

# Wafer Type Check Valve Plastic

## Construction

The GEMÜ RSK wafer type check valve is available in plastic and the body, disc and seal can be chosen from various materials. The valve is clamped between two flanges and has a flange seal. It self-centres in the flanges between the bolt circle.

## Features

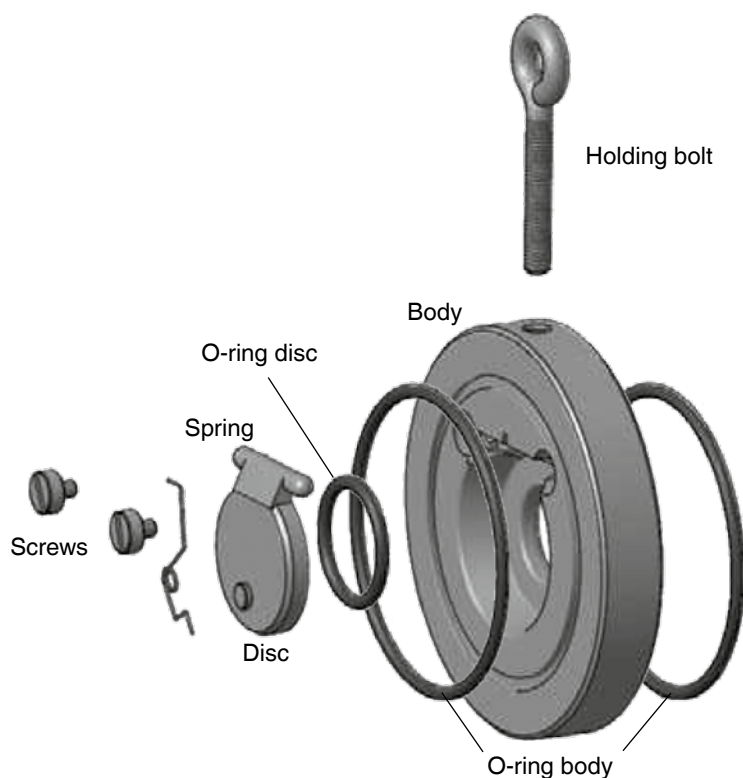
- Suitable for inert and corrosive\* liquid media
- The valve works according to the swing check principle
- Can be selected with or without spring return
- Horizontal or vertical installation possible

## Advantages

- Nominal sizes from DN 32 to 600
- Eye bolts as installation aids
- Weight and space saving design
- Very simple construction - low maintenance
- Short installation length

\* See page 2 for information on working medium

## Exploded drawing



## Technical data

### Working medium

Corrosive and inert liquid media which have no negative impact on the physical and chemical properties of the body, disc and seal materials.

See „Technical Information on Plastic Materials“

### Max. working temperature\*

NBR	90 °C
EPDM	120 °C
FPM	150 °C
PTFE	200 °C

\* dependent on seal material

### Maximum working pressure acc. to the Pressure Equipment Directive dependent on nominal size and material (temp. 20°C)

DN	PVC-U (Code 1)	PP (Code 5)	PVDF (Code 20)
	Liquids (Group 1*/2**)		
32-250	5.0 bar	6.0 bar	8.0 bar
300	5.0 bar	6.0 bar	5.0 bar
350-500	3.0 bar	4.0 bar	5.0 bar
600	1.5 bar	2.0 bar	2.5 bar

\* explosive, flammable, poisonous, oxidising

\*\* other fluids

### Flange bolt torques [Nm]

Thread	M 12	M 16	M 20	M 24	M 27
Torque	20	35	60	100	165

### Pressure for disc opening [mbar]

DN	Kv [m <sup>3</sup> /h]	PVC-U	PP	PVDF
32	16.2	1	1	2
40	22.2	1	1	2
50	54.0	2	1	2
65	75.0	2	1	2
80	112.0	2	1	2
100	172.0	2	1	2
125	342.0	2	1	2
150	490.0	2	1	3
200	1128.0	2	2	3
250	1500.0	3	2	3
300	1914.0	3	2	3
350	2800.0	3	3	4
400	3700.0	4	3	4
500	6450.0	4	4	4

Pressure for disc opening with spring appr. 20 mbar higher

### Weight [kg]

DN	Body material		
	PVC-U	PP	PVDF
32	0.13	0.09	0.17
40	0.16	0.10	0.21
50	0.26	0.18	0.34
65	0.33	0.23	0.43
80	0.40	0.27	0.52
100	0.56	0.38	0.72
125	0.76	0.51	0.98
150	1.12	0.76	1.44
200	2.13	1.43	2.73
250	3.54	2.44	4.56
300	5.35	3.57	6.95
350	7.56	5.16	9.76
400	11.10	7.40	14.40
500	22.85	15.20	29.60

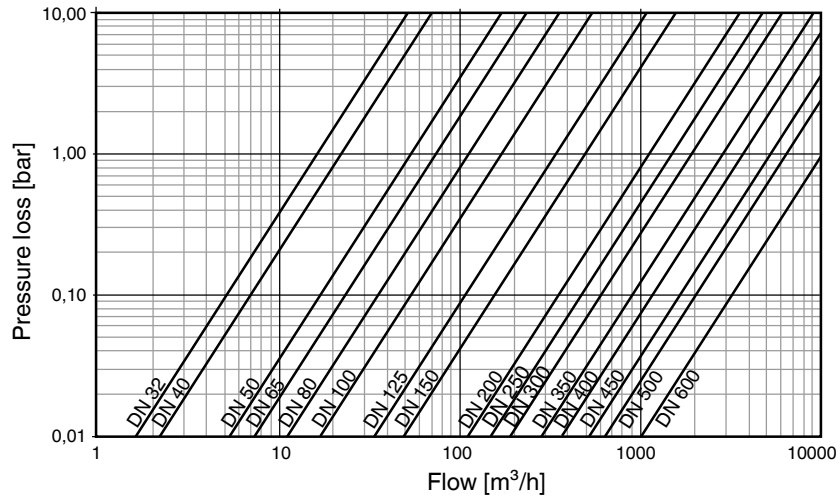
### Maximum working pressure due to temperature influence [bar]

DN	PVC-U (Code 1)			PP (Code 5)				PVDF (Code 20)			
	5°C	30°C	50°C	40°C	60°C	80°C	90°C	50°C	80°C	100°C	120°C
32-300	0.5	3.0	1.0	4.0	2.0	0.9	0.5	6.0	3.0	1.0	0.5
350-500	0.3	1.5	0.5	2.5	1.0	0.5	0.1	3.0	1.0	0.5	0.1
600	0.1	0.5	0.1	1.4	0.5	0.3	0.1	1.5	0.5	0.3	0.1

## Hydraulic characteristics

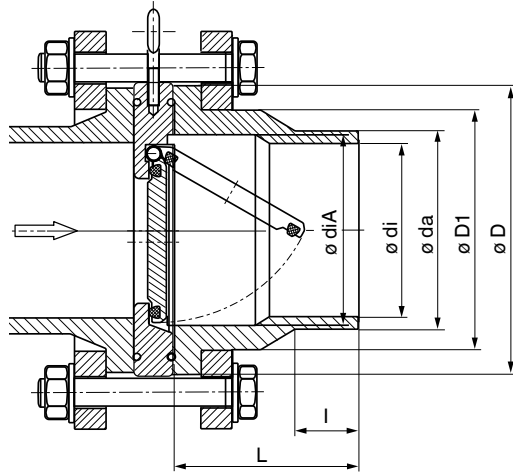
### Pressure loss

The diagram values are valid for water at 20° C.  
Please contact GEMÜ for the calculation of other fluids.



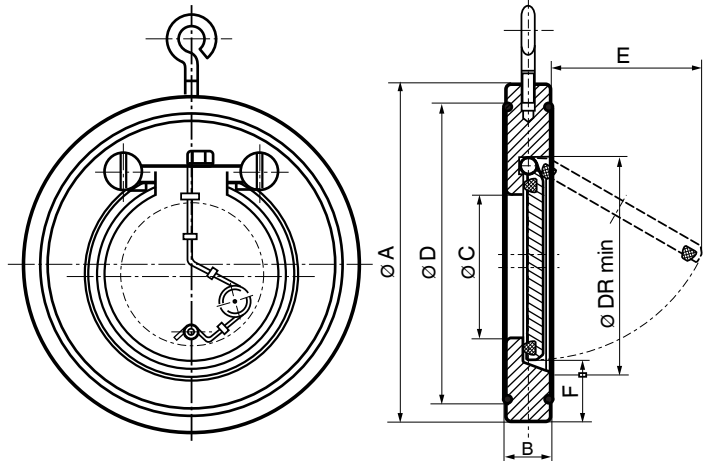
## Dimensions [mm]

### Flange adaptors for plastic pipelines



For metal pipelines flanges acc. to EN 1092-1 must be used.

### GEMÜ RSK



DN	ØD	L	Øda	Pipe connection		ØdiA	I	ØD1
				PN 6	PN 10			
32	80	65	40	35	32	37	30	50
40	90	68	50	43	41	43	30	61
50	105	74	63	54	51	54	30	77
65	125	78	75	66	61	70	30	91
80	140	87	90	79	73	82	35	109
100	160	102	110	97	90	106	35	132
		90	125	110	102			
125	190	125	140	124	114	130	47	166
150	215	150	160	141	130	158	52	189
		130	180	158	147			
200	270	200	200	177	163	206	55	249
		180	225	199	184		56	
250	325	225	250	221	204	259	63	293
		200	280	248	229			
300	375	255	315	280	257	308	66	337
350	435	285	355	314	290	341	71	375
400	486	325	400	354	327	392	78	429

DN	ØDR min.	PN 6	PN 10	ANSI 150	Spring		ØC	ØD	E	F
		ØA			with-out	with				
32	37	79	85	74	15		18	59	22	25
40	43	89	95	83	16		22	72	25	28
50	54	98	109	105	18		32	86	37	29
65	70	118	129	124	20		40	105	50	31
80	82	134	144	137	20		54	119	61	32
100	106	154	164	175	23		70	146	77	31
125	131	184	195	197	23		92	173	94	35
150	159	209	220	222	26		105	197	100	40
200	207	264	275	279	34		154	255	152	38
250	260	319	330	340	40		192	312	180	41
300	309	375	380	410	45		227	363	215	41
350	341	425	440	451	49		266	416	245	54
400	392	475	491	514	65		310	467	285	55
450	443	530	541	549	68	78	350	520	330	61
500	493	580	596	606	78	87	400	550	385	58
600	595	681	698	718	97		486	659	470	60

## Order data

Nominal size	Code
DN 32	0032
DN 40	0040
DN 50	0050
DN 65	0065
DN 80	0080
DN 100	0100
DN 125	0125
DN 150	0150
DN 200	0200
DN 250	0250
DN 300	0300
DN 350	0350
DN 400	0400
DN 450	0450
DN 500	0500

Larger nominal sizes available upon request.

Body material	Code
PVC-U, grey	1
PP	5
PVDF	20

Disc material	Code
PVC-U, grey	1
PP	5
PVDF	20

Seal material	Code
NBR	2
FPM	4
PTFE	5
EPDM	14

Working pressure	Code
6 bar	1

Return spring	Code
Without return spring	F0
1.4571	F1
Hastelloy	F2

Connection	Code
PN 6	1
PN 10	2
ANSI 150	D

Optional design	K-Number
Grease and oil free	0107

Order example	RSK	0100	1	2	5	5	14	F0	0107
Type	RSK								
Nominal size		0100							
Working pressure (Code)			1						
Connection (Code)				2					
Body material (Code)					5				
Disc material (Code)						5			
Seal material (Code)							14		
Return spring (Code)								F0	
Optional design (K-Number)									0107

For further butterfly valves, accessories and other products, please see our Product Range catalogue and Price List.  
Contact GEMÜ.

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