

## Wafer type check valve S4



### **General:**

- Material: PVC-U / PP / PVDF
- Sealing Material: EMPD / FPM
- Dimensions: DN32 – DN500

### **Types:**

- S4.60 without return spring
- S4.70 with return spring

### **Spring material:**

- Stainless Steel 1.4571
- Hastelloy C4

### **Operating pressure:**

- see table

### **Technical features:**

- simple and robust construction
- mounting between DIN backing flange PN10
- supporting ring for assembling
- low pressure drop
- opening pressure with spring is about 20 mbar higher
- maintenance free

### **Exit supports:**

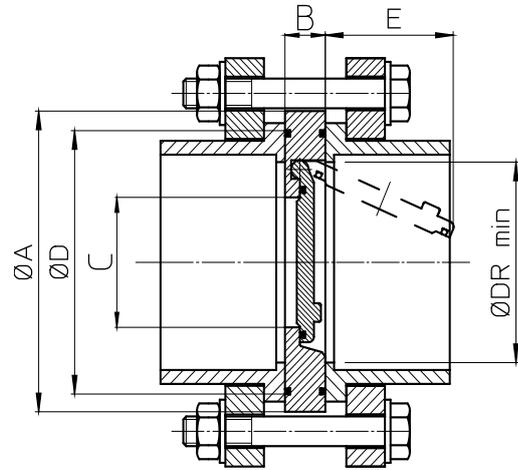
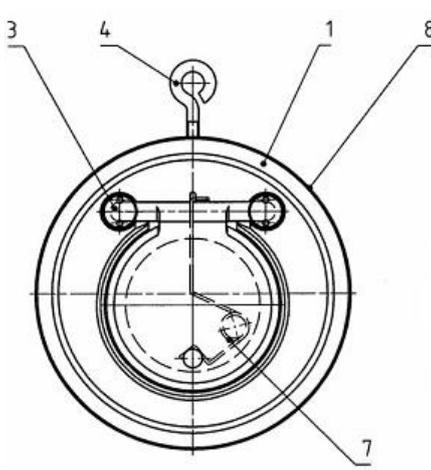
- Offers better opening position of the disc  
= better flow characteristics  
= less pressure drop

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Subject to technical modifications!

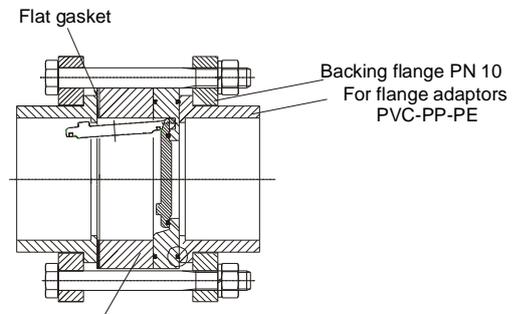
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**Dimensions:**



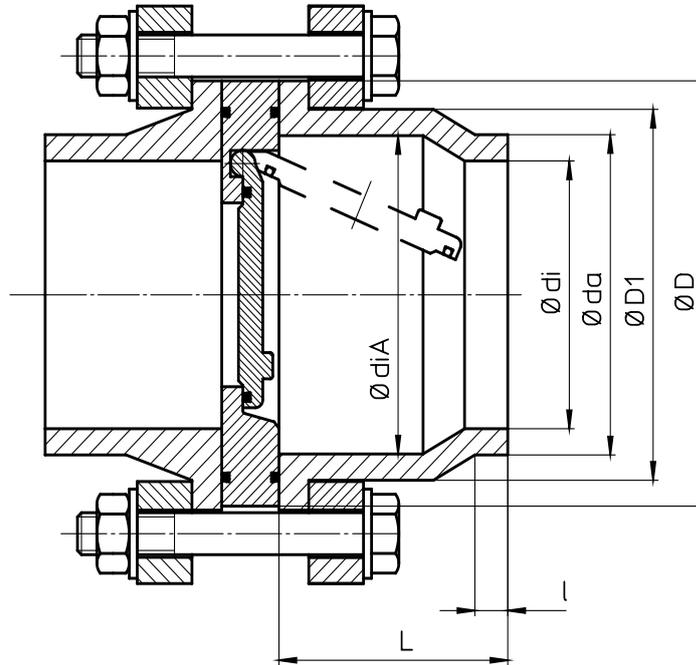
- 1. Body
- 2. Disc
- 3. Screw
- 4. Ring screw
- 5. O-Ring
- 6. O-Ring
- 7. Spring
- 8. Typ plate
- 9. Spacer



DN	Without spring		with spring	C	D	E	F	DR
	A	B	B					
32	85	15	15	18	59	22	25	37
40	95	16	16	22	72	25	28	43
50	109	18	18	32	86	37	29	54
65	129	20	20	40	105	50	31	70
80	144	20	20	54	119	61	32	82
100	164	23	23	70	146	77	31	106
125	195	23	23	92	173	94	35	131
150	220	26	26	105	197	100	40	159
200	275	34	34	154	255	152	38	207
250	330	40	40	192	312	180	41	260
300	380	45	45	227	363	215	41	309
350	440	49	49	266	416	245	54	341
400	491	65	65	310	467	285	55	392
450	541	68	78	350	520	330	61	443
500	596	78	87	400	550	385	58	493

Dimensions in mm

**Dimensions exit support for PP Stub Flanges:**



Conduit  
connection  
PN 6 / PN10

DN	D	L	da	di	di	diA	l	D1
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

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### Maximum operating pressure:

Operating pressure in <bar> in relation to size and material (temperature 20°C)

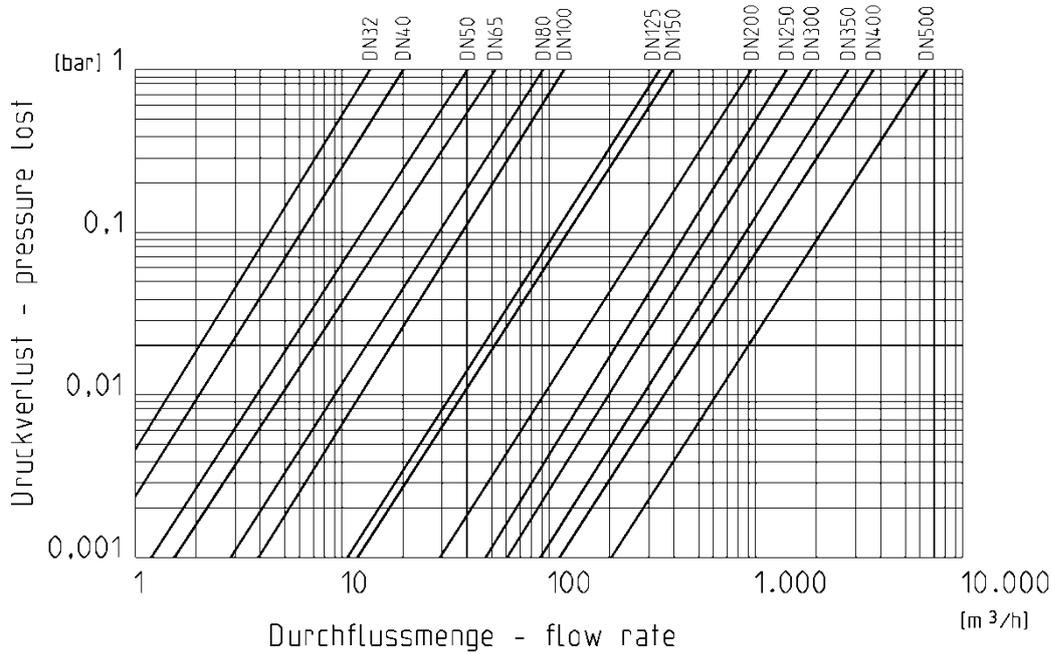
DN	PVC bar	PP bar	PVDF bar
32	5	6	8
40	5	6	8
50	5	6	8
65	5	6	8
80	5	6	8
100	5	6	8
125	5	6	8
150	5	6	8
200	5	6	8
250	5	6	8
300	5	6	5
350	3	4	5
400	3	4	5
500	3	4	5

### Maximum operating pressure in <bar>, resulting from temperature effects:

DN	PVC			PP				PVDF			
	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	1	4	2	0,9	0,5	3,5	3	1	0,5
350 - 500	0,3	1,5	0,5	2,5	1	0,5	0,1	3	1	0,5	0,1

Maximum operating temperature in relation to seals: EPMD 120°C  
 FPM 150°C

**Pressure loss diagram**



**CV-Wert Table**

DN	32	40	50	65	80	100	125	150	200	250	300	350	400	500
<b>Cv-Value (m³/h)</b>	14,5	20	40	52	91	124	342	395	932	1500	1914	2800	3700	6450

The values in the diagram refer to water at 20°C

**Installation instructions:**

A back pressure of 0,3 bar is necessary to maintain the pressure tightness the valve. For installation on pumps (pressure part) please note the following:

- No direct installation on pump flanges or bend
- Befor and after the wafer the check valve, a relieve area for the flow of 5 times the used DN must be considered

**Caution:**

PP Piping Systems shall be equipped with the special fitting on the opening gate to enable the est possible opening of the disc. This avoids damages inside the pipe resp. stub flange.

**Note:**

Wafer type check valves type S4.60 (without spring) is not recommended for the use of vibrant flow situations. For such applications use wafer type check valves type S4.70. (with spring