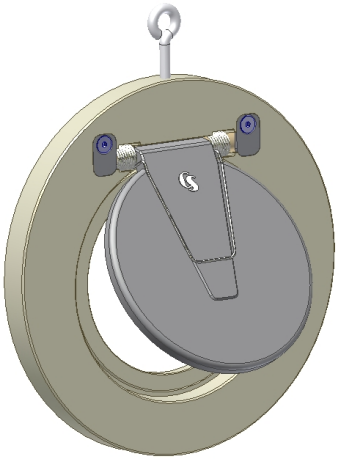
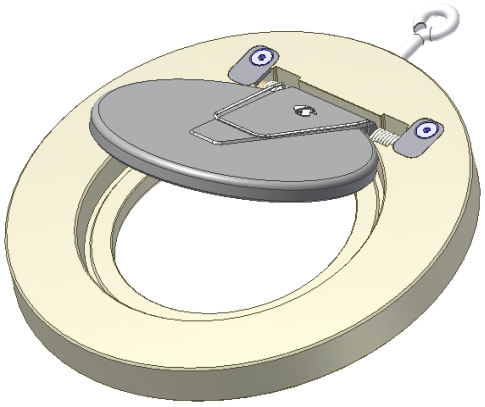
Check Valve Type CSC, CSCF
DN050 - 1000



Designation	Material
Body	see table
Disc	see table
Soft sealing	see table
Spring DN050-200 (CSCF)*	see Pricelist
Centre ring	see Pricelist

*optional

Technical specifications
Placement between flange according to DIN EN 1092-1,PN10
Max. nominal pressure PN40
Overall lengths DN350-1000 according DIN EN 558, Line 97
Operational limits according to DIN EN 1092-1
Tightness according to DIN EN 12266-1, Leakage Rate D (Sealing M, T) and Leakage Rate A (Sealing E, P, V)
Identification according to DIN EN 19
Short weight-saving overall lengths



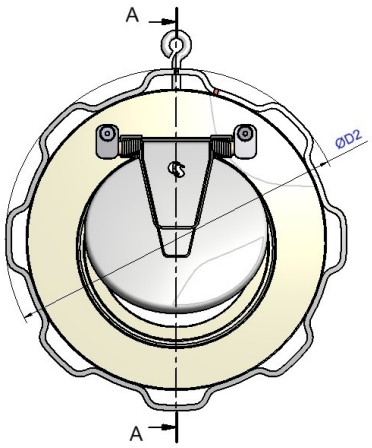
Utilisation
For liquids, gases and steams in all process technology

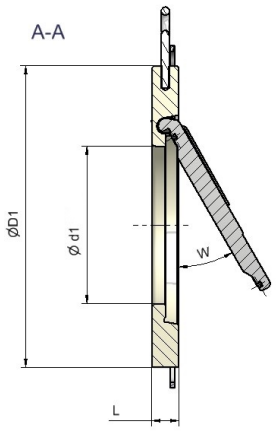
Constructional Features
Cast Disc with opening limit (Standard)
Optional spring (→CSCF) Same overall length for CSC (without spring) and CSCF (DN050 – 200 with spring)
Ring Screw for mounting (Standard)
Centering by the outside diameter of the body or centre ring

Special Types
Placement between flange according to DIN EN 1092-1,PN16-40 and ANSI B16.5 CL.150-300 lbs with centre ring according to the following page
Flange connection with soft sealings replaces flange gaskets (see drawings)

Designation: **CSC- 6 4 6 4 - E - 1 0 0**
CSC- ❑❑ - ❑❑ - ❑ - ❑❑❑ → DN050 - 450

Body			Disc			Seal		
Material	Nr.	Code	Material	Nr.	Code	Material	Temperatur	Code
Stainless steel	1.4301	11	Stainless steel	1.4301	11	None	-200 to 300°C	M
Steel	1.0619	27	Steel	1.0619	27	EPDM	-50 to 130°C	E
Bronce	2.1090	33	Bronce	2.1050	33	NBR	-30 to 120°C	P
Austenite (DN050-200)	1.4408	64	Austenite (DN050-300)	1.4408	64	VITON	-20 to 200°C	V
Austenite (DN250-1000)	1.4404	64	Austenite (DN350-1000)	1.4404	64	PTFE	-200 to 200°C	T
Duplex Superduplex	1.4462 1.4410	67	Duplex Superduplex	1.4462 1.4410	67	Material, pressure and medium dependent		
Polypropylen	PP	74	Polypropylen	PP	74			
PTFE+25%Glas	PTFE	75	PTFE+25%Glas	PTFE	75			





Optional CSCF-Spring
DN050-200



DN (mm)	**050**	**065**	**080**	**100**	**125**	**150**	**200**
DN (zoll)	2"	2 ½"	3"	4"	5"	6"	8"
L	16.5	16.5	17.5	17.5	19.5	19.5	30.0
Ø d1	25	38	46	71.5	95	114	140
Ø D1,PN10	107	127	142	162	192	218	273
Ø D1,PN16	107	127	142	162	192	218	273
Ø D1,D2,PN25	107	127	142	170	192	226	283
Ø D1,D2,PN40	107	127	142	170	192	226	290
Ø D1,D2,ANSI150	101	120	133	170	192	218	273
Ø D1,D2,ANSI300	107	127	142	177	212	247	304
W	55°	60°	55°	55°	55°	60°	55°
Weight (kg)	1.2	1.6	2.1	2.6	4	6	12

The pressure rates marked in blue are indicating the use of a centre ring. (See extra charges on the price list).
D2 shows the outer diameter of the centre ring.

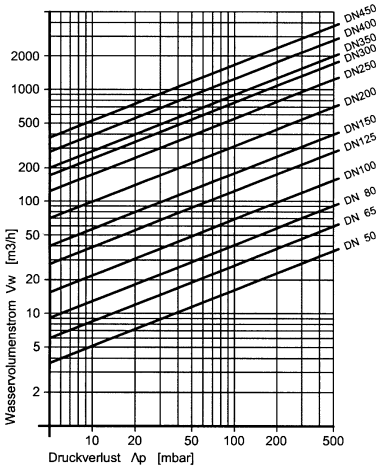
Opening pressures (mbar)

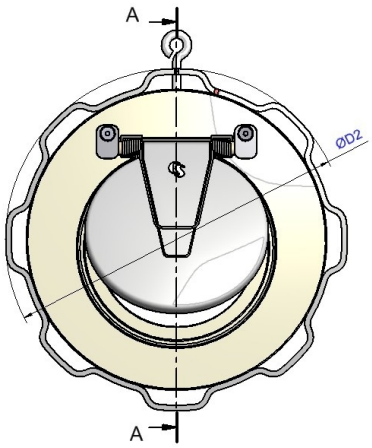
DN (mm)	**050**	**065**	**080**	**100**	**125**	**150**	**200**
DN (zoll)	2"	2 ½"	3"	4"	5"	6"	8"
CSC, p_o ↑	15	13	13	11	10	13	19
CSC, p_o →	0	0	0	0	0	0	0
CSC, p_o ↓	Not suitable for this flow direction						
CSCF, p_o ↑ with spring	23	21	21	19	18	21	27
CSCF, p_o → with spring	8	8	8	8	8	8	8
CSCF, p_o ↓ with spring	Not suitable for this flow direction						
Kv-Wert m3/h	54	75	112	228	342	490	810

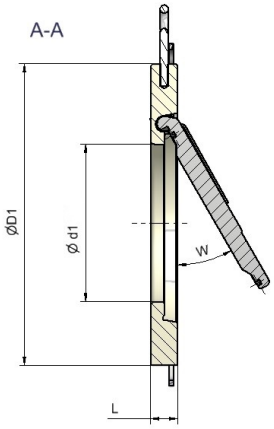
Pressure drop diagramm
Pressure drop diagram for water at 20°C with opened valve and horizontal flow.
For calculating the pressure drop of the medium the equivalent water flow volume has to be calculated.

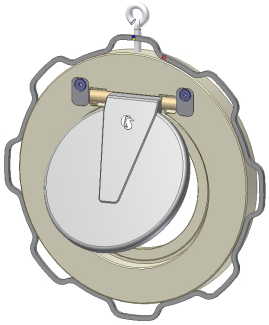
$$\dot{V}w = \dot{v}\sqrt{\frac{\rho}{1000}}$$

$\dot{V}w$	=	Equivalent water flow in m3/h
ρ	=	Density of the medium (in use) in kg/m3
$\dot{v}$	=	Flow volume of the medium (in use) in m3/h









DN (mm)	**250**	**300**	**350**	**400**	**450**	**500**	**600**	**700**	**800**	**900**	**1000**
DN (Zoll)	10"	12"	14"	16"	18"	20"	24"	28"	32"	36"	40"
L	30	34	38	44	50	56	62	68	80	86	96
Ø d1	188	216	266	310	342	380	456	532	622	684	760
Ø D1,PN10	328	378	438	489	539	594	695	810	920	1020	1127
Ø D1,PN16	328	378	444	495	555	617	734	804	914	1014	1131
Ø D1,D2,PN25	338	400	457	514	564	624	731	833	945	1045	1158
Ø D1,D2,PN40	352	417	474	546	571	628	747				
Ø D1,D2,ANSI150	338	400	447	511	546	603	714				
Ø D1,D2,ANSI300	352	417	482	536	593	650	771				
W	50°	50°	50°	50°	50°	50°	50°	50°	50°	50°	50°
Weight (kg)	17	28	41	61	73	108	159	229	350	460	742

The pressure rates marked in blue are indicating the use of a centre ring. (See extra charges on the price list).
D2 shows the outer diameter of the centre ring.

Opening pressures (mbar)

DN (mm)	**250**	**300**	**350**	**400**	**450**	**500**	**600**	**700**	**800**	**900**	**1000**
DN (Zoll)	10"	12"	14"	16"	18"	20"	24"	28"	32"	36"	40"
CSC, p_o ↑	18	21	22	26	28	34	32	35	44	50	60
CSC, p_o →	0	0	0	0	0	0	0	0	0	0	0
CSC, p_o ↓	Not suitable for this flow direction										
Kv-Wert m3/h	1500	2076	2890	3768	5000	6550	8307				

Pressure drop diagram
Pressure drop diagram for water at 20°C with opened valve and horizontal flow.
To calculate the pressure drop of the medium the equivalent water flow volume has to be calculated.

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

$\dot{V}w$	=	Equivalent water flow in m3/h
ρ	=	Density of the medium (in use) in kg/m3
$\dot{v}$	=	Flow volume of the medium (in use) in m3/h

