

Wafer type check valve K6 PVC



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General:

- Material: PVC-U
- Seal materials: EPDM / FPM
- Dimensions: DN40 – DN200
d50 – d225
1 ½" – 8"
- Flange standards: DIN 2501 – PN10
ANSI – class150
- Optional: with spring
Mat. 1.4401/ AISI 316

Operating pressure:

- PVC MOP 10bar

Pipe systems:

- DIN PN6 and PN10
- ASTM schedule 40 & 80
(only schedule40 possible for DN40 – DN50)
- PE100 SDR17
(Note installation information for stub flanges!)

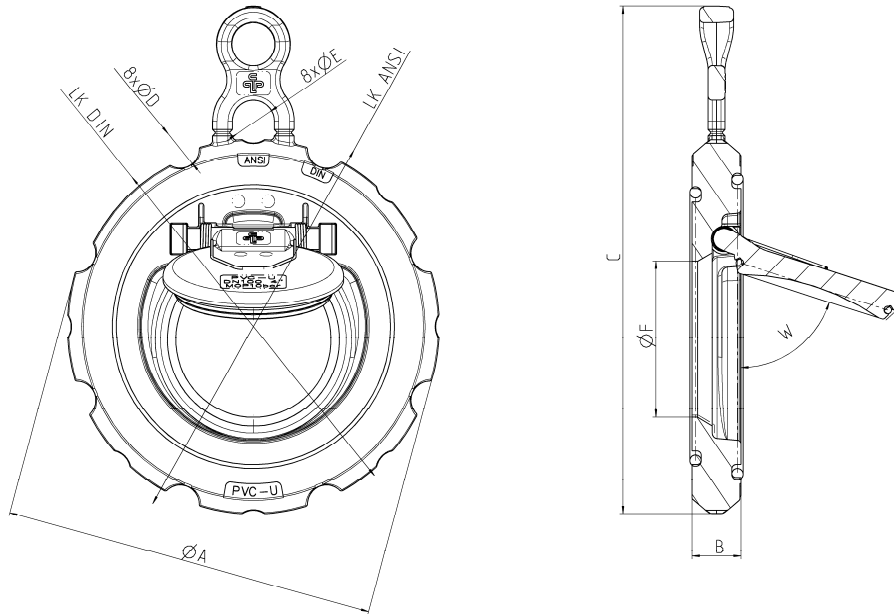
Technical features:

- Spring can be retrofitted at any time without mechanical processing
- Operating temperature up to 60°C
- Tight as of max. 0.3bar counterpressure
- Novel valve design with conical sealing surface for highest of requirements and long service life
- Back-flushed shaft for prevention of deposits
- Cylindrically housed valve shaft for optimal force transmission
- Easy to mount with screw centering for DIN2501 PN10 and ANSI class150
- Integrated mounting aid with defined breaking point for simple removal
- No outlet aids required due to improved Kv value
- Horizontal and vertical installation possible
- All parts made of PVC-U, therefore very good corrosion resistance

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Dimensions:



DN	40	50	65	80	100	125	150	200
d	50	63	75	90	110	140	160	225
ØA	95	109	130	146	175	198	223	280
B	16	18	20	20	23	25	30	34
C	141,8	159,5	185	200,4	237,2	262,3	288,8	348,3
LK DIN	110	125	145	160	180	210	240	295
ØD	18	18	18	18	18	18	22	22
LK ANSI	98,5	120,65	139,7	152,4	190,5	215,9	241,3	298,45
ØE	15,5	19	19	19	19	22,2	22,2	22,2
ØF	23,5	33	42	53	73	93	110	150

Dimensions in mm

Flap opening angle W with various pipe dimensions								
PN10	91	88,5	82	84,5	72,5	73,5	69	74
PN6	93,5	92,5	86	88,5	78	79	75	79
schedule40	80,5	79,5	72	79,5	76	75	78,5	73
schedule80	-	-	63	72	69	68	71	66
PE100 SDR17	88	85,5	78,5	81,5	68,5	69,5	64,5	70

*Note installation information

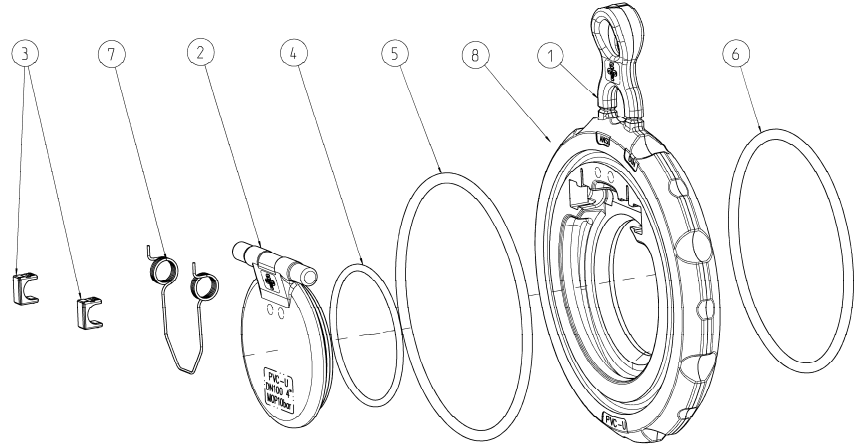
Dimensions in degrees

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Exploded drawing:

- 01. Body
- 02. Flap
- 03. Flap clip
- 04. O-ring, flap
- 05. O-ring, body frontside
- 06. O-ring, body backside
- 07. Optional spring
- 08. Label

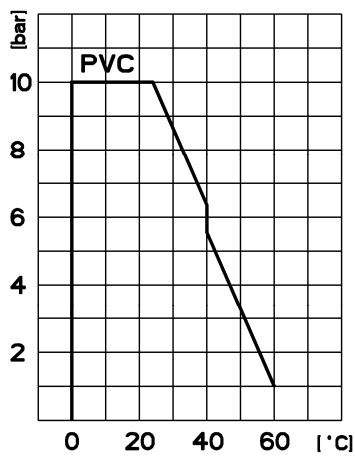


Spares:

- 01. Flap kit: Flap
Flap clips
- 02. O-ring set EPDM: O-ring, flap
O-ring, body frontside
O-ring, body backside
- 03. O-ring set FPM: O-ring, flap
O-ring, body frontside
O-ring, body backside
- 04. Spring: Spring
Label EPDM / FPM

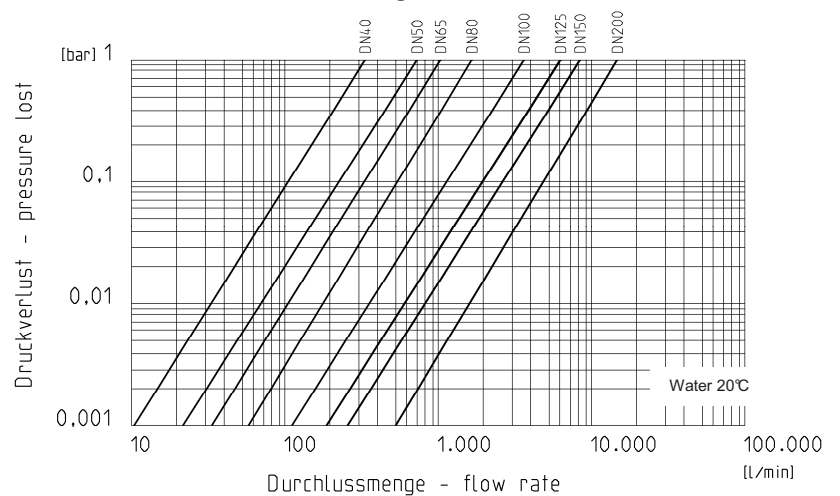
Diagrams:

Pressure-temperature diagram



from 40°C increased safety factor

Pressure loss diagram



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Cv value table

Pressure loss	1 bar	0.001 bar
DN40	333l/min	10.5l/min
DN50	700l/min	22.1l/min
DN65	1050l/min	33.2l/min
DN80	1750l/min	55.3l/min
DN100	3633l/min	114.9l/min
DN125	6067l/min	191,9l/min
DN150	8217l/min	259,8l/min
DN200	15733l/min	497,5l/min

**Measurements implemented as per DIN EN 60534-2-3.
Values in pressure loss diagram obtained at max. opening angle
with PVC PN10 pipes and flow medium water at 20°C!**

Opening pressure

Mounting position	horizontal	vertical
DN40	2 mbar	10 mbar
DN50	2 mbar	10 mbar
DN65	2 mbar	10 mbar
DN80	2 mbar	10 mbar
DN100	2 mbar	10 mbar
DN125	3 mbar	15 mbar
DN150	3 mbar	15 mbar
DN200	3 mbar	15 mbar

Opening pressure is required differential pressure to open flap!

General installation information

The following must be noted when installing on a pump (pressure-side):

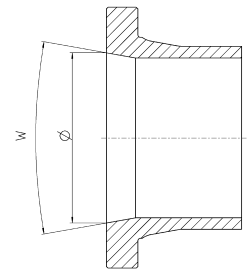
- No direct mounting on the pump flange or downstream bends or elbows
- A calming zone distance of 5x the DN nominal diameter must be planned before and after the wafer type check valve

Note:

Wafer type check valves without springs are not recommended for pulsing flow conditions. We recommend a wafer type check valve with spring for such applications.

Installation in PE100 SDR17 piping:

With PE100 SDR17 stub flanges, the outlet side must be chamfered according to the table to obtain the correct opening.

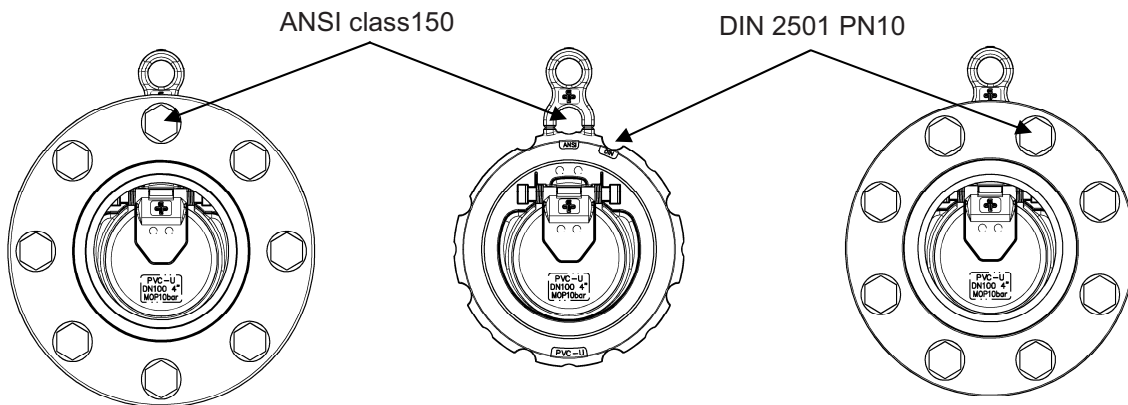


DN	40	50	65	80	100	125	150	200*
Ø	46	57	68	80	103	128	147	198
W	20	20	20	20	20	20	20	20

*no machining of the stub flange is required

Centering in the piping:

The wafer type check valve is centered in the piping via the different screw recesses for DIN 2501 PN 10 and ANSI class150 around the circumference of the body.



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Tightening torque of screws for flange connections

DN	40	50	65	80	100	125	150	200
Nm	15	20	20	20	20	25	30	35

Bolts should be tightened in alternative diagonal sequence and with an equal torque

1. tighten the bolts by hand in order to ensure an equal alignment of the sealing surfaces
2. first, tighten the bolts to 50% of the recommended torque in alternative sequence (diagonal)
3. then, tighten the bolts further to 80% of the recommended torque in alternative sequence (diagonal)
4. finally, tighten the bolts to the recommended torque