

GEMÜ RSK

Plastic check valve



Features

- Weight and space-saving construction
- Short length
- Simple construction
- Option with return spring
- Bubble tight sealing, in accordance with EN 12266-1/P12, leak rate A

Description

GEMÜ RSK is a plastic check valve with integrated flange seal. The valve body, disc and seal are available in various materials. The GEMÜ RSK is clamped between two flanges during installation. The centring is based on the outside diameter of the housing.

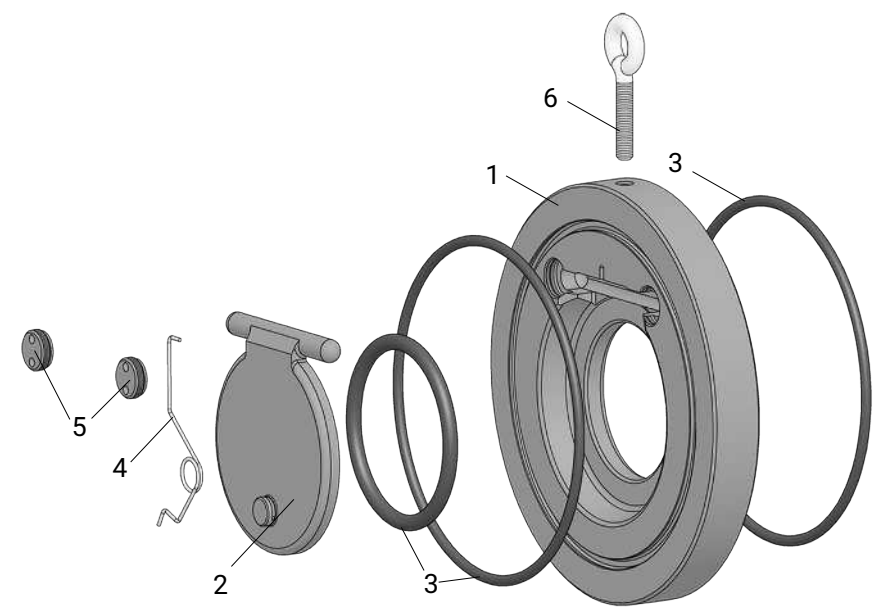
Technical specifications

- **Media temperature :** -10 to 120 °C
- **Ambient temperature:** 0 to 60 °C
- **Operating pressure :** 1 to 10 bar
- **Nominal sizes:** DN 32 to 600
- **Connection types:** Flange
- **Connection standards:** ANSI | DIN | EN | ISO
- **Body materials:** PP | PVC-U, grey | PVDF
- **Seal materials:** FKM | NBR | PTFE
- **Disc materials:** PP-H | PVC-U | PVDF
- **Conformities:** EAC | FDA

Technical data depends on the respective configuration



Product description



Item	Name	Materials
1	Body	PVC-U grey, PP, PVDF
2	Disc	PVC-U grey, PP, PVDF
3	Seal (O-ring)	NBR, EPDM, FKM, PTFE (encapsulated)
4	Spring	1.4571, Hastelloy
5	Screws	PVC-U grey, PP, PVDF
6	Eye bolt	1.4571

Order data

Order codes

1 Type	Code
Check valve	RSK

2 DN	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

3 Operating pressure	Code
5 bar	7
6 bar	1
8 bar	8
10 bar	2

4 Connection type	Code
PN 6 / flange EN 1092	1

4 Connection type	Code
PN 10 / flange EN 1092	2
ANSI B16.5, Class 150	D

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

6 Disc material	Code
PVC-U	1
PP	5
PVDF	20

7 Seal material	Code
NBR	2
FKM	4
PTFE	5
EPDM	14

8 Spring return	Code
Without return spring	F0
Spring 1.4571	F1
Spring Hastelloy	F2

9 Type of design	Code
Without	
Valve free of oil and grease, media wetted area cleaned and packed in PE bag	0107
Check valve with bonded O-ring	2577

Order example

Ordering option	Code	Description
1 Type	RSK	Check valve
2 DN	0100	DN 100
3 Operating pressure	1	6 bar
4 Connection type	2	PN 10 / flange EN 1092
5 Body material	5	PP
6 Disc material	5	PP
7 Seal material	5	PTFE
8 Spring return	F0	Without return spring
9 Type of design		Without

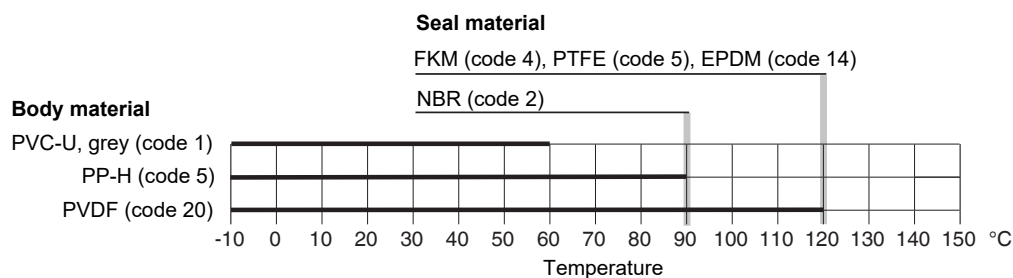
Technical data

Medium

Working medium: Corrosive, inert, gaseous and liquid media which have no negative impact on the physical and chemical properties of the body, disc and seal material.

Temperature

Media temperature:



Pressure

Operating pressure:

DN	Material code ¹⁾		
	1	5	20
32	10	8	10
40	10	8	10
50	10	8	10
65	10	8	10
80	10	6	10
100	10	6	10
125	10	6	10
150	6	6	8
200	6	6	8
250	5	5	5
300	5	5	5
350	5	5	5
400	5	5	5
450	5	5	5
500	5	5	5
600	5	5	5

Pressures in bar

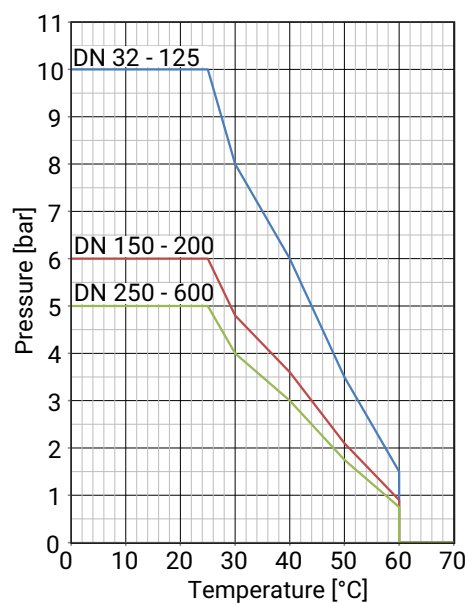
1) **Body material**
Code 1: PVC-U
Code 5: PP
Code 20: PVDF

Vacuum: Can be used up to a vacuum of 100 mbar (abs), or with bonded O-ring (K-no. 2577) up to a vacuum of 20 mbar (abs)

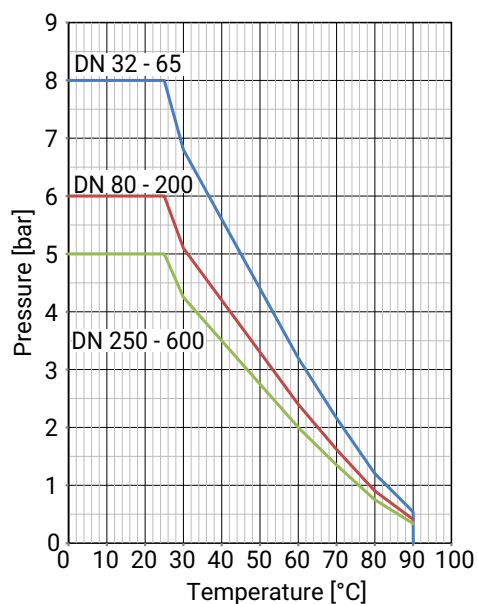
These values apply to room temperature and air. The values may deviate for other media and other temperatures.

Pressure/temperature
diagram:

Body material PVC-U, grey (Code 1)

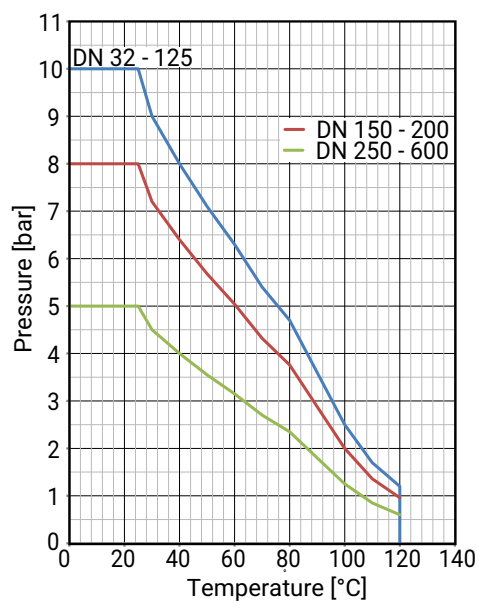


Body material PP (Code 5)

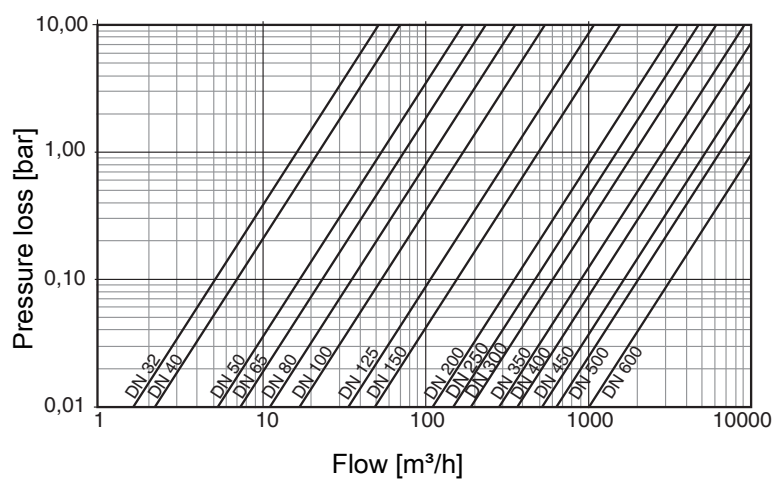


**Pressure/temperature
diagram:**

Body material PVDF (Code 20)



Pressure loss:



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

Pressure for disc opening:

DN	Piping	
	Horizontal	Vertical
32	1	2
40	1	2
50	1	3
65	1	3
80	1	3
100	1	3
125	1	3
150	1	3
200	1	4
250	1	4
300	1	4
350	2	5
400	3	7
450	3	8
500	5	8
600	10	11

Pressures in mbar

Acc. to EN 12266-1

To achieve the stated leakage rate, a back pressure of at least 0.3 bar is required for tight sealing.

Leakage rate:

Leakage rate A according to P12 EN 12266-1

Kv values:

DN	Kv values
32	16.2
40	22.2
50	54.0
65	75.0
80	112.0
100	172.0
125	342.0
150	490.0
200	1128.0
250	1500.0
300	1914.0
350	2800.0
400	3700.0
450	4500.0
500	6450.0
600	6800.0

Kv values in m³/h

Mechanical data

Weight:

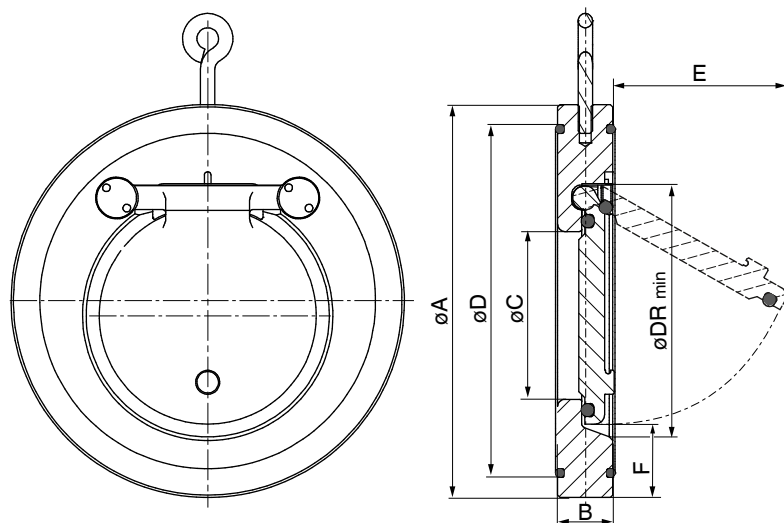
DN	Material code ¹⁾		
	1	5	20
32	0.13	0.09	0.17
40	0.16	0.1	0.21
50	0.35	0.18	0.34
65	0.35	0.23	0.43
80	0.4	0.27	0.52
100	0.56	0.38	0.72
125	0.76	0.51	0.98
150	1.12	0.76	1.44
200	2.13	1.43	2.73
250	3.54	2.44	4.56
300	5.35	3.57	6.95
350	7.56	5.16	9.76
400	11.1	7.4	14.4
450	16.0	12.5	21.2
500	22.85	15.2	29.6
600	39.0	25.5	49.0

Weights in kg

- 1) **Body material**
 Code 1: PVC-U
 Code 5: PP
 Code 20: PVDF

Dimensions

Design version A

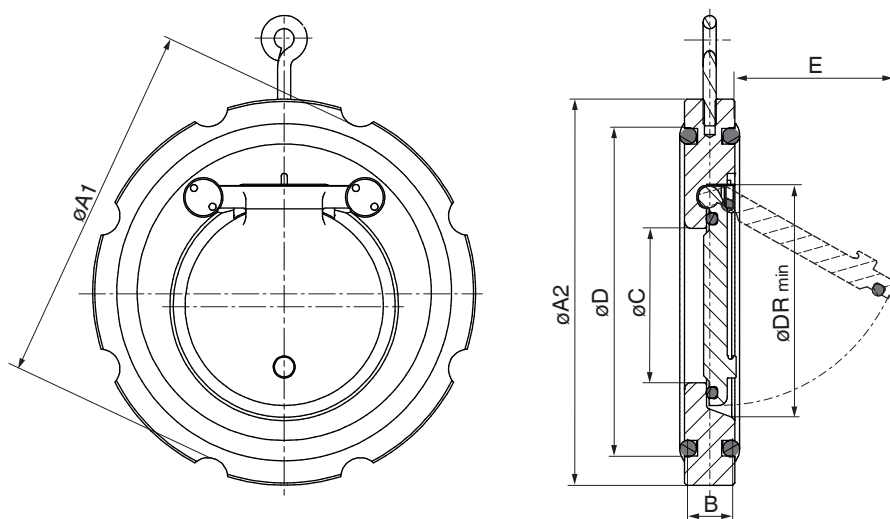


DN	øDR min.	PN 6	PN 10	ANSI 150	with spring	without spring	øC	øD	E	F
øA				B						
32	37.0	79.0	85.0	74.0	15.0	15.0	18.0	59.0	22.0	25.0
40	43.0	89.0	95.0	83.0	16.0	16.0	22.0	72.0	25.0	28.0
50	54.0	98.0	109.0	105.0	18.0	18.0	32.0	86.0	37.0	29.0
65	70.0	118.0	129.0	124.0	20.0	20.0	40.0	105.0	50.0	31.0
80	82.0	134.0	144.0	137.0	20.0	20.0	54.0	119.0	61.0	32.0
100	106.0	154.0	164.0*	175.0*	23.0	23.0	70.0	146.0*	77.0*	31.0
125	131.0	184.0	195.0	197.0	23.0	23.0	92.0	173.0	94.0*	35.0
150	159.0	209.0	220.0*	222.0*	26.0	26.0	105.0	197.0*	100.0*	40.0
200	207.0	264.0	275.0*	279.0*	34.0	34.0	154.0	255.0*	152.0*	38.0
250	260.0	319.0	330.0*	340.0*	40.0	40.0	192.0	312.0*	180.0*	41.0
300	309.0	375.0	380.0*	410.0*	45.0	45.0	227.0	363.0*	215.0*	41.0
350	341.0	425.0	440.0	451.0	49.0	49.0	266.0	416.0	245.0	54.0
400	392.0	475.0	491.0	514.0	65.0	65.0	310.0	467.0	285.0	55.0
450	443.0	530.0	541.0	549.0	68.0	78.0	350.0	520.0	330.0	61.0
500	493.0	580.0	596.0	606.0	78.0	87.0	400.0	550.0	385.0	58.0
600	595.0	681.0	698.0	718.0	97.0	97.0	486.0	659.0	470.0	60.0

Dimensions in mm

* Design version B is used as standard for these connection types and nominal sizes.

Design version B

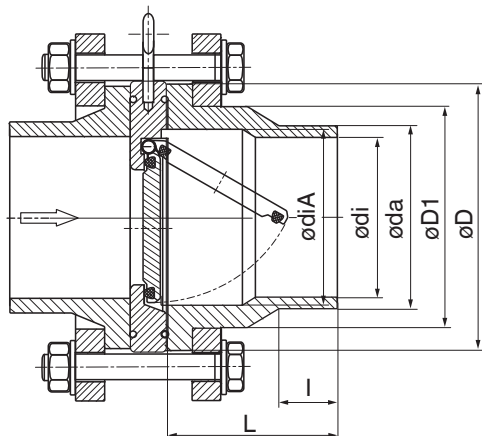


DN	$\phi DR_{min.}$	PN 10	ANSI 150	B	ϕC	ϕD	E
		$\phi A1$	$\phi A2$				
100	106.0	164.0	175.0	23.0	70.0	153.0	77.0
150	159.0	220.0	222.0	26.0	105.0	198.5	100.0
200	207.0	275.0	279.0	34.0	154.0	259.5	152.0
250	260.0	330.0	340.0	40.0	192.0	311.0	180.0
300	309.0	380.0	410.0	45.0	227.0	247.0	215.0

Dimensions in mm

Special flange adaptor

The special flange adaptor must be ordered separately.



DN	ØD	L	Øda	Ødi		ØdiA	I	ØD1	Item no.	
				PN 6	PN 10				PP	PE
32	80.0	65.0	40.0	35.0	32.0	37.0	30.0	50.0	88413915	-
40	90.0	68.0	50.0	43.0	41.0	43.0	30.0	61.0	88322123	88321090
50	105.0	74.0	63.0	54.0	51.0	54.0	30.0	77.0	88299955	88320179
65	125.0	78.0	75.0	66.0	61.0	70.0	30.0	91.0	88242365	88207359
80	140.0	87.0	90.0	79.0	73.0	82.0	35.0	109.0	88264813	88241582
100	160.0	102.0	110.0	97.0	90.0	106.0	35.0	132.0	88312179	88207361
125	190.0	125.0	140.0	124.0	114.0	130.0	47.0	166.0	88263989	88390510
150	215.0	150.0	160.0	141.0	130.0	158.0	52.0	189.0	88276859	88413927
200	270.0	200.0	200.0	177.0	163.0	206.0	55.0	249.0	88249170	88413934
250	325.0	225.0	250.0	221.0	204.0	259.0	63.0	293.0	88265064	88413928
300	375.0	255.0	315.0	280.0	257.0	308.0	66.0	337.0	88413916	88413929

Dimensions in mm



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