

C09

C09 402 740.390 SS DN15-DN100
Check valve wafer



CE



Size : DN 15 to DN100
Ends : Between flanges PN10/16/25/40 and Class 150/300
Min Temperature : - 20°C
Max Temperature : + 200°C
Max Pressure : 40 Bars
Specifications : Spring type
All positions
Metal / metal

Materials : Stainless steel

SPECIFICATIONS :

- Spring type
- All positions (respect the flow direction indicated by the arrow)
- Short length
- Disc rib guide for a better centering
- Full stainless steel corrosion resistant and for high temperature
- Metal / metal tightness

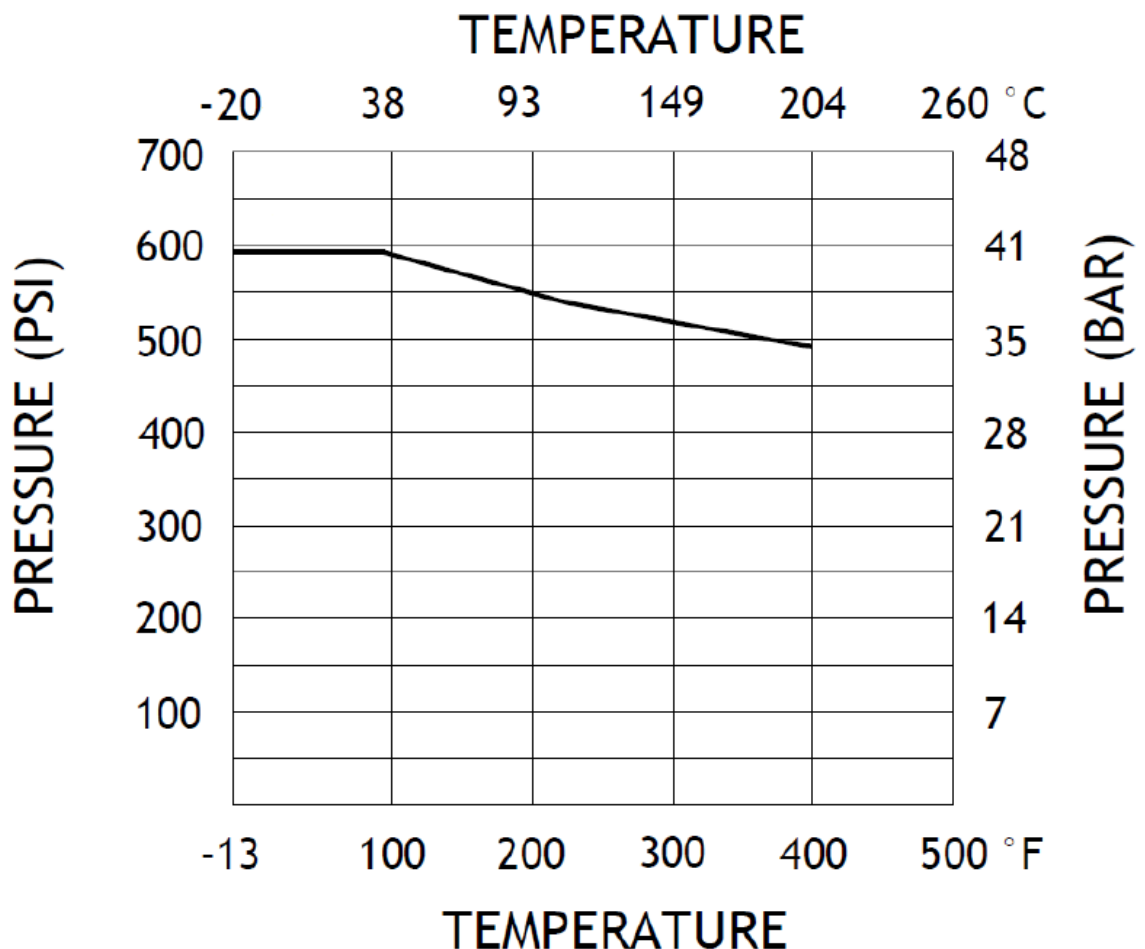
USE :

- Chemical and pharmaceutical industries, petrochemical industries, hydraulic installation, compressed air
- Min Temperature Ts : - 20°C
- Max Temperature Ts : + 200°C
- Max Pressure Ps : 40 bars (see graph under)

RANGE :

- Between flanges PN10/16/25/40, Class 150 (PN20) and Class 300 (PN50) Ref. 390 from DN15 to DN100

PRESSURE / TEMPERATURE GRAPH (STEAM EXCLUDED) :

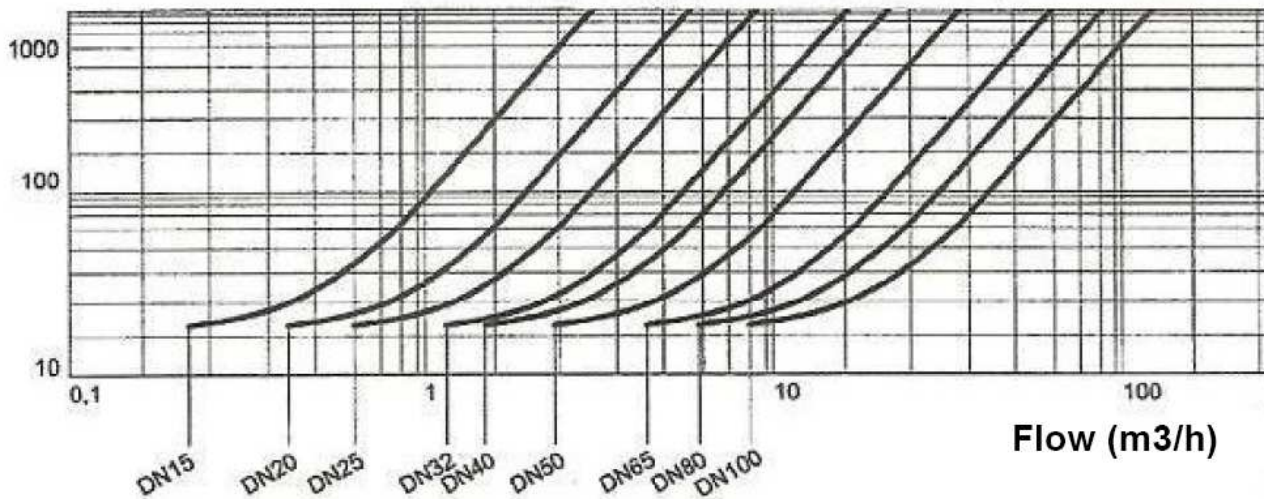


FLOW COEFFICIENT K_{vs} (M³/h) :

DN	15	20	25	32	40	50	65	80	100
K_{vs} (m ³ /h)	4.4	6.8	10	17	26	43	75	112	172

HEAD LOSS GRAPH :

(mbar)



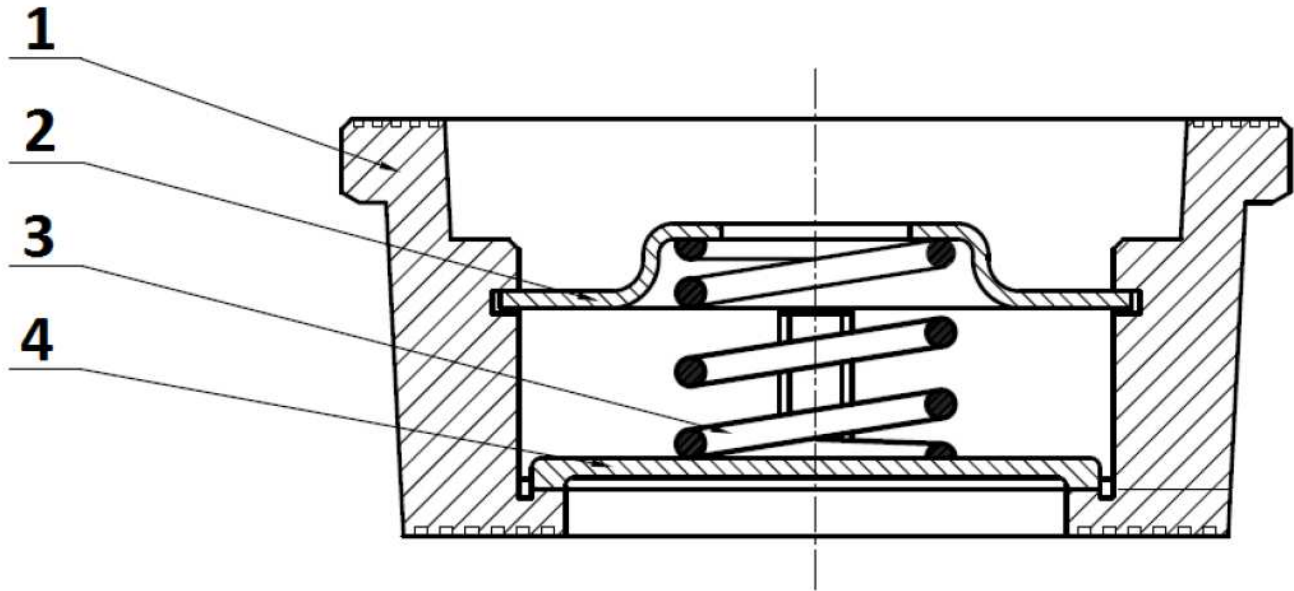
OPENING PRESSURE (in mbar) :

DN	Vertical Position Ascending fluid	Horizontal Position
DN 15	32 ↑	26 →
DN 20	33 ↑	26 →
DN 25	31 ↑	27 →
DN 32	27 ↑	24 →
DN 40	29 ↑	25 →
DN 50	29 ↑	25 →
DN 65	25 ↑	23 →
DN 80	21 ↑	23 →
DN100	21 ↑	23 →

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MATERIALS :

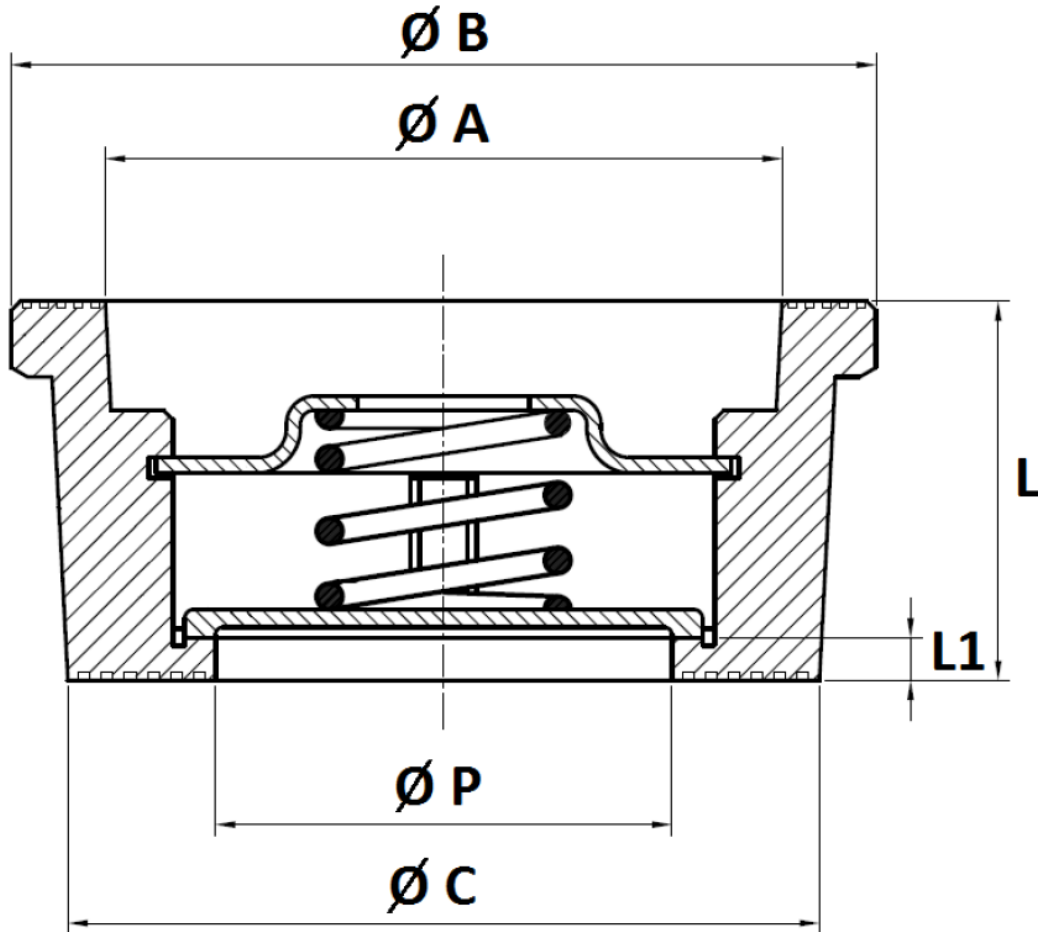


Item	Designation	Materials
1	Body	ASTM A351 CF8M
2	Spring holder	AISI 316
3	Spring	
4	Disc	

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SIZE (in mm) :



Ref.	DN	15	20	25	32	40	50	65	80	100
390	Ø A	28.5	36.2	43.3	56	68.5	80.5	99	117	135
	Ø B	39	46	54	70	83	96	115	135	153
	Ø C	32	40	46	60	72	84	103	123	140
	Ø P	15	20	25	32	40	49	62	75	85
	L	16	19	21	27	31	40	46	50	60
	L1	3	3	3	3.5	3.5	4	5	5	6
	Weight (in Kg)	0.09	0.12	0.16	0.31	0.43	0.78	1.03	1.54	2.25

STANDARDS :

- Fabrication according to ISO 9001 : 2008
- DIRECTIVE 97/23/CE : CE N° 0036
Risk Category II Module A1
- Pressure tests according to API 598, table 6
- Length according to EN 558 series 49 (DIN 3202 K4)
- ATEX Group II Category 2 GD c T2 Zone 1 & 21 Zone 2 & 22 (optional marking)

INSTALLATION INSTRUCTIONS

GENERAL GUIDELINES :

- Ensure that the check valves to be used are appropriate for the conditions of the installation (type of fluid, pressure and temperature).
- Be sure to have enough valves to be able to isolate the sections of piping as well as the appropriate equipment for maintenance and repair.
- Ensure that the valves to be installed are of correct strength to be able to support the capacity of their usage.

INSTALLATION INSTRUCTIONS :

- **Before installing the check valves, clean and remove any objects from the pipes** (in particular bits of sealing and metal) which could obstruct and block the valves.
- **Ensure that both connecting pipes either side of the check valve (upstream and downstream) are aligned** (if they're not, the valves may not work correctly).
- **Make sure that the two sections of the pipe (upstream and downstream) match, the check valve unit will not absorb any gaps. Any distortions in the pipes may affect the tightness of the connection, the working of the check valve and can even cause a rupture. To be sure, place the kit in position to ensure the assembling will work.**
- Make sure there is enough space so that the disc can be opened totally in the pipe.
- If there is a direction changing or if there's another material, it's better to take away the check valve so that it is outside the turbulence area (**between 3 and 5 times the ND before and after**).
- After a pump please refer to **FD CEN/TR 13932** to install the check valve :
 - If it is essential to keep priming the pump, a non-return check valve can be fitted to the suction pipe at a distance **L1 (straight length suction) > 10xD1 (diameter suction)**
The check valve is designed to meet the maximum flow rate in service
 - In other cases, the non-return check valve is mounted on the discharge pipe at a distance of **L2 (straight length at discharge) > 3xD2 (diameter at discharge)**