



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.
Product connections and communication	
Port connection	Flange according to: <ul style="list-style-type: none"> • 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

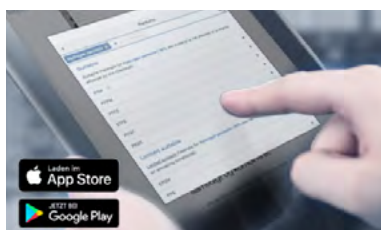
In accordance with the Declaration of Conformity, the product is compliant with the EU Directives.

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

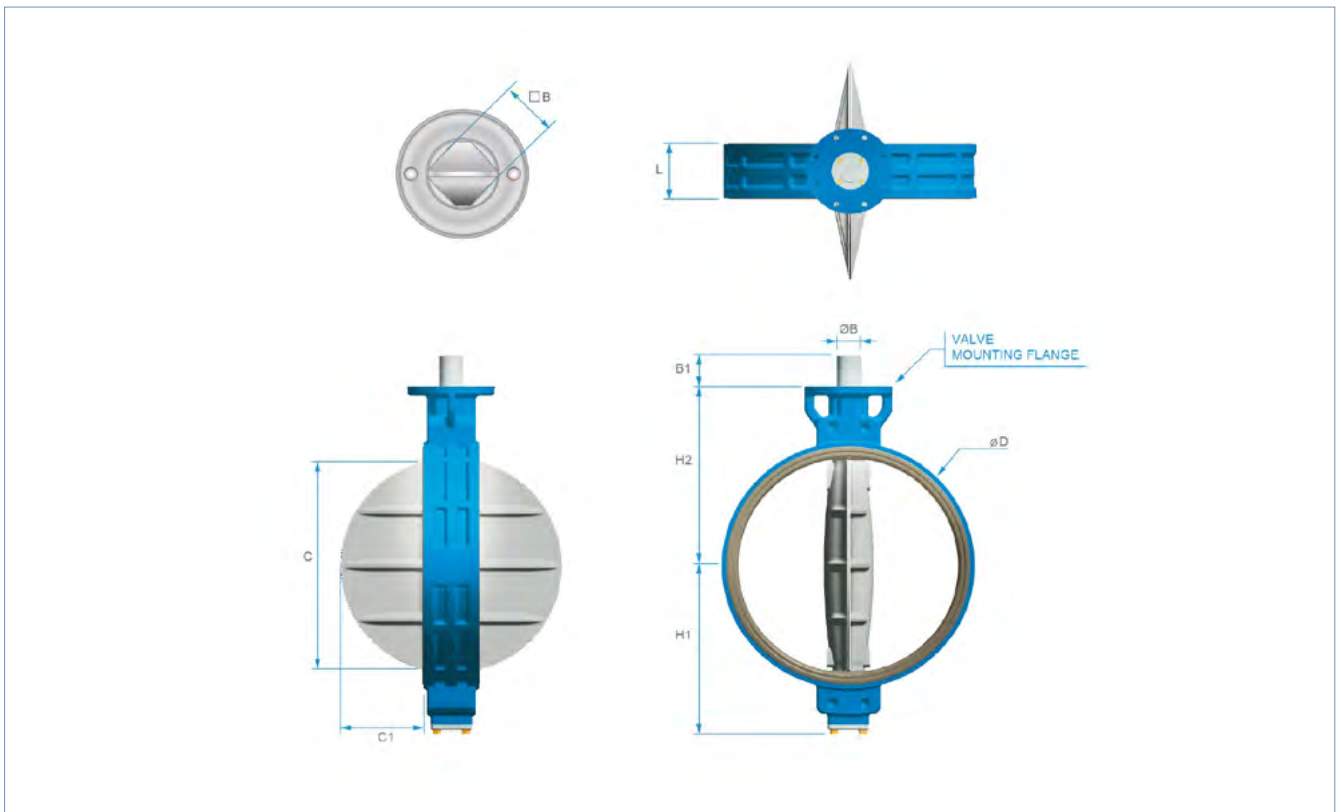
4.1. Wafer-type connection

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]	[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

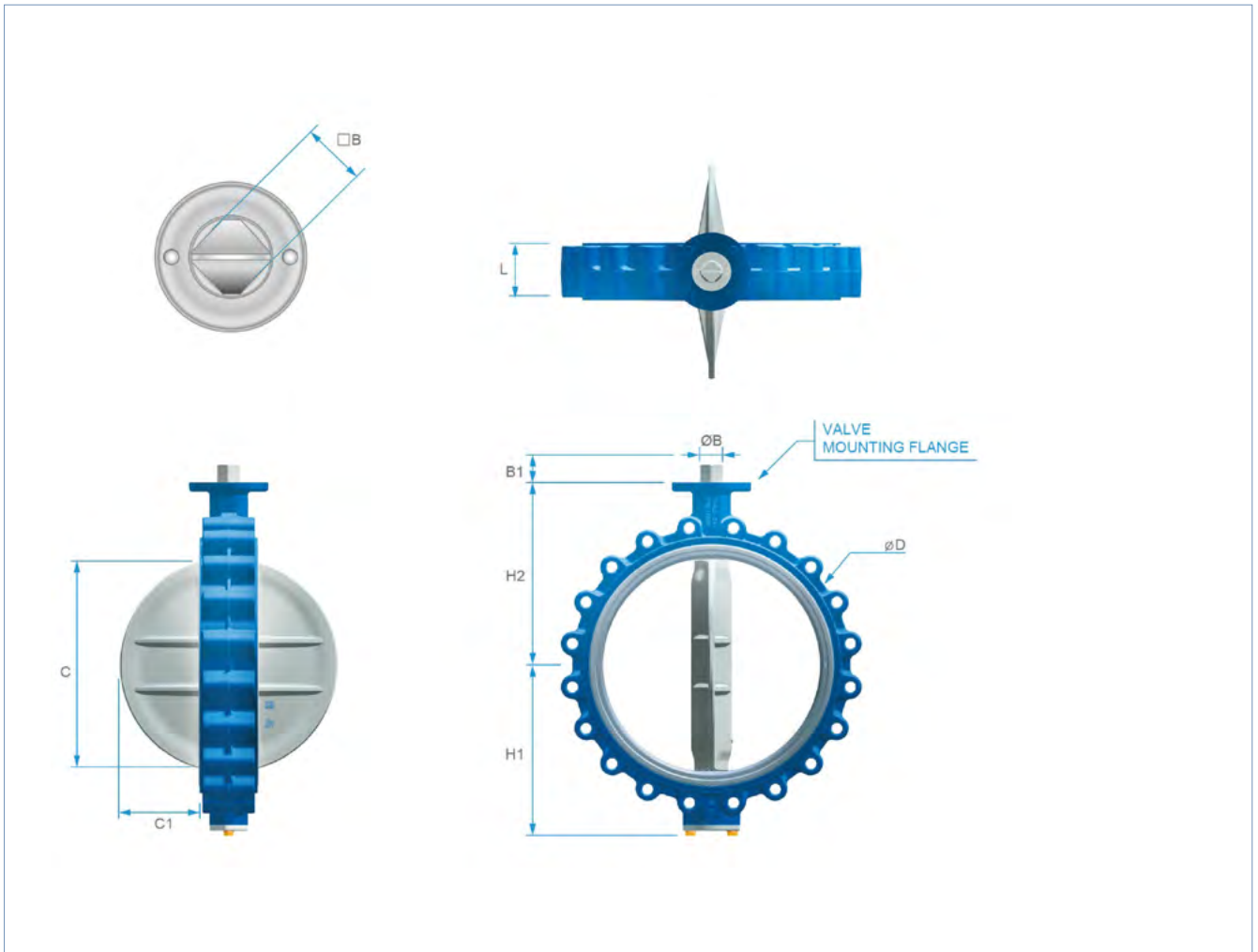
4.2. Lug-type connection

Note:

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

Connecting flanges:

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



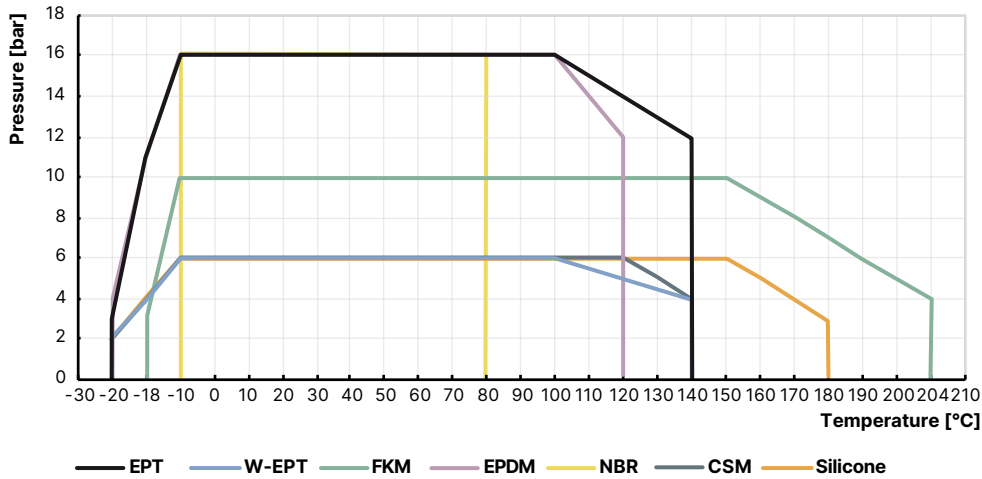
Nominal diameter		Face to face L	Dimensions					Actuator-side interface					Weight [kg]	
			H1	H2	Ø D	C	C1	According to ISO 5211	PCD	Ø B	B1	□ B		
[mm]	[inch]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]			[mm]	[mm]	[mm]	
40	1.5	33	60	120	81	34	7	F05/07	50/70	14	19	11	2.2	
50	2	43	65	143	96	39	8	F05/07	50/70	14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

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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 [m^3/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

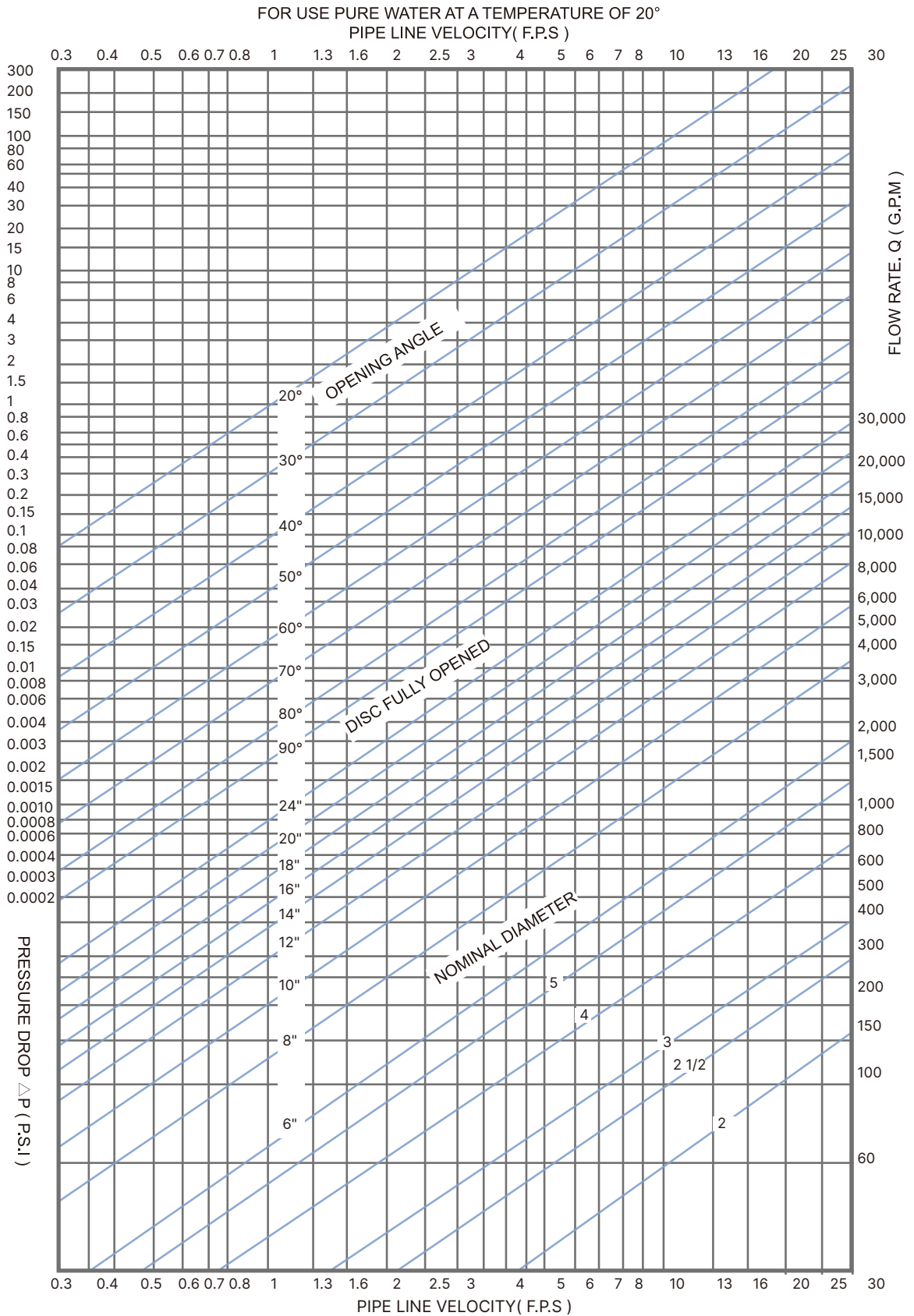
Nominal diameter		Degree of the opening angle of the valve disc in % - C _v [US gal/min]									
[mm]	[inch]	10	20	30	40	50	60	70	80	90	100
40	1 ½	0.7	2.5	7.3	15	23.2	37.9	44.2	71	96	132.2
50	2	1.2	4	10.7	23.2	40	63.2	73.7	120.3	156.4	225.8
65	2 ½	2.1	7.9	19.2	36.9	64.2	100	116.7	225	284.3	368.6
80	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

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5.4. Pressure loss diagram

Note:

Pressure loss diagram for water at + 20 °C



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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	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	773649
50	GG25	1.4408/316	EPT	16	3	3.7	773688	773650
65	GG25	1.4408/316	EPT	16	4	4.7	773669	773651
80	GG25	1.4408/316	EPT	16	4	4.7	773670	773652
100	GG25	1.4408/316	EPT	16	6	6.7	773671	773653
125	GG25	1.4408/316	EPT	16	8	9	309094	773654
150	GG25	1.4408/316	EPT	16	9	10	773673	773655
200	GGG50	1.4408/316	EPT	16	14	16	773674	773656
250	GGG50	1.4408/316	EPT	16	22	24	773675	773657
300	GGG50	1.4408/316	EPT	16	33	35	773676	773658

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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

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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

DTS 1000205027 EN Version: J Status: RL (released | freigegeben | valide) printed: 10.02.2026

Lug, white EPT

DN	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	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 