NEPTUNIA N1C - DUO check valve DN 50 - 600

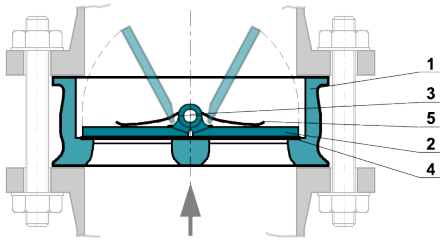
Description

DUO check valve, for mounting directly between flanges according to DIN. Maintenance not required. For liquids and gases in the industrial range, general services, water treatment. Not suitable for media with solid components.

Product features

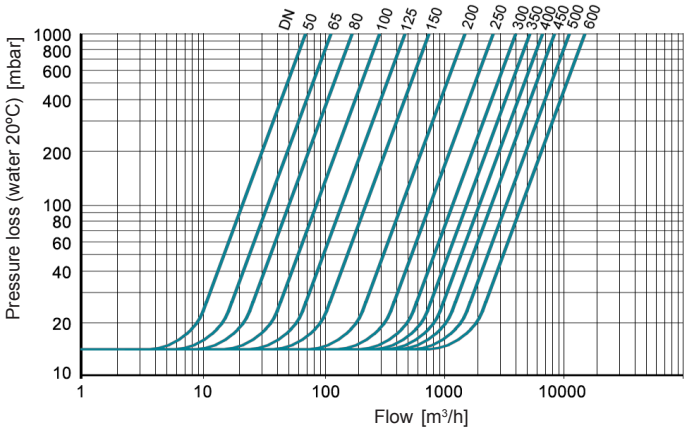
- Body construction — Wafer
- Max. working pressure — 16 bar
- Rating — PN 10, PN 16, other ratings on request
- Face to face dimension — according to DIN EN 558-1
- Temperature range — -10ºC to 150ºC

Construction



1	Body
2	Plate
3	Shaft
4	Seals
5	Spring

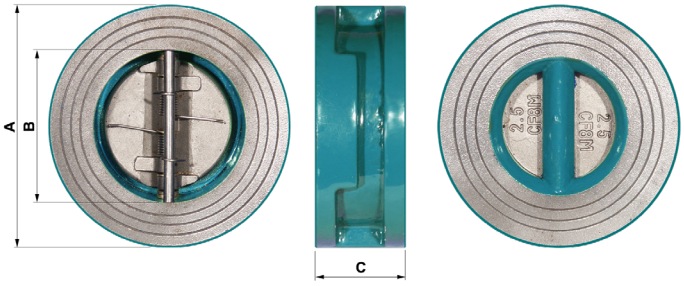
Hydraulic characteristics



DN [mm]	Kv-value [m³/h]	Min. opening pressure [mbar] ↔	↑	↓
50	63	15	20	10
65	109	15	20	10
80	172	15	20	10
100	289	15	20	10
125	476	15	20	10
150	750	15	20	10
200	1.550	15	20	10
250	2.880	15	20	
300	4.100	15	20	
350	5.274	15	20	
400	8.250	15	30	
450	10.550	15	30	
500	14.500	15	30	
600	24.000	15	30	

$c_v = k_v \times 1{,}16$

Dimensions



DN [mm]	A PN 10	A PN 16	B	C	Weight [kg]
50	107	107	70,5	43	1,6
65	127	127	80	46	2,4
80	142	142	94	64	3,6
100	162	162	117	64	4,6
125	192	192	145	70	7,0
150	218	218	170	76	9,2
200	273	273	221	89	15,2
250	328	328	275,5	114	26,0
300	378	383	325,5	114	34,0
350	438	444	360	127	58,0
400	489	495	410	140	75,0
450	539	555	467	152	98,0
500	594	617	515	152	125,0
600	695	734	624	178	181,0

InterApp

Type code

N1C	100	.	3	3	-	4C0	.	4C0	.	N
❶	❷		❸	❹		❺		❻		❼

❶ **Type**	**N1C**	DUO check valve - wafer type				DN 50-600
❷ **Nominal diameter**	**050-600**	mm				≤ DN 900 on request
❸ **Working pressure**	**2**	10 bar				
	3	16 bar				
❹ **Rating**	**2**	PN 10				
	3	PN 16				
		other ratings on request				
❺ + ❻ **Execution**		**Body**	**Disc**	**Shaft**	**Spring**	
	2AE.2AN	Ductile iron EN-GJS-400-15, Epoxy coated, min. 80 µm	Ductile iron EN-GJS-400-15, nickel plated	Stainless steel 1.4401, ~AISI 316	Stainless steel 1.4571, ~AISI 316Ti	> DN 300
	2AE.4C0	Ductile iron EN-GJS-400-15, Epoxy coated, min. 80 µm	Stainless steel 1.4408, ~CF8M	Stainless steel 1.4401, ~AISI 316	Stainless steel 1.4571, ~AISI 316Ti	> DN 300
	2AE.5D0	Ductile iron EN-GJS-400-15, Epoxy coated, min. 80 µm	Alu-bronze ASTM B148 C95400	Stainless steel 1.4401, ~AISI 316	Stainless steel 1.4571, ~AISI 316Ti	
	4C0.4C0	Stainless steel 1.4408, ~CF8M	Stainless steel 1.4408, ~CF8M	Stainless steel 1.4401, ~AISI 316	Stainless steel 1.4571, ~AISI 316Ti	> DN 300
	5D0.5D0	Alu-bronze ASTM B148 C95400	Alu-bronze ASTM B148 C95400	Alu-bronze ASTM B148 C95400	Inconel® 600 (2.4816)	
❼ **O-Ring**	**N**	Nitrile (NBR)		-10°C to 90°C		
	E	EPDM		-10°C to 120°C		> DN 300
	V	Viton® (FPM)		-10°C to 150°C		

Other executions see Neptunia N1V or on request!

Operating instructions

Appropriate use in accordance to designed capabilities:

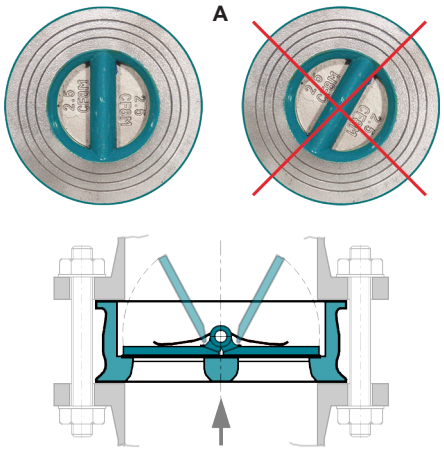
NEPTUNIA N1C swing check valves are designed to block media on one side of the pipe within allowable pressure and temperature limits and to be installed in a pipe system only. **They may be used only with media, which the material and the seals are resistant to.** They are not suitable for media with solid components.

Storage:

Swing check valves include sealing elements consisting of organic material, that reacts to environmental effects. Therefore, they are to be stored in their original packaging in a place, which is also to be kept as cool, dry and dark as possible. The front and back sides of the swing check valves must not be mechanically damaged.

Installation:

- Possible damages to the check valve and O-rings are to be checked prior to installation. Check if the plates can be moved. Damaged parts must not be installed.
- Make sure that only those check valves are being installed, that meet the operational requirements regarding pressure category, chemical resistance, connection and dimensions.
- Make sure to install a minimum of 5 x nominal diameter of straight pipeline in front of and behind the swing check valve.
- Do not install the valves directly onto a pump flange.
- Avoid pulsation and pressure impact.
- In a horizontal pipe, the check valve must always be installed with its hinge pin in the vertical position (A).
- Watch flow direction (see arrow on the plate) !
- The check valves are put in their central position according to the outer diameter of the case and the flange screw inner side.
- Tighten the flange screws crosswise.
- After the installation is finished, check the tightness of the connections by a pressure check.



Special risks:

Before the swing check valve is being removed, pressure has to be completely taken off the plant to avoid media escaping from the pipe. Fluid being left in the pipe must be drained off. Fluid, which has remained in the valve and comes out during removal, is to be collected. If hazardous fluids or gases are left in the valves, the safety measurements required must be taken.