Technical data sheet

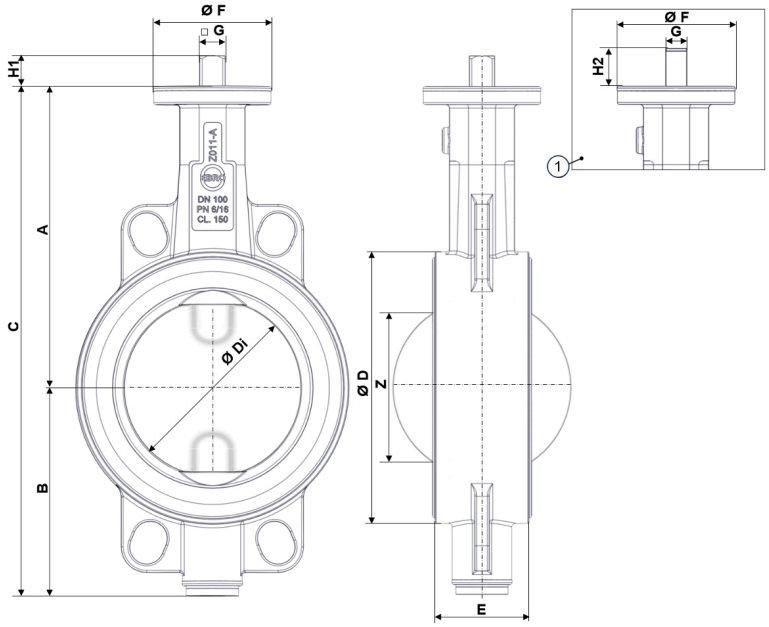
Wafer-type butterfly valve Z011-AS
with bare shaft



EBRO ARMATUREN®

en
Version 1.1 from 01/06/2026

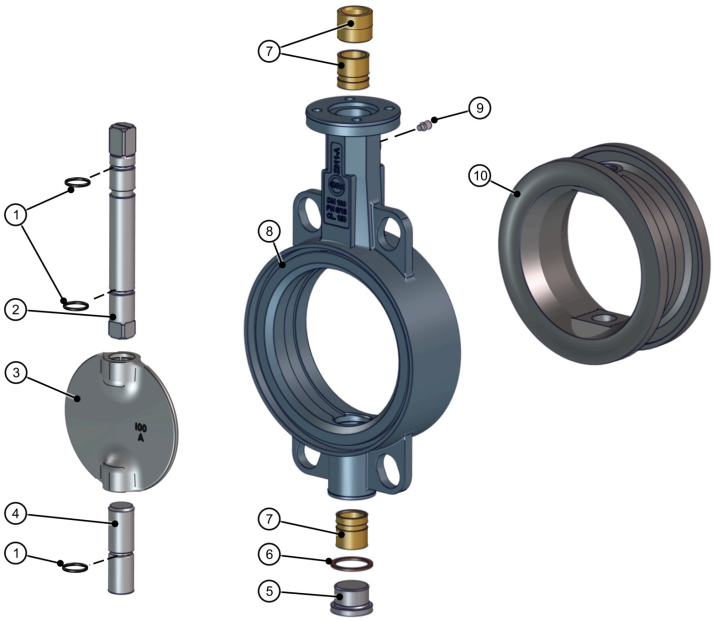
Dimension sheet



		Main dimensions [mm]												
DN	**NPS**	**A**	**B**	**C**	**Ø D**	**Ø Di**	**E**	**Ø F**	**Flange**	**□ G**	**H1**	**H2**	**Z**	**Weight [kg]**
50	2	126	84	210	95	48.5	43	54	F04	11	12	19	25	1.1
65	2½	134	93	227	115	63.5	46	54	F04	11	12	19	45	1.4
80	3	157	104	261	131	78.5	46	65	F05	14	16	25	65	1.9
100	4	167	115	282	151	98.5	52	65	F05	14	16	25	85	2.4
125	5	180	127	307	182	123.5	56	65	F05	14	16	25	111	3.2
150	6	203	150	353	200	141.6	56	90	F07	17	19	30	130	4.6
200	8	228	176	404	260	199	60	90	F07	17	19	30	190	6.8
250	10	266	212	478	316	248	68	125	F10	22	24	39	240	12.6
300	12	291	237	528	360	281.1	78	125	F10	22	24	39	270	17.5
Item 1 = Double-D option														

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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	1	Stainless steel	1.4408, 1.4469
4	Lower shaft	1	Stainless steel	1.4104, 1.4401, 1.4404
5	Screw plug	1	Stainless steel	1.4408
6	Seal ring	1	Copper	
7	Bearing bushing	3	Brass	2.0401
8	Valve body	1	Die-cast aluminum	3.2163.05
9	Blow-out protection[2]	1	Steel	45 H galvanized
			Stainless steel	1.4401
10	Liner	1	NBR	Acrylonitrile-butadiene-rubber
			FKM	Fluoro rubber

[1] Materials in the default version. Other materials and surface treatments available upon request
[2] Operation without blow-out protection not allowable!

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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	**Size**	**3 bar valve disc**
50	2	9
65	2½	18
80	3	24
100	4	18
125	5	15
150	6	36
200	8	59
250	10	150
300	12	200

Additions for other media

- Powder (non-lubricating) media Md x 1.3 + safety factor
- Dry gases/high viscosity liquids Md x 1.2 + safety factor

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K_v values

NOTICE

The $K_v$value [m^3/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
Information in m^3/h.									

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Technical features

Designation	Description
Nominal size	DN 50 - DN 300
Temperature range [1]	-10 °C to +100 °C
Maximum allowable pressure (PS)	3 bar
Exterior coating	Epoxy resin
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	DIN EN 558:2022-09 Series 20
	ISO 5752:2021-06 Series 20
	API STD 609:2021-04 Table 1
Flange connection [1]	DIN EN 1092-1:2018-12 (Form A/B) PN 6/10/16
	ASME B16.3:2021 Class 150 (RF, FF)
	AS 4087:2011 PN 16
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); IECEX
Shipbuilding	DNV
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).	

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