

## Description

Centric butterfly valve plastomer lined for On/off and control service for aggressive and corrosive fluids and high purity application

## Product features

- Body construction B1 Wafer DN 32-600  
B3 Lug DN 32-400  
B4 U-section DN 450-900
- 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 (DN32-150), 10 bar (DN200-300),  
6 bar (DN350-700), 2,5 bar (DN750),  
6 bar (DN800-900)
- Rating PN6, PN10, PN16, ANSI cl. 150
- Temperature range -20°C ÷ 200°C according to working  
conditions, other temperatures on request
- Work's tests Porosity check of the liner and overmolded  
disc according to DIN EN 60243-1. Test  
certificates on request. Tightness test  
according to EN 12266-1/P12 leakage  
rate A.



The torque of each valve is registered.  
The butterfly valves BIANCA meet the safety requirements of the pressure Equipments Directive 97/23/EC (PED) appendix 1 for fluids of the groups 1 and 2.

Special versions of the Bianca valves may be used in explosive atmospheres. See brochure BIANCAATEX.



**B1**  
Wafer

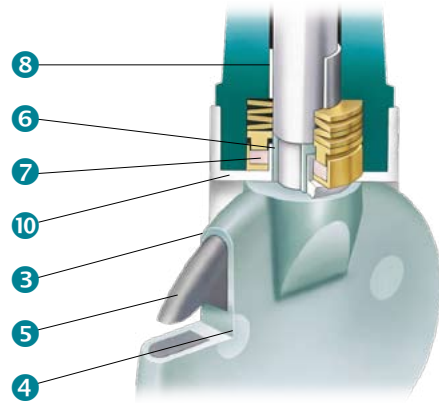
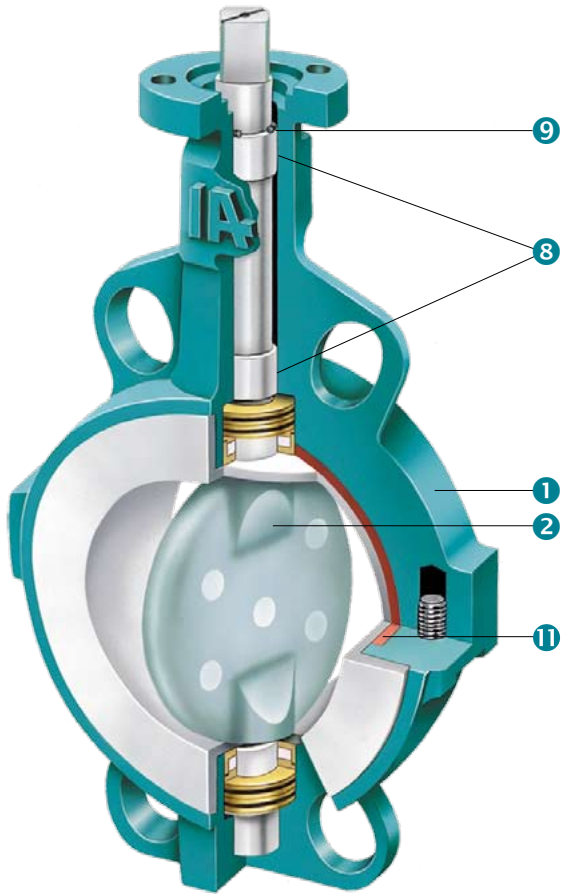


**B3**  
Lug



**B4**  
U-section

Construction



1	Two-piece body in GGG 40.3
2	One-piece, blow out proof disc/shaft
3	Overmolding with a min. thickness of 3 mm
4	Overmolding is mechanically locked on the disc
5	Thin core, allows high $k_v$ flow rate
6	Shaft overmolded in the shaft sealing area
7	Shaft sealing by prestressed safety packing
8	Self-lubricating shaft bushing
9	External shaft sealing
10	Chambered liner, prevents radial cold-flow
11	Elastomer back-up, immersed in body

BIANCA HP cleanroom production



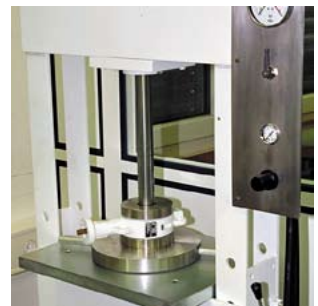
Decontamination by ultrasonic cleaning



Material lock



Assembling, testing, packaging in clean room class 10,000



Tightness test with HP nitrogen

Torques with PTFE liner, security factor included

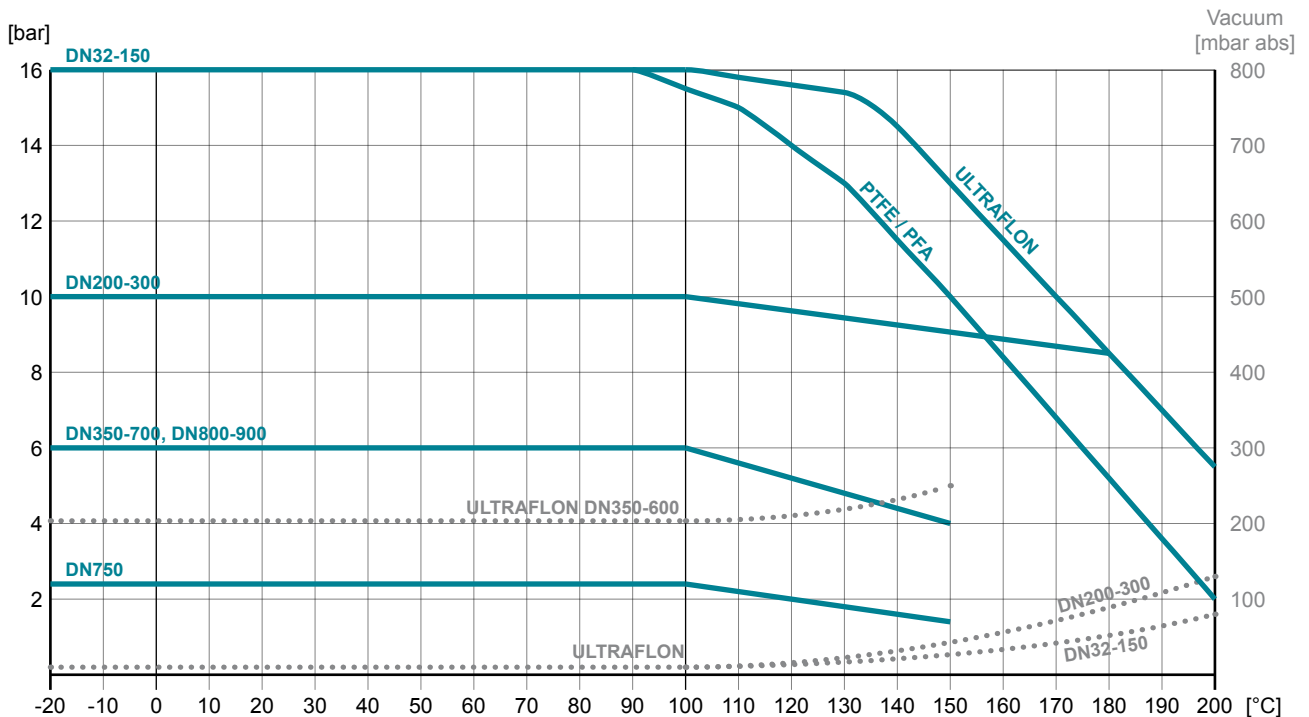
DN	32/40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900
Nm	35	42	42	59	75	90	157	270	375	510	675	900	1100	1300	1750	2100	2500	3100	4000

## Kv values m<sup>3</sup>/h

DN	Opening angle of the valve							
	20°	30°	40°	50°	60°	70°	80°	90°
32/40	4	8	17	30	45	65	85	95
50	7	16	35	60	92	132	170	193
65	7	16	35	60	92	132	170	193
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

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

## Pressure / temperature diagram

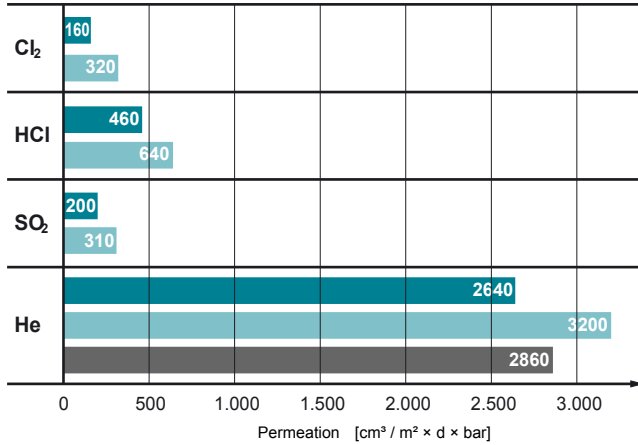


Please consult our technical department for higher temperatures.

### Advantage of ULTRAFLO<sup>®</sup> liner

#### Permeation

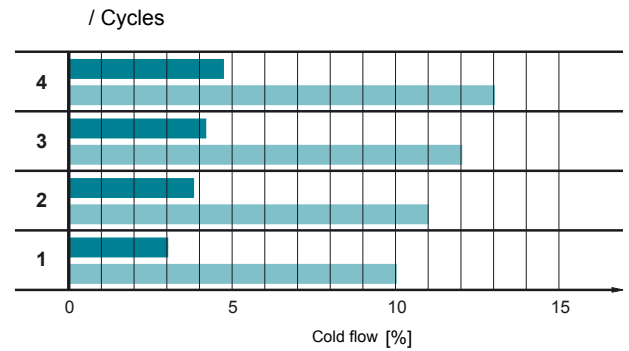
Comparison of ULTRAFLO<sup>®</sup> - PTFE - PFA (film thickness 1mm)



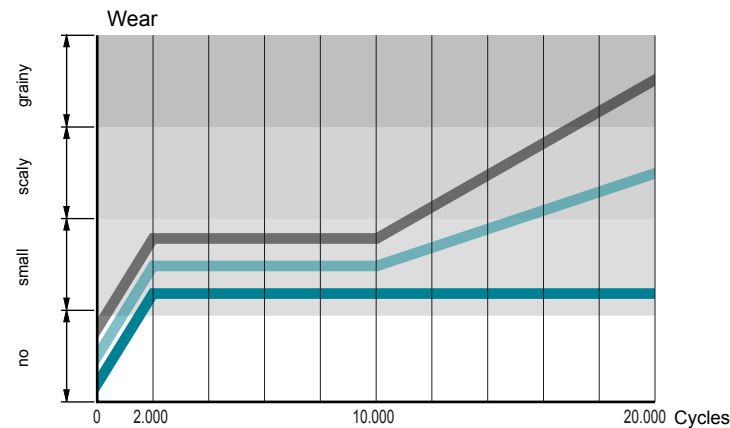
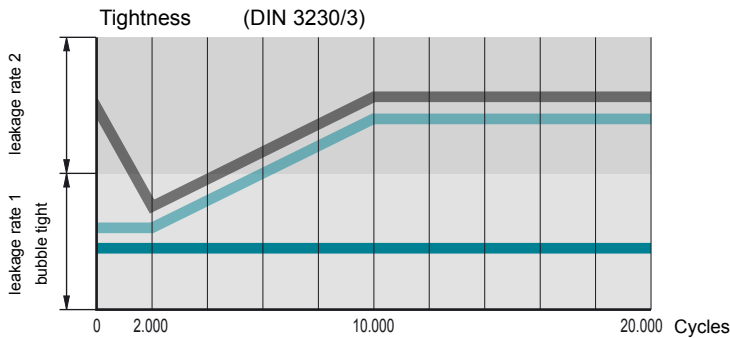
#### Deformation

under repeated load „Cold flow behavior“

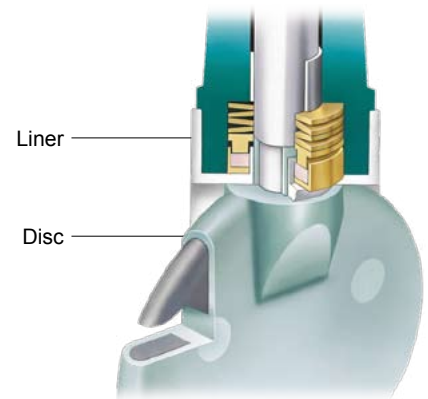
Loading : 15 N/mm<sup>2</sup>, 4 cycles  
 Duration : 100 hours each cycle  
 Temperature : 23°C (73°F)  
 Perm. deformation after 24 hours recovery



#### Endurance test (tightness)




ULTRAFLO<sup>®</sup>  
 PTFE  
 PFA



## Type code

B1	0100	.	3	3	.	2BE	.	4GT	.	TS	.	xx
①	②		③	④		⑤		⑥		⑦		⑧

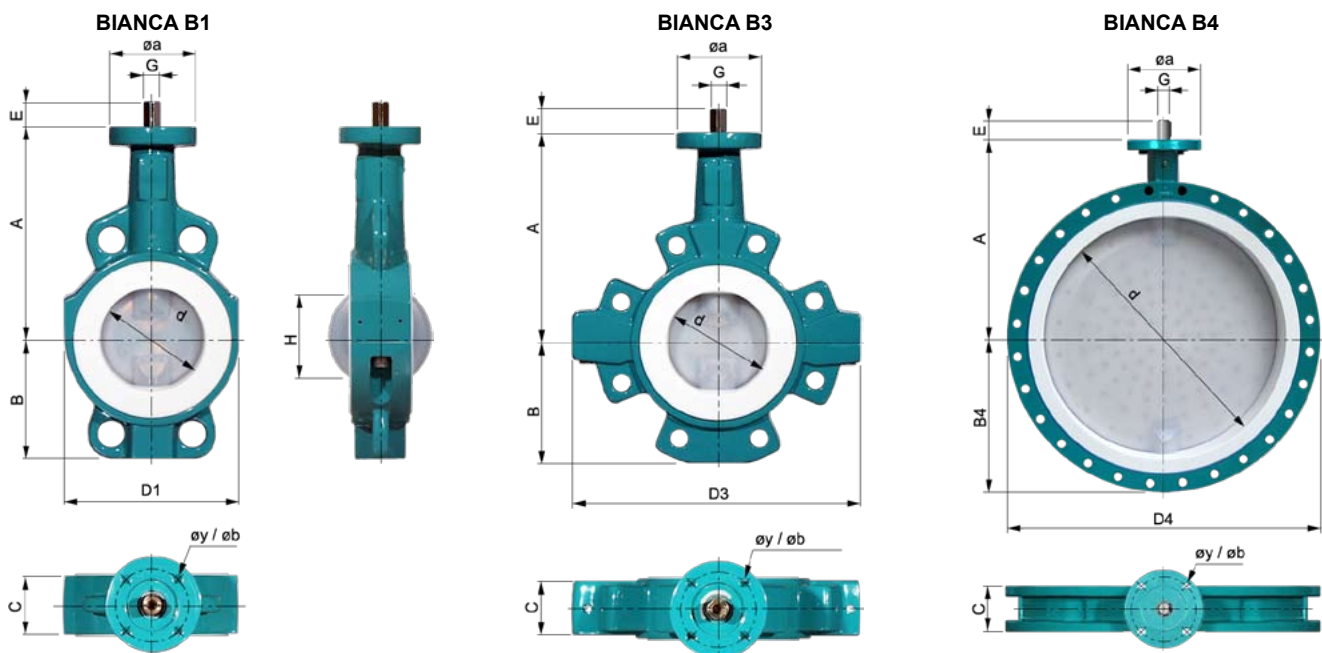
① Body type	B1	Wafer	DN32-600
	B3	LUG body	DN32-400
	B4	U-section body	DN450-900
② Nominal diameter	0032-0900	mm	
③ Working pressure	0	2,5 bar	DN750
	1	6 bar	DN350-700, DN800-900
	2	10 bar	DN200-300
	3	16 bar	DN32-150
④ Rating	for BIANCA B1...		
	3	PN10/16/ANSI B16-5 cl150	
	for BIANCA B3, B4		
	2	PN10	
	3	PN16	
⑤ Body	A	ANSI cl. 150	
	2BE	Ductile iron GGG40.3, Epoxy coated 80µ	
	4G0	Stainless steel , AISI 316L	
⑥ Disc-shaft, one piece	4G0	Stainless steel , AISI 316L	
	4GP	Stainless steel , AISI 316L polished	
	4GT	Stainless steel PFA coated	
	4D0	Uranus 1.4539	(special)
	7H0	Hastelloy C22, 2.4602	(special)
	7T0	Titan 3.7035	(special)
⑦ Liner / backup	TS	PTFE / Silicone	
	TE	PTFE / EPDM	
	TV	PTFE / Viton	
	**V	ULTRAFLON® for Vacuum or Chlorine applications	
⑧ Special execution	LF	without painting adhesion interfering substance	
	HP	High purity: The valve is cleaned, mounted, proofed and packed under cleanroom conditions. (US federal standard 209b, class 10000)	
		ATEX execution see brochure BIANCAATEX	

Other executions on request !

### When mounting the valve at the end of a line please note:

- Body type **B3, B4**
  - Temperature 10 ÷ 30°C
  - Medium only for non hazardous liquids
  - Max. working pressure DN32-600 6 bar
  - > DN600 on request
- no water hammer !!!

Dimensions

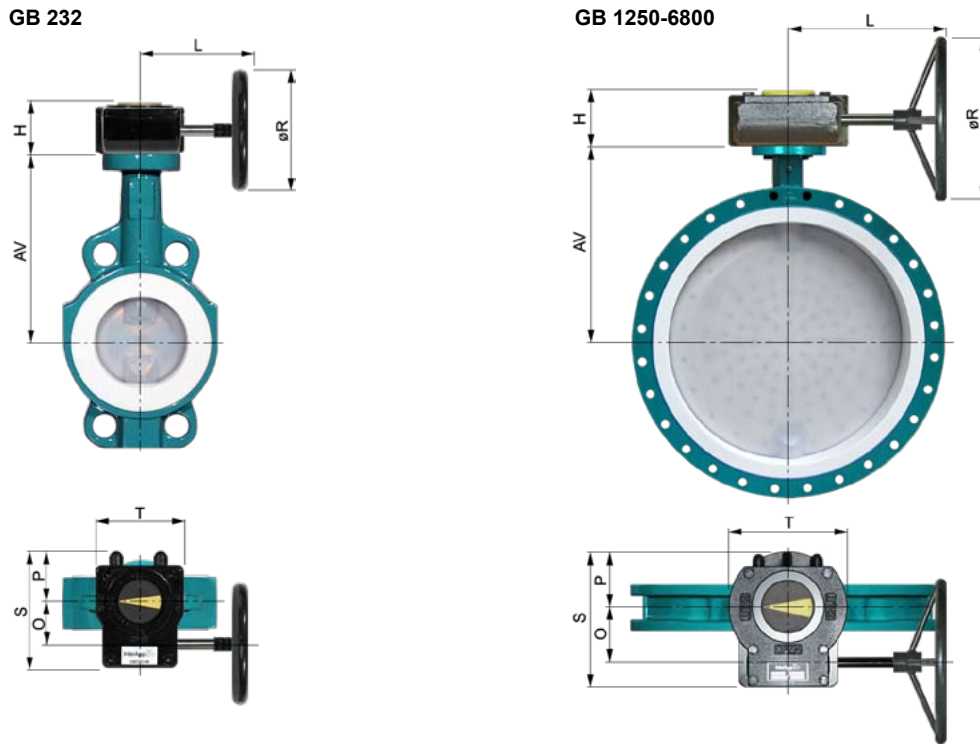


DN	d	A	B	B4	C	H	D1	D3	D4	ISO	a	y	b	G	E	B1[kg]	B3[kg]	B4[kg]
32/40	40	125	70	-	33	28	146	146	-	F05/07	90	4x 6,5/9	50/70	11	19	3	3	-
50	60	134	68	-	43	47	115	160	-	F05/07	90	4x 6,5/9	50/70	11	19	3	4	-
65	60	144	68	-	46	44	115	174	-	F05/07	90	4x 6,5/9	50/70	11	19	4	5	-
80	80	159	91	-	46	69	132	190/222*	-	F05/07	90	4x 6,5/9	50/70	11	19	5	6	-
100	100	174	106	-	52	89	155	252	-	F05/07	90	4x 6,5/9	50/70	14	19	6	9	-
125	125	194	119	-	56	115	180	282	-	F05/07	90	4x 6,5/9	50/70	14	19	8	12	-
150	150	209	131	-	56	142	215	316	-	F07	90	4x 9	70	17	25	11	16	-
200	200	239	161	-	60	194	262	376	-	F07	90	4x 9	70	17	25	16	22	-
250	250	274	198	-	68	243	330	451	-	F10	125	4x 11	102	22	32	25	31	-
300	300	309	230	-	78	292	370	509	-	F10	125	4x 11	102	22	32	34	46	-
350	339	350	257	-	78	333	428	564	-	F12	155	4x 13,5	125	27	40	50	87	-
400	400	380	288	-	102	390	478	625	-	F12	155	4x 13,5	125	27	40	68	98	-
450	450	426	320	320	114	438	537	-	630	F14	175	4x 18	140	Ø45	65	100	-	140
500	500	451	360	360	127	486	595	-	700	F14	175	4x 18	140	Ø45	65	122	-	175
600	600	555	414	414	154	583	693	-	820	F16	210	4x 22	165	Ø60	90	180	-	275
700	700	605	-	482	165	683	-	-	930	F16	210	4x 22	165	Ø72	80	-	-	423
750	750	630	-	489	190	728	-	-	970	F16	210	4x 22	165	Ø60	90	-	-	383
800	800	658	-	558	190	780	-	-	1060	F25	300	8x 18	254	Ø80	110	-	-	670
900	900	710	-	612	203	879	-	-	1160	F30	350	8x 22	298	Ø98	128	-	-	880

\* 220mm -> PN10/16; 190mm -> ANSI 150

## Dimensions

### Gearbox



DN		AV	H	L	O	P	R	S	T	n**	[kg]*
32/40	GB232-05.F05-F0711.100	125	53	121	42,5	48	100	114	80	10	0,8
50	GB232-05.F05-F0711.100	134	53	121	42,5	48	100	114	80	10	0,8
65	GB232-05.F05-F0711.100	144	53	121	42,5	48	100	114	80	10	0,8
80	GB232-05.F05-F0711.100	159	53	121	42,5	48	100	114	80	10	0,8
100	GB232-05.F05-F0714.100	174	53	121	42,5	48	100	114	80	10	0,8
125	GB232-05.F05-F0714.100	194	53	121	42,5	48	100	114	80	10	0,8
150	GB232-06.F05-F0717.160	209	59	179	42,5	48	160	114	80	10	0,9
200	GB232-08.F07-F1017.250	239	67	209	50	56	250	131	100	9,25	1,55
250	GB232-08.F07-F1022.250	274	67	209	50	56	250	131	100	9,25	1,55
300	GB232-13.F10-F1222.300	309	84	361	80	83	300	209	175	10	5,4
350	GB232-13.F10-F1227.400	350	84	376	80	83	400	209	175	10	5,4
400	GB232-13.F10-F1227.500	380	84	396	80	83	500	209	175	10	5,4
450	GB232-14.F1445.500	426	84	396	80	83	500	209	175	10	5,4
500	GB232-14.F1445.600	451	84	396	80	83	600	209	175	10	5,4
600	GB1250N.F1660.500	555	100	346	105	110	500	258	220	13,75	22
700	GB1950N.F1672.600	605	126	387	130	142	600	322	285	13	32
750	GB1250N.F1660.700	630	100	346	105	110	500	258	220	13,75	22
800	GB1950N/HR.F2580.600	658	126	387	130	142	600	322	285	21	32
900	GB6800NSP4.F3098.400	710	160	500	263	170	400	482	370	79,25	70

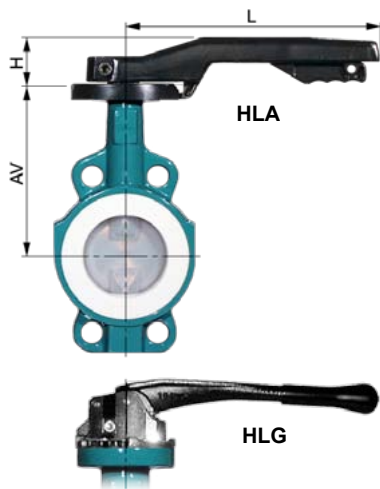
Material: GB 232 Aluminium, Polyurethane coated  
GB1250-GB6800 GG 25 Polyurethane coated

\* [kg] weight without butterfly valve

\*\* n = Handwheel turns ON/OFF

## Dimensions

### Handlelever



HLA : Aluminum Epoxy coated

DN		AV	H	L	[kg]*
32/40	<b>HLA.F0711.180</b>	125	41	180	0,4
50	<b>HLA.F0711.240</b>	134	43	243	0,5
65	<b>HLA.F0711.240</b>	144	43	243	0,5
80	<b>HLA.F0711.240</b>	159	43	243	0,5
100	<b>HLA.F0714.340</b>	174	43	340	0,6
125	<b>HLA.F0714.340</b>	194	43	340	0,6
150	<b>HLA.F0717.340</b>	209	51	340	0,6
200	<b>HLA.F0717.340</b>	239	51	340	0,6
250	<b>HLA.F1022.500</b>	274	40	500	2,2
300	<b>HLA.F1022.500</b>	309	40	500	2,2

HLG: GGG40, Epoxy coated

DN		AV	H	L	[kg]*
32/40	<b>HLG.F0711.260-E.C</b>	125	66	260	0,9
50	<b>HLG.F0711.260-E.C</b>	134	66	260	0,9
65	<b>HLG.F0711.260-E.C</b>	144	66	260	0,9
80	<b>HLG.F0711.260-E.C</b>	159	66	260	0,9
100	<b>HLG.F0714.350-E.C</b>	174	66	350	1,6
125	<b>HLG.F0714.350-E.C</b>	194	66	350	1,6
150	<b>HLG.F0717.350-E.C</b>	209	66	350	1,6
200	<b>HLG.F0717.350-E.C</b>	239	66	350	1,6

\* [kg] weight without butterfly valve

## 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.

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