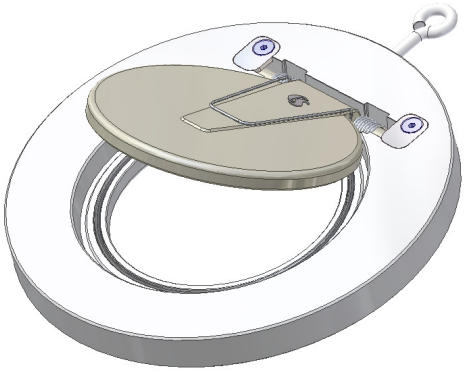
Check Valve Type CSC, CSCF
DN 50 - 1000

Designation	Material
Body	see table
Disc	see table
Soft sealing	see table
Spring (CSCF)	see page 8.30/8.31
Centre ring	page 8.01/2, 8.30

Technical specifications
Short weight-saving overall lengths
Tightness according to DIN3230/3, BN 2 and BO 3
Operational limits according to DIN EN 1092-1
Identification according to DIN EN 19
Placement between flange according to DIN EN 1092-1,PN10



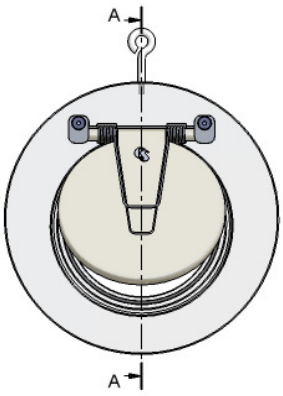
Utilisation
For liquids, gases and steams in all process technology

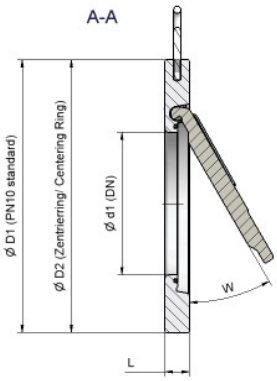
Constructional features
Cast Disc with opening limit (Standard)
Same overall length for CSC (without spring) and CSCF (with spring)
Ring Screw for mounting (Standard)
Centrering through body-outside-diameter (Standard PN10)
Flange connection with grooves (Standard)

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 8.01/2
Flange connection with soft sealings replaces flange gaskets (see drawings 8.10)

Designation: **CSC- 6 4 6 4 - E - 1 0 0**
CSC- ❑❑ - ❑❑ - ❑ - ❑❑❑ → DN 50 - 450

Body			Disc			Soft sealing		
Material	Nr.	Code	Material	Nr.	Code	Material	Temperatur	Code
Stainless steel	1.4301	11	Stainless steel	1.4581*	11	metallic		M
Steel	1.0038	27	Steel	1.7264**	27	EPDM	-50 bis 130°C	E
Bronce	2.1090	33	Bronce	2.1050	33	NBR	-30 bis 120°C	P
Austenit	1.4404	64	Austenit	1.4581	64	VITON	-20 bis 200°C	V
Polypropylen	PP	74	Polypropylen	PP	74	PTFE	-200 bis 200°C	T
PTFE+25%Glas	PTFE	75	PTFE+25%Glas	PTFE	75			





CSCF- Spring DN 50-200

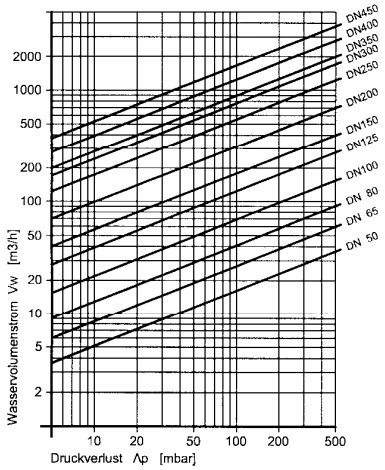
DN (mm)	**50**	**65**	**80**	**100**	**125**	**150**	**200**	**250**	**300**	**350**	**400**	**450**
DN (zoll)	2"	2 ½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"
L	16.5	16.5	17.5	17.5	19.5	19.5	30	30	34	34	39	39
Ø D1,PN10	107	127	142	162	192	218	273	328	378	438	489	539
Ø D2,PN16	107	127	142	162	192	218	273	328	378	444	495	555
Ø D2,PN25	107	127	142	170	192	226	283	338	400	457	514	564
Ø D2,PN40	107	127	142	170	192	226	290	352	417	474	546	571
Ø D2,ANSI150	101	120	133	170	192	218	273	338	400	447	511	546
Ø D2,ANSI300	107	127	142	177	212	247	304	352	417	482	536	593
Weight (kg)	1.2	1.6	2.1	2.6	4	6	12	17	28	41	61	73

For the hatched pressure rates has to be used a centre ring (price list 8.30)

Opening pressures (mbar)

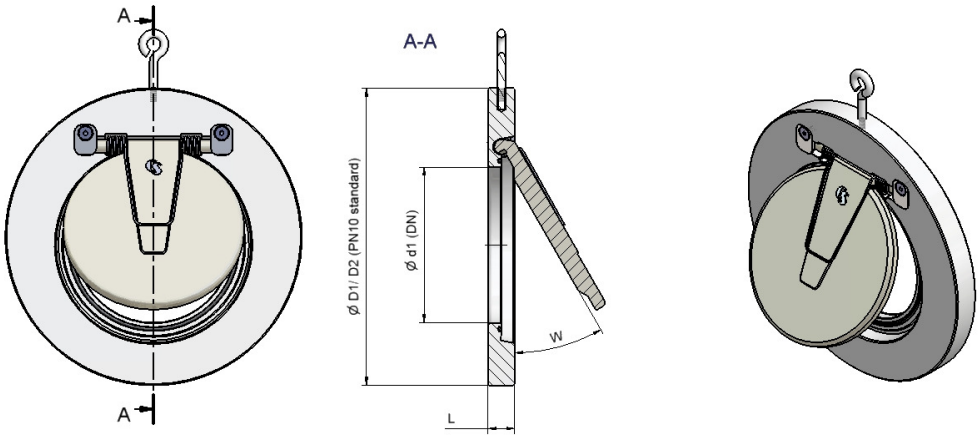
DN (mm)	**50**	**65**	**80**	**100**	**125**	**150**	**200**	**250**	**300**	**350**	**400**	**450**
DN (zoll)	2"	2 ½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"
CSC, ΔP ↑	15	13	13	11	10	13	19	18	21	22	26	28
CSC, ΔP →	0	0	0	0	0	0	0	0	0	0	0	0
CSCF, ΔP ↑ with spring	23	21	21	19	18	21	27	26	29	30	34	36
CSCF, ΔP → with spring	8	8	8	8	8	8	8	8	8	8	8	8

Pressure drop diagramm
Pressure drop diagramm 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)	**500**	**600**	**700**	**800**	**900**	**1000**
DN (zoll)	20"	24"	28"	32"	36"	40"
L	65	70	76	89	95	127
Ø D1,PN10	594	695	810	920	1020	1127
Ø D2,PN16	617	734	804	914	1014	1131
Ø D2,PN25	624	731	833	945	1045	1158
Ø D2,PN40	628	747				
Ø D2,ANSI150	603	714				
Ø D2,ANSI300	650	771				
Weight (kg)	108	159	229	350	460	742

Opening pressures (mbar)

DN (mm)	**500**	**600**	**700**	**800**	**900**	**1000**
DN (zoll)	20"	24"	28"	32"	36"	40"
CSC, ΔP ↑	34	32	35	44	50	60
CSC, ΔP →	0	0	0	0	0	0

Pressure drop diagramm
Pressure drop diagramm 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