Wafer check valve, Article CSD-2764

Diameter DN 15 (1/2“) up to DN 350 (14“)

CSD DN 15 - DN 100

Wafer check valves to prevent media backflowin in all fluid processes, whether in liquid, gaseous or vaporous forms. The return spring ensures that the valve disk closes securely. The exact valve disc guidance through the body ribs and a safety spring cap guarantee a high level of tightness. Optionally, metallic or soft sealing with O-ring in the valve disc (EPDM / NBR / FPM / PTFE).

A special body contour with an integrated centering collar enables installation between flanges of different pressure classes. The direction arrow embossed on the body indicates the direction of flow.

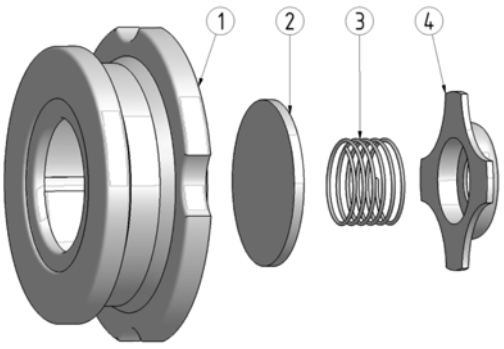
- ☞ **Installation between flanges according to DIN EN 1092-1 Form B1, PN 6 - 40 from DN 125 (5“) PN 10 / PN 16 and ASME B 16.5, class 150/300** (use suitable flange seals for this!)
- ☞ **Overall length according to DIN EN 558-1, series 49 (DIN 3202-K4), from DN 250 DIN EN 558-2, series 52 (DIN 3202-K5)**
- ☞ **Installation in any pipe postion** (vertical/horizontal) **possible**
- ☞ **Standard spring (stainless steel F316) temperature limit +300° C**

Optional: Oil and grease-free cleaned for use with oxygen, special springs up to max. 1000 mbar, springs made of Hastelloy C4 (up to +400° C), execution without spring (vertical installation; flow from bottom to top)

ATTENTION: Do not used it as a safety or vacuum valve !

CE	0036 Diameter DN 32 - DN 350
T °C	Ambient -20° C ... +80° C
T °C	Medium (depends from pressure) metall seated -10° C ... +500° C NBR -10° C ... +120° C EPDM -10° C ... +130° C FPM (Viton) -10° C ... +200° C PTFE -10° C ... +200° C

Pos.	Description	Material
1	body	steel A216-WCB
2	valve disc	stainless steel A182 F316/A351 CF8M
3	spring	stainless steel A182 F316
4	spring cap	stainless steel A182 F316



- Product classification DGRL 2014/68/EU, Fluidgroup I
- Body strenght DIN EN 12516-2
- Design pressure PN 40
- Marking EN 19, MSS SP-25
- Testing DIN EN 12266 P10 / P11 / P12
- Application limits DIN EN 1092-1 and AD-leaflets W 10
- Tightness DIN 12266-1,
  Leakage rate D (metal seated / PTFE)
  Leakage rate A, soft seated (NBR / EPDM / FPM)

Diameter	Pressure / temperature limits metal sealing (max.)				
DN 15 - DN 100					
t (°C)	-10	RT	150	250	400
PS (bar)	40	40	35,2	30,4	23,9

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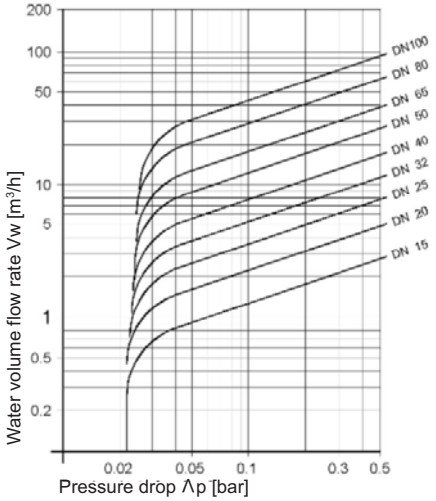
Diameter DN 15 (1/2“) up to DN 100 (4“)



Pressure drop diagram

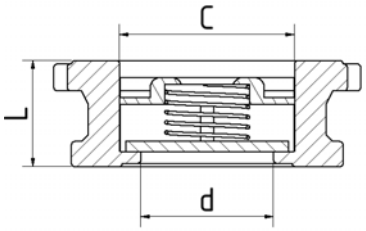
Pressure drop diagram for water at 20° C with an open valve and horizontal flow. To determine the pressure loss for other media is the equivalent water volume flow to calculate.

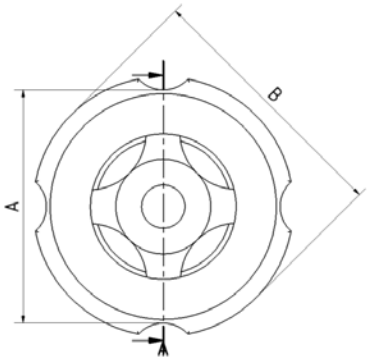
$$\dot{V}w = \dot{v}\sqrt{\frac{\rho}{1000}}$$

$\dot{V}w$ = equivalent water volume flow in m³/h

ρ = density of the medium in kg/m³ (operating condition)

$\dot{V}$ = Volume flow of the medium in m³/h (operating condition)





Diameter	**article-no.**	L (mm)	d (mm)	C (mm)	A (mm)	B (mm)	opening pressure (mbar) direction of flow with spring →	↑	↓	without spring ↑	KV-value (m³/h)	weight (kg)
DN 15	286.1462.4.11	16,0	15,0	26,0	44,0	51,0	20	25	15	5	3,8	0,1
DN 20	286.1462.4.13	19,0	20,0	31,0	54,0	61,0	20	25	15	5	6,8	0,2
DN 25	286.1462.4.15	22,0	25,0	36,0	63,5	71,0	20	25	15	5	11,0	0,3
DN 32	286.1462.4.18	28,0	32,0	44,0	73,0	79,5	20	27	13	7	15,0	0,5
DN 40	286.1462.4.19	31,5	39,0	51,5	82,5	92,0	20	28	12	8	22,0	0,7
DN 50	286.1462.4.21	40,0	48,0	62,0	96,0	107,0	20	29	11	9	35,0	1,1
DN 65	286.1462.4.24	46,0	62,0	77,5	116,0	127,0	20	30	10	10	52,0	1,6
DN 80	286.1462.4.25	50,0	72,5	92,0	132,0	142,0	20	31	9	11	84,0	3,0
DN 100	286.1462.4.27	60,0	89,0	107,0	152,0	162,0 / 168,0	20	33	7	13	120,0	3,5

Additional letter after article no. for soft seated and special designs

	O-Ring **EPDM** -10°C up to +130°C	O-Ring **NBR** -10°C up to +120°C	O-Ring **FKM** -10°C up to +200°C	O-Ring **PTFE** -10°C up to +200°C	**special spring up to** 1000 mbar	Centering ring from DN 200 for Installation between flanges PN25 / PN40 / ANSI	Execution **oil and grease free** (use of oxygen)
Add. for article no.:	**-E**	**-N**	**-V**	**-P**	**-SF____**	**-FL**	**-O2**

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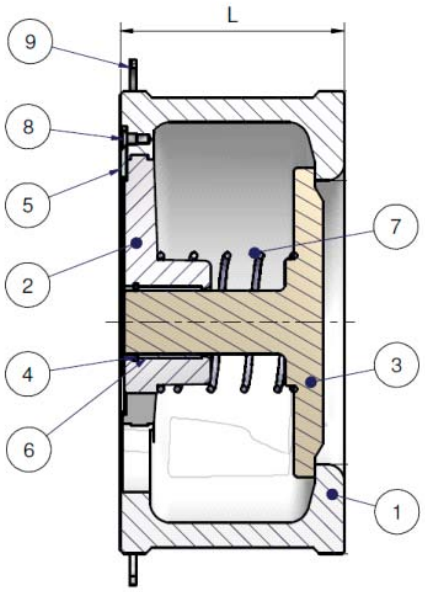
Diameter DN 125 (5“) up to DN 350 (14“)

From nominal size DN 125, one-piece design of valve disc / spindle, guided and mounted in a spring cross. This guarantees a safe and exact closing on the machined sealing surface in the body, a high level of tightness can be guaranteed. The direction arrow embossed on the housing indicates the direction of flow.

Optionally, metallic or soft sealing with O-ring in the valve plate (EPDM / NBR / FPM / PTFE).

Other design features and limits of use as before circumscribed.

CSD DN 125 - DN 350



Pos.	Description	Material
1	body	steel A216-WCB
2	spring cross	steel A216-WCB
3	valve plate	stainless steel A351 CF8-M
4	safety ring (DN 125 - DN 150)	stainless steel
5	anti twist holder (DN 125 - DN 150)	stainless steel A351 CF8-M
6	bearing	PTFE MoS2/stainless steel
7	spring	stainless steel A316L
8	allen screw	stainless steel A4
9	centre ring	stainless steel A182 F304

Diameter	Pressure / temperature limits metal sealing (max.)					
DN 125 - DN 350						
t (°C)	-10	RT	150	200	300	400
PS (bar)	40	40	35,2	33,3	27,6	23,9

Additional letter after article no. for soft seated and special designs

	O-Ring **EPDM** -10°C up to +130°C	O-Ring **NBR** -10°C up to +120°C	O-Ring **FKM** -10°C up to +200°C	O-Ring **PTFE** -10°C up to +200°C	**special spring up to** 400 mbar	Centering ring between flanges PN25 / PN40 **ANSI 150/300**	Execution **oil and grease free** (use of oxygen)
Add. for article no.:	**-E**	**-N**	**-V**	**-P**	**-SF40**	**-FL**	**-O2**

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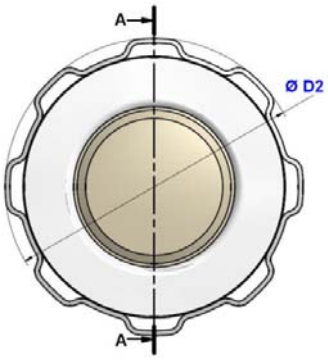
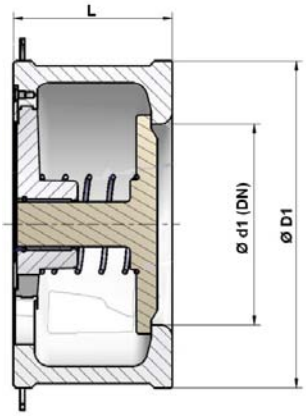
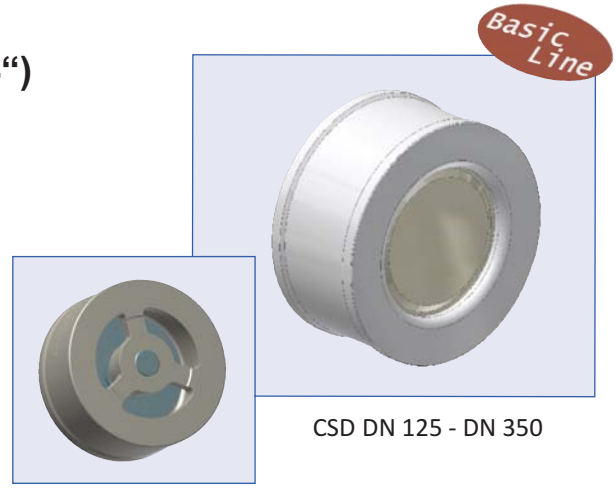


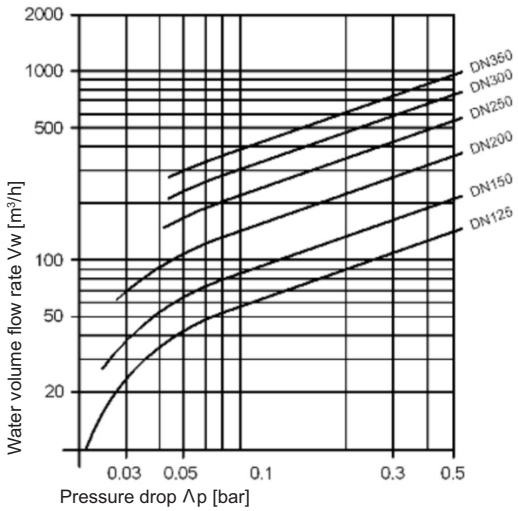




CSD DN 125 - DN 350

Diameter	**article-no.**	L (mm)	Ø d1 (mm)	Ø D1 (mm)		Ø D1 / Ø D2 (mm)		opening pressure (mbar) at flow direction			KV-value (m³/h)	weight (kg
				PN 10	PN 16	PN 25	PN 40	→	↑	↓		
DN 125	286.1463.4.28	90	125	192	192	192	192	22	37	7	180	10
DN 150	286.1463.4.29	106	150	218	218	226	226	25	40	10	270	14
DN 200	286.1463.4.31	140	200	273	273	283	290	28	46	10	450	24
DN 250	286.1463.4.33	200	250	328	328	338	352	42	69	15	700	50
DN 300	286.1463.4.34	250	300	378	378	400	417	44	73	15	950	77
DN 350	286.1463.4.35	280	350	438	444	457	474	44	73	15	1200	108

For the blue marked pressure classes a centering ring must be used. D2 stands for the outside diameter of the centering ring.



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