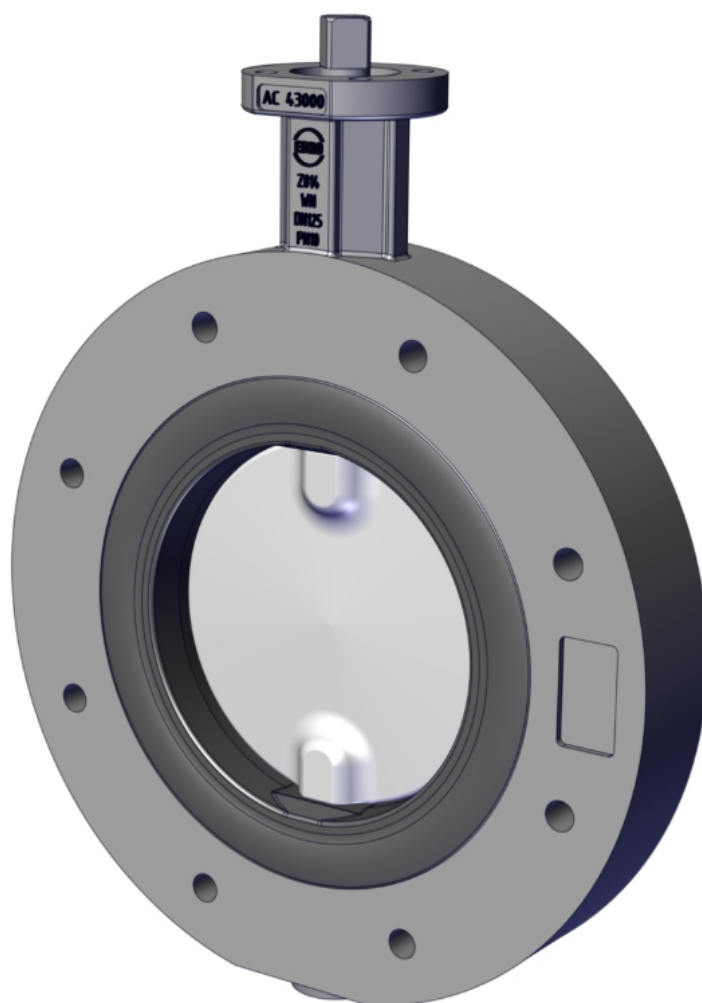


Technical data sheet

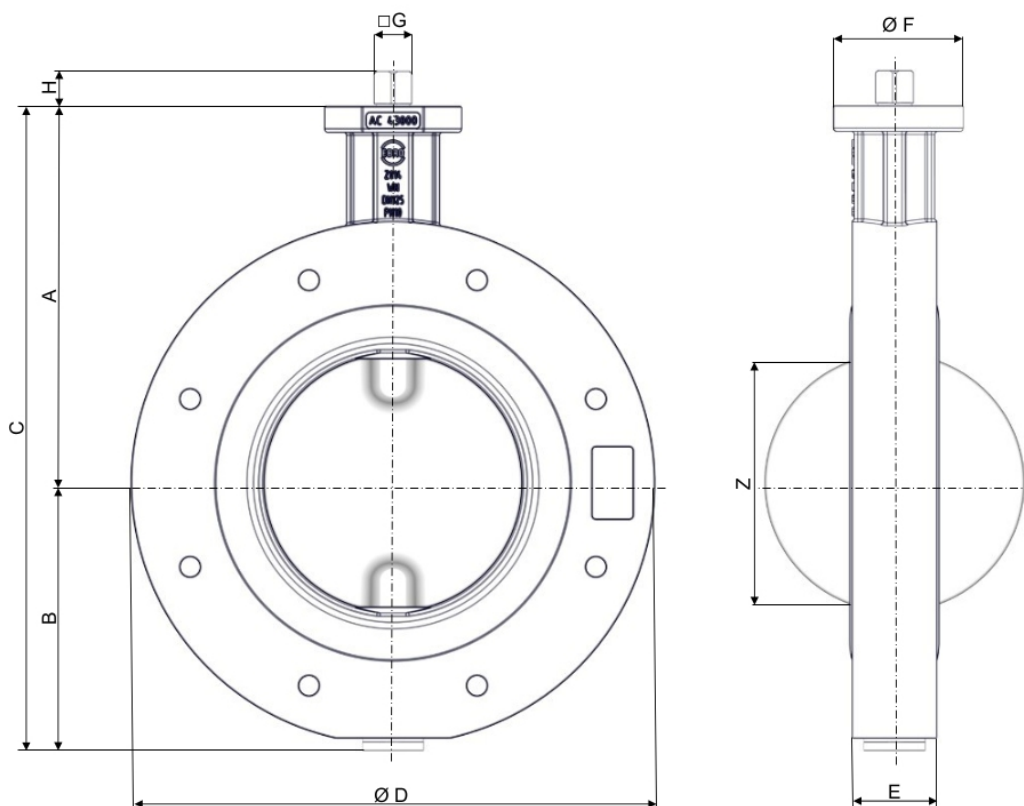
Full lug-type butterfly valve Z014-WN
with bare shaft



FULL LUG-TYPE BUTTERFLY VALVE Z014-WN
RESILIENT-SEATED WAFER-TYPE BUTTERFLY VALVE
 TECHNICAL DATA SHEET



Dimension sheet



		Main dimensions [mm]										Weight [kg]
DN	NPS	A	B	C	D	E	F	G	H	Z	Flange	
50	2	126	84.5	210.5	165	35	54	11	12	35.5	F04	2.1
65	2½	134.5	93	227.5	185	35	54	11	12	54.5	F04	2.5
80	3	157	104.5	261.5	200	35	65	14	16	71.5	F05	3
100	4	167.5	115.5	283	220	35	65	14	16	93.5	F05	3.5
125	5	180	128	308	250	40	65	14	16	117.5	F05	4.7
150	6	203	151	354	285	40	90	17	19	143.5	F07	6.7
200	8	228.5	176.5	405	340	50	90	17	19	193	F07	10.5
250	10	281	213	494	395	68	125	22	24	240	F10	19.5
300	12	293	238	531	445	65	125	22	24	290	F10	24.5
350	14	332	262	594	505	65	150	22	24	332.5	F12	30.5
400	16	363	306	669	565	75	150	22	24	382	F12	41
500	20	422	371	793	670	85	150	32	34	482	F12/14	-
600	24	470	434	904	780	85	175	32	34	576	F14	-

Material specifications & bill of materials

Item	Naming	Piece	Material group ¹	Material no.
1	O-ring	3	NBR	
			FKM	
2	Upper shaft	1	Stainless steel	1.4104, 1.4401/1.4404
3	Valve disc ²	1	Stainless steel	1.4404, 1.4408
4	Lower shaft	1	Stainless steel	1.4104, 1.4401/1.4404
5	Screw plug	1	Stainless steel	1.4408
6	Sealing ring	1	Copper	
7	Bearing bush	3	Brass	2.0401
			Igus Iglidur G	
8	Valve body	1	Aluminum	3.2381
			Stainless steel	1.4404
9	Blow-out protection ³	1	Steel (45 H galvanized)	
			Stainless steel	
10	Liner	1	NBR	
			EPDM	
			FKM	
			VMQ	
			SBR	

¹ Materials in the default version. Other materials and surface treatments available upon request.

² Additional surface treatments such as electropolished and mirror-polished are available as options.

³ Operation without blow-out protection not permissible!

Torques

NOTICE



The values listed in the table are breakaway torques determined for liquid/lubricating media from the position of the valve disc. They should be considered reference values since the actual torques depend on various factors such as operating pressure, medium, operating conditions, etc. The safety factor for the design of the actuation is also necessary.

Valve discs in special designs can be provided.

		Torque (Md) / pressure rating [Nm]		
DN	NPS	3 bar	6 bar	10 bar
50	2	9	9	9
65	2½	18	18	18
80	3	8	10	18
100	4	9	18	28
125	5	15	22	45
150	6	36	45	78
200	8	59	76	140
250	10	150	180	200
300	12	200	240	280
350	14	350	540	-
400	16	420	620	-
500	20	900	-	-
600	24	1050	-	-
Additions for other media - Powder (non-lubricating) media $Md \times 1.3 + \text{safety factor}$ - Dry gases/high viscosity liquids $Md \times 1.2 + \text{safety factor}$				

K_v values

NOTICE



The K_v value [m³/h] indicates the water flow rate at a temperature of 5 °C to 30 °C and a Δp of 1 bar.
 The allowable flow velocity V_{max} is 4.5 m/s for liquids and 70 m/s for gases.
 At an opening angle of 30° to 70°, the valve disc is in the optimum control range. The curve is flat between 20° and 30° and between 70° and 90°, so that changing the opening angle has little effect on the flow control. Avoid cavitation.

		Opening angle α°							
DN	NPS	20°	30°	40°	50°	60°	70°	80°	90°
50	2	3.84	10.1	20.7	34.4	49.7	65.2	79.5	91.2
65	2½	9.5	16.6	39.1	72.6	113	157	199	235
80	3	15.6	20.6	51.4	102	165	234	304	368
100	4	24.9	39.8	96.5	183	288	398	503	589
125	5	51.8	67.2	135	256	428	652	926	1250
150	6	76.5	97.3	197	375	629	957	1360	1830
200	8	137	187	373	697	1160	1760	2510	3400
250	10	227	271	563	1090	1850	2830	4010	5390
300	12	287	409	820	1550	2610	4050	5880	8120
350	14	399	488	1070	2110	3590	5480	7760	10400
400	16	557	703	1360	2600	4470	7060	10400	14600
500	20	875	1110	2250	4280	7180	10900	15500	20900
600	24	1230	1550	3150	6010	10090	15400	21800	29400
Information in m ³ /h.									

Technical features

Designation	Description
Nominal size	DN 50 - DN 600
Temperature range ¹	-10 °C to +200 °C
Maximum allowable pressure (PS)	10 bar up to DN 300
	6 bar up to DN 400
	3 bar up to DN 600
Notices ¹ Depending on pressure, medium and material selection	

Standards

Designation	Description
Standard of use	DIN EN 593:2018-01
Marking	DIN EN 19:2024-03
Top flange	DIN EN ISO 5211:2024-10
Face-to-face	EBRO works standard
Flange connection ¹	DIN EN 1092-1:2018-12 PN 10
Tightness test ¹	DIN EN 12266-1:2012-06 (Leakage rate A)
	ISO 5208:2015-06, category AA
Notices ¹ Others upon request	

Certificates and approvals

Designation	Description
Pressure equipment	Directive 2014/68/EU; TSG D7002-2006
Explosion protection	ATEX (Directive 2014/34/EU); DIN EN 15089:2009-07; DIN EN 14460:2018-04IECEX
Notice Further certificates and approvals available upon request. Applicable only for specific nominal sizes and material combinations (except for directive on pressure equipment and safety integrity level).	