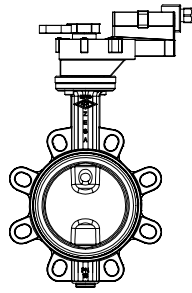


ARI-ZESA®EA - Fig. 012 - Free of maintenance butterfly valve with elongated eyelets - soft sealed

ARI-GESA®EA - Fig. 013 - Free of maintenance butterfly valve with threaded eyelets - soft sealed

ARI-ZESA®EA / ARI-GESA®EA
with electric rotary actuator EA

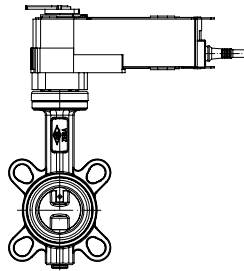
- Open/close or 3-point (EA1/EA2)
230V 50/60Hz or 24V AC/DC
- Modulating 0(2)-10V (EA1Y/EA2Y)
24V AC/DC
- Enclosure IP 54
(IP 66/67 on request)



Page 6

ARI-ZESA®EA / ARI-GESA®EA
with electric rotary actuator EA-SR
with safety reset

- Open/close 230V 50/60Hz or 24V AC/DC
- Reset to start on failure
(Spring closes on electrical power failure / NC)
- Enclosure IP 54



Page 7



Fig. 012 - ARI-ZESA®EA

Features:

- Soft sealing
- Maintenance-free
- Good flow characteristic due to excellent Zeta-values
- Seat materials EPDM
- Double sealing of the stem
- Stainless steel disc (to DN 80)
- Complete insulation possible according to the german „Energy saving order - EnEV“
- Dew point barrier
- Central disc bearing
- Nodular iron body
- EPDM with DIN DVGW Reg. drinking water (DW-6201BR0244)

ARI-ZESA®EA:

- Wafer type

ARI-GESA®EA:

- Lug type
- Pipeline one-side detachable

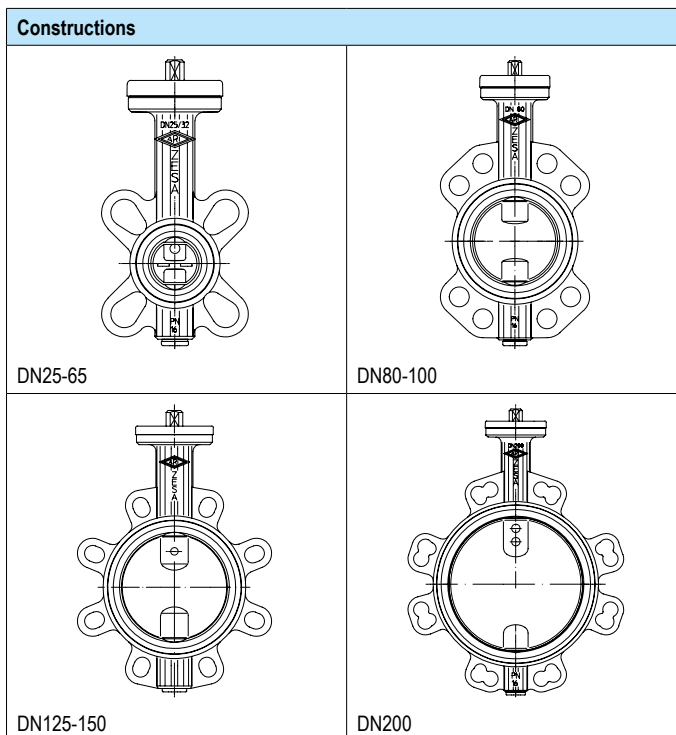
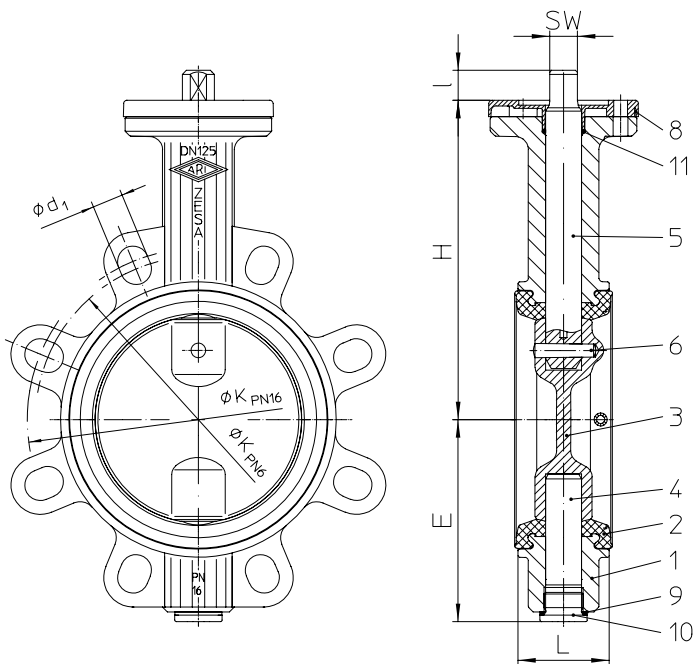
Butterfly valve with elongated eyelets (SG iron)


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
20.012	PN6	EN-JS1030	DN25-200	1.4581 (DN25-80) / EN-JS1030 (DN100-200)	1.4021-QT
21.012	PN10	EN-JS1030	DN25-200		
22.012	PN16	EN-JS1030	DN25-200		

Seat: EPDM (-10 °C to +100 °C)
Max. differential pressure: 6 bar (DN25-125) / 3 bar (DN150-200)
Actuation arrangement: • Electric actuator (Electric rotary actuator EA / Electric rotary actuator EA-SR)
(refer to page 6-7)
Test: DIN EN 12266-1 Leakage rate A (DIN 3230 T3 Leakage rate 1) • DVGW-Registration: EPDM DN25/32 – DN80 for water DW-6201BR0244, acc. to DIN EN 1074-1/-2 incl. disinfection inspection, DVGW VP646 and DVGW W270 for drinking water

Parts					
Pos.	Sp.p.	Description	Fig. 20./21./22.012 (EA)		
			DN 25-80	DN100-200	
1		Body	EN-GJS-400-15, EN-JS1030		
2		Seat	EPDM 73		
3		Disc	GX5CrNiMoN19-11-2, 1.4581	EN-JS1030, EN-GJS-400-15 (Zinc lamella coating)	
4		Pivot	X20Cr13+QT, 1.4021+QT		
5		Stem	X20Cr13+QT, 1.4021+QT		
6		Taper pin	X6CrNiMoTi17 12 2, 1.4571		
8	x	Insulating cap	PA 6		
9	x	Gasket	CU		
10	x	Hexagon head screw plug	5.8-A2G		
11	x	O-ring	EPDM		
L Spare parts					

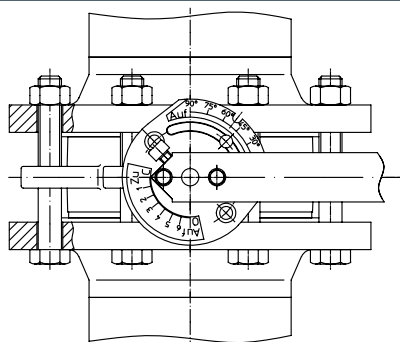
Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

DN		25	32	40	50	65	80	100	125	150	200	
Face-to-face dimension FTF series 20 acc. to DIN EN 558-1												
L	(mm)	33	33	33	43	46	46	52	56	56	60	
Dimensions												
I	(mm)	15	15	15	15	15	15	18	18	18	18	
H	(mm)	128	128	134	140	150	158	179	196	212	246	
E	(mm)	58	58	66	69	81	100	109	124	140	167	
SW	(mm)	11	11	11	11	11	11	11	17	17	17	
Kvs-value / Zeta-value Diagram refer to page 8.												
Kvs-value	(m³/h)	26	26,5	49,6	116	259	377	763	1030	1790	3460	
Zeta-value	--	0,93	2,4	1,7	0,75	0,43	0,46	0,27	0,37	0,25	0,21	
Weights												
Fig. 20./21./22.012	(kg)	1,4	1,4	1,6	2	2,6	3,2	4	4,6	8,6	12,6	
Standard-flange dimensions / Hexagon screw (Quantity, Thread, Length)												
PN6	ØK	(mm)	75	90	100	110	130	150	170	200	225	280
	n x Ød1	(mm)	4x11	4x14	4x14	4x14	4x14	4x18	4x18	8x18	8x18	8x18
	Screws	(pcs.)	4	4	4	4	4	4	4	8	8	8
	Thread		M10	M12	M12	M12	M12	M16	M16	M16	M16	M16
	Length	(mm)	80	80	80	90	90	100	110	120	120	130
PN10	ØK	(mm)	85	100	110	125	145	160	180	210	240	295
	n x Ød1	(mm)	4x14	4x18	4x18	4x18	4x18	4x18	4x18	8x18	8x22	8x22
	Screws	(pcs.)	4	4	4	4	4	8	8	8	8	8
	Thread		M12	M16	M16	M16	M16	M16	M16	M16	M20	M20
	Length	(mm)	90	90	90	100	110	110	120	130	130	140
PN16	ØK	(mm)	85	100	110	125	145	160	180	210	240	295
	n x Ød1	(mm)	4x14	4x18	4x18	4x18	4x18	4x18	4x18	8x18	8x22	8x22
	Screws	(pcs.)	4	4	4	4	4	8	8	8	8	12
	Thread		M12	M16	M16	M16	M16	M16	M16	M16	M20	M20
	Length	(mm)	90	90	90	100	110	110	120	130	130	140
1) DN 25/32 suitable for flanges PN16 / DN 20												

Mounting variations


ZESA®-Wafer-type-valve

Welding neck flanges
 PN 6 / PN 10 / PN 16
 DIN EN 1092-1 / 11 / B1
 Hexagon screw
 DIN EN ISO 4016 W.-No. 4.6
 Hexagon nut
 DIN EN ISO 4034 W.-No. 5

Pressure-temperature-ratings		Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.			
acc. to DIN EN 1092-2	PN		-10°C to 120°C	130°C	150°C
EN-JS1030	16	(bar)	16	15,8	15,5

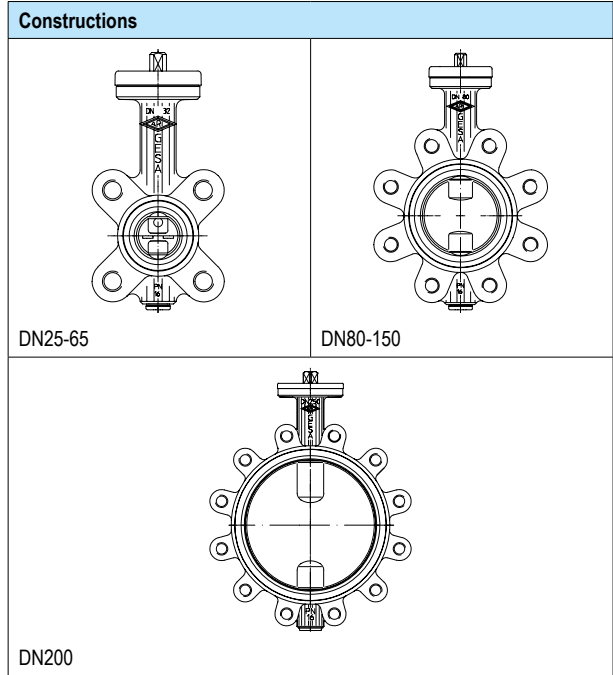
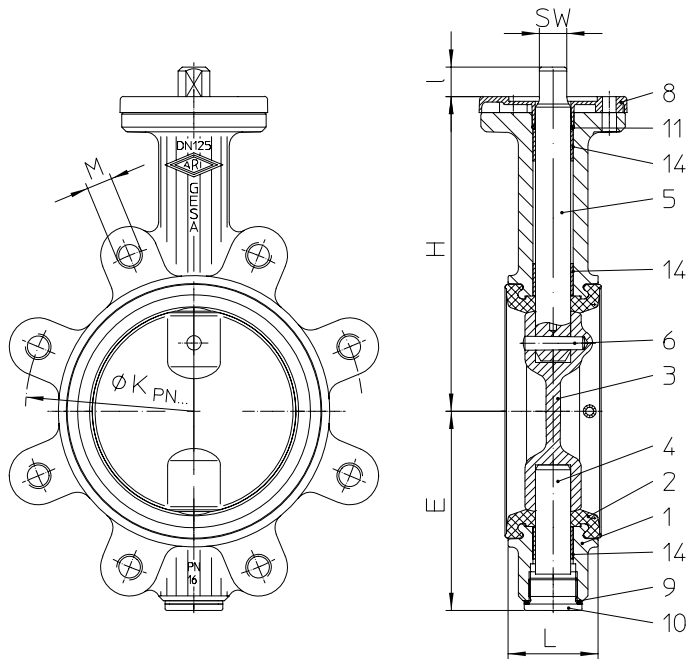
Butterfly valve with threaded eyelets (SG iron)


Figure	Nominal pressure	Material	Nominal diameter	Disc	Stem
21.013	PN10	EN-JS1030	DN25-200	1.4581 (DN25-80) / EN-JS1030 (DN100-200)	1.4021-QT
22.013	PN16	EN-JS1030	DN25-200		

Seat:	
EPDM (- 10 °C to + 100 °C)	
Max. differential pressure:	
6 bar (DN25-125) / 3 bar (DN150-200)	
Actuation arrangement:	
(refer to page 6-7)	
• Electric actuator (Electric rotary actuator EA / Electric rotary actuator EA-SR)	
Test:	
Sealing leakage test:	• DIN EN 12266-1 Leakage rate A (DIN 3230 T3 Leakage rate 1)
DVGW-Registration:	• EPDM for water DW-6201BR0244, acc. to DIN EN 1074-1/-2 incl. disinfection inspection, DVGW VP646 and DVGW W270 for drinking water

Parts			Fig. 21. / 22.013 (EA)	
Pos.	Sp.p.	Description	DN 25-80	DN100-200
1		Body	EN-GJS-400-15, EN-JS1030	
2		Seat	EPDM 73	
3		Disc	GX5CrNiMoN19-11-2, 1.4581	EN-JS1030, EN-GJS-400-15 (Zinc lamella coating)
4		Pivot	X20Cr13+QT, 1.4021+QT	
5		Stem	X20Cr13+QT, 1.4021+QT	
6		Taper pin	X6CrNiMoTi17 12 2, 1.4571	
8	x	Insulating cap	PA 6	
9	x	Gasket	CU	
10	x	Hexagon head screw plug	5.8-A2G	
11	x	O-ring	EPDM	
14		Parallel bush	P1	
L Spare parts				

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

DN		25	32	40	50	65	80	100	125	150	200
----	--	----	----	----	----	----	----	-----	-----	-----	-----

Face-to-face dimension FTF series 20 acc. to DIN EN 558-1											
L	(mm)	33	33	33	43	46	46	52	56	56	60

Dimensions											
I	(mm)	15	15	15	15	15	15	15	18	18	18
H	(mm)	128	128	134	140	150	158	179	196	212	246
E	(mm)	58	58	66	69	81	100	109	124	140	167
SW	(mm)	11	11	11	11	11	11	11	17	17	17

Kvs-value / Zeta-value											Diagram refer to page 8.
Kvs-value	(m³/h)	26	26,5	49,6	116	259	377	763	1030	1790	3460
Zeta-value	--	0,93	2,4	1,7	0,75	0,43	0,46	0,27	0,37	0,25	0,21

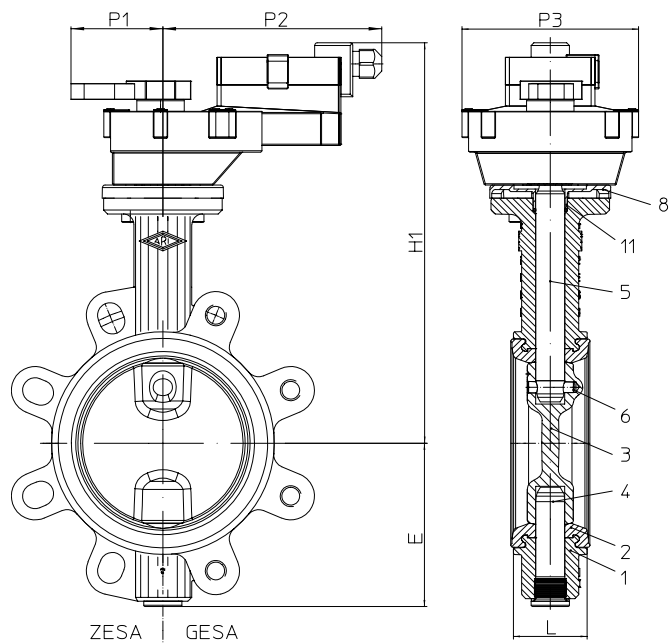
Standard-flange dimensions / Hexagon screw (Quantity, Thread, Length)													
PN10	ØK	(mm)	85	100	110	125	145	160	180	210	240	295	
	n x M	(mm)	4xM12	4xM16	4xM16	4xM16	4xM16	8xM16	8xM16	8xM16	8xM20	8xM20	
	Screws	(pcs.)	8	8	8	8	8	16	16	16	16	16	
	Thread		M12	M16	M16	M16	M16	M16	M16	M16	M16	M20	M20
	Length	(mm)	30	30	30	35	35	40	40	45	45	50	
PN16	ØK	(mm)	85	100	110	125	145	160	180	210	240	295	
	n x Ød1	(mm)	4xM12	4xM16	4xM16	4xM16	4xM16	8xM16	8xM16	8xM16	8xM20	12xM20	
	Screws	(pcs.)	8	8	8	8	8	16	16	16	16	24	
	Thread		M12	M16	M16	M16	M16	M16	M16	M16	M16	M20	M20
	Length	(mm)	30	30	30	35	35	40	40	45	45	50	

Weights											
Fig. 20./21./22.013	(kg)	1,8	1,8	2	2,8	3,2	4,8	6,2	8,8	11	15,6

Mounting variations	
	<p>Welding neck flanges PN 10 / PN 16 DIN EN 1092-1 / 11 / B1 (for slip-on-flanges acc. to DIN EN 1092-1 use ZIVA) Hexagon screw DIN EN ISO 4016 W.-No. 4.6</p>
GESA®-Wafer-type-valve	

Pressure-temperature-ratings		Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.			
acc. to DIN EN 1092-2	PN		-10°C to 120°C	130°C	150°C
EN-JS1049	16	(bar)	16	15,8	15,5

Butterfly valve with electric rotary actuator



Type: EA
<ul style="list-style-type: none"> • Enclosure IP 54 • Manual operating device Technical data for actuator refer to page 10.
Voltages:
<ul style="list-style-type: none"> • Open/close or 3-point (EA1/EA2) 230V 50/60Hz or 24V AC/DC • Modulating 0(2)-10V (EA1Y/EA2Y) 24V AC/DC
Accessories:
<ul style="list-style-type: none"> • box with 2 limit switches for signalisation

For connection refer to terminal connection in the operating instructions of the actuator !

DN	25	32	40	50	65	80	100	125	150	200
----	----	----	----	----	----	----	-----	-----	-----	-----

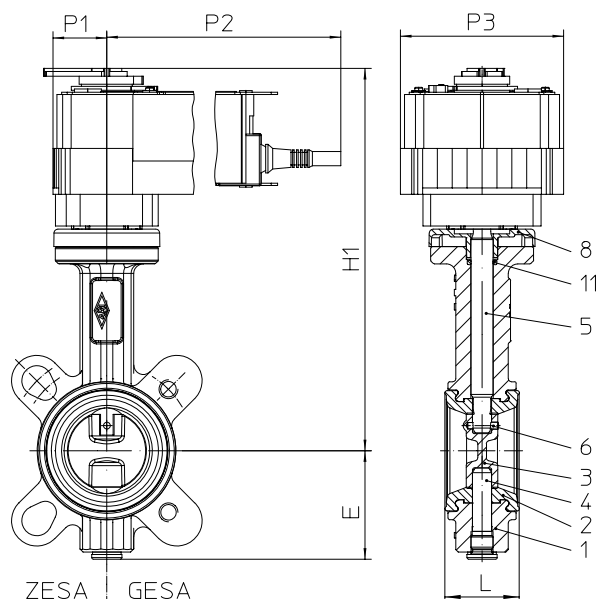
Actuator											
Type of actuator $\Delta P = 6$ bar	EA1						EA2		--		
Type of actuator $\Delta P = 3$ bar	--						--		EA2		
Operating time	(s)	90						150			

Dimensions											
H1	(mm)	212	212	218	224	234	242	263	293	309	343
P1	(mm)	70 (with lever extension: 176)						69			
P2	(mm)	142						166			
P3	(mm)	95						134			

Weights											
ZESA® EA	(kg)	2,4	2,4	2,6	3	3,6	4,2	5	8,3	10,3	14,3
GESA® EA	(kg)	2,8	2,8	3	3,8	4,2	5,8	7,2	10,7	12,9	16,2

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Butterfly valve with electric rotary actuator



Type: EA-SR
<ul style="list-style-type: none"> • Enclosure IP 54 • 2 limit switches for signalisation • Reset to start on failure (Spring closes on electrical power failure / NC)
Technical data for actuator refer to page 10.
Voltages:
<ul style="list-style-type: none"> • 230V 50/60Hz (Auf/Zu) • 24V AC/DC (Auf/Zu)
For connection refer to terminal connection in the operating instructions of the actuator !

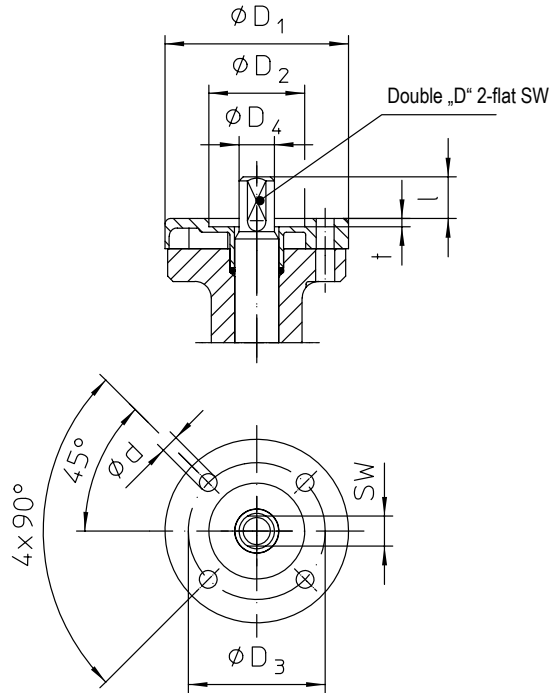
DN	25	32	40	50	65	80	100
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Actuator	
Type of actuator $\Delta P = 6$ bar	EA-SR
Operating time (s)	230V 50/60Hz: 75 (on electrical power failure: 20 s) / 24V AC/DC: 90 (on electrical power failure: 20 s)

Dimensions								
H1	(mm)	229	229	235	241	251	259	280
P1	(mm)	32						
P2	(mm)	222						
P3	(mm)	103						

Weights								
ZESA® EA-SR	(kg)	3,6	3,6	3,8	4,2	4,8	5,4	6,2
GESA® EA-SR	(kg)	4	4	4,2	6,6	5,4	7	8,4

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Actuator flange connection


DN	25	32	40	50	65	80	100	125	150	200
Connection EN ISO 5211	F 05						F 07			
Double „D“ 2-flat SW (mm)	11 _{d11}						17 _{d11}			
Ød (mm)	7						9			
ØD ₁ (mm)	65						90			
ØD ₂ (mm)	35 ^{H10}						55 ^{H10}			
ØD ₃ (mm)	50						70			
ØD ₄ (mm)	12,9						19,7			
l (mm)	15						18			
t (mm)	3						3			

Please indicate when ordering:

- Figure-No.
- Nominal pressure
- Nominal diameter
- Soft seal seat material
- Stem / disc material
- Actuator
- Special design / accessories

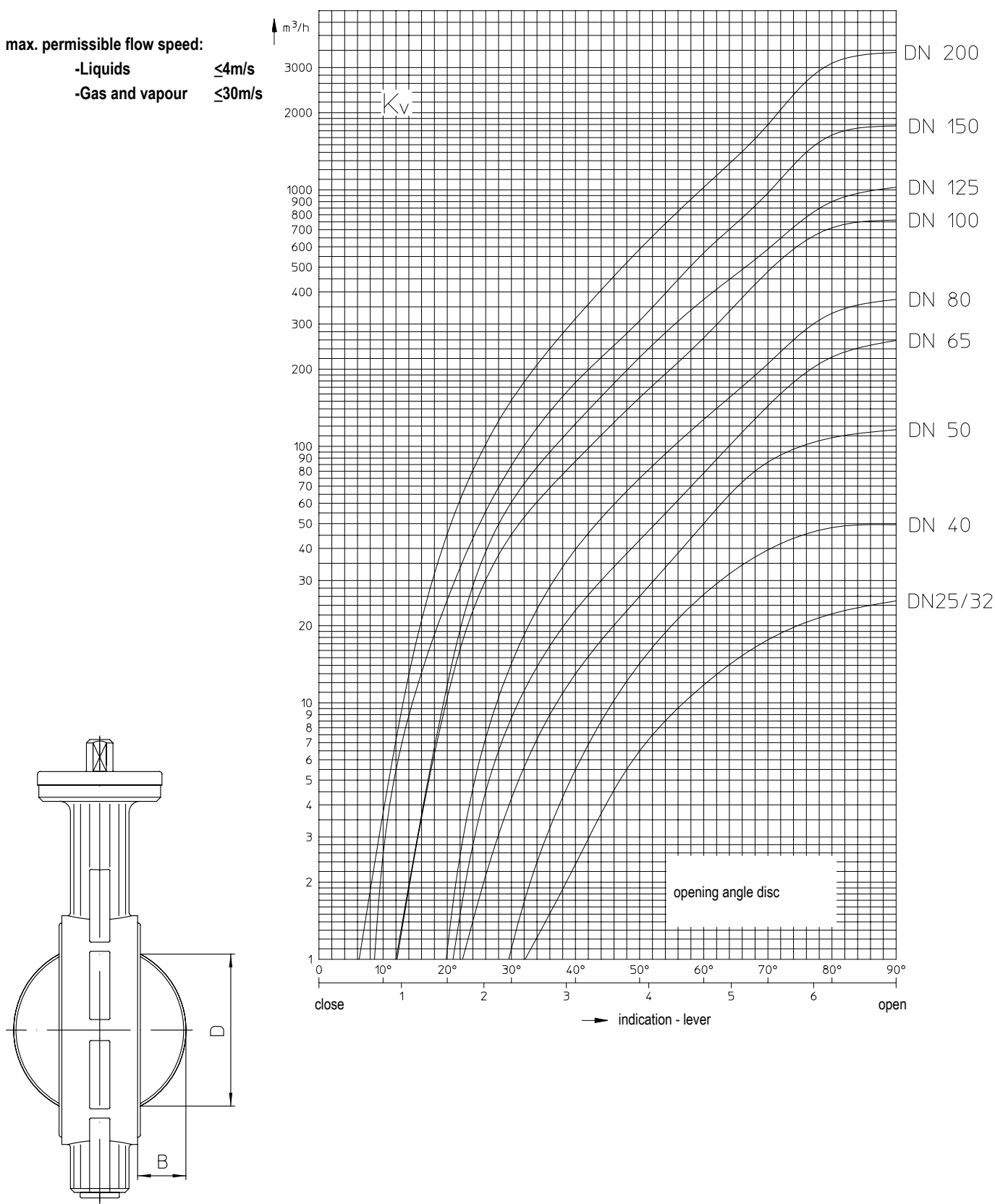
Example:

Figure 22.012; nominal pressure PN16; nominal diameter DN80; seat of EPDM, disc/stem of 1.4581/1.4021, with actuator EA.

Kvs-value / Zeta-value		25	32	40	50	65	80	100	125	150	200
DN		25	32	40	50	65	80	100	125	150	200
Kvs-value	(m³/h)	26	26,5	49,6	116	259	377	763	1030	1790	3460
Zeta-value	--	0,93	2,4	1,7	0,75	0,43	0,46	0,27	0,37	0,25	0,21

max. permissible flow speed:

- Liquids $\leq 4\text{m/s}$
- Gas and vapour $\leq 30\text{m/s}$



Difference between disc outside-diameter and face-to-face		25	32	40	50	65	80	100	125	150	200
DN		25	32	40	50	65	80	100	125	150	200
B	(mm)	--	--	5	5	11	18	25	36	48	71
D	(mm)	--	--	26	29	49	68	88	115	142	194

Type			EA1-230V	EA1-24V	EA1Y-24V	EA2-230V	EA2-24V	EA2Y-24V
Motor voltage			230V 50/60 Hz	24V 50/60Hz or 24V DC		230V 50/60Hz	24V 50/60Hz or 24V DC	
Power consumption	in operation	(W)	2,5 W	2 W		4 W	4,5 W	
	at rest	(W)	0,4 W	0,2 W		2 W	2 W	
	for wire sizing	(VA)	6 VA	4 VA		7 VA	7 VA	
Operating time			(s)			90 s	150 s	
Enclosure			DIN VDE 0470		IP 54	IP 54		
Protection class			DIN VDE 0140-1		II totally insulated	III extra low voltage		II totally insulated III extra low voltage
Control signal (input)			open/close or 3-point			Modulating 0(2)-10V	open/close or 3-point Modulating 0(2)-10V	
Max. permissible ambient temperature			0 to +50°C			0 to +50°C		
Max. non-operating temperature			-40 to +80°C			-40 to +80°C		
Ambient humidity range			95% r.H., non-condensating (acc. to DIN EN 60730-1)					
Top mounted handwheel			Gearing latch disengaged with pushbutton					
EMV Low Voltage Directive			CE acc. to 89/336/EWG, 73/23/EWG					
Operation mode			Type 1 (acc. to DIN EN 60730-1)					

Weight						
Weight	(kg)	1,0	0,55	1,85	2,5	

Accessories	
Limit switch	Box with 2 limit switches for signalisation

Type			EA-SR-230V	EA-SR-24V
Motor voltage			230V 50/60Hz	24V 50/60Hz or 24V DC
Power consumption	motoring	(W)	6,5 W	5,5 W
	holding	(W)	3,5 W	3 W
	for wire sizing	(VA)	18 VA	8,5 VA
Operating time	open	(s)	75 s	90 s
	close	(s)	20 s (on electrical power failure)	20 s (on electrical power failure)
Enclosure			DIN VDE 0470	IP 54
Protection class			DIN VDE 0140-1	II totally insulated III extra low voltage / UL Class 2 Supply
Control signal (input)			open/close	
Limit switch			2 limit switches for signalisation (2 x EPU 6 (3) A, AC 250 V)	
Max. permissible ambient temperature			-30 to +50°C	
Max. storage temperature			-40 to +80°C	
Top mounted handwheel			Handwheel	
EMV Low Voltage Directive			CE acc. to 2004/108/EG, 2006/95/EG	

Weight		
Weight	(kg)	2,2