

## Butterfly Valve Type AK01 / AK02



### description:

Butterfly valve to control a liquid or gaseous media in a pipeline system.

### features:

- suitable for neutral and not neutral **gaseous & liquid media**
- Maintenance free
- Soft sealing
- Shaft / Disc connection not in contact with the medium – **Industry Design**
- Central disc bearing
- Good flow characteristic due to excellent Zeta-values
- Position of installation can be chosen freely, DN350-600 shaft preferably in horizontal position

### connection:

DN25, DN32, DN40, DN50, DN65, DN80, DN100, DN125, DN150, DN200, DN250, DN300, DN350, DN400, DN500, DN600

### temperature:

-10°C up to 150°C – depending on design

### pressure:

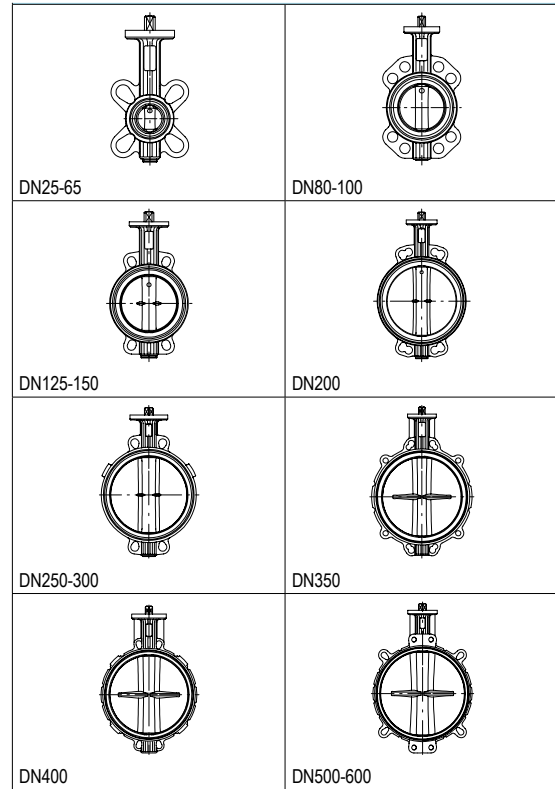
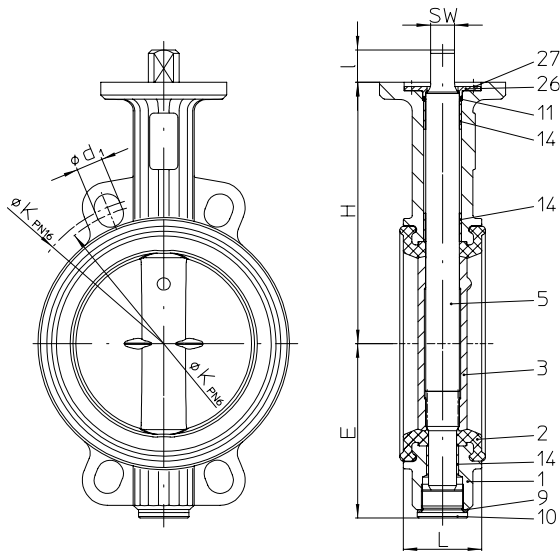
Up to 16,0 bar – depending on design

### Type AK01 Wafer type:

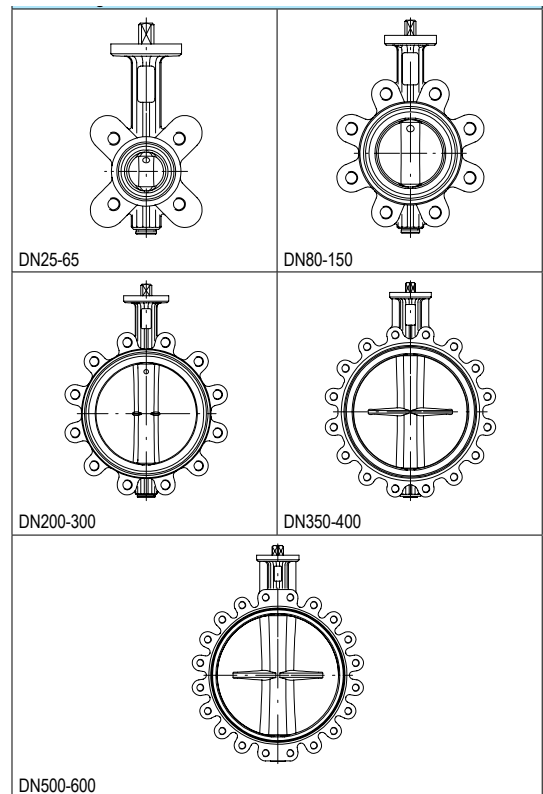
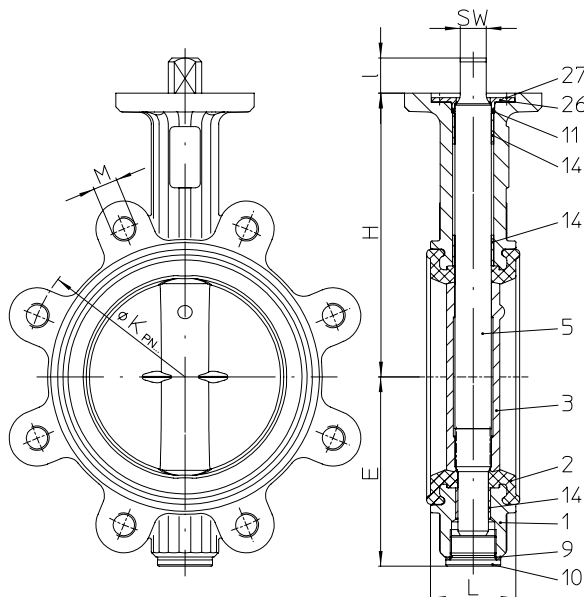
### Type AK02 Lug type:

<b>design:</b>	Butterfly Valve Wafer type or Lug type
<b>body:</b>	EN-JS1030 high quality epoxyd - coating
<b>disc:</b>	Stainless steel 1.4581
<b>stem:</b>	1.4021+QT / 1.4571
<b>nominal pressure:</b>	<b>Type AKXX0 PN10</b> <b>Type AKXX1 PN16</b>
<b>sealing leakage test:</b>	DIN EN 12266-1 Leakage rate A (DIN 3230 T3 Leakage rate 1)
<b>actuation arrangement:</b>	Notch lever Worm gear / recommended if larger than DN125
<b>seat:</b>	EPDM -10°C up to +130°C NBR -10°C up to +80°C (DVGW-Gas only up to +60°C) FPM 0°C up to +150°C (not useable for hot water)
<b>DVGW Registration:</b>	EPDM for drinking water Reg. no. NW-6201BQ0460 acc. to DIN EN 1074- NBR for gas Reg. no. NG-4313BQ0462 acc. to DIN EN 13774 (Operating range - 10 °C to + 60 °C)
<b>max. differential pressure:</b>	DN25 - DN150 16 bar DN200 – DN600 10 bar

**AK01 butterfly valve wafer type:**



**AK02 butterfly valve lug type:**



**dimensions type AK01 / AK02:**

DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500	600
L	33	33	33	43	46	46	52	56	56	60	68	78	78	102	127	154
H	117	117	123	129	139	147	168	186	202	236	263	292	358	407	495	555
E	58	58	66	69	81	100	109	124	140	167	203	232	257	298	356	418
I	19	19	19	19	19	19	19	23	23	23	24	24	24	29	38	48
SW	11	11	11	11	11	11	11	17	17	17	22	22	22	27	36	46
KVS-value	20	24	41	98	190	302	550	930	1525	3000	5000	7300	10260	13140	20750	30430
Zeta-value	1,52	2,93	2,42	1,03	0,79	0,72	0,53	0,45	0,35	0,29	0,25	0,24	0,23	0,24	0,23	0,22

**AK01 butterfly valve wafer type:**

	DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500	600		
PN6	ØK	75	90	100	110	130	150	170	200	225	280	335	395	445	495	600	705		
	n x Ød1	4x11	4x14	4x14	4x14	4x14	4x18	4x18	4x18	4x18	4x18	4x18	4x22	8x22	4x22	4x22	4x26		
	quantity	4	4	4	4	4	4	4	8	8	8	12	12	12	16	16	8	16	8
	G	M10	M12	M12	M12	M12	M16	M16	M16	M16	M16	M16	M16	M20	M20	M20	M20	M20	M24
length	80	80	80	90	90	100	110	120	120	130	140	160	160	180	22	50	250	70	

	DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500	600	
PN10	ØK	85	100	110	125	145	160	180	210	240	295	350	400	460	515	620	725	
	n x Ød1	4x18	4x18	4x18	4x18	4x18	4x18	4x18	8x18	8x22	8x22	8x22	8x22	4x22	4x28	4x28	8x36	
	quantity	4	4	4	4	4	8	8	8	8	8	12	12	16	16	16 / 8	16 / 8	
	G	M12	M16	M16	M16	M16	M16	M16	M16	M20	M20	M20	M20	M20	M24	M24	M27	
length	90	90	90	100	110	110	120	130	130	140	150	160	160	200	220	50	260	70

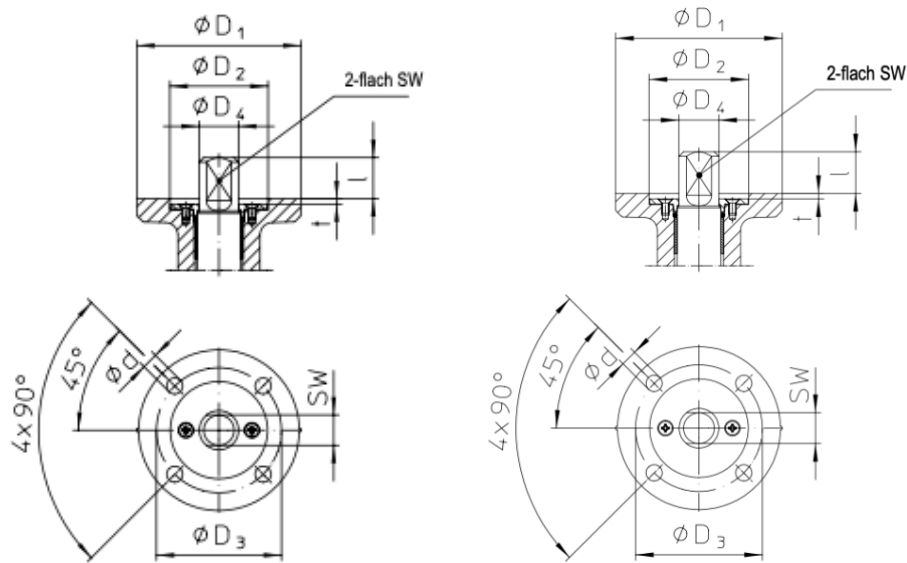
	DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500	600	
PN16	ØK	85	100	110	125	145	160	180	210	240	295	355	410	470	525	650	770	
	n x Ød1	4x14	4x18	4x18	4x18	4x18	8x18	8x18	8x18	8x22	12x22	12x26	12x26	16x26	16x30	20x33	8x36	
	quantity	4	4	4	4	4	8	8	8	8	12	12	12	16	16	16 / 8	16 / 8	
	G	M12	M16	M16	M16	M16	M16	M16	M16	M16	M20	M20	M24	M24	M24	M27	M30	M33
length	90	90	90	100	110	110	120	130	130	140	160	170	180	220	260	70	320	90

**AK02 butterfly valve lug type:**

	DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500	600	
PN10	ØK	85	100	110	125	145	160	180	210	240	295	350	400	460	515	620	725	
	n x M	4xM12	4xM16	4xM16	4xM16	4xM16	8xM18	8xM16	8xM16	8xM20	8xM20	12xM20	12xM20	16xM20	16xM24	20xM24	20x27	
	quantity	8	8	8	8	8	16	16	16	16	16	24	24	32	32	32 / 8	32 / 8	
	G	M12	M16	M16	M16	M16	M16	M16	M16	M16	M20	M20	M20	M20	M20	M24	M24	M27
length	30	30	30	35	35	40	40	45	45	50	55	55	60	70	85	50	100	70

	DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500	600	
PN16	ØK	85	100	110	125	145	160	180	210	240	295	355	410	470	525	650	770	
	n x M	4xM12	4xM16	4xM16	4xM16	4xM16	8xM16	8xM16	8xM16	8xM20	12xM20	12xM24	12xM24	16xM24	16xM27	20xM30	20xM33	
	quantity	8	8	8	8	8	16	16	16	16	24	24	24	32	32	32 / 8	32 / 8	
	G	M12	M16	M16	M16	M16	M16	M16	M16	M16	M20	M20	M24	M24	M24	M27	M30	M33
length	30	30	30	35	35	40	40	45	45	50	55	60	60	75	100	70	120	90

**Mounting flange:**

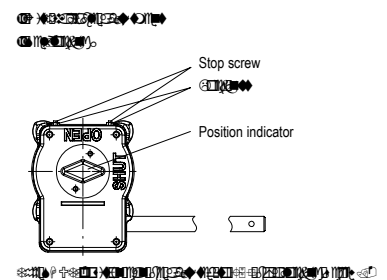
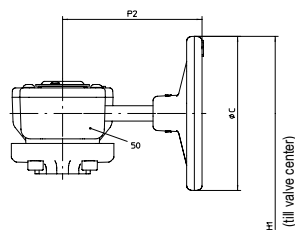
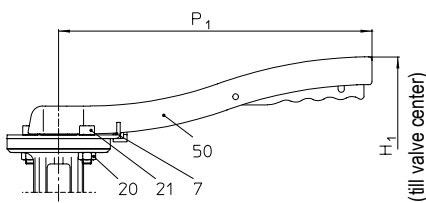


**DN25-200**

**DN250-600**

DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Connection EN ISO 5211	F05							F07			F10			F14			F1
2-flat SW	11 (d11)							17 (d11)			--			--			--
4-square SW	--							--			22 (D11)			27 (d11)	36 (d11)		46 (d11)
$\phi d$	7							-			11			18			22
$\phi D1$	65							90			125			175			210
$\phi D2$	35							55			70			100			130
$\phi D3$	50							70			102			140			162
$\phi D4$	14							22			--			--			--
L	19							23			27			29	39	38	48
t	3							3			3			4			5

**Actuation arrangement:**



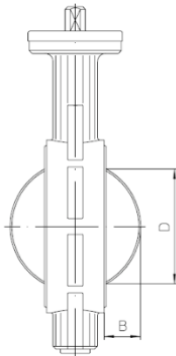
DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500	600
H1 with lever	180	180	186	192	202	210	231	257	273	307	--	--	--	--	--	--
H1 with gear	206	206	212	218	228	236	257	275	291	325	418	447	513	603	774	834
P1	184	184	184	184	184	184	184	273	273	273	--	--	--	--	--	--
P2	152	152	152	152	152	152	152	152	152	152	278	278	278	320	331	331
$\phi C$	125	125	125	125	125	125	125	125	125	125	250	250	250	315	457	457

**Parts and material:**

Pos.	Description	AK01 / AK02
1	Body	EN-GJS-400-15,EN-JS1030
2	Seal	EPDM 73 / NBR 73 / FPM73
3	Disc	1.4581
5	Stem	1.4021+QT / 1.4571
7	Lever cap	S235JR, 1.0037
9	Gasket	CU
10	Hexagon head screw plug	5.8-A2G
11	O-ring	EPDM 73 / NBR 73 / FPM 73
14	Parallel bush	P1
20	Hexagon nut	5-A2B
26	Washer for shaft protection	1.4021*QT
27	Countersunk screw	8.8-A2G
50	Notch lever	EN-JS 1030

**Disc dimension:**

DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600
B	--	--	5	5	11	18	25	36	48	71	91	112	132	147	168	188	224
D	--	--	26	29	49	68	88	115	142	194	243	292	333	383	436	486	580



**pressure-temperature-table:**

Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the give temperature / pressure chart.

DIN EN 1092-2	-20°C bin <-10°C	-10°C bis 120°C	130°C	150°C
EN JS1040 in bar	--	16	15,8	15,5

**torque** for liquid media\*

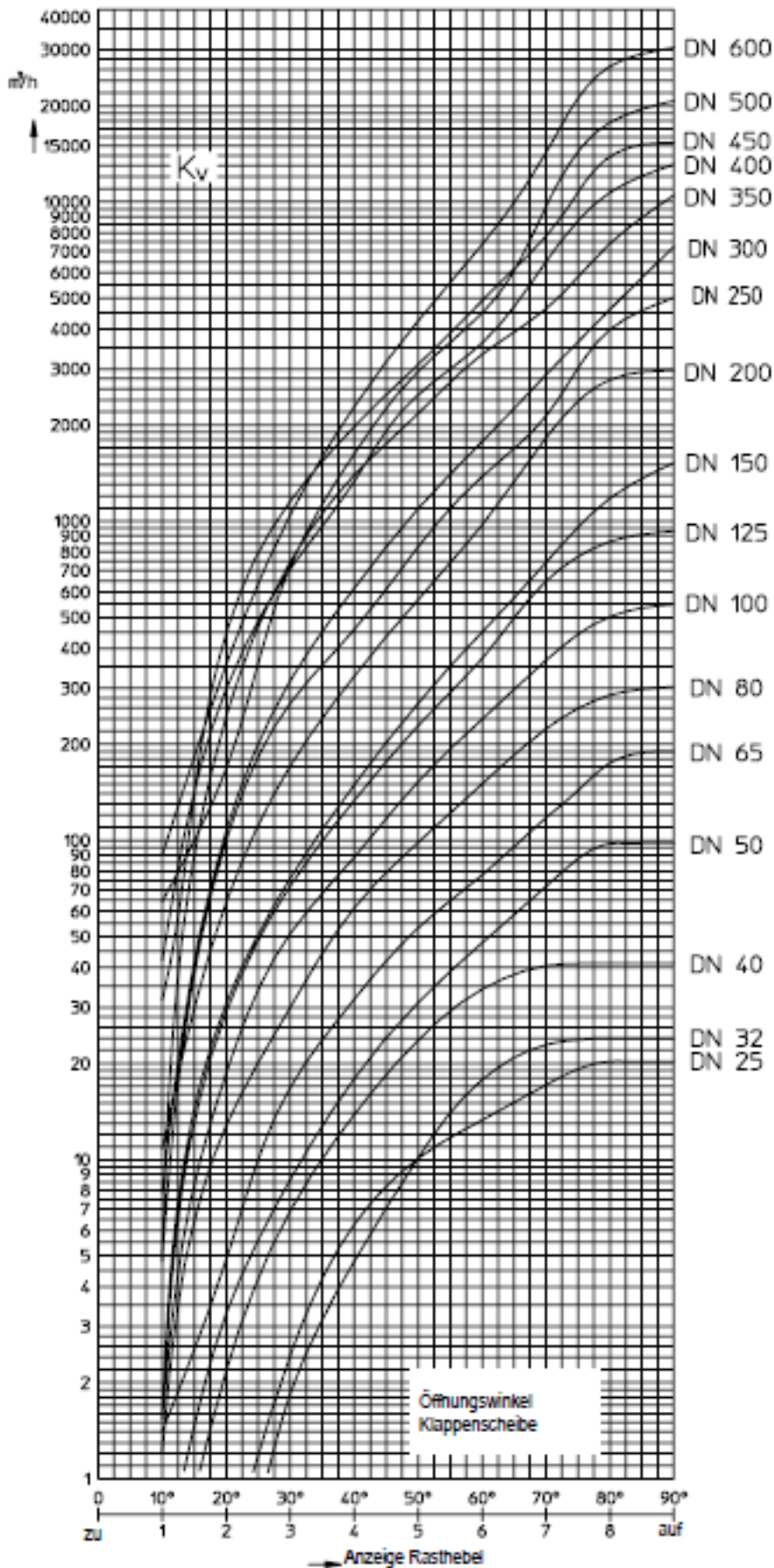
dimension	DN25-50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN450	DN500	DN600
torque Nm	15	25	35	50	100	110	135	250	450	500	650	1000	1200	2000

\*for dry media, torque values can be higher

**Kvs-Value** (m3/h)

dimension	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN450	DN500	DN600
Kvs-value	20	24	41	98	190	302	550	930	1525	3000	5000	7300	10260	13140	15200	20750	30430

**Flow rate:** (max. Flow speed: liquids  $\leq 4\text{m/s}$  / gaseous media  $\leq 30\text{m/s}$ )



**weight AK01:**

DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500	600
With lever	2	2	2,4	2,9	3,5	4,1	5,1	7,7	9,2	13,1	-	-	-	-	-	-
With gear	3,2	3,2	3,5	4,1	4,6	5,3	6,3	8,3	9,8	13,7	26	35,4	51,8	80,5	164	248

**weight AK02:**

DN	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500	600
With lever	2,6	2,5	2,7	3,5	4,1	5,6	6,9	9,9	11,8	17,1	-	-	-	-	-	-
With gear	3,7	3,7	3,9	4,6	5,2	6,8	8,1	10,5	12,4	17,7	31,6	42,6	65	102	207	317

**Article number:  
type**

type	pressure	seal	actuation	diameter
AK01 – wafer type	0 – PN10	0 – EPDM	00 – notch lever**	05 – DN25
<b>AK02 – lug type</b>	<b>1 – PN16</b>	1 – NBR	<b>01 – worm gear</b>	06 – DN32
	2 – PN6*	<b>2 – FPM</b>		07 – DN40
				08 – DN50
				09 – DN65
				10 – DN80
				11 – DN100
				12 – DN125
				13 – DN150
				14 – DN200
				<b>15 – DN250</b>
				16 – DN300
				17 – DN350
				18 – DN400
				19 – DN500
				20 – DN600

**example AK02130115:**

**AK02** | **1** | **2** | **01** | **15**

article number AK02120115  
 butterfly valve with wafer type  
 pressure: PN16  
 seal: FPM  
 actuation: worm gear  
 diameter: DN250

\* only with type AK01  
 \*\* only till DN200

Image similar, subject change without notice.