

Dual-plate check valve DR01 / DR02 / DR03 / DR04



Description:

Dual-plate check valves allow the medium to flow just in one direction. Check valve will close automatically, if the flow of the medium changes the direction.

Features:

- suitable for neutral and not neutral **gaseous & liquid media**
- short length
- low opening pressure
- direction of flow horizontal, vertical from below – up to DN200 also from above

connection:

DN 50, 65, 80, 100, 125, 200, 250, 300, 350, 400, 450, 500, 600

temperature:

up to +200°C
- depending on design

pressure:

0,0 bar – 16,0 bar
- depending on design

Material:

Parts:

Body

Plate

Stem

Spring

type DR01

GGG40 (epoxy-covered)

GGG40

Stainless steel 1.4401

Stainless steel 1.4571

type DR02

GGG40 (epoxy-covered)

Stainless steel 1.4408

Stainless steel 1.4401

Stainless steel 1.4571

type DR03

Stainless steel 1.4408

Stainless steel 1.4408

Stainless steel 1.4401

Stainless steel 1.4571

type DR04

GGG40 (epoxy-covered)

Alu.-bronze C954

Stainless steel 1.4401

Stainless steel 1.4571

Seal:

NBR

up to + 90°C

FPM

up to + 200°C

EPDM

up to + 120°C

Metal seated

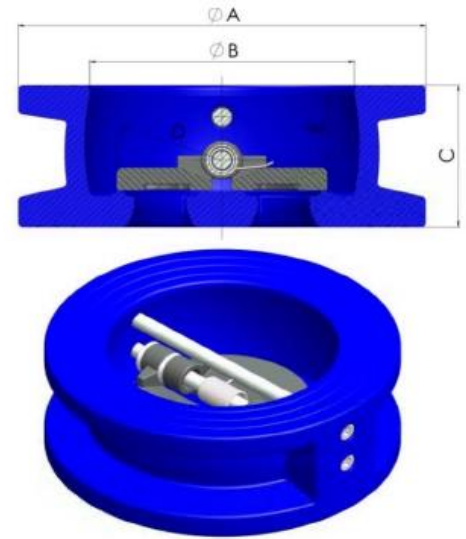
up to + 200°C

epoxy-cover:

body GGG40 epoxy-covered blue 180 µm

Dimensions:

DN		A			B	C		D	E
SIZE		PN10	PN16	ANSI 150	mm	DIN EN	API		
50	2"	107		101	70,5	43	60	28,8	19
65	2,5"	127		121	80	46	67	36,1	20
80	3"	142		134	98	64	73	43,4	28
100	4"	162		171	117	64	73	52,8	27
125	5"	192		193	145	70	-	65,7	30
150	6"	218		219	172	76	98	78,6	31
200	8"	273		276	221	89	127	104,4	33
250	10"	328		336	275,5	114	146	127	50
300	12"	378	383	406	325,5	114	181	148,3	43
350	14"	438	444	448	360	127	184	172,4	45
400	16"	489	495	511	410	140	191	197,4	52
450	18"	539	555	546	467	152	203	217,8	58
500	20"	594	617	603	515	152	219	241	58
600	24"	695	734	714	624	178	222	295,4	73



Face to face acc. to: DIN EN 558-1 row 16 (DIN3202 / K3)
 Flange acc. to: DIN EN 1092-1 PN10/16/25/40

Face to face acc. to: API 594
 Flange acc. to: ANSI B16.5 ANSI 150

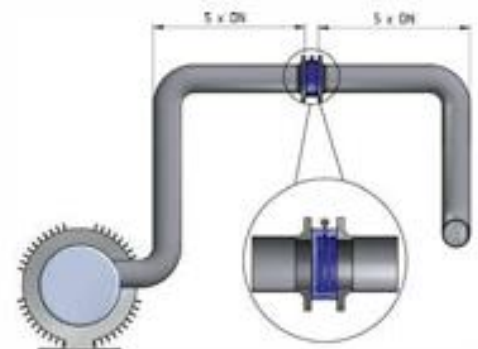
DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
Connection:	PN10/16/25/40			PN10/16					PN10					

Installation instruction:

The following aspects are to be considered during the installation of swing check valves:

- Possible damages to the dual check valves and O-rings are to be checked prior to installation. Check if the valve can be moved. Damaged parts must not be installed.
- Make sure that only those swing 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.
- in horizontal pipeline make sure that the stem of armature is in vertical position (see pic. 1)
- Do not install the valves directly onto a pump flange.
- Avoid pulsation and pressure impact.

After the installation is finished, check the tightness of the connections by a pressure check.



General safety advices:

The safety advices for the pipe system, in which the valves are to be mounted, are to be followed. The same applies to the dual plate check valves.

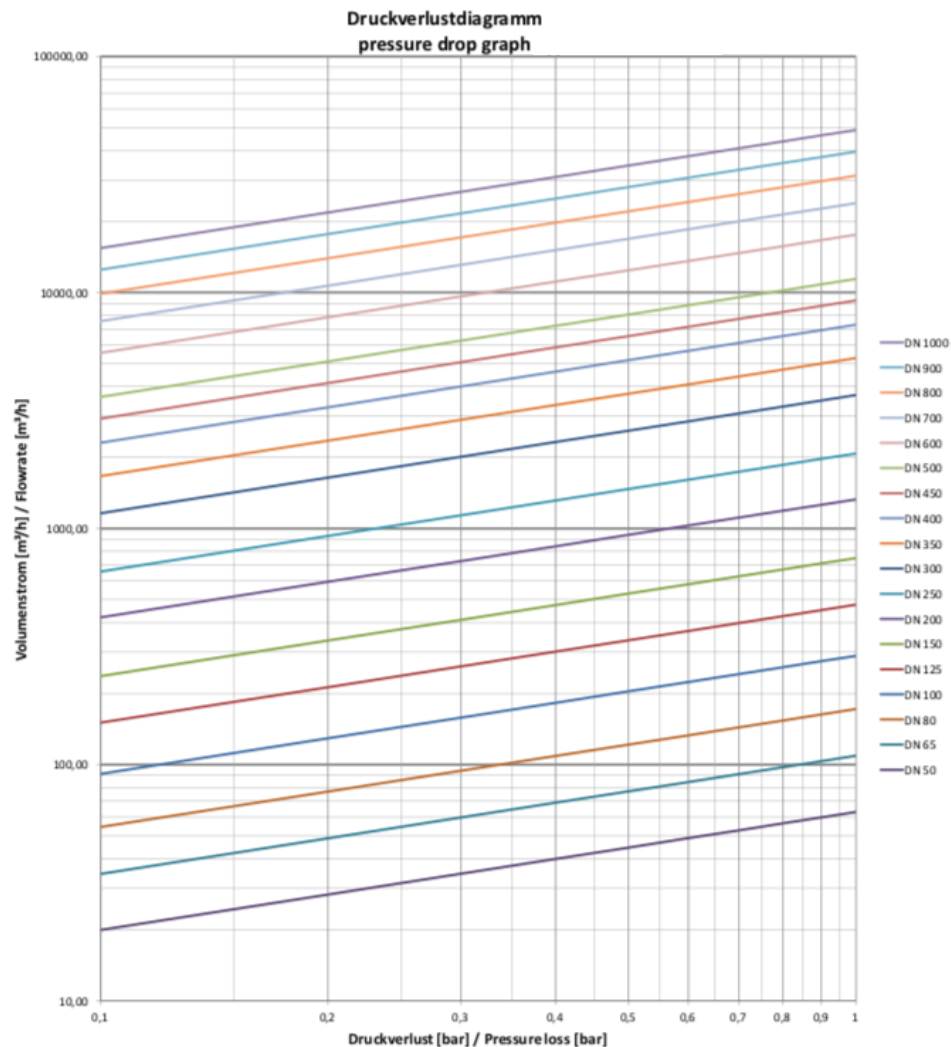
In pipe systems, where our dual plate check valves are to be used, the planning/installing person and the operator are responsible for the following issues:

- The dual plate check valves is to be used according to the regulation in p.1
- The pipe system is to be installed correctly and its operation is to be checked regularly
- The dual plate check valves is to be mounted, removed and repaired by qualified personnel only. The staff is to be regularly instructed according to all relevant regulations concerning working safety and environmental protection, especially in the field of pipes under pressure.
- These staff members have to be informed about the manual and the advices included.

Maximal working pressure / opening pressure:

DN	Kv-Value	Working pressure	Opening pressure at flow direction in mbar			
SIZE		m3/h	in bar			
50	2"	63	0 - 16	15	20	10
65	2,5"	109	0 - 16	15	20	10
80	3"	172	0 - 16	15	20	10
100	4"	289	0 - 16	15	20	10
125	5"	476	0 - 16	15	20	10
150	6"	750	0 - 16	15	20	10
200	8"	1330	0 - 16	15	20	10
250	10"	2080	0 - 16	15	20	-
300	12"	3676	0 - 10	15	20	-
350	14"	5274	0 - 10	15	20	-
400	16"	7306	0 - 10	15	30	-
450	18"	9246	0 - 10	15	30	-
500	20"	11410	0 - 10	15	30	-
600	24"	17570	0 - 10	15	30	-

Pressure loss:



Test meeting the requirement of PED acc. to DIN EN 12266:

The tightness corresponds to the specified leakage rates:

Type	Soft seat*	Metal seat
DR01	A	≥ G
DR02	A	≥ G
DR03	A	≥ G
DR04	A	≥ G

* Soft seat: EPDM, FPM/FKM/Viton, NBR

Media phase: gasoeus or liquid, if pD > 0,5 bar (steam pressure)

Structure article number:

type	model	seal	diameter
DR01	00 – DIN / PN	01 – EPDM	08 – DN50
DR02	10 – ANSI 150 / API	02 – FPM	09 – DN65
DR03		04 – NBR	10 – DN80
DR04		05 – Metall	11 – DN100
			12 – DN125
			13 – DN150
			14 – DN200
			15 – DN250
			16 – DN300
			17 – DN350
			18 – DN400
			19 – DN450
			20 – DN500
			21 – DN600

Example no. DR01000112:

DR01 | **00** | **01** | **12**

Article no. DR01000113

Dual plate check valve

Body: GGG40

Plate: GGG40

Model: DIN

Seal: EPDM

Diameter: DN125

Image similar, subject change without notice.