

# Wafer Type Check Valve Metal

## Construction

The GEMÜ ZRSK wafer type check valve is available in metal 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

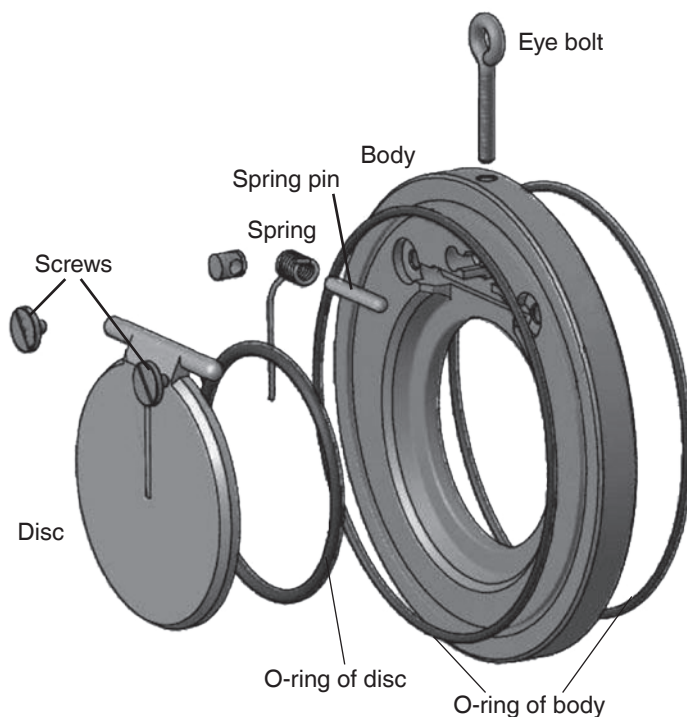
- Suitable for inert and corrosive\* liquid media
- The valve works according to the swing check principle
- Can be selected with or without spring return
- Horizontal or vertical installation possible

## Advantages

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

\* See information on working medium on page 2

## 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.

### Perm. temperature of working medium

NBR	-10 ... 90 °C
EPDM	-10 ... 120 °C
FPM	-10 ... 150 °C
PTFE	-10 ... 200 °C

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

DN	Liquid	
	Group 1*	Group 2**
32 - 125	16 bar	16 bar
150 - 250	10 bar	16 bar
300 - 600	10 bar	10 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

### Weight [kg]

DN	Body material	
	1.4408/1.0460/1.4571	CC333G
32	0.50	0.47
40	0.78	0.73
50	0.90	0.85
65	1.23	1.15
80	1.50	1.40
100	2.40	2.25
125	3.30	3.10
150	4.60	4.30
200	7.50	7.10
250	13.00	12.20
300	21.30	20.00
350	33.30	31.22
400	46.90	44.00
450	71.00	67.00
500	90.00	85.00
600	128.00	120.00

### Pressure for disc opening [mbar]

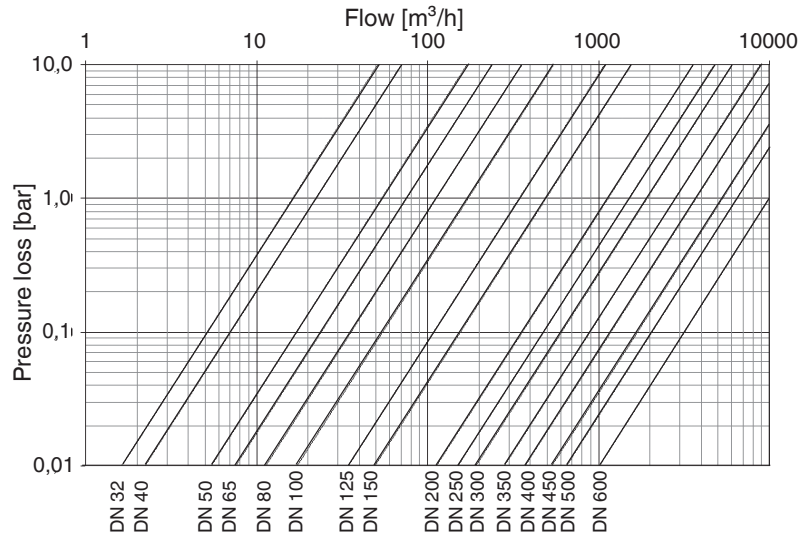
DN	Kv [m <sup>3</sup> /h]	Spring			
		↔ without	↔ with	↑ without	↑ with
32	16.2	2	15	10	25
40	22.2	2	15	10	25
50	54.0	2	15	10	25
65	75.0	2	15	10	25
80	112.0	2	15	10	25
100	172.0	2	15	10	25
125	342.0	2	15	10	25
150	490.0	2	15	10	25
200	1128.0	4	17	14	25
250	1500.0	4	17	14	25
300	2290.0	4	17	14	25
350	2890.0	6	18	18	27
400	3700.0	6	18	18	28
450	5000.0	6	18	18	28
500	6550.0	6	18	24	34
600	9500.0	6	18	26	36

A minimum back pressure of 0.3 bar is necessary for sealing the wafer type check valve.

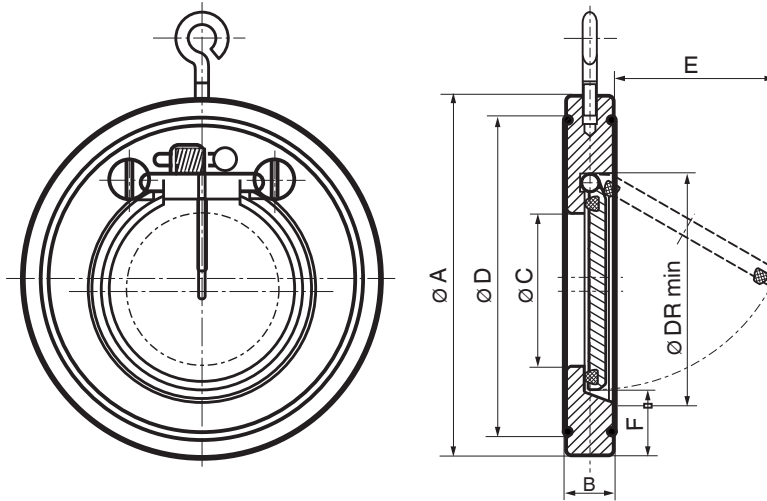
## Hydraulic characteristics

### Pressure loss

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



## Dimensions [mm]



DN	øDR min.	Manual override				øC	øD	E	PN 10				
		without		with									
		Spring											
		6	PN 10	16	ANSI 150	without	with	without	with				
		øA				B							F
32	37	79	85	85	74	15	15	---		18	59	22	25
40	43	89	95	95	83	16	16	---		22	72	25	28
50	54	98	109	109	105	14	14	19		32	86	37	29
65	70	118	129	129	124	14	14	19		40	109	50	31
80	82	134	144	144	137	14	14	20		54	119	61	32
100	106	154	164	164	175	18	18	23		70	146	77	31
125	131	184	195	195	197	18	18	24		92	173	98	35
150	159	209	220	220	222	20	20	29		112	197	120	35
200	207	264	275	275	279	22	22	30		154	255	160	38
250	260	319	330	331	340	26	26	35		192	312	190	41
300	309	375	380	386	410	32	32	43		227	363	220	41
350	341	425	440	446	451	38	-	48		266	416	250	54
400	392	475	491	499	514	44	-	---		310	467	290	55
450	442	-	541	558	549	52	-	---		350	520	340	60
500	493	580	596	621	606	58	-	---		400	550	390	58
600	595	681	698	738	718	62	-	---		486	660	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
DN 600	0600

Operating pressure	Code
6 bar	1
10 bar	2
16 bar	3

Connection	Code
PN 6	1
PN 10	2
PN 16	3
ANSI 150	A

Body material	Code
Stainless steel CF8M 1.4408	37
Steel 1.0619	3HE
Stainless steel AISI 316 TI, 1.4571	46
Aluminium bronze (CC333G)	5A0

Disc material	Code
Stainless steel CF8M 1.4408	37
Steel 1.0619	3HE
Stainless steel AISI 316 TI, 1.4571	46
Aluminium bronze (CC333G)	5A0

Seal material	Code
NBR	2
FPM	4
PTFE	5
EPDM	14

Return spring	Code
Without return spring	F0
Stainless steel 1.4571	F1
Hastelloy	F2

Manual override	Code
Only body material 1.4408	H

Optional design	K-Number
Grease and oil free	0107
Without paint adhesion interfering substances	0101

Order example	ZRSK	0100	2	2	46	46	14	F0	-	0107
Type	ZRSK									
Nominal size		0100								
Operating pressure (Code)			2							
Connection (Code)				2						
Body material (Code)					46					
Disc material (Code)						46				
Seal material (Code)							14			
Return spring (Code)								F0		
Manual override (Code)									-	
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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AND CONTROL SYSTEMS

