



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 or Control	▶
	Type 3005 Electrical 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

Table of contents

1. General technical data	3
2. Approvals and conformities	3
2.1. General notes	3
2.2. Conformity	3
2.3. Standards	3
3. Materials	3
3.1. Bürkert resistApp	3
4. Dimensions	4
4.1. Wafer-type connection	4
4.2. Lug-type connection	5
5. Performance specifications	6
5.1. Pressure temperature diagram	6
5.2. Torque	6
5.3. Flow characteristic	7
5.4. Pressure loss diagram	9
6. Ordering information	10
6.1. Bürkert eShop	10
6.2. Bürkert product filter	10
6.3. Ordering chart	10
Wafer, EPT	10
Lug, EPT	11
Wafer, FKM	11
Lug, FKM	11
Wafer, NBR	12
Lug, NBR	12
Wafer, white EPT	12
Lug, white EPT	13
Hand levers	13
Replacement liners	13

1. General technical data

Product properties	
Dimensions	Further information can be found in chapter “4. Dimensions” on page 4.
Material	
Seal	EPT, FKM, NBR, W-EPT (CSM, silicone on request)
Body	GG25 cast iron, GGG50 ductile cast iron (other materials on request)
Disc	1.4408/316 (other materials or coatings on request)
Body design	Wafer, lug
Nominal diameter	DN 40...300
Performance data	
Leakage rate	Zero leakage according to DIN EN 12266-1, ISO 5208
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.
Product connections and 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 4.
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

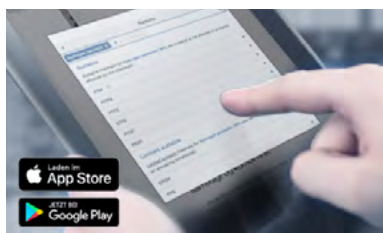
In accordance with the Declaration of Conformity, the product is compliant with the EU Directives.

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

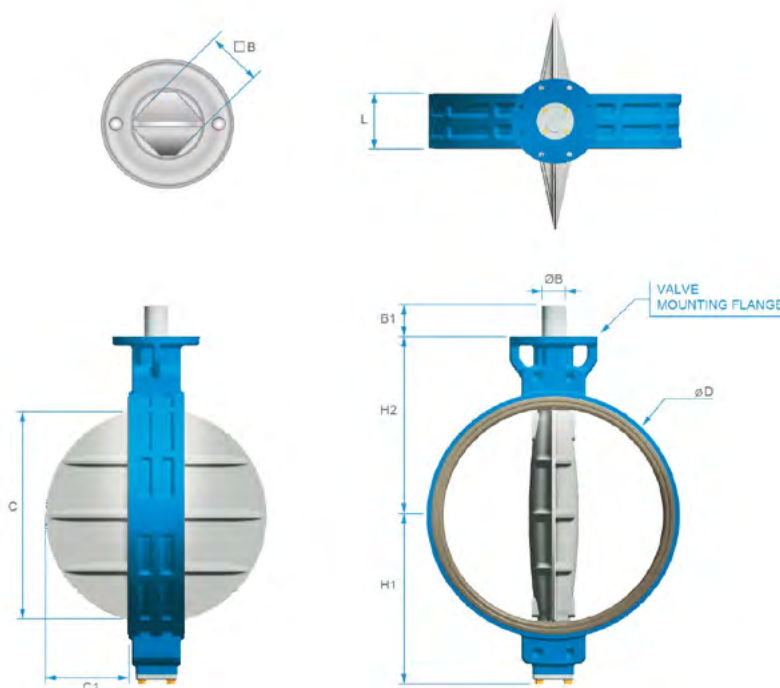
4.1. Wafer-type connection

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

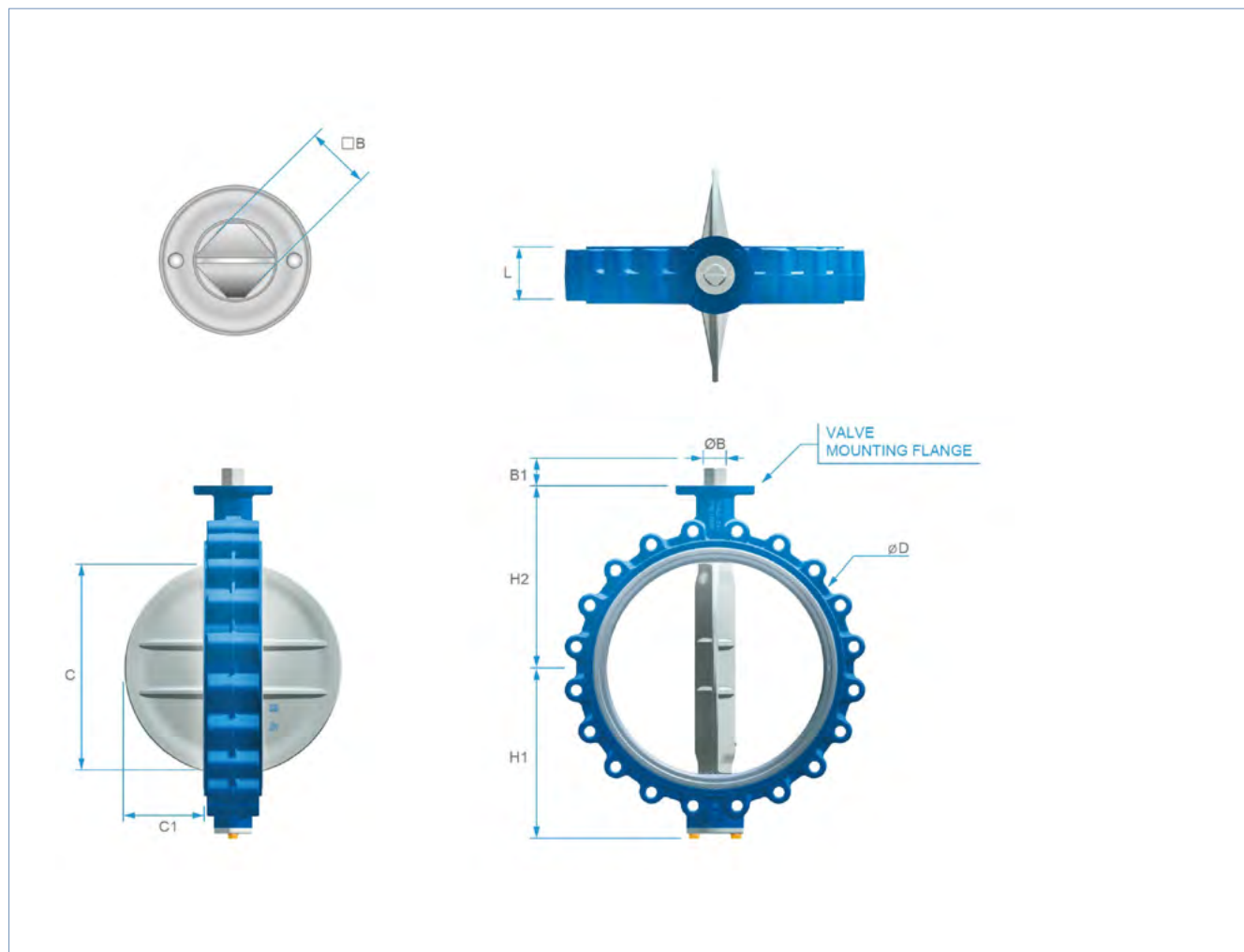
4.2. Lug-type connection

Note:

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

Connecting flanges:

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

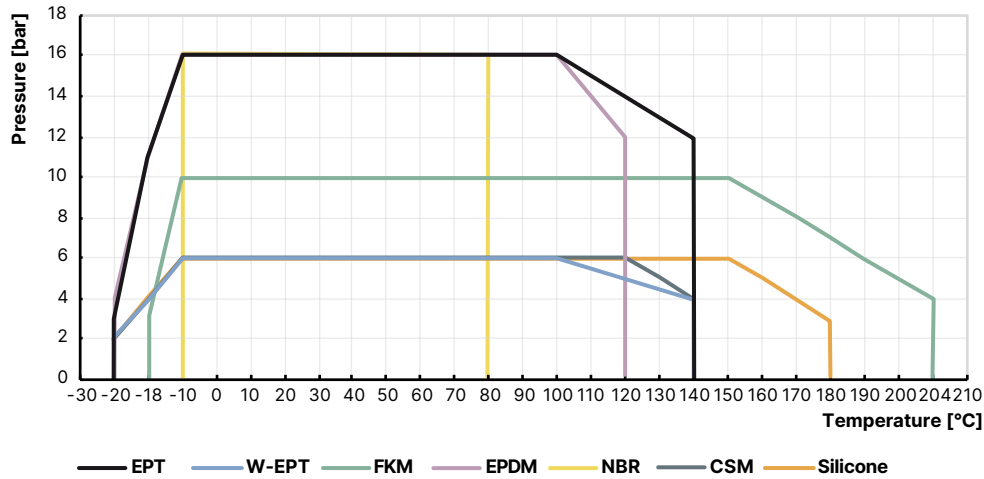


Nominal diameter		Face to face	Dimensions					Actuator-side interface					Weight
		L	H1	H2	Ø D	C	C1	According to ISO 5211	PCD	Ø B	B1	□ B	
[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			[mm]	[mm]	[mm]	[kg]
40	1.5	33	60	120	81	34	7	F05/07	50/70	14	19	11	2.2
50	2	43	65	143	96	39	8	F05/07	50/70	14	19	11	3.4
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.

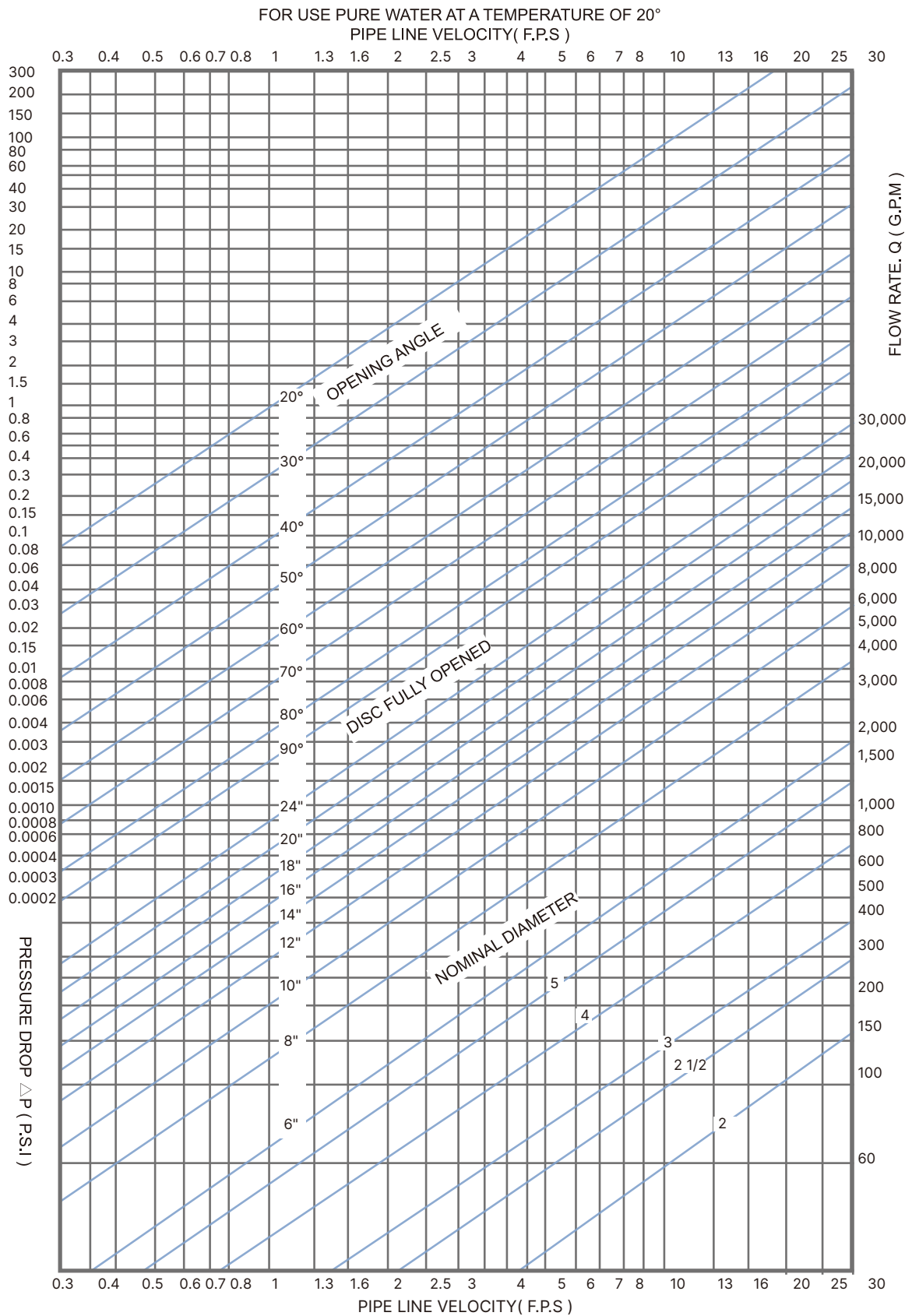
Nominal diameter		Degree of the opening angle of the valve disc in % - K _v value [m³/h]									
[mm]	[inch]	10	20	30	40	50	60	70	80	90	100
40	1 ½	0.6	2.1	6.3	12.9	19.9	32.5	37.9	60.8	82.3	113.3
50	2	1	3.4	9.2	19.9	34.3	54.2	63.2	103.1	134	193.5
65	2 ½	1.8	6.8	16.5	31.6	55	85.7	100	192.8	243.6	315.9
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 % - C _v [US gal/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



Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

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6.3. Ordering chart

Wafer, 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	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