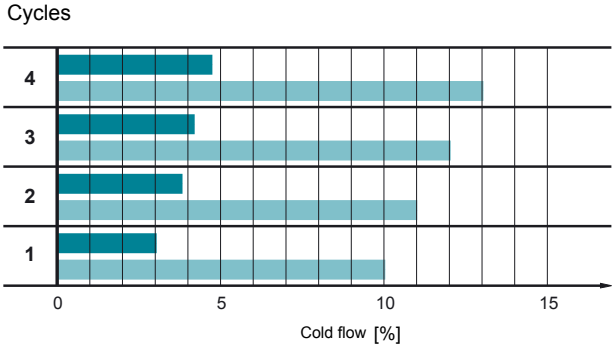


ULTRAFLON®
PTFE
PFA

Deformation

Under repeated load „Cold flow behavior“

Loading : 15 N/mm², 4 cycles
Duration : 100 hours each cycle
Temperature : 23°C (73°F)
Perm. deformation after 24 hours recovery



Type code

B1	0100	.	3	3	.	2BE	.	4GT	.	T*	E	-	xx
❶	❷		❸	❹		❺		❻		❼	❽		❾

❶ **Body type**	B1	Wafer	DN 32-600
	B3	LUG body	DN 32-400
	B4	U-section body	DN 400-900
❷ **Nominal diameter**	0032-0900	mm	
❸ **Working pressure**	1	6 bar	DN 350-900
	2	10 bar	DN 200-300 with all, DN 350-600 with 3LT/4LT/4T0 discs
	3	16 bar	DN 32-150, DN 200-300 with disc 4W0/4WT
❹ **Flange connection**	**	PN10/16/ANSI B16.5 cl150 see table below; others on request	
❺ **Body**	2BE	Ductile iron EN-JS 1025 / EN-GJS-400-18LT / ≈ ASTM A395 60-40-18, Epoxy coated 80 µm	
	4B0	Stainless steel 1.4409 / ≈ ASTM CF3M	DN 32-400
❻ **Disc-shaft, one piece**	4G0	Stainless steel 1.4408 / ≈ ASTM CF8M	DN 32-300
		Stainless steel 1.4404 / ≈ AISI 316L	DN 350-500, DN 600 - 900 o.r.
	4GP	Stainless steel 1.4408 / ≈ ASTM CF8M polished Ra < 0,8	DN 32-300
		Stainless steel 1.4404 / ≈ AISI 316L polished Ra < 0,8	DN 350-500, DN 600 o.r.
	4GJ	Stainless steel 1.4435 / ≈ AISI 316L, Ferrite < 0.1%, e-polished Ra < 0,4	DN 32-300
	4GT	Stainless steel 1.4408 PFA overmoulded	DN 32-300
		Stainless steel 1.4301 PFA overmoulded, shaft stainless steel 1.4404	DN 350-900, on request
	4W0	Duplex 1.4469 / ≈ ASTM A 890 grade 5A	DN 32-300, 16 bar
	4WT	Duplex 1.4469 / ≈ ASTM A 890 grade 5A PFA overmoulded	DN 32-300, 16 bar, DN 350, 10 bar
	4T0	Duplex 1.4462	DN 350-600, 10 bar
	4LT	Stainless steel 1.4542 PFA overmoulded	DN 350-600, 10 bar, DN 700 - 900, 6 bar
	3LT	Disc carbon steel 1.0577 PFA overmoulded, shaft stainless steel 1.4542	DN 350-600, 10 bar, DN 700 - 900, 6 bar
	3TT	Disc carbon steel PFA overmoulded, shaft stainless steel 1.4462	DN 350-400, 10 bar
	**A	PFA antistatic (black, no FDA and (EU) No. 10/2011 compliance)	
	7H0	Hastelloy 2.4819 / ≈ Hastelloy C276	DN 50-300 (others on request)
	7T0	Titanium 3.7035, Grade 2	(on request)
❼ **Liner**	T*	PTFE (* for elastomer backliner)	
	T*V	ULTRAFLON® (UF) for vacuum, chlorine or high temperature applications	
	T*A	PTFE antistatic (black, with FDA and (EU) No. 10/2011 compliance)	
	T*VA	ULTRAFLON® antistatic (black, with FDA and (EU) No. 10/2011 compliance)	
	U*	Ultralene (UHMWPE) for abrasive applications, max. 80 °C (EN 12266-1 leakage rate B)	DN 80, 100, 150, 200
❽ *** Elastomer backliner**	S	MVQ, max. 200 °C	
	E	EPDM, max. 130 °C	
	V	FPM, max. 160 °C	DN 200-300 max. 10 bar DN 350-900 max. 6 bar
❾ **Special execution**	LF	Without painting adhesion interfering substance	
	HP	High purity: The valve is cleaned, assembled, tested and packaged under cleanroom conditions. (US federal standard 209E, class 10000, ISO Class 7 (ISO 14644-1))	
	112/246	ATEX / IECEx: see corresponding document: InterApp Butterfly Valves for use in potentially explosive atmospheres	
	180	Fugitive emission acc. EN ISO 15848-1	

Other options upon request!

****Flange connection (Code)**

BIANCA	DN →	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900
 B1	PN10	3													2						
	PN16	3																			
	ANSI cl.150		3												A						
 B3	PN10	3								2											
	PN16	3																			
	ANSI cl.150		A																		
 B4	PN10													2						2	
	PN16													3						3	
	ANSI cl.150													A							

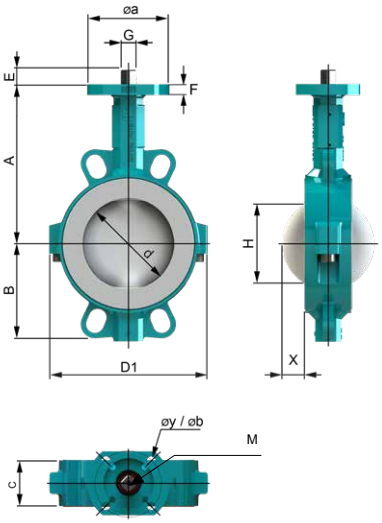
When mounting the valve at the end of a line please contact technical department

Dimensions

BIANCA B1, Wafer

DN 32-65

DN 80-150



DN 200-400

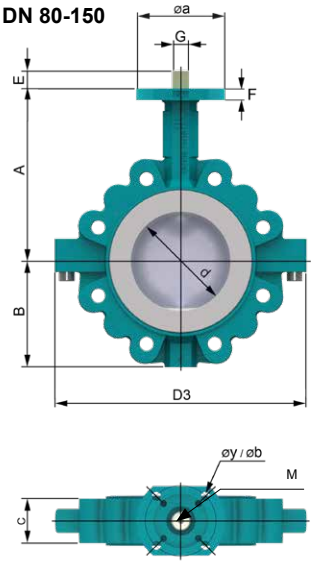
DN 450-600

1) DN 450 - 600, 2 x threads on valve neck and bottom

BIANCA B3, LUG

DN 32-65

DN 80-150



DN 200-400

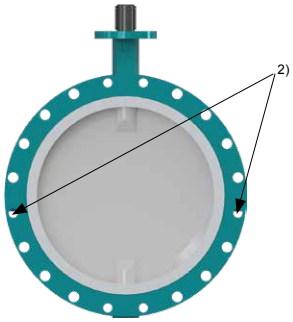
DN	d	A	B	C	H	X	D1	D3	F	ISO	a	y	b	G	E	M	B1[kg]	B3[kg]
32/40	40	125	69	33	23	4	105.8	136	9	F05	65	4x7	50	11	12	M6 x 12	1.7	2.4
50	50	134	68	43	26	9	118.4	162	9	F05	65	4x7	50	11	12	M6 x 12	2.3	3.2
65	65	145	78	46	39	7	132.5	170	9	F05	65	4x7	50	11	12	M6 x 12	2.9	4.1
80	80	160	92	46	66	17	144	216	9	F05	65	4x7	50	11	12	M6 x 12	3.4	6.2
100	100	175	107	52	86	24	173	254	12	F05/07	90	4x7/9	50/70	14	16	M6 x 12	5.1	9.3
125	125	194	120	56	112	35	219	293	12	F05/07	90	4x7/9	50/70	14	16	M6 x 12	6.9	10.7
150	150	210	134	56	140	47	247	315	12	F07	90	4x9	70	17	19	M6 x 12	10	12.9
200	200	239	162	60	191	70	295	389	15	F07/F10	125	4x9/11	70/102	17	19	M6 x 12	14.1	22.3
250	250	275	199	68	241	91	367	483	15	F10	125	4x11	102	22	24	M6 x 12	22.9	32.4
300	300	310	230	78	290	111	419	543	15	F10	125	4x11	102	22	24	M6 x 12	32.9	46.9
350	339	349	257	78	330	131	428	564	16	F12	155	4x 13.5	125	27	40	M10 x 20	50	87
400	400	379	287	102	387	149	473	620	16	F12	155	4x 13.5	125	27	40	M10 x 20	68	98
450	450	426	320	114	436	168	528	-	21	F14	175	4x 18	140	Ø45	65	M12 x 20	100	-
500	500	451	360	127	484	187	588	-	21	F14	175	4x 18	140	Ø45	65	M12 x 20	122	-
600	600	555	415	154	580	223	686	-	26	F16	210	4x 22	165	Ø60	90	M12 x 20	180	-

Dimensions X and H are without safety factors!
The customer must define safety distances to allow proper installation of the valve.

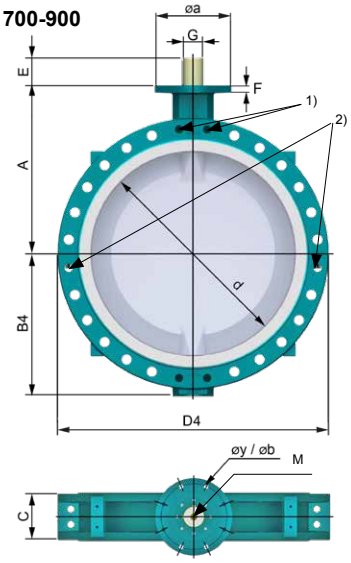
Dimensions

BIANCA B4, U-section

DN 400-600



DN 700-900

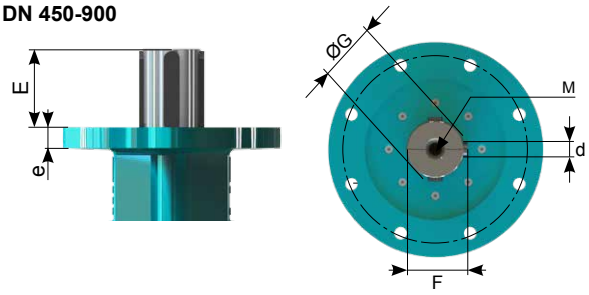


1) DN 450 - 900, 2 x threads on valve neck and bottom
2) DN 600 - 900, 2 threads on both sides

DN	d	A	B4	C	H	X	D4	F	ISO	a	y	b	G	E	M	B4[kg]
400	400	379	290	102	387	149	616	16	F12	155	4x 13.5	125	27	40	M10 x 20	95
450	450	426	320	114	436	168	630	21	F14	175	4x 18	140	Ø45	65	M12 x 20	140
500	500	451	360	127	484	187	700	21	F14	175	4x 18	140	Ø45	65	M12 x 20	175
600	600	555	415	154	580	223	820	26	F16	210	4x 22	165	Ø60	90	M12 x 20	275
700	703	605	482	165	684	269	930	26	F16	210	4x 22	165	Ø72	80	M20 x 40	367
750	750	629	489	190	726	280	970	26	F16	210	4x 22	165	Ø60	90	M12 x 20	383
800	803	658	550	190	781	307	1060	29	F25	300	8x 18	254	Ø80	108	M20 x 40	670
900	900	710	602	203	877	349	1160	36	F30	350	8x 22	298	Ø98	128	M24 x 48	880

Top flange according to ISO 5211

DN 450-900

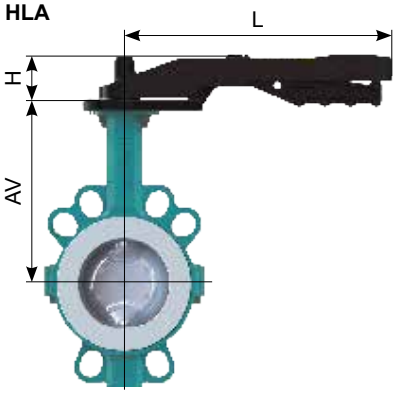


Wafer, Lug and U-section

DN	E	ØG	d	e	F	M
450	65	45	14	21	48,8	M12 x 20
500	65	45	14	21	48,8	M12 x 20
600	90	60	18	26	64,4	M12 x 20
700	80	72	20	26	76,9	M20 x 40
750	91	60	18	26	64,4	M12 x 20
800	108	80	22	29	85,4	M20 x 40
900	128	98	28	36	104,4	M24 x 48

Handlever

HLA



HLA : Aluminum Epoxy coated

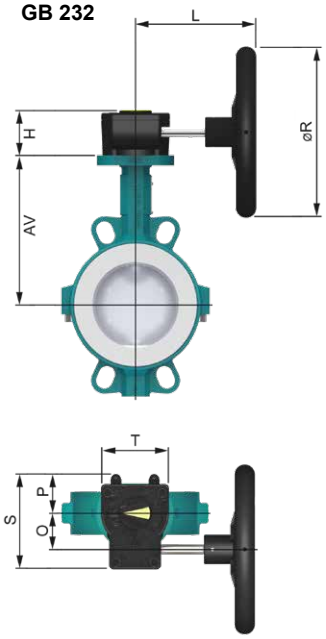
DN	Handlever type	AV	H	L	[kg]*
32/40	**HLA.F0511.180-V2**	125	41	180	0.4
50	**HLA.F0511.240-V2**	134	43	240	0.5
65	**HLA.F0511.240-V2**	145	43	240	0.5
80	**HLA.F0511.240-V2**	160	43	240	0.5
100	**HLA.F0714.340-V2**	175	51	340	0.6
125	**HLA.F0714.340-V2**	194	51	340	0.6
150	**HLA.F0717.340-V2**	210	51	340	0.6

* [kg] weight without butterfly valve

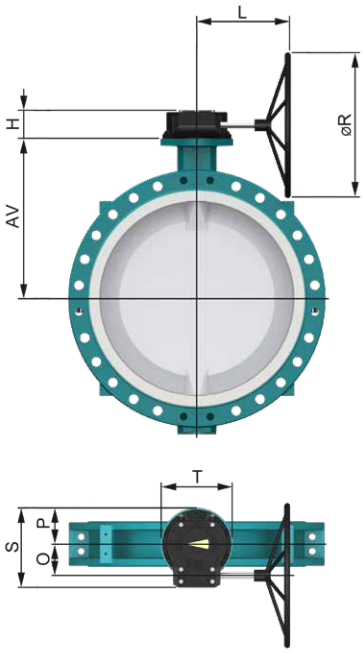
Dimensions

Gearbox

GB 232



GB 880-6800



DN		AV	H	L	O	P	R	S	T	n**	[kg]*
32/40	**GB232-05.F05-F0711.100**	125	53	126	42,5	48	100	114	80	10	0,8
50	**GB232-05.F05-F0711.100**	134	53	126	42,5	48	100	114	80	10	0,8
65	**GB232-05.F05-F0711.100**	145	53	126	42,5	48	100	114	80	10	0,8
80	**GB232-05.F05-F0711.100**	160	53	126	42,5	48	100	114	80	10	0,8
100	**GB232-05.F05-F0714.100**	175	53	126	42,5	48	100	114	80	10	0,8
125	**GB232-05.F05-F0714.100**	194	53	126	42,5	48	100	114	80	10	0,8
150	**GB232-06.F05-F0717.160**	210	59	189	42,5	48	160	114	80	10	0,9
200	**GB232-06.F05-F0717.160**	239	59	189	42,5	48	160	114	80	10	0,9
250	**GB232-08.F07-F1022.250**	275	67	219	50	56	250	131	100	9,25	1,55
300	**GB232-08.F07-F1022.250**	310	67	219	50	56	250	131	100	9,25	1,55
350	**GB232-13.F10-F1227.300**	349	85	371	80	83	300	209	175	10	5,4
400	**GB232-13.F10-F1227.400**	379	85	371	80	83	300	209	175	10	5,4
450	**GB880N.F1445.500**	426	92	305	86	101	500	227	200	9,5	14
500	**GB880N.F1445.500**	451	92	305	86	101	500	227	200	9,5	14
600	**GB1250N.F1660.500**	555	102	346	104,5	110	500	258	220	13,75	22
700	**GB1950N.F1672.600**	605	126	387	130	142,5	600	322,5	285	13	32
750	**GB1950N.F1660.700**	629	126	387	130	142,5	700	322,5	285	13	32
800	**GB2000NLB.F2580.500**	658	120	348	53	142	500	300	285	27	27
900	**GB6800N/PR4.F3098.400**	710	159	470	182	170	400	407,5	370	81,5	63

Material: GB 232 Aluminum, Polyurethane coated
GB1250-GB6800 GG 25 Polyurethane coated

* [kg] weight without butterfly valve and handwheel
** n = Handwheel turns ON/OFF

Further documentation

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