DISCO-check valve type TYP RV06

Description:

DISCO-check valves allow the medium to flow just in one direction. If the flow of the medium changes the direction the check valve will close automatically.

Product features:

- suitable for neutral and not neutral gaseous & liquid media
- mounting between flanges
- low opening pressure
- mounting position: any

Connection
DN15, DN20, DN25, DN32, DN40, DN50, DN65, DN80, DN100

Temperature
-196°C bis 300°C *
- depending on design

Pressure
0,0 bar – 160,0 bar
- depending on design

Material:
Type RV06

component	material RV0600
body	Stainless steel 1.4404 (AISI 316L)
disc	Stainless steel 1.4404 (AISI 316L)
spring	Stainless steel 1.4571 (AISI 316Ti)
diameter	DN15-DN100

RV0600 – Stainless steel

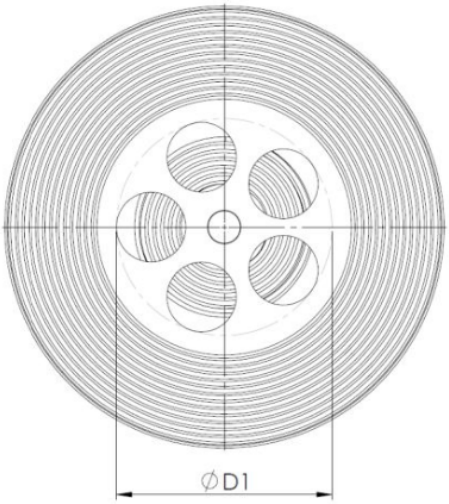
seal	temperature range
metal	-196°C - +300°C*
NBR	-30°C - +100°C
EPDM	-65°C - +150°C
FKM	-30°C - +230°C
PTFE	-200°C - +250°C

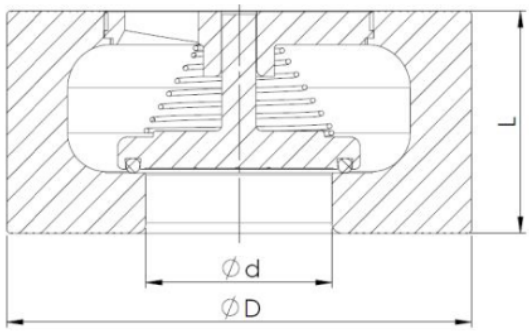
*Upon request: temperatures till max. 450°C possible

Seal standards with the following approvals:

seal	approvals
NBR	DIN EN 549, BAM, REACH, RoHS, etc.
EPDM	KTW UBA, DVGW W 270, WRAS, NSF, FDA, BfR XXI Kat. 4, ADI-frei, 3A, USP CI. 6, BAM, REACH, RoHS, etc.
FKM	DIN EN 549, ADI-frei, REACH, RoHS, etc.
PTFE	KTW UBA, DVGW W 270, WRAS, FDA, BfR, ADI-frei, EU 10/2011, 3A, USP CI. 6, REACH, RoHS, etc.

Dimensions:





DN	Inch	d	D	D1	L
15	1/2"	15	54	21	25
20	3/4"	19	68	26,5	31,5
25	1"	25	74	32,5	35,5
32	1 1/4"	32	83	42	40
40	1 1/2"	38	95	46,5	45
50	2"	47	110	56,5	56
65	2 1/2"	63	130	73	63
80	3"	77	149	77	71
100	4"	97,5	176	110	80

Length acc. to: DIN EN 558 serie 52
Flange acc. to: DIN EN 1092-1 B1, PN 63 – 100 as well as ASME B16.5 ANSI600 / ANSI900

Test meeting the requirement of PED acc. to DIN EN 12266-1:

The tightness corresponds to the specified leakage rates*:

type	soft seat**	metal seat
RV06	A	≥ G

* acc. to EN 12266-1 / in order to achieve the specified leakage rate, a back pressure of at least 0.3 bar is required

** Soft Seat: NBR, EPDM, FKM, PTFE

Necessary counter pressure for the tightness of the check valve:

NNBR/EPDM / FKM → 0,3 bar
PTFE → 1,0 bar

Maximal working pressure / opening pressure:

DN		Kv-value	working pressure	Opening pressure at flow direction			Without spring	weight
SIZE		m3/h	In bar	→	↓	↑	↑	in kg
15	½"	5	0 – 160	16	9	23	7	0,40
20	¾"	9	0 – 160	12	5	20	7	0,70
25	1"	14	0 – 160	15	7	24	8	0,90
32	1	21	0 – 160	18	9	27	9	1,2
40	1	23,5	0 – 160	16	9	24	8	1,7
50	2"	34	0 – 160	19	8	29	10	2,8
65	2	71	0 – 160	16	-	31	15	3,9
80	3"	100	0 – 160	16	-	32	16	5,6
100	4"	143	0 – 160	17	-	36	18	11,6

*other opening pressures in request

Pressure-temperature:

Stainless steel:

1.4404		temperature in (°C)									
	-196	20	100	150	200	250	300	350*	400*	450*	
DN15	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN20	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN25	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN32	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN40	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN50	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN65	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN80	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN100	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN125	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN150	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN200	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN250	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	
DN300	160	160	141,5	128,7	118,7	111,6	103,1	98,8	96	93,5	

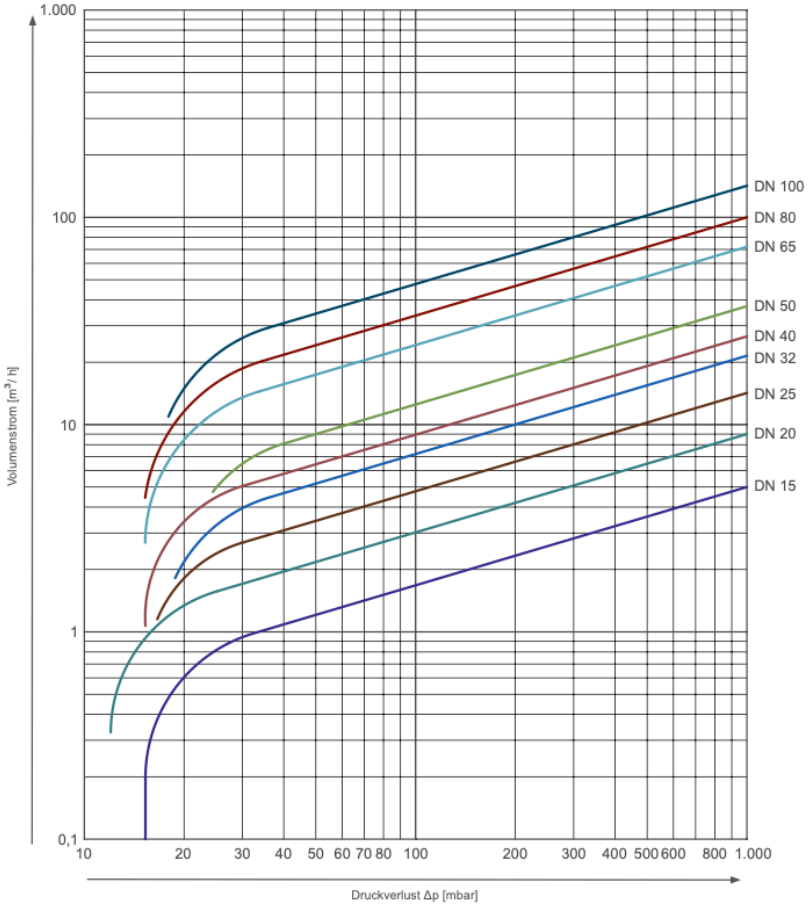
pressure (bar)

*with Hastelloy C4 spring temperatures up to 400°C can be achieved! (Attention: low temperature limit is -100°C).
Please contact our sales team for further information, when needed.

Important information: Please note the temperature limits for the seals.

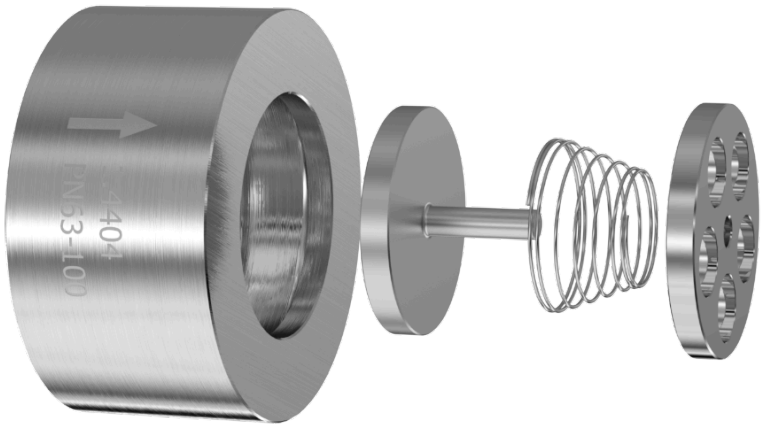
Pressure loss diagram DN15-DN100:

The diagram values apply to water with a temperature of 20°C. In the area of the valve opening the characteristics for operation in horizontal pipelines apply. In case you miss calculations for other fluids or temperatures don't hesitate and contact us.



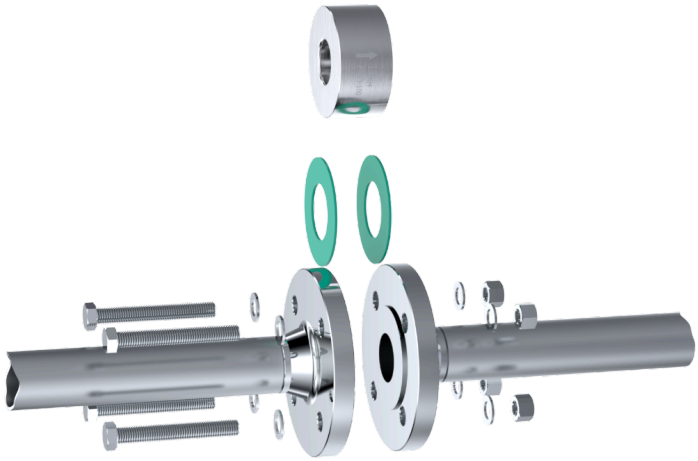
Druckverlust = pressure loss
Volumenstrom = volume flow

Exploded drawing:



Installation instructions:

Possible damages to the disco check valves and O-rings have to be checked prior to installation. Check if the valve can be moved. Damaged parts must not be installed. Make sure that only those disco check valves are 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. Watch throughput direction (see arrow on the plate)! They are put in their central position according to the outer diameter of the body and the flange screw inner side. Tighten the flange screws crosswise regarding the torque required.



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

- the check valves are to be used according to the regulation in p.1
- the pipe system is to be installed correctly and its operation is ti be checked regularly
- the check valves are 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

Special options:

- special opening pressure
- cleaning: free of oil and grease,
  free of silicone
  free of PWIS
- with attached ground cable
- leakage rate D for metal seated valves
- further materials on request
- seals with additional approvals which go beyond the standard
- seal glued in for vacuum applications
  (recommended for absolute pressure < 0.1 bar)

Article number:

type	material	seal	size
RV06 – ceck valve PN63/100 – ANSI600/900*	**00 – stainless steel**	**01 – EPDM** 02 – FPM 03 – PTFE 04 – NBR 05 – Metall	03 – DN15 04 – DN20 05 – DN25 **06 – DN32** 07 – DN40 08 – DN50 09 – DN65 10 – DN80 11 – DN100

Example RV06000106:

RV06	**00**	**01**	**06**

Article no. RV06000106
Check valve made of stainless steel
seal: EPDM
size: DN32

Image similar, subject change without notice.