



CE 0036



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::Operating Instructions:: | ::Chapter 6::

Seite 1/3

::Check Valve Type CSC, CSCF:: | ::DN050 - 1000:: | ::PN10 - 40:: | ::ANSI150 - 300::

## Operating instructions and safety regulations for putting into operation and maintenance of the Check Valve CSC and CSCF

Please read carefully!

### Security note

Only qualified skilled workers are permitted to install the armature. This should be staff that is well acquainted with setting up, fitting, putting into operation, operating and maintain the tool. The staff must have a qualification at their disposal which corresponds with their function and occupation, such as:

- Instruction and commitment for the observance of all regional and internal regulations and commitments regarding operation.
- Education in accordance with the standards of security engineering, in application and maintenance of adequate equipments of security and labour protection.
- Training in first aid etc.

### Proper maintenance

Inset in pipes for prevention of return flow of the media within the permissible limits of pressure and temperature, observing the chemical and corrosive influences on the valve.

The media-resistance of the valve must be tested for operating conditions.



### Danger notes

During operation the valve is under pressure!

If flange connections or screw plugs are loosened, hot water, steam, corroding liquids or toxic gases will escape. Serious scalds and burns on the whole body are possible! Serious contaminations are possible!

- Work for assembly or maintenance to be done in pressure less condition only.
- During operation, the valve will be hot or extremely cold.
- Work for assembly or maintenance to be done at room temperature only.
- Sharp-edged interior parts can cause cuts on hands.  
Wearing gloves for exchanging the valve is necessary!

Further measurements, materials and fields of application can be found in the corresponding Data Sheet.



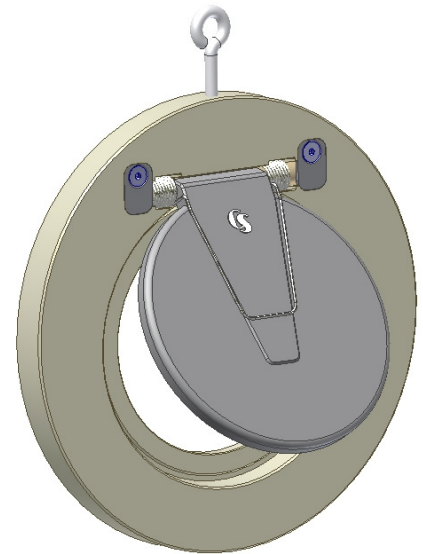
CE 0036



## Installation

Check valve Type CSC and CSCF for installation between flanges according to the drawings.

- Installation between flanges according to DIN EN 1092-1, PN 10/ 16/ 25/ 40 or ANSI B16.5 CL.150, 300 lbs with the aid of a centre ring
- The centre ring between the flanges is executed at the body outside diameter by means of the flange connecting screws. Installation between flanges of other norms on inquiry.
- For special applications corresponding regulations have to be noted, e.g. AD-leaflets (working group for pressure devices) or TRD-directives (technical rules for steam boilers)
- The assembly must be carried out according to the recognized rules of technology.

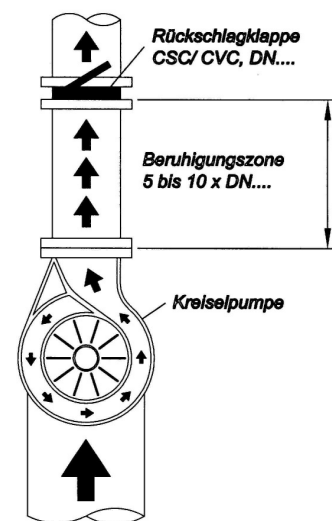


### Note direction of flow ( direction of arrow on housing)!

- The fitting position is horizontal. In vertical position direction of flow is only possible from bottom to top.
- For oscillatory systems (e.g. compressors, diaphragm pumps etc) please pay attention that the standard execution corresponds with the operation.
- Check valve mustn't be built apart
- Using only original spare parts.
- Functional test.

### Important

- Pay attention that the opening of the valve discs is not hindered through the connected flanges.
- For powerful pulsated flow rate we recommend check valves with spring return-mechanism.
- If installed on a pump (on pressure side) there should not be a direct fitting to a pump flange or a subsequent not bow or bend. In addition there must be allowed a 5 to 10-fold distance of the nominal value at the beginning of the tranquillized zone.





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::Operating Instructions:: | ::Chapter 6::

Seite 3/3

::Check Valve Type CSC, CSCF:: | ::DN050 - 1000:: | ::PN10 - 40:: | ::ANSI150 - 300::

**Product classification according to article 9 of directive of pressure devices (DGRL)****Group 1** (Dangerous fluids)**Appendix II** (Diagram 6)

Category with pressure limit PN40	I	II	III
Nominal size DN		50-100	125-1100
CE marking		CE 0036	CE 0036
Type CSC-2727,2764,1111,6464		all	all

Category with pressure limit PN16	I	II	III
Nominal size DN	50	65-200	250-450
CE marking	CE 0036	CE 0036	CE 0036
Type CSC-3333	all	all	all

Category with pressure limit PN 6	I	II
Nominal size DN	50-100	125-350
CE marking	CE 0036	CE 0036
Type CSC-7474, CSC-7575	all	all

**Technical data check valves CSC and Soft Sealing (application limits applies to CSC and CSCF)**

CSC-2727M						
DN050-1000						
t (°C)	-10	RT	100	200	300	400
Ps (bar)	40	40	37.1	33.3	27.6	23.8

CSC-2764M						
DN050-1000						
t (°C)	-10	RT	100	200	300	400
Ps (bar)	40	40	37.1	33.3	27.6	23.8

CSC-1111M						
DN350-1000						
t (°C)	-200	RT	150	300	400	500
Ps (bar)	40	40	32.7	25.7	23.8	22.8

CSC-6464M						
DN050-1000						
t (°C)	-200	RT	150	300	400	500
Ps (bar)	40	40	36.3	29.7	27.4	26.4

CSC-3333M					
DN050-400					
t (°C)	-60	RT	120	200	250
Ps (bar)	16	16	16	13.5	8

CSC-7474-					
DN050-300					
t (°C)	-20	RT	20	50	100
Ps (bar)	6	6	6	4	1

CSC-7575-					
DN050-300					
t (°C)	-20	RT	20	120	180
Ps (bar)	6	6	6	4	1

Soft Sealing		Code
EPDM	-50 bis 130°C	E
NBR	-30 bis 120°C	P
VITON	-20 bis 200°C	V
PTFE	-200 bis 200°C	T

For further technical information please consult the corresponding Data Sheet.

Subject to change without notice