



GESTRA® DISCO Non-Return Valves RK 70



Issue Date: 4/99

Non-Return Valves
PN 6
DN 15–200 mm
(½–8")
RK 70

A₂

Application in heating installations. Valve disc/cone of plastics. Noiseless operation. Valves in DN 15–100 mm are additionally damped by an O-ring.

Pressure/Temperature Rating

Nominal sizes DN	mm in	15-100 ½-4			125-200 5-8		
Nominal pressure	PN	6					
Max. service pressure ¹⁾	barg	6	3	2	1.5	1	0.5
	psig	85	43	29	21	14.5	7
Related temperature	°C	20	50	80	100	110	130
	°F	68	122	176	212	230	266
Minimum temperature ²⁾		−30 °C (−22 °F)			−10 °C (14 °F)		

¹⁾ Max. service pressure or differential pressure in closed systems.

²⁾ Minimum temperature for nominal pressure rating.

Chemical resistance see GESTRA Information A 2.1

Connections of Wafer-Type Valves

Standard valves for fitting between flanges to DIN 2501, PN 6/10/16.
DN 15–100 mm (½–4") with universal centering ring.

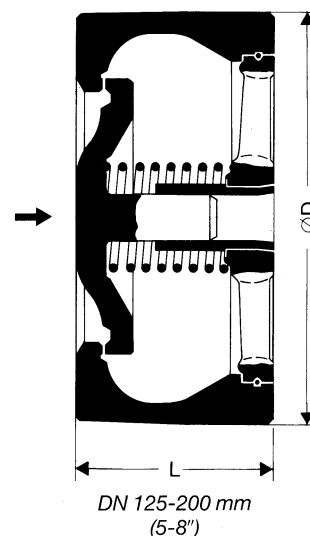
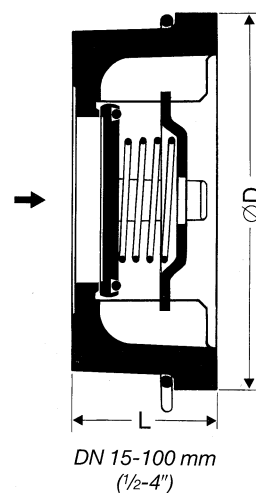
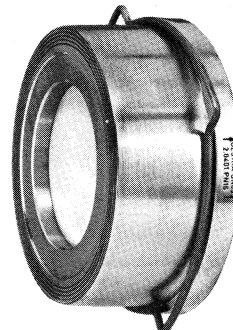
Dimensions

DN	mm in	15	20	25	32	40	50	65	80	100	125	150	200
		½	¾	1	1 ¼	1 ½	2	2 ½	3	4	5	6	8
Dimensions in mm	L	16	19	22	28	31.5	40	46	50	60	90	106	140
	D	40	47	56	72	82	95	115	132	152	184	209	264
Weight kg		0.09	0.13	0.21	0.48	0.63	1.05	1.45	2	3.2	5.6	8.4	17

³⁾ Overall length according to DIN EN 558-1, table 11, series 49 (≅ DIN 3202, part 3, series K4)

Materials

DN 15-100 mm (½-4")	DIN reference	
Body, seat and guide ribs	Brass CuZn 39 Pb 3	2.0401
Valve disc/O-ring	Plastics PPE/EPDM	–
Spring retainer	Austenitic stainless steel X 6 CrNiMoTi 17 12 2	1.4571
Spring		
Centering ring	Stainless steel X 12 CrNi 17 7	1.4310
DN 125-200 mm (5-8")		
Body, seat	Cast Iron GG-25	0.6025
Valve cone and spindle	Polyamide 6	–
Guide support	Steel UZSt 37-2	1.0161
Spindle guide	Stainless steel X 5 CrNi 18 10	1.4301
Spring	X 6 CrNiMoTi 17 12 2	1.4571



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Flow Control Division

Opening pressures

Differential pressures at zero volume flow

DN mm in	Opening pressures in mbar			
	Direction of flow			
	without springs ↑	with springs ↑ → ↓		
15 ½	0.4	22.8	22.4	22.0
20 ¾	0.4	22.8	22.4	22.0
25 1	0.4	22.8	22.4	22.0
32 1¼	0.5	24.0	23.5	23.0
40 1½	0.5	24.5	24.0	23.5
50 2	0.6	24.7	24.1	23.5
65 2½	0.7	25.4	24.7	24.0
80 3	0.8	26.6	25.8	25.0
100 4	0.9	27.3	26.4	25.5
125 5	2.0	9.0	7.0	5.0
150 6	2.5	10.0	7.5	5.0
200 8	2.5	10.0	7.5	5.0

1 mbar $\hat{=}$ 0.0145 psi $\hat{=}$ 10 mm w. g. $\hat{=}$ 0.4 in w. g.

Pressure Drop Chart

The curves given in the chart are valid for water at 20 °C. To read the pressure drop for other fluids the equivalent water volume flowrate must be calculated and used in the graph.

The values indicated in the chart are applicable to spring-assisted valves with horizontal flow. With vertical flow insignificant deviations occur only within the range of partial opening.

$$\dot{V}_w = \dot{V} \cdot \sqrt{\frac{\rho}{1000}}$$

$\dot{V}_w$ = Equivalent water volume flow in l/s etc.

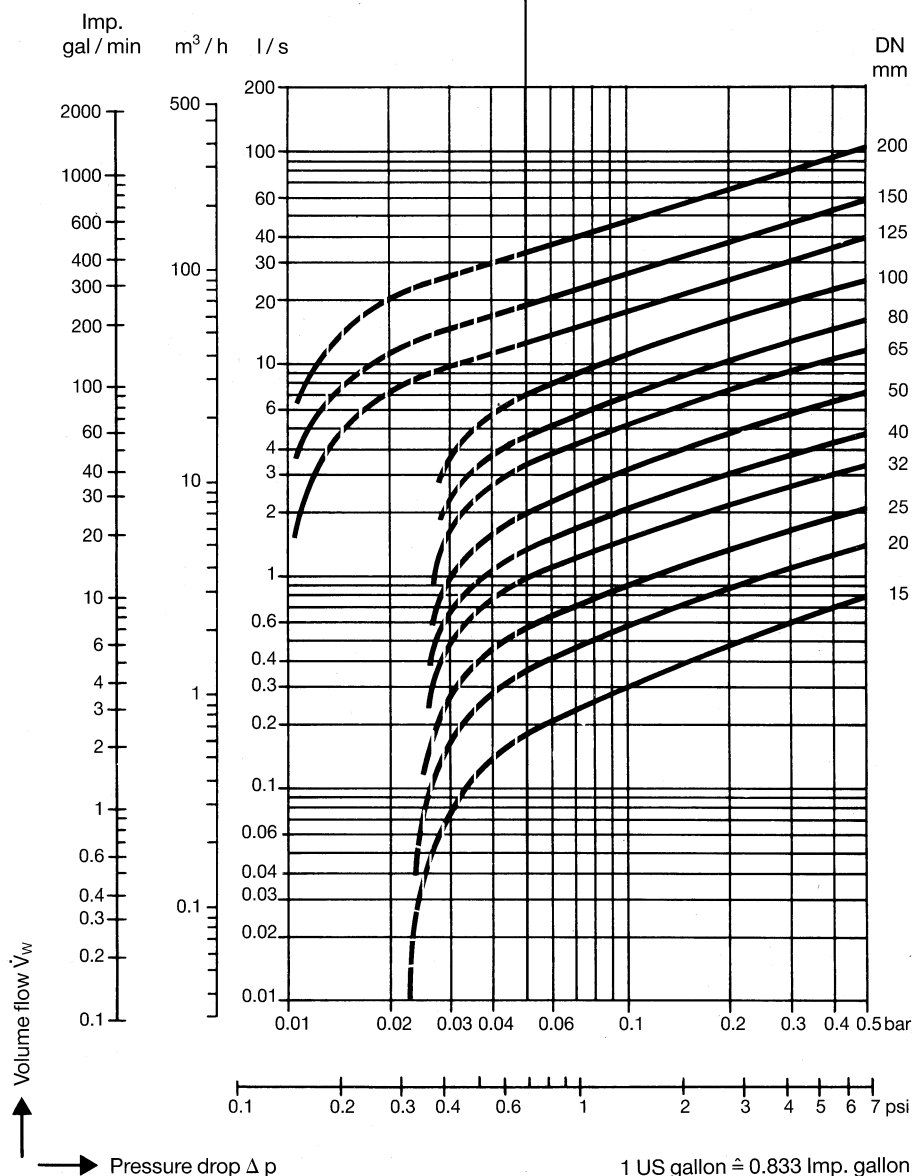
ρ = Density of fluid (operating condition) in kg/m³ etc.

$\dot{V}$ = Volume of fluid (operating condition) in l/s etc.

When selecting valve please consider

Partial opening
= instable range

Full opening
= stable range



Enquiry Specification

GESTRA DISCO non-return valves RK 70. Wafer design with extremely short overall length to DIN EN 558-1, table 11, series 49.

Suitable for fitting between flanges to DIN.

Indications on pressure, nominal size (DN), body material.

Order Specifications

Type RK 70, DN...

Fluid, flowrate, pressure and temperature. Type of pipe flanges.

Supply in accordance with our general terms of business.

Technical modifications reserved.