

## 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 Sizes 1" to 40"  
D3 Lug Sizes 1" to 24"  
D4 U-section Sizes 6" to 64"
- Face to face dimension according to ISO 5752/20, EN 558-1/20
- Top flange according to EN ISO 5211
- Max. working pressure 232 psi
- Rating ANSI cl. 150, PN6, PN10, PN16
- Temperature range -4°F to 284°F according to material
- Tightness test according to EN 12266-1/P12 leakage rate A, test fluid water



CE

The butterfly valves DESPONIA meet the safety requirements of the pressure Equipments Directive 97/23/EC (PED) appendix 1 for fluids of the groups 1 and 2.



SIL

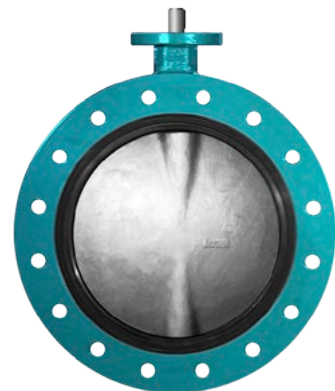
Butterfly valves DESPONIA are suitable to be operated in safety related systems according to IEC 61508 / 61511, Safety Integrity Level SIL 2



D1  
Wafer



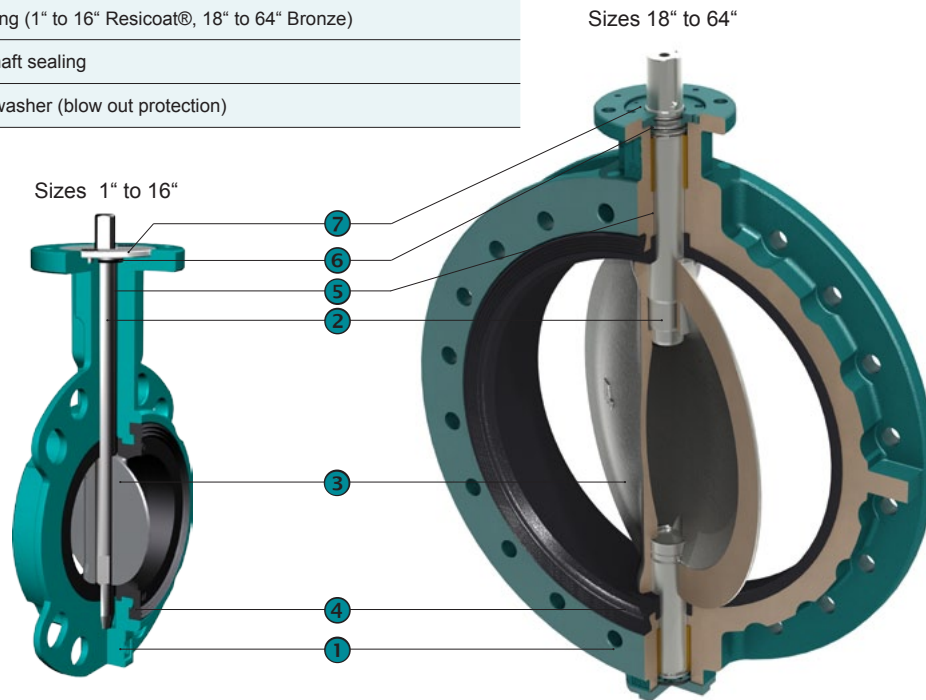
D3  
Lug



D4  
U-section

## 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 (1" to 16" Resicoat®, 18" to 64" Bronze)
6	External shaft sealing
7	Retaining washer (blow out protection)



## Kv values m³/h

opening angle of the valve

Sizes	20°	30°	40°	50°	60°	70°	80°	90°
(1) 1 1/4		1,5	5	10	15	26	34	40
1 1/2		2,7	8,5	16	25	37	46	50
2	2	7	15	28	45	68	88	100
2 1/2	3	11	24	48	85	138	180	210
3	8	22	50	83	134	230	312	360
4	15	35	70	130	225	410	585	650
5	28	70	135	230	360	600	920	1050
6	33	95	205	320	580	980	1410	1620
8	60	175	355	580	910	1600	2450	2800
10	132	340	590	940	1480	2550	3950	4480
12	200	505	890	1450	2100	3800	5960	6800
14	280	680	1200	2050	3150	5050	8100	9200
16	365	860	1500	2490	3980	6600	10200	11700
18	465	1080	1900	3150	5050	8700	13300	15200
20	580	1200	2300	3740	6150	11000	16800	18900
24	820	1600	2780	5200	8940	14500	23500	26800
28	890	2050	3450	6050	11050	18800	31500	37100
32	1300	2550	4950	8750	14200	23500	39500	48500
36	1650	3300	6400	11800	19400	31500	52500	61300
40	2150	4250	8200	15100	23500	39400	65500	80500
48	4000	7500	12500	19800	34000	55400	98300	119200
56	5200	10120	18200	32500	51500	89500	142000	162000
64	7100	14210	26050	45000	71200	118500	196200	228500

## Type code

D1 0100 . 3 3 - 2AR . 4A . 2AR . E							
①	②	③	④	⑤	⑥	⑦	⑧
①	Type	D1	Wafer				Sizes 1"-40"
		D3	Lug body				Sizes 1"-24"
		D4	U-section body				Sizes 6"-64"
②	Nominal diameter	0025-1600	mm				
③	Working pressure	0	2,5 bar (36 psi)				
		1	6 bar (87 psi)				
		*	10/16bar (145/232 psi), see table below				
④	Rating	**	ANSI 150, PN6/10/16 see table below. Other ratings on request				
⑤	Body	1AE	Cast iron EN-GJL-250, Polyurethan coated 70µm	< 284°F			Sizes 18"-56"
		2AR	Ductile iron EN-GJS-400-15, Epoxy (Resicoat®) coated 200µm	< 230°F *			Sizes 1"-16"
		2AE	Ductile iron EN-GJS-400-15, Polyurethan coated 70µm	< 284°F			Sizes 18"-64"
		2AN	Ductile iron EN-GJS-400-15, Polyurethan coated 250µm	< 284°F			
⑥	Shaft	4A	Stainless steel 1.4021, AISI420				
		4L	Stainless steel 1.4542 / 17-4PH				
⑦	Disc	2AR	Ductile iron EN-GJS-400-15, Rilsan coated 250µ	< 194°F			Sizes 1"-28"
		2AE	Ductile iron EN-GJS-400-15, Polyurethan coated 70µ	< 248°F			Sizes 32"-64"
		2AC	Ductile iron EN-GJS-400-15, Chrome coated				Sizes 1"-24"
		2AH	Ductile iron EN-GJS-400-15, Halar coated min.600µ	< 158°F			
		3OD	Carbon steel 1.0552 / GS52.3, Ultralene Coating™ coated < 80°C, pmax. 10 ≤ DN400 / 6 bar > DN400				Sizes 3"-12", 32"-56"
		4C0	Stainless steel 1.4408 ≈ CF8M				
		4CP	Stainless steel 1.4408 ≈ CF8M polished				Sizes 1"-24"
		4I0	Super Duplex steel 1.4573 ≈ AISI 316 Ti				
		4S0	Super austenitic steel 1.4588, Allow 926				
		5C0	Alubronze ASTM B148 C95800 / G-Cu Al 10 Ni				
⑧	Liner	E	EPDM	< 203°F	pmax Sizes 1"-48" = 232 psi, Sizes 56"-64" = 145 psi		
		EE	EPDM FDA, DVGW, ACS, WRAS, EN681-1	< 176°F	pmax Sizes 1"-48" = 232 psi, Sizes 56"-64" = 145 psi		
		EC	EPDM High Temperature	< 266°F	pmax Sizes 1"-48" = 232 psi, Sizes 56"-64" = 145 psi		
		N	Nitril (NBR)	< 212°F	pmax Sizes 1"-12" = 232 psi, Sizes 14"-64" = 145 psi		
		H	CSM (Hypalon)	< 257°F	pmax Sizes 1"-12" = 232 psi, Sizes 14"-64" = 145 psi		
		V	FPM (Viton)	< 392°F	pmax Sizes 1"-12" = 232 psi, Sizes 14"-64" = 145 psi		
			Other materials and white liners on request				




\* For higher temperature than 230°F, please use Desponia *plus!*

Other executions on request !

### \* Working pressure (Code)

Body material	DN →	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200	1400	1600		
EN-GJL-250 (1A)	6 bar																									1	
	10 bar																										
EN-GJS-400-15 (2A)	10 bar																										
	16 bar																										

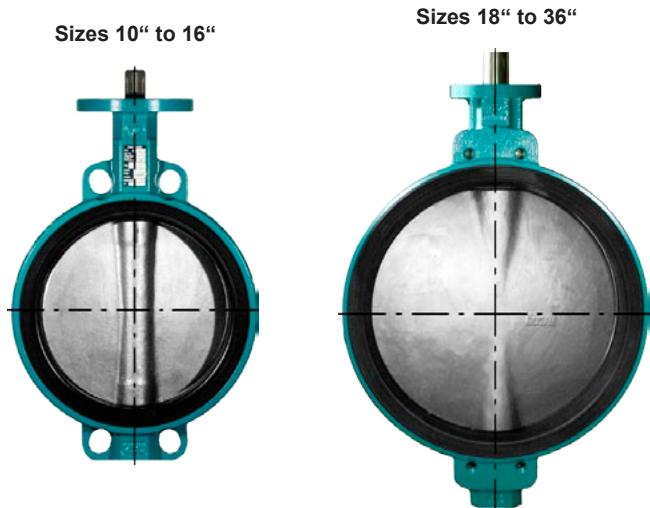
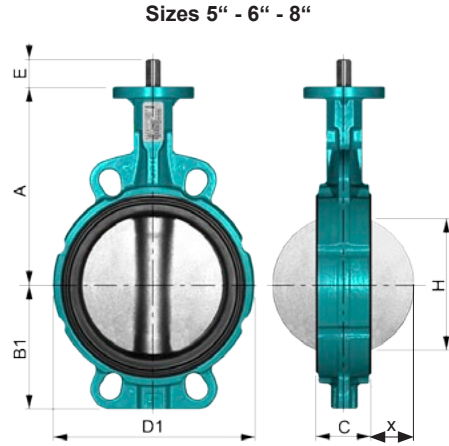
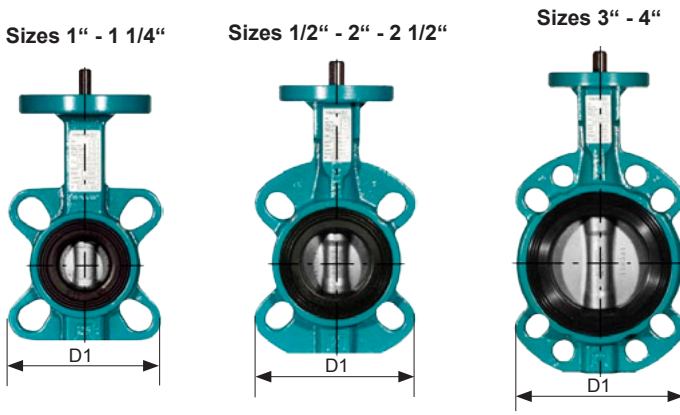
### \*\*Rating (Code)

DESPONIA	Sizes →	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	48	56	64		
 D1	PN6																										
	PN10																										
	PN16																										
	ANSI150																										
 D3	PN10																										
	PN16																										
	ANSI150																										
 D4	PN10																										
	PN16																										
	ANSI150																										

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

Dimensions

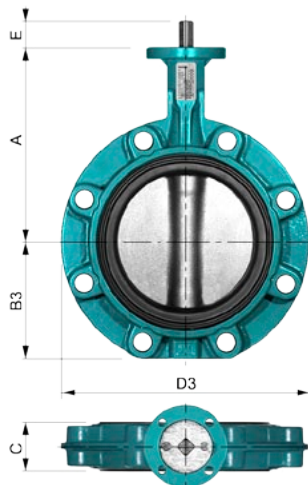
D1 Wafer, Sizes 1" to 40"



Inch	A	B1	C	D1	E	H*	x*	[lb]
(1) 1 1/4	4,33	2,01	1,18	3,98	0,75	0,75	0,12	3,09
1 1/2	5,12	2,13	1,30	4,25	0,75	1,10	0,24	4,41
2	5,31	2,83	1,69	4,72	0,75	1,26	0,24	6,61
2 1/2	5,91	3,23	1,81	5,43	0,75	1,97	0,43	7,94
3	6,30	3,62	1,81	5,59	0,75	2,72	0,75	8,82
4	7,09	4,02	2,05	6,38	0,75	3,46	1,02	12,13
5	7,68	4,72	2,20	7,44	0,75	4,53	1,42	16,53
6	8,27	5,24	2,20	8,43	0,75	5,55	1,89	18,96
8	9,45	6,54	2,36	10,63	0,98	7,64	2,83	28,00
10	10,98	7,91	2,68	12,76	1,26	9,45	3,58	48,94
12	12,40	9,21	3,07	14,88	1,26	11,42	4,41	67,90
14	12,99	10,55	3,15	16,73	1,57	12,99	5,12	91,49
16	14,37	11,77	4,02	18,70	1,57	14,84	5,71	126,1
18	15,63	13,98	4,45	21,18	2,56	16,73	6,46	209,4
20	17,20	15,47	4,96	23,43	2,56	18,66	7,17	275,6
24	20,55	18,27	6,02	27,36	3,15	22,40	8,58	396,8
28	22,24	19,80	6,61	31,50	3,15	25,98	10,12	617,3
32	24,69	22,72	7,48	35,75	3,15	30,47	11,97	853,2
36	27,40	25,31	8,03	39,96	3,15	33,66	13,27	1106,7
40	29,33	27,28	8,58	44,61	3,94	37,80	15,08	1565,3

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

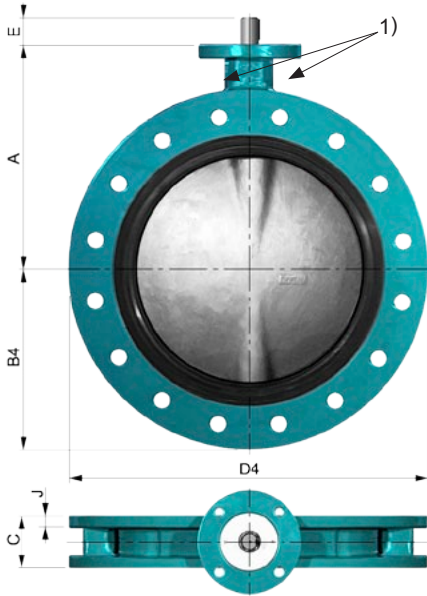
D3 Lug body, Sizes 1" to 24"



Inch	A	B3	C	D3	E	H*	x*	[lb]
1	4,33	2,01	1,18	3,98	0,75	0,75	0,12	3,09
1 1/4	4,33	2,01	1,18	3,98	0,75	0,75	0,12	3,09
1 1/2	5,12	2,13	1,3	4,25	0,75	1,1	0,24	4,41
2	5,31	2,83	1,69	4,57	0,75	1,26	0,24	7,05
2 1/2	5,91	3,23	1,81	5,16	0,75	1,97	0,43	8,82
3	6,3	3,46	1,81	7,40	0,75	2,72	0,75	13,45
4	7,09	4,02	2,05	8,62	0,75	3,46	1,02	18,74
5	7,68	4,57	2,2	9,76	0,75	4,53	1,42	22,05
6	8,27	5,04	2,2	10,79	0,75	5,55	1,89	24,25
8	9,45	6,34	2,36	13,07	0,98	7,64	2,83	43,21
10	10,98	7,83	2,68	15,83	1,26	9,45	3,58	63,27
12	12,4	9,21	3,07	18,58	1,26	11,42	4,41	90,83
14	12,99	10,16	3,15	20,47	1,57	12,99	5,12	121,3
16	14,37	11,42	4,02	22,99	1,57	14,84	5,71	165,3
18	15,65	13,98	4,45	25,79	2,56	16,73	6,46	330,7
20	17,2	15,47	4,96	28,03	1,56	18,66	7,17	374,8
24	20,55	18,27	6,02	32,64	3,15	22,4	8,58	529,1

## Dimensions

### D4 U-section body, Sizes 6"-64"



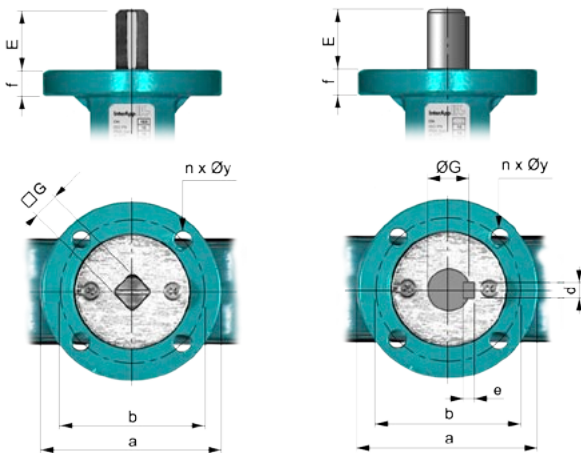
Inch	A	B4	C	D4	H*	x*	J	E	[lb]
6	8,27	5,63	2,20	11,22	5,55	1,89	0,39	0,75	33,07
8	9,45	6,69	2,36	13,39	7,64	2,83	0,49	0,98	42,99
10	10,98	7,87	2,68	15,98	9,45	3,58	0,59	1,26	67,24
12	12,4	9,41	3,07	18,98	11,42	4,41	0,59	1,26	97,00
14	12,99	10,43	3,15	20,98	12,99	5,12	0,71	1,57	130,1
16	14,37	11,65	4,02	23,50	14,84	5,71	0,79	1,57	180,8
18	15,63	13,98	4,45	25,20	16,73	6,46	0,94	2,56	260,1
20	17,20	15,47	4,96	28,15	18,66	7,17	1,02	2,56	385,8
24	20,55	18,27	6,02	33,07	22,40	8,58	1,12	3,15	573,2
28	22,24	19,8	6,61	36,50	25,98	10,12	1,24	3,15	760,6
30	23,23	21,3	6,69	38,78	0,00	0,00	1,34	3,15	959,0
32	24,69	22,72	7,48	41,73	30,47	11,97	1,44	3,15	1124,4
36	27,40	25,31	8,03	46,06	33,66	13,27	1,50	3,94	1455,0
40	29,33	27,28	8,58	49,41	37,80	15,08	1,73	3,94	1741,6
44	32,28	29,06	8,58	54,92	41,50	16,89	1,73	3,94	1873,9
48	34,69	31,73	10,00	58,46	45,24	18,19	1,85	4,72	2601,5
56	38,98	35,75	11,02	68,74	52,60	21,38	1,57	4,72	3747,9
64	43,98	41,26	12,52	75,75	61,14	24,96	1,97	6,10	5732,0

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

### Top flange according to ISO 5211

#### Sizes 1"-16"

#### Sizes 18"-64"



Inch	E	G	d	e	f	ISO	a	b	n x Øy
1 - 1 1/2	0,75	□ 0,31	-	-	0,47	F07	3,54	2,76	4 x 0,35
2 - 4	0,75	□ 0,43	-	-	0,47	F07	3,54	2,76	4 x 0,35
5 - 6	0,75	□ 0,55	-	-	0,47	F07	3,54	2,76	4 x 0,35
8	0,98	□ 0,67	-	-	0,47	F07	3,54	2,76	4 x 0,35
10 - 12	1,26	□ 0,87	-	-	0,71	F10/F12	6,1	4,08/4,92	4 x 0,43/4 x 0,51
14	1,57	□ 0,87	-	-	0,71	F12	6,1	4,92	4 x 0,51
16	1,57	□ 1,06	-	-	0,71	F12	6,1	4,92	4 x 0,51
18 - 20	2,56	Ø 1,77	0,55	0,35	0,98	F14	6,89	5,51	4 x 0,71
24	3,15	Ø 2,76	0,79	0,47	0,98	F16	8,66	6,50	4 x 0,87
28	3,15	Ø 2,76	0,79	0,47	0,98	F25	11,81	10,00	8 x 0,71
30	3,15	Ø 2,76	0,79	0,47	1,18	F25	11,81	10,00	8 x 0,71
32	3,15	Ø 2,76	0,79	0,47	1,18	F25	11,81	10,00	8 x 0,71
36	3,94	Ø 3,15	0,87	0,55	1,18	F30	13,78	11,73	8 x 0,87
40	3,94	Ø 3,15	0,87	0,55	1,18	F30	13,78	11,73	8 x 0,87
44	3,94	Ø 3,15	0,87	0,55	1,18	F30	13,78	11,73	8 x 0,87
48	4,72	Ø 3,94	1,1	0,63	1,18	F30	13,78	11,73	8 x 0,87
56	4,72	Ø 4,72	1,26	0,71	1,38	F30	13,78	11,73	8 x 0,87
64	6,1	Ø 5,12	1,26	0,71	1,57	F35	16,46	14,02	8 x 1,32

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

- Body type	D3 possible without counter flange D4 only with counter flange
- Body material	2A (ductile iron EN-GJS-400-15)
- Medium	only for liquids, 50 to 86°F
- Max. working pressure (with 232 psi disc)	Sizes 1"-8" 145 psi
	Sizes 10"-24" 87 psi
	Sizes 28"-64" 36 psi

- no water hammer !!!

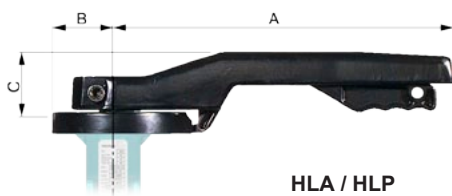
please consult our document "Flanges"



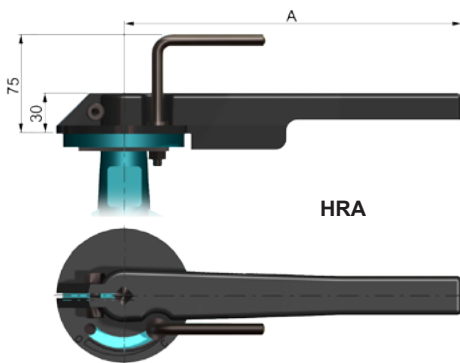


## Dimensions

### Handlever (Sizes 1"-12")



HLA / HLP



HRA

Aluminium, Epoxy coated

Inch		A	B	C	[lb]
1 - 1 1/2	HLA.F0708.180	7,09	1,79	1,61	0,88
2 - 2 1/2	HLA.F0711.180	7,09	1,79	1,61	0,88
3 - 4	HLA.F0711.240	9,57	1,79	1,69	1,10
5 - 6	HLA.F0714.340	13,39	1,79	2,01	1,32
8	HLA.F0717.340	13,39	1,79	2,01	1,32
10 - 12	HLA.F1222.500	19,69	3,05	1,57	4,85

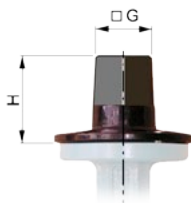
Polyamide PA 6, 30% glass fibers reinforced

Inch		A	B	C	[lb]
1 - 1 1/2	HLP.F0708.240	9,57	1,79	1,61	0,66
2 - 2 1/2	HLP.F0711.240	9,57	1,79	1,61	0,66
3 - 4	HLP.F0711.240	9,57	1,79	1,69	0,66
5 - 6	HLP.F0714.340	13,39	1,79	2,01	1,10
8	HLP.F0717.340	13,39	1,79	2,01	1,10

Aluminium, Epoxy coated

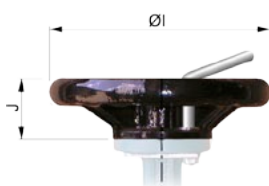
Inch		A	[lb]
1 - 1 1/2	HRA.F0708.180	7,09	0,02
2 - 2 1/2	HRA.F0711.180	7,09	0,02
3 - 4	HRA.F0711.250	9,84	0,02
5 - 6	HRA.F0714.340	13,39	0,02
8	HRA.F0717.340	13,39	0,02

### Plumber square (Sizes 1"-8")



Inch		G	H
1 - 1 1/2	PO.F0708.30	1,18	2,56
2 - 4	PO.F0711.30	1,18	2,56
5 - 6	PO.F0714.30	1,18	2,56
8	PO.F0717.30	1,18	2,56

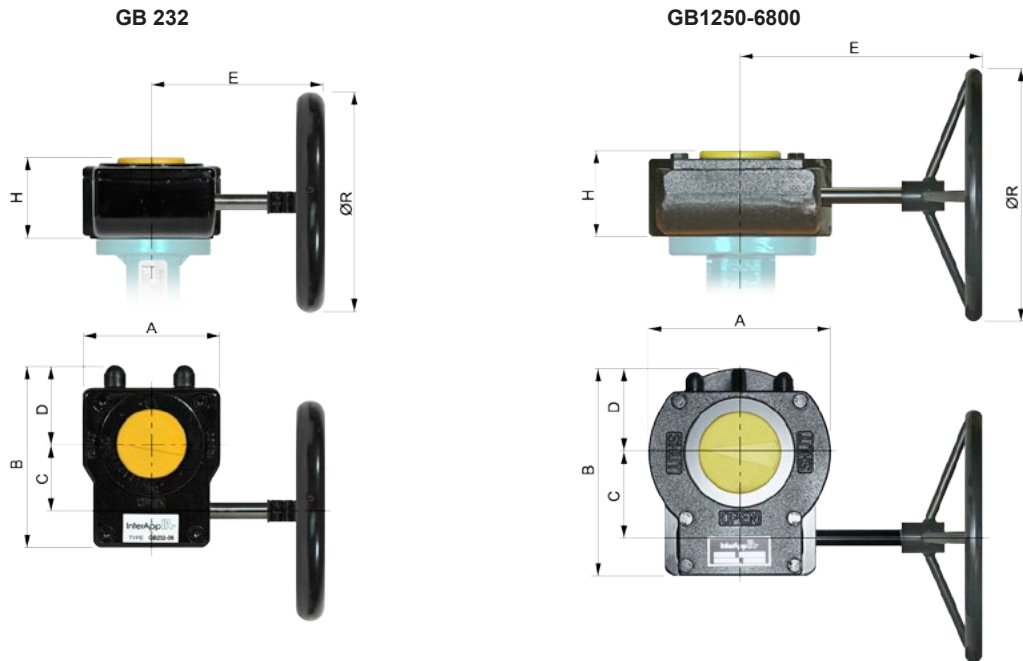
### Handwheel (Sizes 1"-6")



Inch		I	J
1 - 1 1/2	HW.F0708.200	7,87	2,05
2 - 4	HW.F0711.200	7,87	2,05
5 - 6	HW.F0714.250	9,84	2,05

## Dimensions

### Gearbox



For liquids 68°F - 176°F , p<sub>max</sub> sizes 1"-12" ... 232 psi, sizes 14"-64" ... 145 psi (normal conditions)

Inch		A	B	C	D	E	H	ØR	n*	[lb]
1 - 1 1/2	GB232-05.F05-F0711.100(R08)	3,15	4,49	1,67	1,89	4,76	2,09	3,94	10	1,76
2 - 4	GB232-05.F05-F0711.100	3,15	4,49	1,67	1,89	4,76	2,09	3,94	10	1,76
5 - 6	GB232-05.F05-F0714.100	3,15	4,49	1,67	1,89	4,76	2,09	3,94	10	1,76
8	GB232-06.F05-F0717.160	3,15	4,49	1,67	1,89	7,09	2,32	6,30	10	1,98
10 - 12	GB232-08.F07-F1022.250	3,94	5,16	1,97	2,2	8,50	2,64	9,84	9,25	3,42
14	GB232-13.F10-F1222.300	6,89	8,23	3,15	3,27	14,21	3,31	11,81	10	11,90
16	GB232-13.F10-F1227.500	6,89	8,23	3,15	3,27	15,59	3,31	19,69	10	11,90
18	GB232-14.F1445.600	6,89	8,23	3,15	3,27	15,59	3,31	23,62	10	11,90
20	GB1250N.F1445.500	8,66	10,16	4,13	4,33	13,66	3,94	19,69	13,75	48,50
24	GB1250N.F1665.700-SH100	8,66	10,16	4,13	4,33	17,60	3,94	27,56	13,75	48,50
28	GB1950N/HR.F2570.600	11,22	15,85	8,31	5,61	15,24	6,10	23,62	21	70,55
30	GB1950N/HR.F2570.700-SH100	11,22	15,85	8,31	5,61	19,17	6,10	23,62	21	70,55
32	GB1950N/HR.F2570.700-SH100	11,22	15,85	8,31	5,61	19,17	6,10	27,56	21	70,55
36	GB6800N/SP4.F3080.500	14,57	18,98	10,35	6,69	19,69	6,30	19,69	79,25	154,3
40	GB6800N/SP4.F3080.500	14,57	18,98	10,35	6,69	19,69	6,30	19,69	79,25	154,3
44	GB6800N/SP4.F3080.500	14,57	18,98	10,35	6,69	19,69	6,30	19,69	79,25	154,3
48	GB6800N/SP4.F30100.500	14,57	18,98	10,35	6,69	19,69	6,30	19,69	79,25	154,3
56	GBA250G/SP9.F30120.800	20,08	28,54	16,97	9,25	24,76	6,65	31,50	176	496,0
64	GBA250G/SP9.F35130.800	20,08	28,54	16,97	9,25	24,76	6,65	31,50	176	496,0

\* n = Handwheel turns ON/OFF



Material:

GB232 : Aluminium, Polyurethan coated

GB880-GB6800 : Cast iron, Polyurethan coated

## 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.


**Konformitätserklärung DGRL 97/23/CE**  
*Declaration of Conformity PED 97/23/CE*


**Hersteller**  
*Manufacturer* **InterApp-Valcom SA**  
 Calderon de la Barca 12-14  
 28860 Paracuellos de Jarama  
 España

Wir erklären, dass die nachfolgend aufgeführten Armaturen die Sicherheitsanforderungen der Druckgeräterichtlinie 97/23/EG erfüllen.  
 We declare that the valves listed below comply with the requirements of the Pressure Equipment Directive 97/23/EC

**Beschreibung der Armaturen**  
*Description: Butterfly Valve* : Desponia DN 32 – 1400  
 : Desponia plus DN 32 – 600

**Einstufung der Armatur**  
*Classification of the valves* **Absperrklappen / Butterfly valves Desponia DN 32- DN 1400**  
**Absperrklappen / Butterfly valves Desponia plus DN 32-600**

Fluide Gruppe 1 / Fluids group 1		Fluide Gruppe 2 / Fluids group 2
Gase / Gases	Flüssigkeiten / Liquids	Gase / Gases
DN25/32-150 PN 2.5-20	DN300 PN20	DN200 PN20
DN200 PN2.5-16	DN350-500 PN16-20	DN250 PN16-20
DN250-350 PN2.5-10	DN800-800 PN10-20	DN300 PN16
	DN800-1200 PN 6-20	DN400-500 PN2.5-10
	DN 1400 PN 2.5-20	DN600-800 PN2.5-6
		DN800-1400 PN2.5

**Konformitätsbewertungsverfahren**  
*Conformity Assessment Procedure* **Module A1**

**Benannte Stelle für die Kontrolle**  
*Notified Body for the Inspection* **TÜV International Group TÜV Rheinland, S.L. - Nº 1027**

**Adresse**  
*Address* **Avenida de Burgos, 114 3ª Planta 28050-Madrid**

**Zertifikatsnummer**  
*Certificate number* **DEP A1 000336**


**Angewendete Normen**  
*Technical Standards used* **EN 593, EN 1561; EN 1563; etc**

Armaturen DN 25 fallen unter der DGR 97/23/EG Art. 3 3.1.1 nicht ein (in dem CE-Kennzeichen markiert sein) Valves < DN 25 comply with the PED 97/23/CE art. 3.3 and are therefore not covered by the CE-labeling

Eine auftragbezogene Konformitätserklärung wird auf Wunsch ausgestellt.  
 An order related conformity declaration will be issued on request

**für die Bevollmächtigte Vertretung**  
*Authorized Person for the Manufacturer* **Managing Director**

**Michel Heri** **Unterschrift** **Datum: 30.05.2008**  
*(Name)* *(Signature)* *(Date)*



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