AVOL INDUSTRIAL VALVES

BUTTERFLY VALVES

EBRO Z014 LUGGED BUTTERFLY VALVE

TYPE 21005

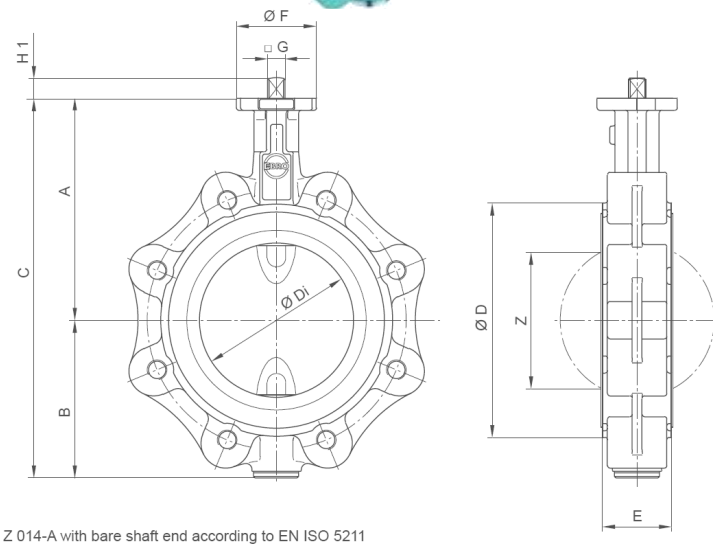
Features

- Size range is DN20-DN600
- Face to Face is EN558 / ISO 5752 Series 20, API609 Table1
- Flanges to suit PN6/10/16 and ASME Class 150
- Direct mount for ISO 5211
- Temperature Range –40C to +200C (see liner options)
- Lever operated, Gearbox operated or actuated
- Max 16 Bar pressure rating, see pressure and temp charts
- Variety of body materials, disc materials and liners.

Materials

Body	Standard material is GGG40, options available
Disc	Stainless Steel
Seats	EPDM standard, NBR and Viton plus others
Stem	Stainless steel
Lever	Aluminium as standard

Manufacturer: EBRO ARMATUREN®



Z 014-A with bare shaft end according to EN ISO 5211

Dimension Table

Size	A	B	C	D	Di	E	F	ISO	G	Torque @ 10 Bar	H1	H2	Z	Kg
3/4"	104	45	149	63	31.5	33	54	F04	11	5Nm	12	19	-	2.1
1"	104	45	149	63	35.5	33	54	F04	11	5Nm	12	19	-	2.1
11/4"	104	50	154	68	38.0	33	54	F04	11	5Nm	12	19	-	2.1
11/2"	113	66	179	80	48.5	33	54	F04	11	8Nm	12	19	22	4.0
2"	126	84	210	95	63.5	43	54	F04	11	9Nm	12	19	25	4.8
21/2"	134	93	227	115	78.5	46	54	F04	11	18Nm	12	19	45	5.5
3"	157	104	261	138	78.5	46	65	F05	14	18Nm	16	25	65	8.6
4"	167	115	282	158	98.5	52	65	F05	14	28Nm	16	25	85	9.8
5"	180	127	307	188	123.5	56	65	F05	14	45Nm	16	25	111	10.1
6"	203	150	353	210	148	56	90	F07	17	78Nm	19	30	139	13.1
8"	228	176	404	268	199	60	90	F07	17	140Nm	19	30	190	18.8
10"	266	212	478	320	248	68	125	F10	22	200Nm	24	39	240	29.5
12"	291	237	528	370	296	78	1125	F10	22	280Nm	24	39	287	37.0

Note: For Powdery / dry applications EBRO recommend x1.3 the above torque figures. For wet / lubricating applications, the above figures includes safety factor. For 16 bar torque figures, please contact our sales team.

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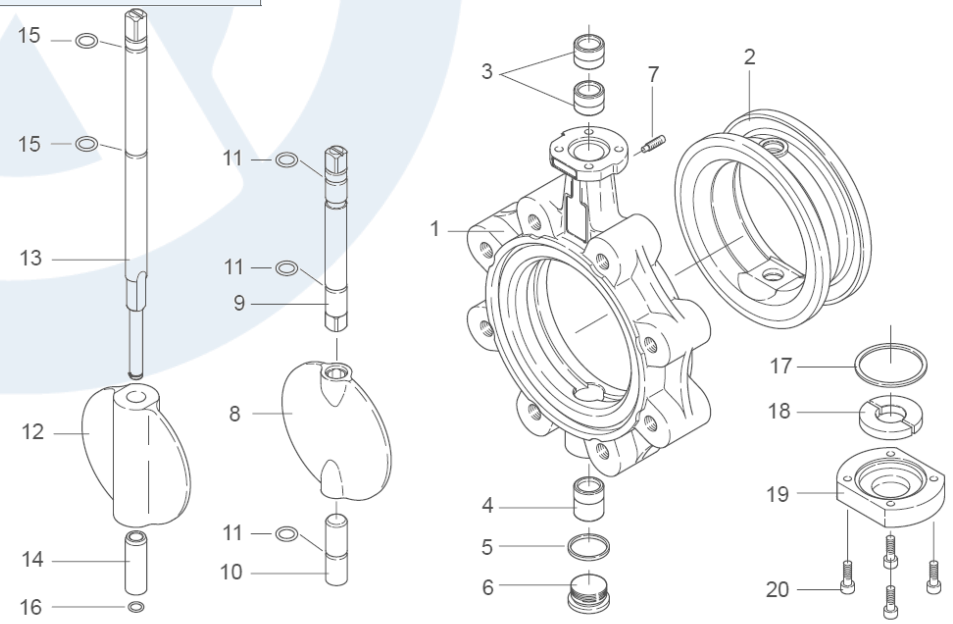
Materials of Construction:



TS-Version Version with splitted shaft

Pts. 17-20: Cover plate for valve ≥ DN 350

Pt.	Description	Material	Material-No.	ASTM
1	**Body**			
	Nodular Cast Iron	GGG-40	0.7040	60-40-18
		GGG-40.3	0.7043	
2	**Seat**			
	NBR	Nitrile butadiene rubber		
	EPDM	Ethylene propylene diene monomer rubber		
	CSM	Chlorosulfonated polyethylene rubber		
	FPM	Fluorocarbon rubber		
	VSI	Silicon rubber		
	SBR-green	Styrene butadiene rubber		
3/4	**Bearing bush**			
	Brass	MS 58	2.0401	B 45
	Polyamide	PA 66		
	PTFE	Polytetrafluorethylene		
5	**Seal DIN 7603**			
	Copper	Cu		Copper
6	**Plug screw DIN 908**			
	Stainless Steel	G-X5CrNiMo19-11-2	1.4408	CF8M
7	**Plug screw DIN 915**			
	Steel	45 H galvanized		
	Stainless Steel	A4-70		B8M
8	**Disc**			
	Steel	ST 52.3	1.0570	572-50
	Stainless Steel	X5CrNi18-10	1.4301	304
		G-X5CrNiMo19-11-2	1.4408	CF8M
		X2CrNiMo17-12-2	1.4404	316 L
		X6CrNiMoTi17-12-2	1.4571	316 Ti
		G-X2CrNiMoN26-7-4	1.4469	F 51
		Hastelloy	2.4883	Hastelloy
	Aluminium Bronze	G-CuAl10Ni	2.0975	C 95800
	Coating	Halar, Rilsan, NBR, EPDM		
	Surface quality	electropolished, mirror finished		
	Other materials upon request			

Pt.	Description	Material	Material-No.	ASTM
9/10	**Shafts**			
	Stainless Steel	X14CrMoS17	1.4104	430 F
		X5CrNiMo17-12-2	1.4401	316
		Hastelloy	2.4883	Hastelloy
11	**O-ring**			
	NBR	Nitrile butadiene rubber		
	FPM	Fluorocarbon rubber		
12	**TS-disc**			
	Nodular Cast Iron	GGG-40	0.7040	60-40-18
	Stainless Steel	G-X5CrNiMo19-11-2	1.4408	CF8M
	Aluminium Bronze	G-CuAl10Ni	2.0975	C 95800
	Coating	Halar, Rilsan		
	Surface qualtiy	electropolished, mirror finished		
13	**TS-shaft**			
	Stainless Steel	X14CrMoS17	1.4104	430 F
		X39CrMo17-1	1.4122	
		X5CrNiMo17-12-2	1.4401	316
14	**Sleeve**			
	Stainless Steel	X5CrNi18-10	1.4301	304
15	**O-ring**			
	NBR	Nitrile butadiene rubber		
	FPM	Fluorocarbon rubber		
16	**Retaining ring**			
	Stainless Steel	X39CrMo17-1	1.4122	
17	**O-ring**			
	NBR	Acrylonitrile butadiene rubber		
18	**Shaft retainer**			
	Brass	MS 58	2.0401	B 45
19	**Cover plate**			
	Grey Cast Iron	GG-25	0.6025	40 B
20	**Screw**			
	Steel	45 H galvanized		
	Stainless Steel	A2-70		B 8
		A4-70		B8M

Subject to change without notice

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K_V-VALUES

- The K_V-values [m^3 per 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 Vmax 4,5 m/s for liquids, Vmax 70 m/s for gases
- The throttle function is linear at an angle 30° to 70°
- Avoid cavitation

For further values, please contact our engineers.

DN [mm]	Size [in]	Opening angle α°							
		20°	30°	40°	50°	60°	70°	80°	90°
20	¾	-	1	4	8	11	19	27	32
25	1	-	1,5	5	10	15	24	32	36
32	1¼	-	1,5	5	11	16	27	35	40
40	1½	-	2,2	8	15	21	33	43	50
50	2	1,2	8	13	22	38	50	65	85
65	2½	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
350	14	350	780	1400	2400	4000	8000	10800	11500
400	16	490	1050	1800	3100	5500	11000	12000	14500
450	18	510	1080	2040	3350	6100	11500	14600	20500
500	20	520	1100	2200	3500	6200	12000	15100	21000
600	24	750	1400	2800	5100	8800	14000	22000	29300

FEATURES

- Absolutely tight sealing with flow in either direction
- The valve body and disc are accurately machined which results in low operating torque and long service life and reliabililty
- Triple shaft bearings prevent shaft deflection and guarantee optimum guidance even after many years of operational service
- Four flange mounting holes ensure correct valve location when installing
- Single flange mounting is possible: DN 20 - 250: 3 bar
  DN 300 - 600: 2 bar
  Not possible with aluminum housing
- Can be installed in any desired position
- Maintenance-free
- Can be disassemble, material-specific recycling possible
- For paint and lacquers, a silicon-free version is available

GENERAL APPLICATIONS:

- Chemical and petrochemical industries
- Water and waste water technology
- Pneumatic materials handling technology
- Shipbuilding
- Power generation industry
- Transport of hazardous materials (EN 14432)

SCAN ME

* For latest technical datasheet, scan QR code or visit allvalves.co.uk