

Wafer type check valve K6 PVC



General:

- Material: PVC-U
- Seal materials: EPDM / FPM
- Dimension: DN40 - DN300
d50 - d315
1 1/2" - 12"
- Flange standards: DIN 2501 - PN10
ANSI - class 150
- Optional: with spring
- Mat. 1,4401 / AISI 316
- Hastelloy C-4 (on request)

Operating pressure:

- DN40 - DN200 MOP 10bar
- DN300 MOP 8bar

Pipe system:

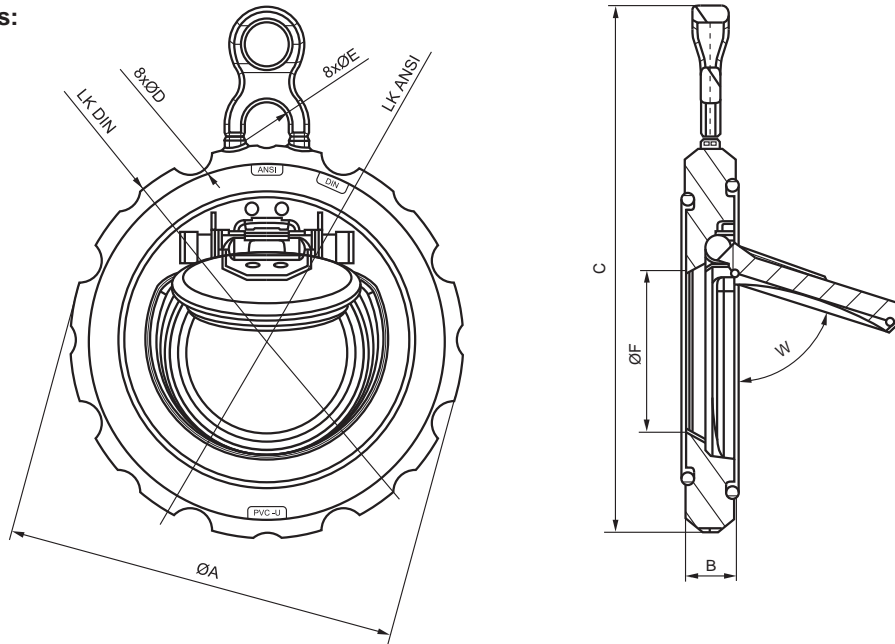
- DIN PN6 und PN10
- ASTM SCH 40 & 80
(for DN40 - DN50 only SCH 40 available)
- PE100 SDR17
(Note installation for stub flanges!)

Technical features:

- Spring can be retrofitted at any time without mechanical processing
- Operating temperature up to 60° C
- Tight as of max. 0.3bar backpressure
- 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 screw centering for DIN2501 PN10 and ANSI class 150
- For sizes DN40 to DN200, integrated mounting aid made of PVC-U with defined breaking point for simple removal
- For DN 300, integrated supporting eye let made of galvanized stainless steel

Wafer type check valve K6 PVC

Dimensions:



DN	40	50	65	80	100	125	150	200	300
d	50	63	75	90	110	140	160	225	315
ØA	95	109	130	146	175	198	223	280	406.4
B	16	18	20	20	23	25	30	34	47
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	400
ØD	18	18	18	18	18	18	22	22	22
LK ANSI	98.5	120.65	139.7	152.4	190.5	215.9	241.3	298.45	431.8
ØE	15.5	19	19	19	19	22.2	22.2	22.2	25.4
ØF	23.5	33	42	53	73	93	110	150	229

* note installation information

Dimensions in mm

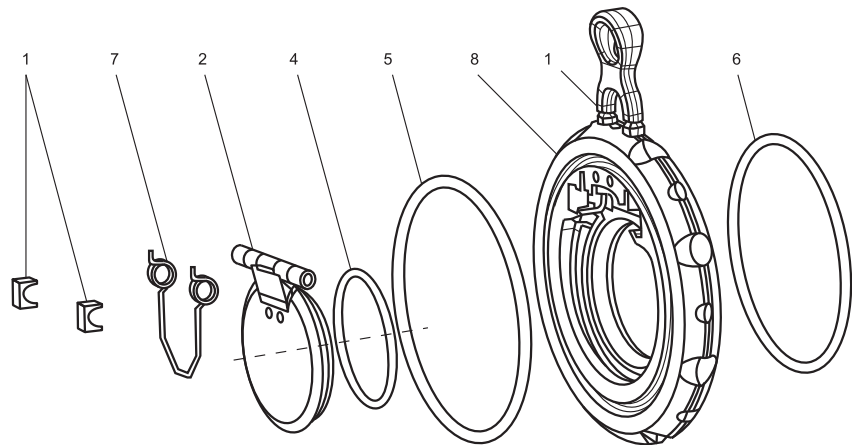
Flap opening angle (W) for different pipe standards

PVC PN10	91	88.5	82	84.5	72.5	73.5	69	74	66.5
PVC PN6	93.5	92.5	86	88.5	78	79	75	79	72
PVC schedule40	80.5	79.5	72	79.5	76	75	78.5	73	75
PVC schedule80	-	-	63	72	69	68	71	66	68.5
PE100 SDR17	88*	85.5*	78.5*	81.5*	68.5*	69.5*	64.5*	70*	62*

* note installation information

Dimensions in degrees

Wafer type check valve K6 PVC



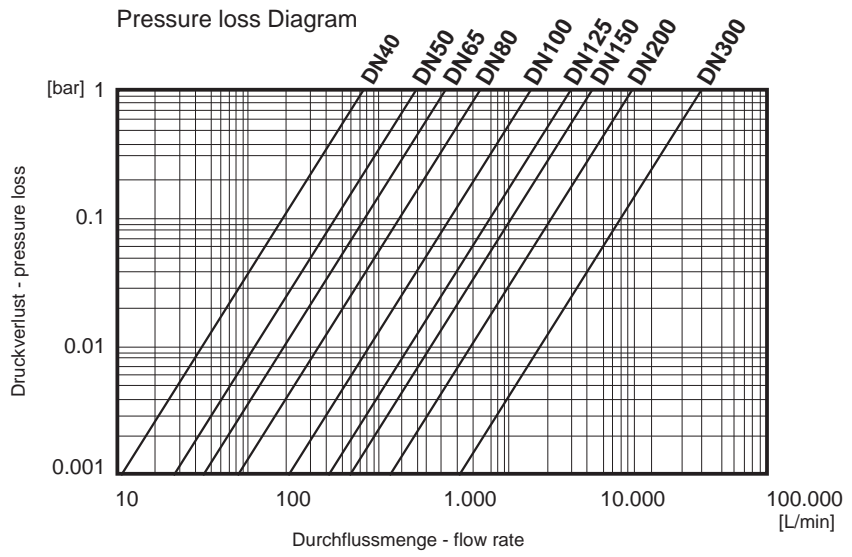
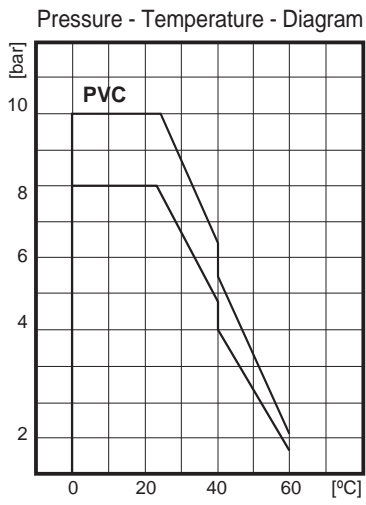
Exploded drawing:

- 1. Body
- 2. Flap
- 3. Flap clip
- 4. O-Ring flap
- 5. O-Ring body from side
- 6. O-Ring body from side
- 7. Option spring
- 8. Label

Spares:

- A Flap Kit:
- B Set of EPDM O-Rings:
- C Set of FPM O-Rings:
- D Spring

Diagrams:





Wafer type check valve K6 PVC

CV value table

DIMENSION	Pressure loss	
	1 bar	0.001 bar
DN40	333 l/min	10.5 l/min
DN40	700 l/min	22.1 l/min
DN65	1.050 l/min	33.2 l/min
DN80	1.750 l/min	55.3 l/min
DN100	3.633 l/min	114.9 l/min
DN125	6.067 l/min	191.9 l/min
DN150	8.217 l/min	259.8 l/min
DN200	15.733 l/min	497.5 l/min
DN300	41.167 l/min	1.301.8 l/min

Measurements according to DIN EN 60534-2
 Pressure loss diagram values determined at max. opening angle, with PCV PN10 pipes and flow medium water at 20° C.

Opening pressure (without spring)

DIMENSION	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
DN300	4 mbar	20 mbar

Opening pressure with spring is about 10 mbar higher.
 Opening pressure is required differential pressure to open flap.

Wafer type check valve K6 PVC



Cover Flap clip

General installation information

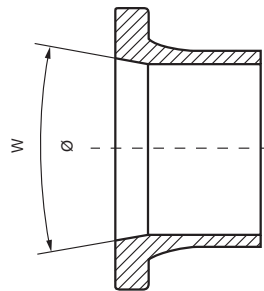
- The valves are suitable for a horizontal and vertical installation
- Before mounting a wafer check valve K6 on a pipeline, we are recommending to carry out a completeness check, verify if any damages exist and if flap clips, seals and spring are correct positioned.
- To guarantee the optimum flap opening angle the stub flanges have to be centred at the body center during the installation.
- After the installation the flap-clips have to be covered by the stub flanges (see picture).
- The supporting eyelet (in PVC-U for DN40 to DN200 and galvanised stainless steel for DN300) will help during centering the valve and can be removed after completion of mounting procedure.
- No direct installation on pump flange or bend allowed.
- Before and after the wafer type check valve please provide a minimum stabilization zone of at least 5 times the nominal diameter (DN).

Please note

- We do not recommended water type check valves without spring for turbulent flow conditions. For such applications the wafer type check valve with spring is best suitable.
- Flap-clips are meant for holding the flap in place and not as safety lock of the flap during transportation. Therefore the flap-clips may be loosen due to improved handling, storage and transportation. The correct positioning of flap clips, seals and spring has to be verified before mounting a wafer check valve K6 on a pipeline.

Installation in PE100 SDR17 piping:

Stub flanges in PE100 SDR17 have to be chamfered. The following table indicates the measurements.



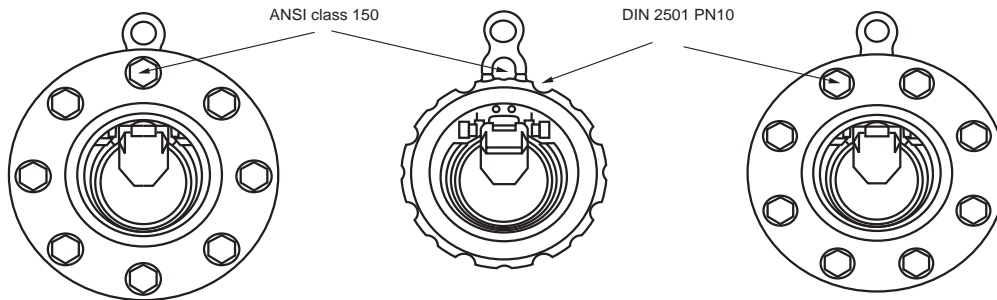
DN	40	50	65	80	100	125	150	200*	300
Ø (mm)	46	57	68	80	103	128	147	198	292
W (degree)	20	20	20	20	20	20	20	20	20

* no machining of the stub flange is required

Wafer type check valve K6 PVC

Centering in the piping

The wafer type check valve is centered in the piping via different screw recesses for DIN 2501 PN10 and ANSI class 150 around the circumference of the body.



Tightening torque of screws for flange connections

DN	40	50	65	80	100	125	150	200	300
Nm	15	20	20	20	20	25	30	35	45

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.