

WAFER TYPE BUTTERFLY VALVE Z 011-GMX



Wafer type butterfly valve with special lining and disc for abrasive media.

TECHNICAL DATA

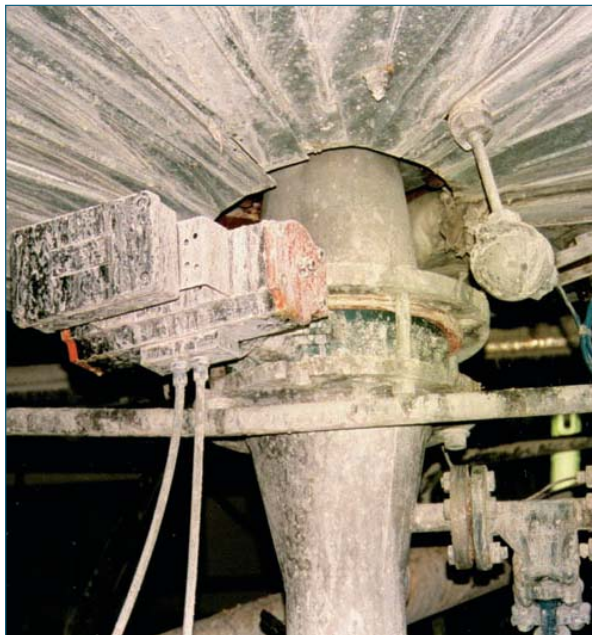
Nominal diameter:	DN 50 – DN 300
Face-to-face:	EN 558 Series 20 (DIN 3202 T3 K1) ISO 5752 Series 20 API 609 Table 1 BS 5155 Series 4 NF E 29-305.1
Flange accommodation:	DIN 2501 PN 10 ANSI B 16.5, Class 150
Flange Surface Design:	DIN 2526, Form A-E, ANSI RF
Marking:	DIN EN 19
Tightness check:	DIN 3230 T3 BO, BN (Leakage Rate 1) ISO 5208, Category 3 API 598 Table 5 ANSI B 16-104, Class VI
Temperature range:	-10 °C to + 90 °C (depending on pressure, medium and material)
Operating pressure:	max. 6 bar
Differential pressure:	max. Δp 6 bar

FEATURES

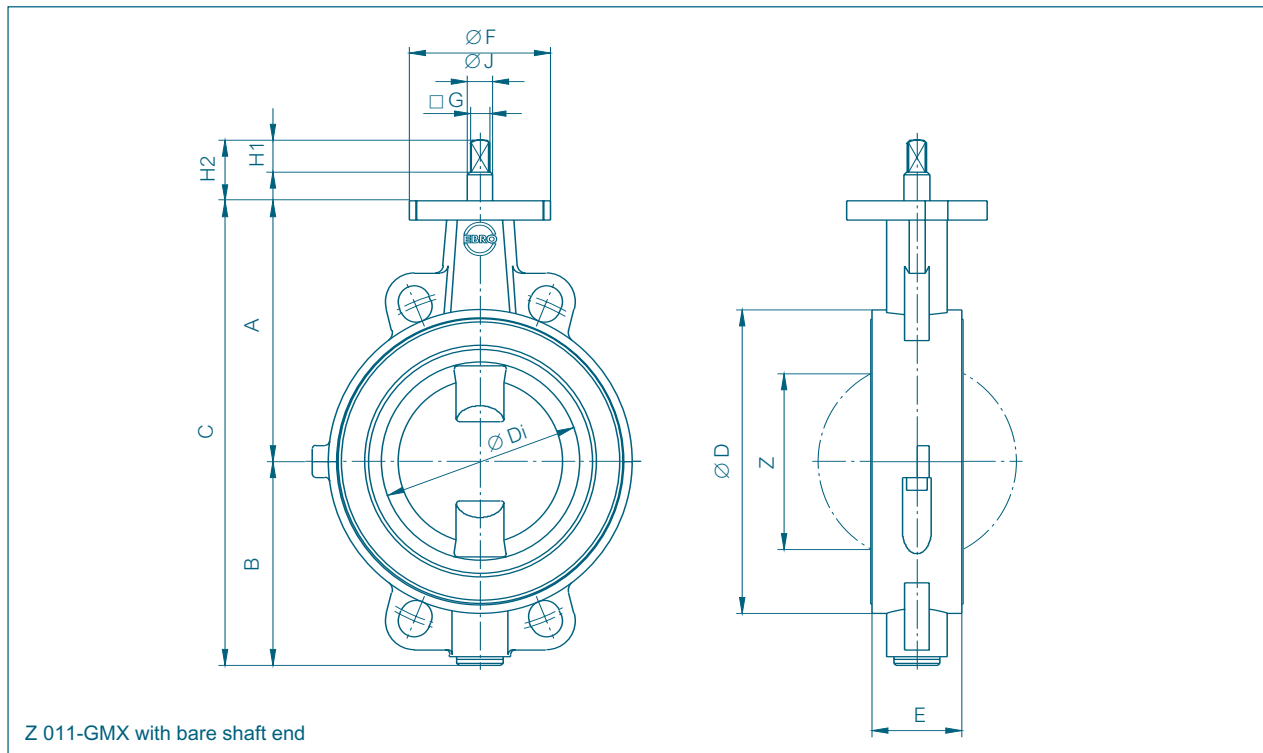
- Shut-off and controlling of strong abrasive media, e.g. sand, cement, flue ash
- High abrasion strength of valve disc and seal
- Two-part body
- Triple shaft bearings prevent shaft deflection and guarantee optimum guidance even after many years of operational service.
- Absolutely tight sealing with flow in either direction
- Can be installed in any desired position.
- Maintenance-free
- Can be disassembled, material-specific recycling possible.

GENERAL APPLICATIONS

- Bulk handling technology
- Weight technology
- Pneumatic conveying systems



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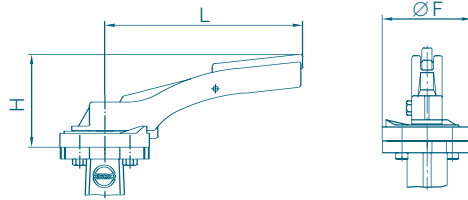
DN [mm]	Size [in]	Dimensions [mm]													Weight [kg]
		A	B	C	D	Di	E	F	Flange	G	H1	H2	J	Z	
50	2	126	84	210	105	49	43	90	F07	12	20	38	16	24	1,6
65	2½	134	93	227	125	64,3	46	90	F07	12	20	38	16	45	1,9
80	3	140	104	244	140	78,2	46	90	F07	12	20	38	16	64	2,2
100	4	150	115	265	160	98,6	52	90	F07	12	20	38	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	138	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

Subject to change without notice.

ACTUATORS Z 011-GMX

HAND LEVER

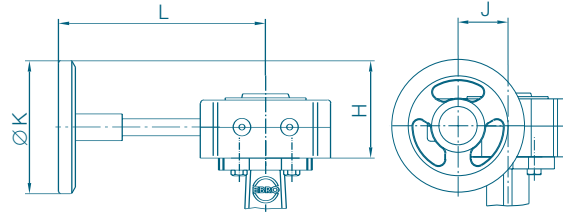
DN [mm]	Size [in]	Hand Lever	F	H	L	Weight [kg]
50-125	2-5	Size II	90	95	195	0,7
150-200	6-8	Size III	90	105	276	0,7



WORM GEAR

DN [mm]	Size [in]	Gear	H	J	K	L	Weight [kg]
50-125	2-5	Size II	89	39	125	159	1,4
150-200	6-8	Size III	129	47	200	202	2,3
250	10	Size IV	129	60	200	252	2,8
300	12	Size V	158	76	250	280	6,3

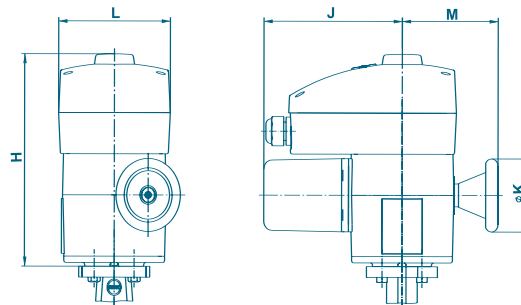
The dimensioning of actuators refers to an operating pressure of 6 bar.



ELECTRIC ACTUATOR

DN [mm]	Size [in]	Actuator Type	H	J	K	L	M	Weight [kg]
50-125	2-5	E 65	233	172	80	139	119	7,0
150-250	6-10	E 110	251	245	125	139	134	14,0
300	12	E 160	239	279	198	139	157	25,0

The dimensioning of actuators refers to an operating pressure of 6 bar.



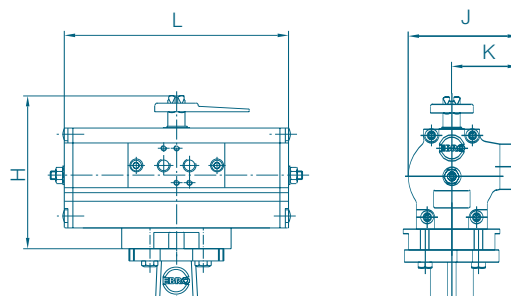
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ACTUATORS Z 011-GMX

PNEUMATIC DOUBLE ACTING

DN [mm]	Size [in]	Actuator Type	H	J	K	L	Weight [kg]
50-65	2-2½	EB5	108	88	55	174	1,7
80-125	3-5	EB6	123	103	62	208	2,6
150	6	EB8	136	115	68	250	4,3
200-250	8-10	EB10	155	135	79	312	6,8
300	12	EB12	182	159	94	367	12,0

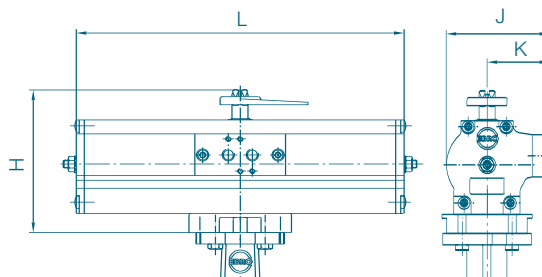
The dimensioning of actuators refers to an operating pressure of 6 bar and a control air pressure of 6 bar.



PNEUMATIC SPRING RETURN

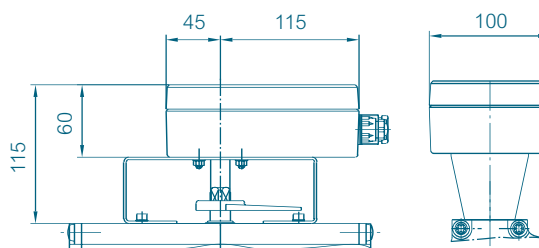
DN [mm]	Size [in]	EBF Actuator	H	J	K	L	Weight [kg]
50-80	2-3	EB5	108	88	55	273	3,0
100-125	4-5	EB6	123	103	62	326	5,0
150	6	EB8	136	115	68	389	7,7
200	8	EB10	155	135	79	526	14,3
250	10	EB12	182	159	94	656	25,4
300	12	EB265	232	152	76	634	27,0

The dimensioning of actuators refers to an operating pressure of 6 bar and a control air pressure of 6 bar.



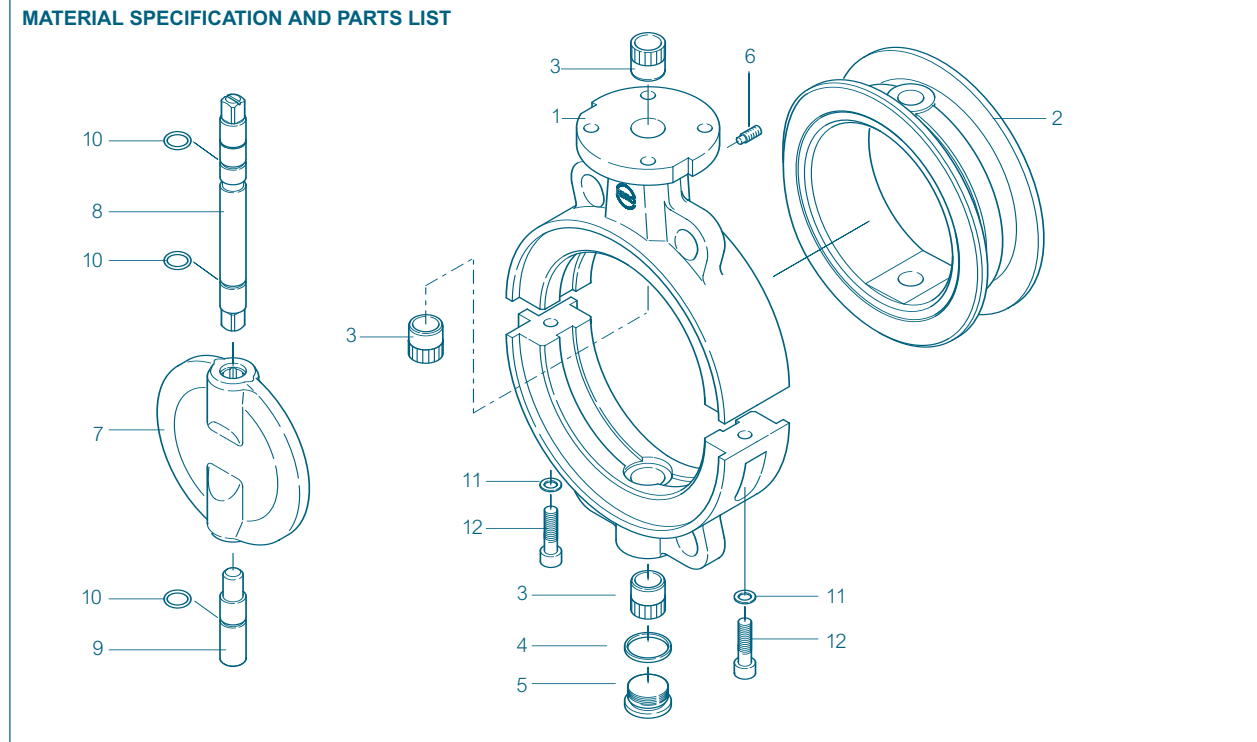
SWITCH BOX SERIES MSK/NSK

MSK: Switch box with integrated micro limit switches.
NSK: Switch box with integrated proximity switches.



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Pt.	Description	Material	Material-No.	ASTM	Pt.	Description	Material	Material-No.	ASTM
1	Body				7	Disc			
	Aluminiumalloy	G-AISI10Mg	3.2381	361.1		Stainless Steel	G-X6CrNiMo18-10	1.4401	CF8M
2	Seat					Coating	GMX Polyurethan		
	GMX	Polyurethan			8/9	Shaft			
3	Bearing sleeve					Stainless Steel	X14CrMoS17	1.4104	430F
	Brass	MS 58	2.0401	B 45		Stainless Steel	X5CrNiMo17-12-2	1.4401	316
4	Seal DIN 7603				10	O-ring			
	Copper	Cu		Copper		NBR	Acrylonitrile butadiene rubber		
5	Plug screw DIN 908				11	Washer			
	Stainless Steel	G-X6CrNiMo18-10		CF8M		Stainless Steel	X5CrNiMo17-12-2	1.4401	316
6	Set screw DIN 915				12	Screw			
	Steel	45 H galvanized	1.4408			Stainless Steel	A2-70		B8
	Stainless Steel	A4-70		B8M		Stainless Steel	A4-70		B8M
						Other materials upon request.			

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TORQUE

- The torque values specified (MD) are based on liquid and lubricant media.
- Powdery (non-lubricant) media
Md x 1,3
- Dry gases/high viscous media
Md x 1,2
- The values specified are based on the initial breakaway torque.
- Dynamic torque specification available upon request.

DN [mm]	Size [in]	Operating pressure 6 [bar]
50	2	16
65	2 ½	21
80	3	25
100	4	43
125	5	73
150	6	145
200	8	260
250	10	367
300	12	667

All values in Nm

Regarding the dimensioning of actuators, please contact our engineers.

K_V-VALUES

- The K_V-value (m³per hour) is the flow of water at a temperature of 5 °C to 30 °C (41 °F to 86 °F) at Δp of 1 bar.
- The K_V-values specified are based on tests carried out by the Delfter Hydraulics Laboratories, the Netherlands.
- Permissible velocity of flow
V_{max} 4,5 m/s for liquids and
V_{max} 70 m/s for gases.
- The throttle function is linear at an angle 30° to 70°.
- Avoid cavitation!

DN [mm]	Size [in]	Opening angle α °							
		20°	30°	40°	50°	60°	70°	80°	90°
50	2	1,2	8	13	22	38	50	65	85
65	2 ½	2	9	22	42	77	115	170	215
80	3	8	24	50	95	150	240	330	420
100	4	13	28	65	130	180	340	550	800
125	5	26	65	130	230	350	530	870	1010
150	6	35	90	200	360	640	900	1350	2100
200	8	43	180	350	580	1000	1600	3000	4000
250	10	125	360	660	1100	1800	3100	5300	6400
300	12	200	550	1000	1600	2600	5000	7500	8500

For further values, please contact our engineers.



V&A

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