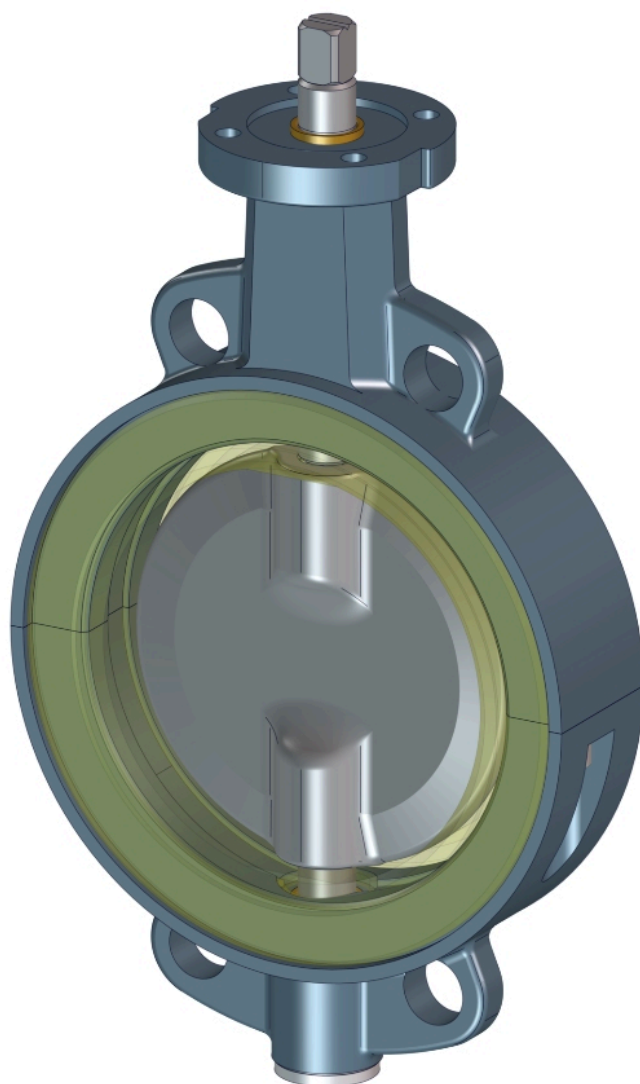
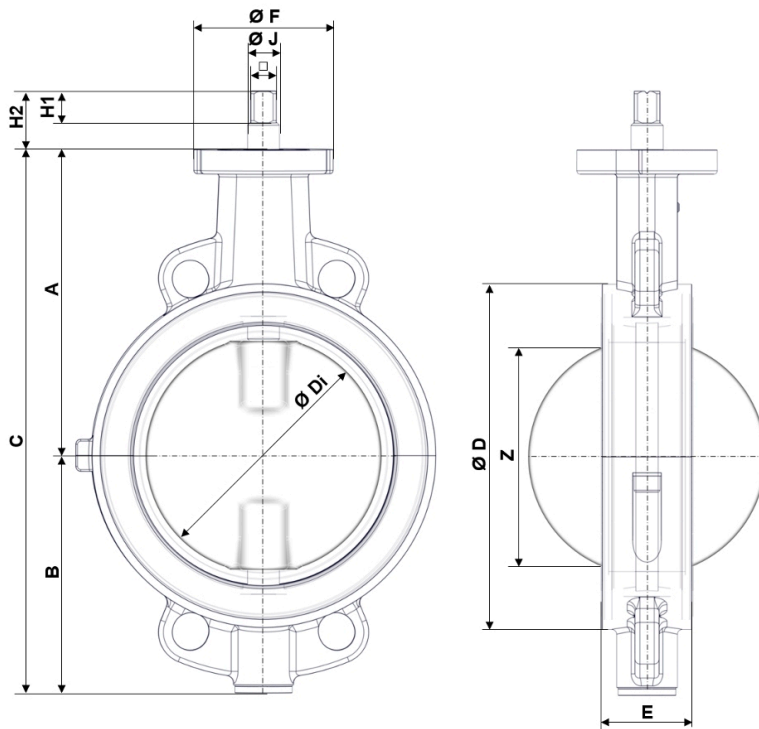


Technical data sheet

**Wafer-type butterfly valve Z011-GMX
with bare shaft**



Dimension sheet

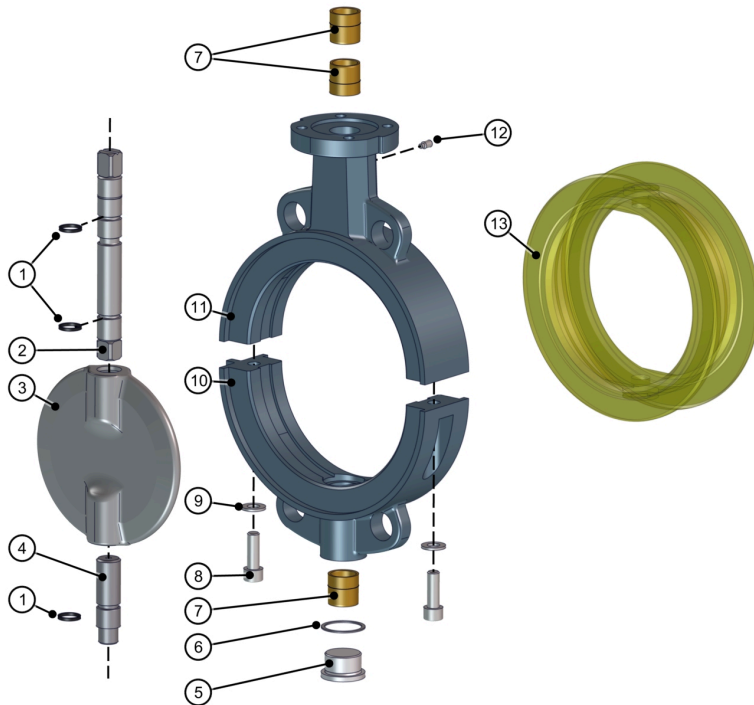


		Main dimensions [mm]													Weight [kg]
DN	NPS	A	B	C	$\varnothing D$	$\varnothing Di$	E	$\varnothing F$	Flange	$\square G$	H1	H2	$\varnothing J$	Z	
50	2	126	84	210	105	49	43	90	F07	12	20	38	16	24	1.6
65	2½	134	93	227	125	64.3	46	90	F07	12	20	38	16	45	1.9
80	3	140	104	244	140	78.2	46	90	F07	12	20	38	16	64	2.2
100	4	150	115	265	160	98.6	52	90	F07	12	20	38	16	84	2.8
125	5	163	127	290	190	123.6	56	90	F07	12	20	38	16	111	3.5
150	6	193	150	343	217	148.5	56	90	F07	16	20	38	20	139	4.6
200	8	218	176	394	272	198.2	60	90	F07	16	20	38	20	190	6.8
250	10	266	212	478	327	250	68	125	F10	24	20	38	30	240	12.3
300	12	293	237	530	377	297	78	125	F10	24	20	38	30	289	17.0

WAFER-TYPE BUTTERFLY VALVE Z011-GMX
RESILIENT-SEATED WAFER-TYPE BUTTERFLY VALVE
 TECHNICAL DATA SHEET



Material specifications & bill of materials
Figure and table Z011-GMX



Item	Naming	Piece	Material group ¹	Material no.
1	O-ring	3	NBR	
2	Upper shaft	1	Stainless steel	1.4401, 1.4404
3	Valve disc	1	Stainless steel Coating: GMX polyurethane	1.4401
4	Lower shaft	1	Stainless steel	1.4401, 1.4404
5	Screw plug DIN 908	1	Stainless steel	
6	Seal ring	1	Copper	
7	Bearing bushing	3	Brass	2.0401
8	Screw	2	Stainless steel	
9	Disc	2	Stainless steel	1.4401
10	Body bottom	1	Aluminum alloy	3.2381
11	Body top	1	Aluminum alloy	3.2381
12	Blow-out protection ²	1	Steel	1.4408
			Stainless steel	
13	Liner	1	GMX polyurethane	

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

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	6 bar Valve disc
50	2	16
65	2½	21
80	3	25
100	4	43
125	5	73
150	6	145
200	8	260
250	10	367
300	12	667
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		

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

Information in m³/h.

Technical features

Designation	Description
Nominal size	DN 50 - DN 300
Body design	Wafer-type (2-piece)
Temperature range ¹	-30 °C to +80 °C
Maximum allowable pressure (PS)	6 bar
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 10
	ASME B16.3:2021 Class 150 (RF, FF)
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
International approvals	EAC (TR 010); SITIIAS
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).	