

V6002

Non-return Valve

Application

Non-return valves are used in heating systems to prevent the backflow of water or other fluids in the system.

These valves are suitable for heating and conditioning (HVAC). For in-line installation (horizontal or vertical position) and as foot valves. The shape of the body and shutter minimizes turbulence and head loss. They are available in flanged versions, from DN40 to DN200.

Approvals

- CE
- In conformity with directive 2014/68/UE (ex 97/23/CE PED)
- Flanges: EN 1092 ISO 7005
- Design: EN 12516, EN 12334
- Marking: EN 19
- Testing: 100% testing in accordance with EN 12266

Special Features

- Double check group
- Wide DN-range
- For HVAC usage
- Corrosion-resistant design



Technical Data

Pressure values

Nominal static pressure:	PN16
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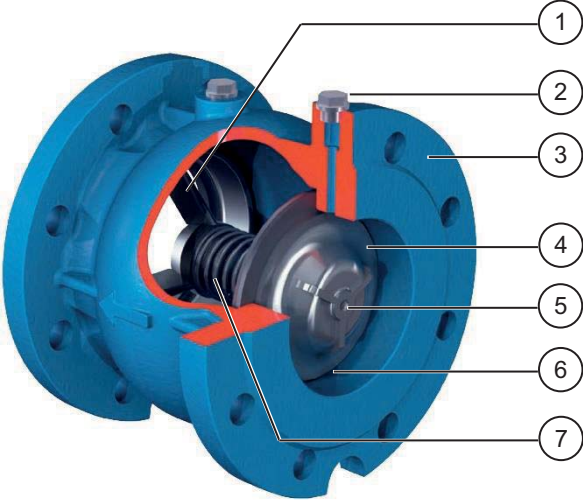
Specifications

Valve size:	DN40 - DN200
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Temperature range:	-10 to 150°C
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Note: Not suitable for steam

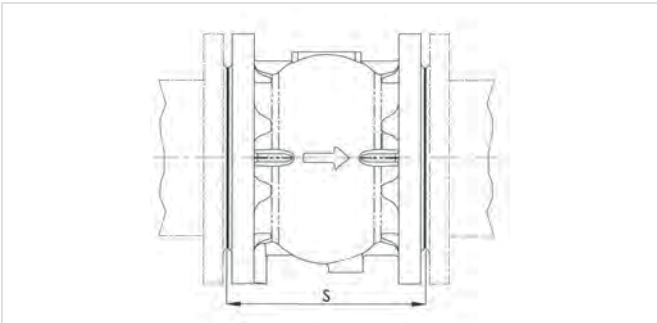
Construction

Overview	Components	Materials
	1 Stem DN40 - DN200	Stainless steel ASTM A351 gr. CF8
	2 Plug	AISI 304 + O-Ring / FKM (Viton®)
	3 Body	Cast iron EN GJL250 Fusion bonded epoxy paint
	4 Shutter DN40 - DN200	Stainless steel ASTM A351 gr. CF8
	5 Shutter stem	Stainless steel ASTM A351 gr.
	6 Gasket	FKM (Viton®)
	7 Spring	Stainless steel, AISI 304

Installation Guidelines

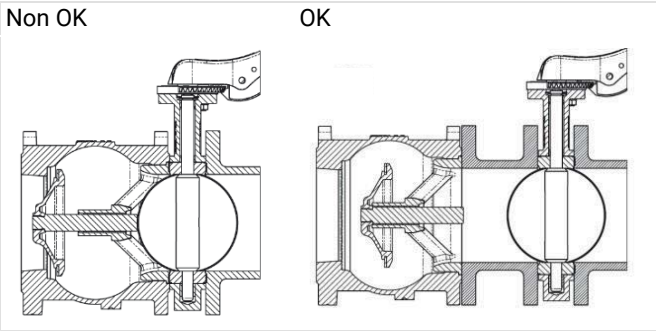
Setup requirements

- Keep the valve between the pipe and insert the sealing between the flanges. Make sure that the sealing is correctly placed. The distance S between the flanges must be equal to the gauge of the valve. Do not use bolts to bring near the pipe. Clamping bolts must be cross tightened.



- Flanges must not be welded to pipes once the valve has been installed. Make sure the installation is equipped with expansion joints so as to avoid breaking or losses due to pipes tensions, vibrations or shifts.
- Water hammers might cause damage and ruptures. Inclination, twisting and misalignments of the piping may subject the installed valve to excessive stresses. It is recommended that elastic joints be used in order to reduce such effects as much as possible.
- In case of use with hot fluids pay attention to the risk of scald. In open position the valve has a bigger dimension than the nominal face to face dimension. In order to avoid interferences provide a suitable distance between the valve and other valves or pipes components.

Installation Example



Technical Characteristics

Maximum pressure

Fluids	Max
Non hazardous fluids	16 bar
Water*	

* For supply, distribution and discharge of water
(PED 2014/68/EU 1.1.2b) 2014/68/EU 1.1.2

* with max. 50 % glycol according to VDI 2035

Minimum Countre pressure

0.1 bar

Cracking pressure

Flow direction	DN							
	40	50	65	80	100	125	150	200
	693	639	647	592	624	570	526	639
	382	382	316	280	318	180	165	221
	510	510	480	436	470	375	345	429
without  spring	125	125	165	155	152	203	185	208

Temperature

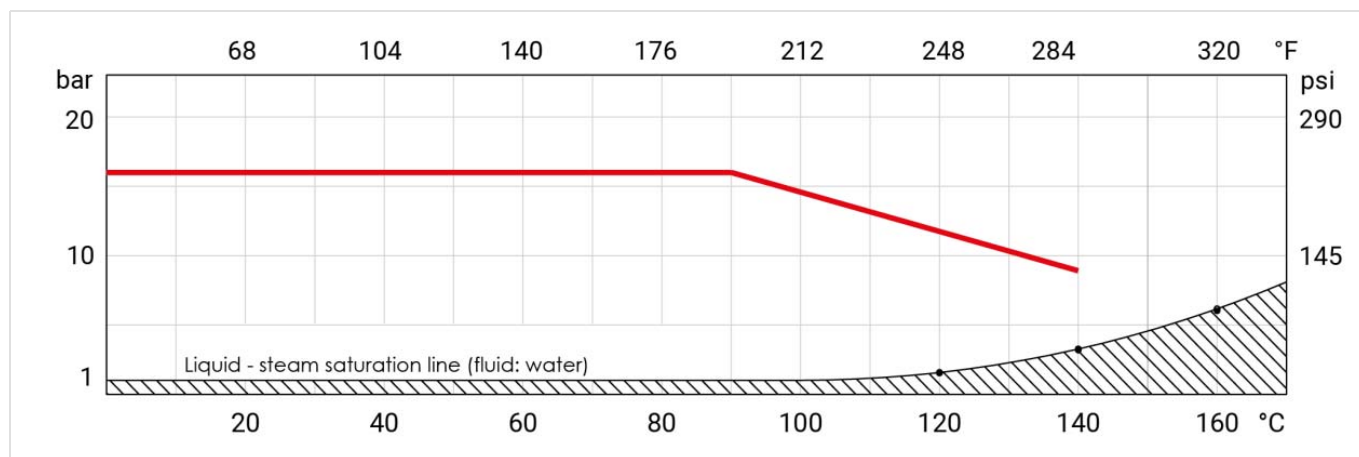
Temperature	Min °C	Max °C	
		continuous	peak
FKM	-10	150	170

NB: the maximum working pressure decreases while the temperature increases; please refer to “pressure/temperature” chart

Pressure / temperature chart

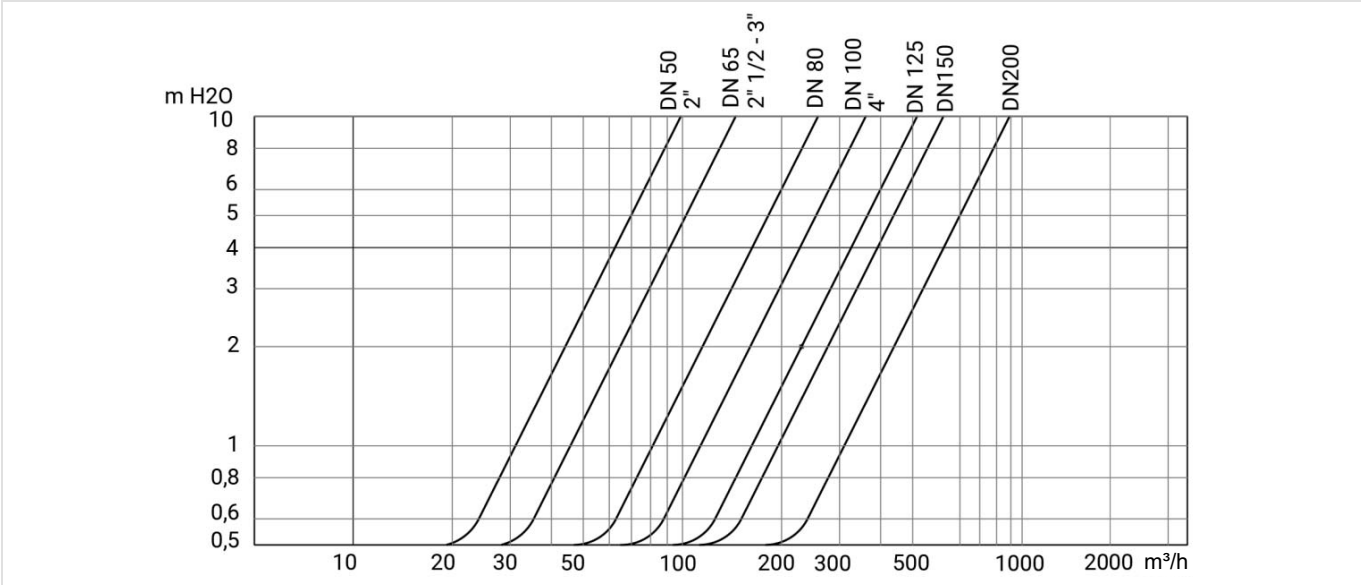


RANGE NOT SUITABLE FOR STEAM. DO NOT use when temperature and pressure are below the liquid-steam saturation line (hatched)



Head loss

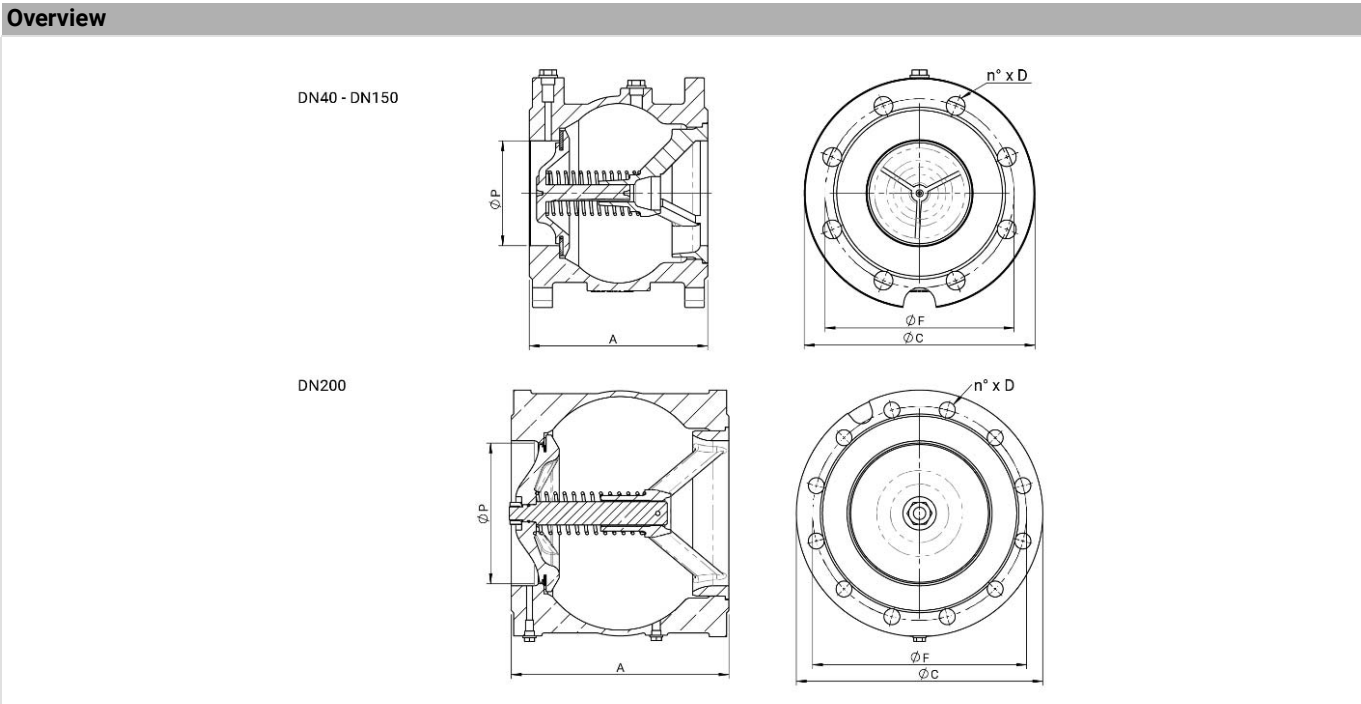
Fluid: water (1 m H₂O = 0,098 bar)



Working range

K _v -value (m ³ /h)	DN							
	40	50	65	80	100	125	150	200
	99	99	145	258	360	516	620	985

Dimensions



Item Number	DN	Dimensions					Weight [kg]
		P	A	C	F	n° x D	
V60020040	40	50	100	165	110	4 x M16	5.6
V60020050	50	50	100	165	125	4 x M18	5.6
V60020065	65	65	120	185	145	4 x M18	7.6
V60020080	80	80	140	200	160	8 x M18	9.8
V60020100	100	100	170	220	180	8 x M18	13.8
V60020125	125	125	200	250	210	8 x M18	20.6
V60020150	150	145	230	285	240	8 x M22	28.6
V60020200	200	194	300	340	295	12 x M22	48.6

Note: All dimensions in mm unless stated otherwise.

Ordering Information

The following tables contain all the information you need to make an order of an item of your choice.
When ordering, please always state the type, the ordering or the part number.

Options

DN	k _v -value	Weight [kg]	Item No.
40	99	5.6	V60020040
50	99	5.6	V60020050
65	145	7.6	V60020065
80	258	9.8	V60020080
100	360	13.8	V60020100
125	216	20.6	V60020125
150	620	28.6	V60020150
200	985	48.6	V60020200



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