



Butterfly valve

- Manually operated / Automatable
- High flow values
- Stem and body are non-wetted parts
- Low torques
- Zero leakage

Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

	Type 2052 Pneumatic rotary actuator	▶
	Type 2051 Pneumatic rotary actuator	▶
	Type 3003 Electrical Rotary Actuator - On/Off and control	▶
	Type 3004 Explosion-Proof Rotary Actuator - On/Off and control	▶
	Type 3005 Electric Rotary Actuator - On/ Off and Control	▶
	Type 1061 Position feedback unit for pneumatic rotary actuators	▶
	Type 8792 Digital electropneumatic positioner SideControl	▶

Type description

2/2-way butterfly valve in metal for shutting off and controlling media flows. Since the butterfly valve is available in various designs (wafer type, lug type) and in different materials, it meets the requirements of various applications and processes. Preferential areas of application for butterfly valves are, for example, the metal industry, power plant technology, paper industry as well as mining, shipbuilding and mechanical engineering. Further characteristics and advantages are:

- Continuous stem for self-centering disc: even wear and low torque
- PFA-coated stem in the sealed area
- Blow-out proof stem seal
- Spherically shaped disc
- Notched handle in ductile iron: lockable in 10 adjustable positions

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1. General technical data

Product properties	
Dimensions	Further information can be found in chapter “4. Dimensions” on page 3.
Material	
Seal	EPT, FKM, NBR, W-EPT (CSM, silicone on request)
Body	GG25 cast iron, GGG50 ductile iron (other materials on request)
Disc	1.4408/316 (other materials or coatings on request)
Body design	Wafer, lug
Nominal diameter	DN 40...300
Medium data	
Medium temperature	Further information can be found in chapter “5.1. Pressure temperature diagram” on page 6.
Medium pressure	Further information can be found in chapter “5.1. Pressure temperature diagram” on page 6.
Process/Port connection & communication	
Port connection	Flange according to: • EN 1092 - 1 and EN 1092 - 2 • ASME/ANSI B16.1 Class 125 • ASME/ANSI B16.5 Class 150 Further information can be found in chapter “4. Dimensions” on page 3.
Actuator-side interface	According to EN ISO 5211

2. Approvals and conformities

2.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available variants can be supplied with the below mentioned approvals or conformities.

2.2. Conformity

In accordance with the Declaration of Conformity, the product is compliant with the EU Directives.

2.3. Standards

The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

3. Materials

3.1. Bürkert resistApp



Bürkert resistApp – Chemical resistance chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

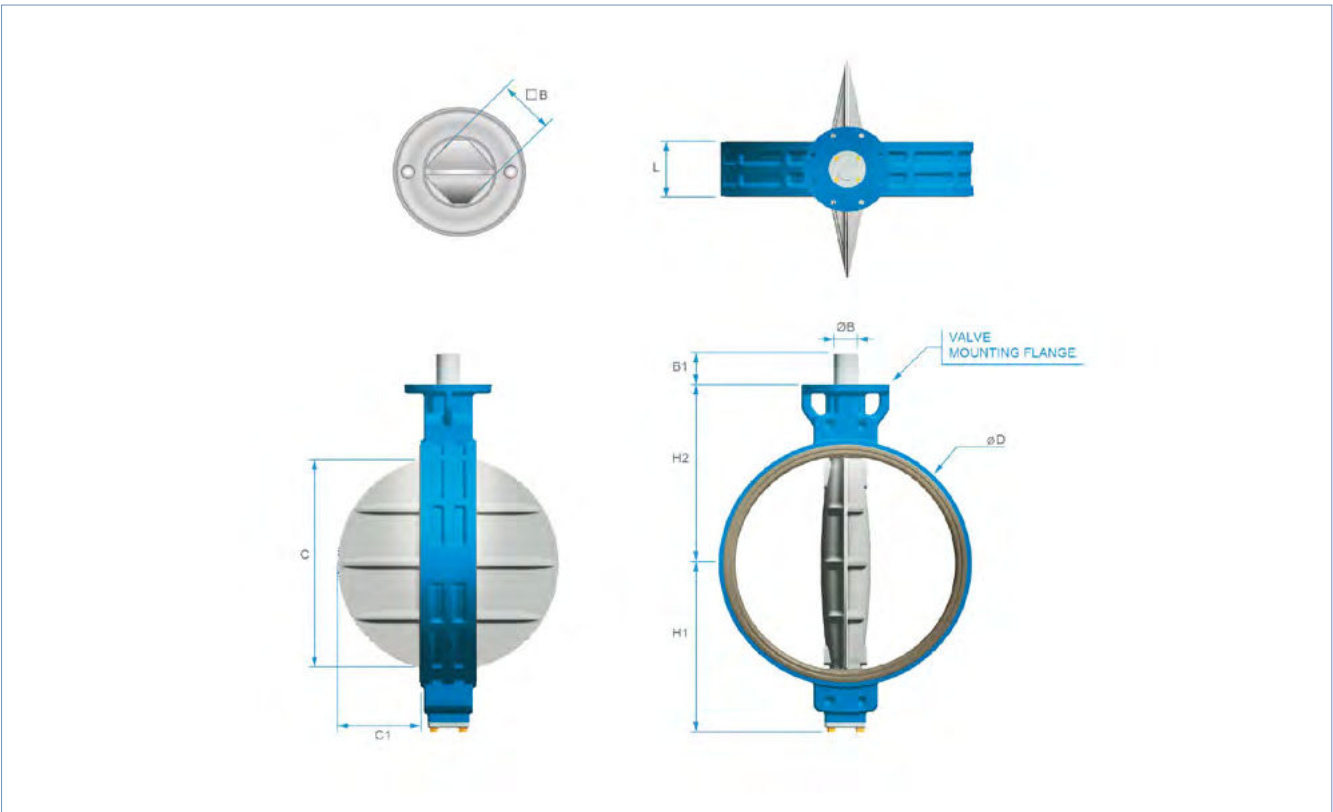
[Start chemical resistance check](#)

4. Dimensions

4.1. Wafer-type connection

Note:
Pipe limit size > C

- Connecting flanges:**
- PN 10, 16 according to EN 1092 - 1 and EN 1092 - 2
 - ASME/ANSI B16.1 Class 125 and Class 150
 - AS Table E
 - JIS 10K



Nominal diameter		Face to face L	Dimensions					Actuator-side interface					Weight
			H1	H2	Ø D	C	C1	According to ISO 5211	PCD	Ø B	B1	□ B	
[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			[mm]	[mm]	[mm]	[kg]
40	1.5	33	60	120	81	34	7	F05/07	50/70	14	19	11	2
50	2	43	65	143	96	39	8	F05/07	50/70	14	19	11	3
65	2.5	46	71	155	110	55	13	F05/07	50/70	14	19	11	3.8
80	3	46	77	162	124	69	19	F05/07	50/70	14	19	11	4
100	4	52	107	181	148	91	27	F05/07	50/70	14	19	11	5.3
125	5	56	122	197	180	115	36	F05/07	50/70	18	19	14	7.3
150	6	56	150	210	206	140	47	F05/07	50/70	18	19	14	8.2
200	8	60	165	240	259	186	68	F10 ^{1.)} /F12	102/125	22	24	17	13.5
250	10	68	201	286	320	239	90	F10 ^{1.)} /F12	102/125	25	24	19	21.2
300	12	78	234	309	370	289	111	F10 ^{1.)} /F12	102/125	28	24	22	32.5

1.) Other dimensions on request

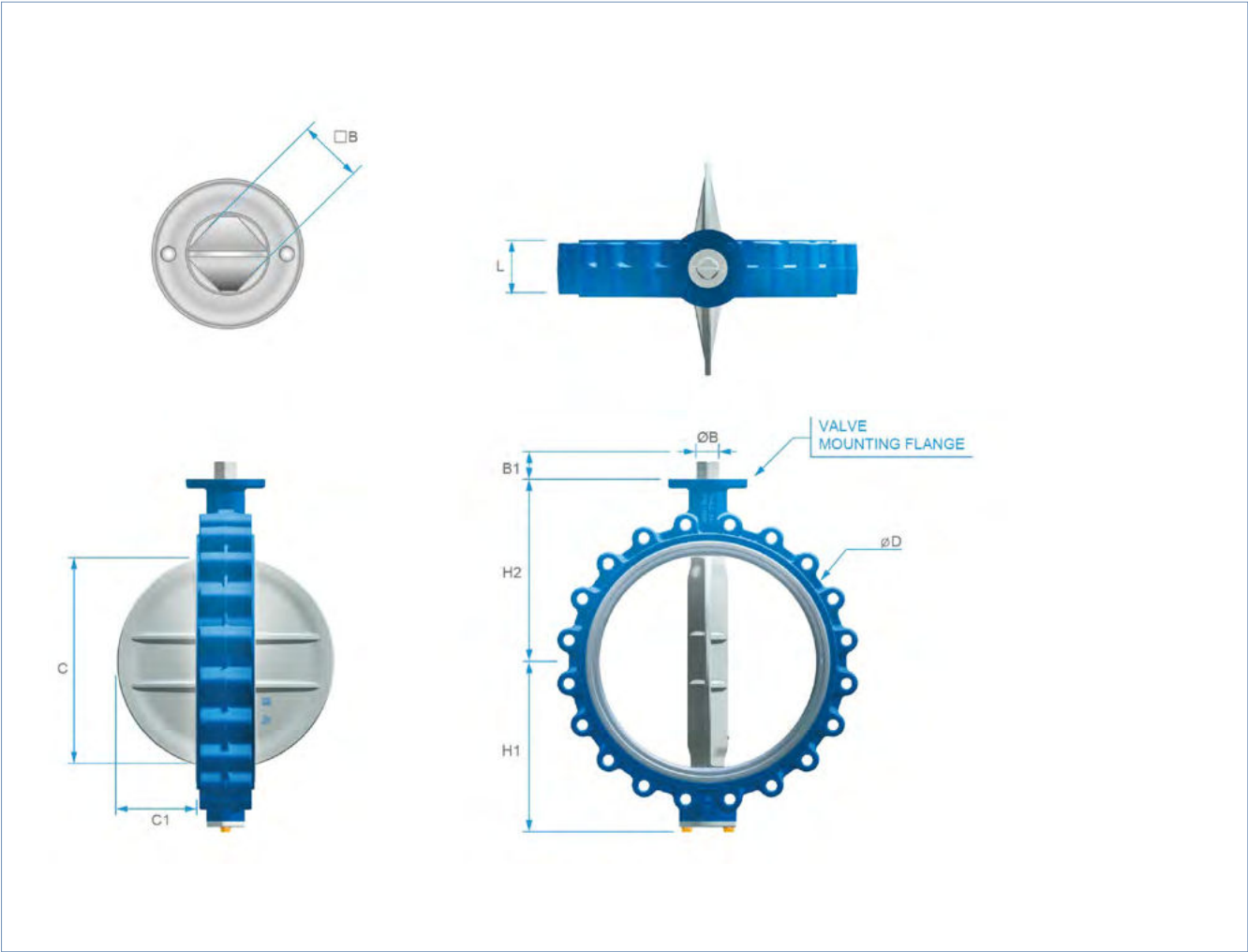
4.2. Lug-type connection

Note:

- Pipe limit size > C
- Further connecting flanges on request

Connecting flanges:

- PN 16 according to EN 1092 - 1 and EN 1092 - 2

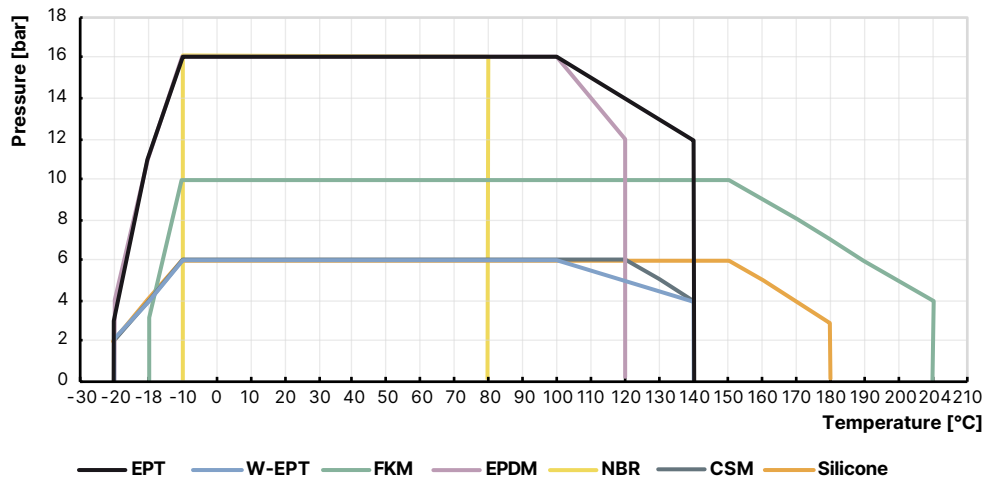


Size		Face to face	Dimensions					Actuator-side interface					Weight
[mm]	[inch]	L	H1	H2	Ø D	C	C1	According to ISO 5211	PCD	Ø B	B1	□ B	[kg]
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			[mm]	[mm]	[mm]	
40	1.5	33	60	120	81	34	7	F05/07	50/70	14	19	11	2.2
50	2	43	65	143	96	39	8	F05/07	50/70	14	19	11	3.4
65	2.5	46	71	155	110	55	13	F05/07	50/70	14	19	11	4
80	3	46	77	162	124	69	19	F05/07	50/70	14	19	11	4.5
100	4	52	89	181	148	91	27	F05/07	50/70	14	19	11	7.6
125	5	56	112	197	180	115	36	F05/07	50/70	18	19	14	9.5
150	6	56	123	210	206	140	47	F05/07	50/70	18	19	14	10.4
200	8	60	150	240	259	186	68	F10 1)/F12	102/125	22	24	17	17.5
250	10	68	179	286	320	239	90	F10 1)/F12	102/125	25	24	19	26.5
300	12	78	216	309	370	289	111	F10 1)/F12	102/125	28	24	22	43.5

1.) Other dimensions on request

5. Performance specifications

5.1. Pressure temperature diagram



5.2. Torque

Note:

- The torque values listed refer to the specified Δp .
- For actuator dimensioning we recommend considering a safety factor of at least 30 %.
- Test medium: water at room temperature

Nominal diameter		Differential pressure ^{1.)}		
		6 kg/cm ²	10 kg/cm ²	16 kg/cm ²
[mm]	[inch]	[Nm]	[Nm]	[Nm]
40	1.5	4.5	4.5	4.5
50	2	10	10	11.5
65	2.5	13	13.5	15
80	3	19.6	19.6	19.6
100	4	29.4	29.4	34.3
125	5	44.1	44.1	54
150	6	58	72	80
200	8	120	125	130
250	10	170	185	200
300	12	352	357	450

1.) Lubricating media (non corrosive)

5.3. Flow characteristic

Note:

- Butterfly valves can be used as a control valve at an opening angle between 30° and 90°. A regulation to an opening angle below 30° is not recommended due to high flow rates and cavitation, which results in early valve damage.
- The maximum flow rate of the medium through the butterfly valve must not be exceeded.
 - Liquids: 3 m/s. While use between 3...5 m/s is possible, it increases the risk of cavitation, noise, vibration and pressure surges.
 - Gas: 20 m/s. While use between 20...25 m/s is possible, it increases the risk of cavitation, noise, vibration and pressure surges.

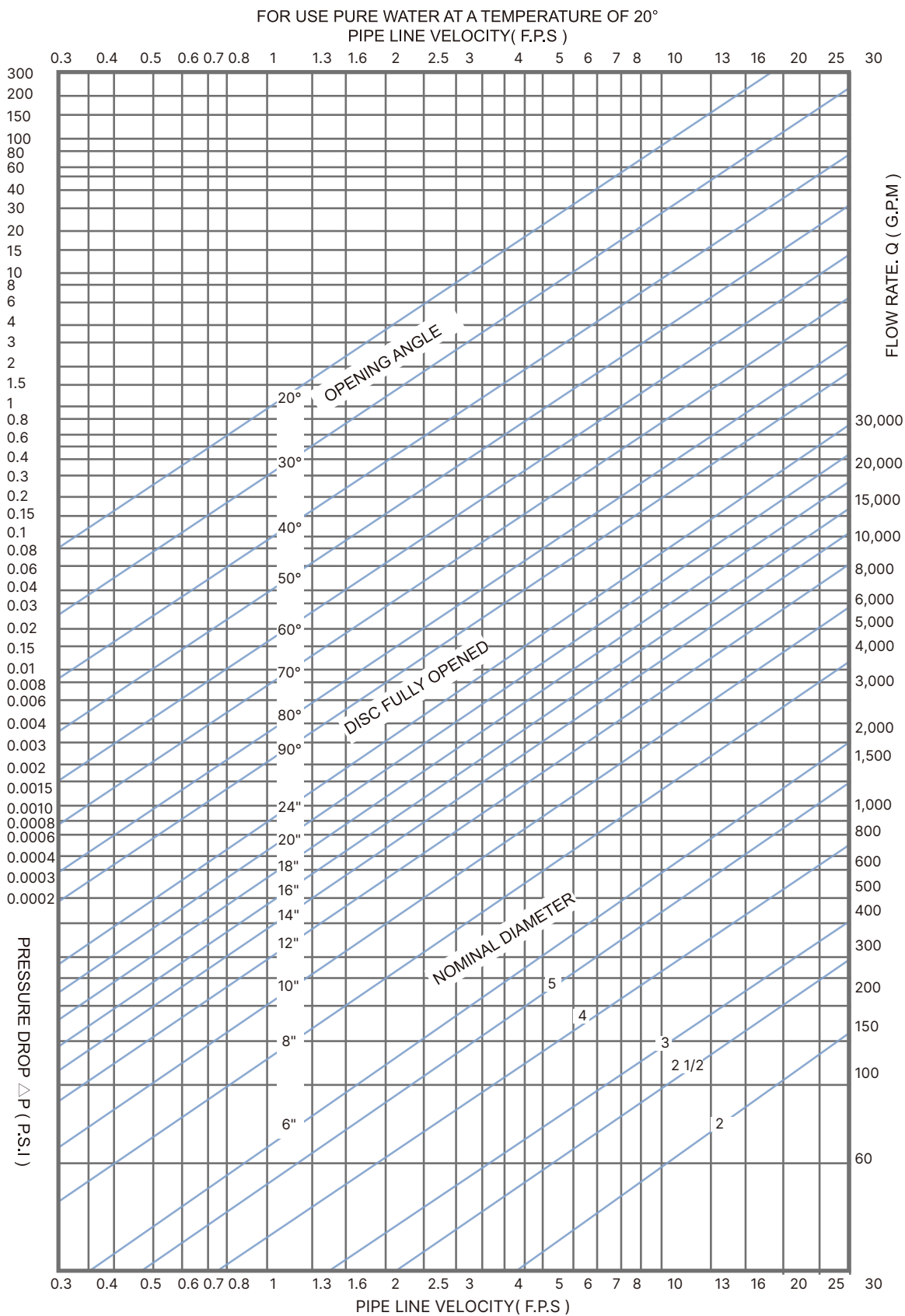
Size		Degree of the opening angle of the valve disc in % - K _v value [m³/h]									
[mm]	[inch]	10	20	30	40	50	60	70	80	90	100
40	1 ½	0.6	2.1	6.3	12.9	19.9	32.5	37.9	60.8	82.3	113.3
50	2	1	3.4	9.2	19.9	34.3	54.2	63.2	103.1	134	193.5
65	2 ½	1.8	6.8	16.5	31.6	55	85.7	100	192.8	243.6	315.9
80	3	2.2	8.8	23.5	43.3	74.9	113.7	132.6	220.7	343.1	426.1
100	4	3.4	13.2	35.2	65	107.4	199.4	232.6	372.2	615.2	724.9
125	5	5.8	21.7	56	106.5	195.8	355.5	414.7	617.7	1053.6	1246.2
150	6	9	37	85.7	157.9	294.2	489	570.5	900.3	1279	1863.8
200	8	17.1	57.8	148.8	276.1	517.1	897.8	1047.5	1615.9	2344.9	3132
250	10	25.3	91.2	221.1	406.9	754.3	1319.2	1539.1	2323.3	3305.1	4769.2
300	12	30.7	116.4	281.5	554.9	1026	1917.4	2237	2492.5	5066.4	7076.2
350	14	42.4	147	351.9	717.3	1351.7	2321.7	2708.6	4104.2	5835.8	8340.4
400	16	56	208.4	458.4	971.8	1780.3	3050.7	3559.2	5553.1	8221.3	11487.5
450	18	67.7	231	560.3	1090	2088.9	3541.6	4131.9	6528.6	9617.1	13647
500	20	93	312.2	775.1	1526.7	2784.6	4825.5	5629.8	8778.7	13306.9	18796.2
550	22	112.8	377.2	937.5	1847	3369.2	5838.9	6812	10621.5	16100.5	22743.4
600	24	125.4	445.8	1040.4	2155.6	4029.7	6822.4	7959.5	12317.9	18361.2	25281.8
650	26	147	522.5	1220.8	2530.1	4729	8006.3	9340.6	14455.6	21548.6	29671.1
700	28	172.3	594.6	1510.5	2909.1	5404.9	9617.7	11220.7	17986.5	25574.5	36915.7
750	30	183.2	631.6	1603.4	3085.9	5733.3	10202.5	11902.8	19080.5	27130.7	39162.4
800	32	231.9	878	2077.1	4090.1	7430.6	12743.4	14867.3	23739.6	32090.5	46113.3
900	36	296.8	1130.6	2661.9	5289.4	9754	16407.7	19142.2	30684.8	43540.8	61200.9
950	38	415.1	1561	3627.3	6478.6	10981.1	17865.8	20843.4	33504.2	50064.9	62309.8
1000	40	460.2	1731.5	4020.7	7178.8	12175.8	19795.9	23095.2	37123.7	55474.4	69051.1
1050	42	507.1	1909.3	4433.1	7914.2	13423.7	21825.2	25462.7	40929	61160.9	76129.2
1100	44	556.7	2095.2	4865.3	8686.5	14733	23952.8	27945	44919.7	67123.7	83552.3
1200	48	662.3	2493.1	5790.1	10337.8	17532.8	28505.9	33256.9	53458.2	79883.5	99433.9

Nominal diameter		Degree of the opening angle of the valve disc in % - CV [US al/min]									
[mm]	[inch]	10	20	30	40	50	60	70	80	90	100
40	1 ½	0.7	2.5	7.3	15	23.2	37.9	44.2	71	96	132.2
50	2	1.2	4	10.7	23.2	40	63.2	73.7	120.3	156.4	225.8
65	2 ½	2.1	7.9	19.2	36.9	64.2	100	116.7	225	284.3	368.6
80	3	2.6	10.3	27.4	50.5	87.4	132.7	154.8	257.5	400.4	497.3
100	4	4	15.4	41.1	75.8	125.3	232.7	271.5	434.4	717.9	845.9
125	5	6.8	25.3	65.3	124.3	228.5	414.9	484	720.9	1229.6	1454.3
150	6	10.5	43.2	100	184.3	343.3	570.7	665.8	1050.6	1492.6	2175
200	8	20	67.4	173.7	322.2	603.4	1047.7	1222.4	1885.8	2736.5	3655.1
250	10	29.5	106.4	258	474.9	880.3	1539.5	1796.1	2711.3	3857.1	5565.7
300	12	35.8	135.8	328.5	647.6	1197.3	2237.6	2610.6	2908.7	5912.5	8257.9
350	14	49.5	171.6	410.7	837.1	1577.4	2709.4	3160.9	4789.6	6810.4	9733.2
400	16	65.3	243.2	534.9	1134.1	2077.6	3560.2	4153.6	6480.5	9594.3	13405.9
450	18	79	269.6	653.9	1272	2437.7	4133	4821.9	7618.9	11223.1	15926
500	20	108.5	364.3	904.5	1781.7	3249.6	5631.4	6570	10244.8	15529.2	21935.2
550	22	131.6	440.2	1094.1	2155.5	3931.9	6814	7949.6	12395.3	18789.3	26541.5
600	24	146.4	520.2	1214.1	2515.6	4702.7	7961.7	9288.7	14375	21427.5	29503.9
650	26	171.6	609.7	1424.7	2952.6	5518.8	9343.3	10900.5	16869.7	25147.2	34626.2
700	28	201.1	693.9	1762.7	3394.9	6307.5	11223.9	13094.6	20990.2	29845.4	43080.6
750	30	213.8	737.1	1871.2	3601.3	6690.8	11906.3	13890.6	22267	31661.5	45702.5
800	32	270.6	1024.6	2424	4773.2	8671.5	14871.5	17350.1	27704.1	37449.6	53814.2
900	36	346.4	1319.4	3106.4	6172.7	11382.9	19147.8	22339	35809.2	50812.1	71421.5
950	38	484.4	1821.7	4233.1	7560.5	12815	20849.4	24324.3	39099.4	58425.7	72715.5
1000	40	537	2020.7	4692.2	8377.7	14209.2	23101.8	26952.1	43323.4	64738.6	80582.6
1050	42	591.8	2228.1	5173.4	9235.9	15665.5	25470	29715	47764.1	71374.8	88842.8
1100	44	649.7	2445.1	5677.8	10137.2	17193.4	27952.9	32611.8	52421.3	78333.3	97505.5
1200	48	772.9	2909.4	6757.1	12064.2	20460.8	33266.4	38810.8	62385.7	93224.1	116039.4

5.4. Pressure loss diagram

Note:

Pressure loss diagram for water at + 20 °C



6. Ordering information

6.1. Bürkert eShop



Bürkert eShop – Easy ordering and quick delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

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6.2. Bürkert product filter



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6.3. Ordering chart

Wafer, EPT

DN [mm]	Body material	Disc material	Liner material	Maximum pressure [bar]	Weight bare stem [kg]	Weight with lever [kg]	Article no.	
							Bare stem	With lever
40	GGG50	1.4408/316	EPT	16	2	2.7	773687 𐀀	773649 𐀀
50	GG25	1.4408/316	EPT	16	3	3.7	773688 𐀀	773650 𐀀
65	GG25	1.4408/316	EPT	16	4	4.7	773669 𐀀	773651 𐀀
80	GG25	1.4408/316	EPT	16	4	4.7	773670 𐀀	773652 𐀀
100	GG25	1.4408/316	EPT	16	6	6.7	773671 𐀀	773653 𐀀
125	GG25	1.4408/316	EPT	16	8	9	309094 𐀀	773654 𐀀
150	GG25	1.4408/316	EPT	16	9	10	773673 𐀀	773655 𐀀
200	GGG50	1.4408/316	EPT	16	14	16	773674 𐀀	773656 𐀀
250	GGG50	1.4408/316	EPT	16	22	24	773675 𐀀	773657 𐀀
300	GGG50	1.4408/316	EPT	16	33	35	773676 𐀀	773658 𐀀

Lug, EPT

DN	Body material	Disc material	Liner material	Maximum pressure	Weight bare stem	Weight with lever	Article no.	
				[bar]	[kg]	[kg]	Bare stem	With lever
40	GGG50	1.4408/316	EPT	16	3	3.7	773689 	773686 
50	GGG50	1.4408/316	EPT	16	4	4.7	773677 	773659 
65	GGG50	1.4408/316	EPT	16	4	4.7	773678 	773660 
80	GGG50	1.4408/316	EPT	16	5	5.7	309102 	773661 
100	GGG50	1.4408/316	EPT	16	8	8.7	773680 	773662 
125	GGG50	1.4408/316	EPT	16	10	11	773681 	773663 
150	GGG50	1.4408/316	EPT	16	11	12	773682 	773664 
200	GGG50	1.4408/316	EPT	16	18	20	773683 	773665 
250	GGG50	1.4408/316	EPT	16	27	29	773684 	773666 
300	GGG50	1.4408/316	EPT	16	44	46	773685 	773667 

Wafer, FKM

DN	Body material	Disc material	Liner material	Maximum pressure	Weight bare stem	Weight with lever	Article no.	
				[bar]	[kg]	[kg]	Bare stem	With lever
40	GGG50	1.4408/316	FKM	10	2	2.7	20005725 	20005728 
50	GG25	1.4408/316	FKM	10	3	3.7	336020 	20005729 
65	GG25	1.4408/316	FKM	10	4	4.7	325576 	20005730 
80	GG25	1.4408/316	FKM	10	4	4.7	366487 	20005731 
100	GG25	1.4408/316	FKM	10	6	6.7	322900 	382823 
125	GG25	1.4408/316	FKM	10	8	9	356154 	368992 
150	GG25	1.4408/316	FKM	10	9	10	315045 	20005732 
200	GGG50	1.4408/316	FKM	10	14	16	315046 	20005734 
250	GGG50	1.4408/316	FKM	10	22	24	20005726 	20005735 
300	GGG50	1.4408/316	FKM	10	33	35	20005727 	20005736 

Lug, FKM

DN	Body material	Disc material	Liner material	Maximum pressure	Weight bare stem	Weight with lever	Article no.	
				[bar]	[kg]	[kg]	Bare stem	With lever
40	GGG50	1.4408/316	FKM	10	3	3.7	20005737 	20005748 
50	GGG50	1.4408/316	FKM	10	4	4.7	20005739 	20005750 
65	GGG50	1.4408/316	FKM	10	4	4.7	20005740 	20005751 
80	GGG50	1.4408/316	FKM	10	5	5.7	20005741 	20005752 
100	GGG50	1.4408/316	FKM	10	8	8.7	20005742 	20005754 
125	GGG50	1.4408/316	FKM	10	10	11	20005743 	20005755 
150	GGG50	1.4408/316	FKM	10	11	12	20005744 	20005756 
200	GGG50	1.4408/316	FKM	10	18	20	20005745 	20005757 
250	GGG50	1.4408/316	FKM	10	27	29	20005746 	20005759 
300	GGG50	1.4408/316	FKM	10	44	46	20005747 	20005760 

Wafer, NBR

DN	Body material	Disc material	Liner material	Maximum pressure	Weight bare stem	Weight with lever	Article no.	
				[bar]	[kg]	[kg]	Bare stem	With lever
40	GGG50	1.4408/316	NBR	16	2	2.7	20005761 ₺	20005771 ₺
50	GG25	1.4408/316	NBR	16	3	3.7	20005762 ₺	20005772 ₺
65	GG25	1.4408/316	NBR	16	4	4.7	20005763 ₺	20005773 ₺
80	GG25	1.4408/316	NBR	16	4	4.7	20005764 ₺	20005774 ₺
100	GG25	1.4408/316	NBR	16	6	6.7	20005766 ₺	20005775 ₺
125	GG25	1.4408/316	NBR	16	8	9	20005767 ₺	20005776 ₺
150	GG25	1.4408/316	NBR	16	9	10	367409 ₺	20005777 ₺
200	GGG50	1.4408/316	NBR	16	14	16	20005769 ₺	20005778 ₺
250	GGG50	1.4408/316	NBR	16	22	24	20005770 ₺	20005779 ₺
300	GGG50	1.4408/316	NBR	16	33	35	385537 ₺	20005780 ₺

Lug, NBR

DN	Body material	Disc material	Liner material	Maximum pressure	Weight bare stem	Weight with lever	Article no.	
				[bar]	[kg]	[kg]	Bare stem	With lever
40	GGG50	1.4408/316	NBR	16	3	3.7	20005781 ₺	20005795 ₺
50	GGG50	1.4408/316	NBR	16	4	4.7	20005782 ₺	20005796 ₺
65	GGG50	1.4408/316	NBR	16	4	4.7	20005783 ₺	20005798 ₺
80	GGG50	1.4408/316	NBR	16	5	5.7	20005784 ₺	20005799 ₺
100	GGG50	1.4408/316	NBR	16	8	8.7	20005786 ₺	20005800 ₺
125	GGG50	1.4408/316	NBR	16	10	11	20005787 ₺	20005802 ₺
150	GGG50	1.4408/316	NBR	16	11	12	20005790 ₺	20005803 ₺
200	GGG50	1.4408/316	NBR	16	18	20	20005791 ₺	20005806 ₺
250	GGG50	1.4408/316	NBR	16	27	29	20005793 ₺	20005811 ₺
300	GGG50	1.4408/316	NBR	16	44	46	20005794 ₺	20005814 ₺

Wafer, white EPT

DN	Body material	Disc material	Liner material	Maximum pressure	Weight bare stem	Weight with lever	Article no.	
				[bar]	[kg]	[kg]	Bare stem	With lever
40	GGG50	1.4408/316	W-EPT	6	2	2.7	20005815 ₺	20005827 ₺
50	GG25	1.4408/316	W-EPT	6	3	3.7	20005816 ₺	20005829 ₺
65	GG25	1.4408/316	W-EPT	6	4	4.7	20005818 ₺	20005830 ₺
80	GG25	1.4408/316	W-EPT	6	4	4.7	20005819 ₺	20001197 ₺
100	GG25	1.4408/316	W-EPT	6	6	6.7	347549 ₺	20005831 ₺
125	GG25	1.4408/316	W-EPT	6	8	9	20005820 ₺	20005832 ₺
150	GG25	1.4408/316	W-EPT	6	9	10	20005823 ₺	20005833 ₺
200	GGG50	1.4408/316	W-EPT	6	14	16	20005824 ₺	20005834 ₺
250	GGG50	1.4408/316	W-EPT	6	22	24	20005825 ₺	20005835 ₺
300	GGG50	1.4408/316	W-EPT	6	33	35	20005826 ₺	20005836 ₺

Lug, white EPT

DN	Body material	Disc material	Liner material	Maximum pressure	Weight bare stem	Weight with lever	Article no.	
				[bar]	[kg]	[kg]	Bare stem	With lever
40	GGG50	1.4408/316	W-EPT	6	3	3.7	20005837 	20005849 
50	GGG50	1.4408/316	W-EPT	6	4	4.7	20005838 	20005850 
65	GGG50	1.4408/316	W-EPT	6	4	4.7	20005839 	20005852 
80	GGG50	1.4408/316	W-EPT	6	5	5.7	20005840 	20005853 
100	GGG50	1.4408/316	W-EPT	6	8	8.7	20005841 	20005854 
125	GGG50	1.4408/316	W-EPT	6	10	11	20005842 	20005855 
150	GGG50	1.4408/316	W-EPT	6	11	12	20005844 	20005856 
200	GGG50	1.4408/316	W-EPT	6	18	20	20005845 	20005858 
250	GGG50	1.4408/316	W-EPT	6	27	29	20005847 	20005860 
300	GGG50	1.4408/316	W-EPT	6	44	46	20005848 	20005861 

Hand levers

DN	Article no.
40...100	774667 
125...150	774668 
200...300	774669 

Replacement liners

DN	EPT	FKM	NBR	White EPT
	Article no.	Article no.	Article no.	Article no.
40	773949 	775152 	775162 	775172 
50	773950 	775153 	775163 	775173 
65	773951 	775154 	775164 	775174 
80	773952 	775155 	775165 	775175 
100	773953 	775156 	775166 	775176 
125	773954 	775157 	775167 	775177 
150	773955 	775158 	775168 	775178 
200	773956 	775159 	775169 	775179 
250	773957 	775160 	775170 	775180 
300	773958 	775161 	775171 	775181 