

GESTRA® DISCO Non-Return Valves RK 71



Non-Return Valves PN 6/10/16 DN 15-100 mm (½-4") RK 71



Issue Date: 2/98

Application for liquids, gases and vapours.

Pressure/Temperature Rating

Nominal sizes DN	mm in	15-100 ½-4″			
Nominal pressure	PN		16		
Max. service pressure	barg psig	16 230	14 200	13 185	
Related temperature	°C °F	120 248	200 392	250 482	
Minimum temperature 1)		– 60 °C (–76 °F)			

¹⁾ 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 BS			
DIN 2501 PN6/10/16	BS 10 table F		

Dimensions

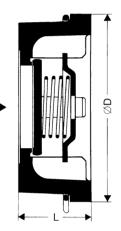
DN	mm in	15 ½	20 ³/ ₄	25 1	32 11/4	40 1½	50 2	65 2½	80 3	100 4
Dimensions	L ²)	16	19	22	28	31.5	40	46	50	60
in mm	D	40	47	56	72	82	95	115	132	152
Weight	kg	0.09	0.13	0.21	0.48	0.63	1.05	1.45	2	3.2

²) Overall length according to DIN EN 558-1, table 11, series 49 (≙ DIN 3202, part 3, series K4)

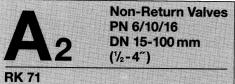
Materials

DN 15-100 mm (½-4″)	DIN reference		
Body, seat and guide ribs	Brass CuZn 39 Pb 3	2.0401	
Valve disc, spring retainer	X 6 CrNiMoTi 17 12 2	1.4571	
Spring			
Centring ring	X 12 CrNi 17 7	1.4310	





DN 15-100 mm (½-4")





A Unit of Flowserve Corporation

GESTRA GmbH

P.O. Box 105460, D-28054 Bremen Hemmstraße 130, D-28215 Bremen Tel. +49 (0) 421 35 03-0 · Fax +49 (0) 421 35 03-393 Internet www.gestra.de

Flow Control Division

Opening pressures

Differential pressures at zero volume flow

DN Opening pressures in mi			s in mbar			
		Dir	Direction of flow			
mm	in	<u></u>	→	↓		
15	1/2	25	22.5	20		
20	3/4	25	22.5	20		
25	1	25	22.5	20		
32	1 1/4	27	23.5	20		
40	1 ½	28	24.0	20		
50	2	29	24.5	20		
65	21/2	30	25.0	20		
80	3	31	25.5	20		
100	4	33	26.5	20		

1 mbar ≙ 0.0145 psi ≙ 10 mm w.g. ≙ 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-loaded valves with horizontal flow. With vertical flow insignificant deviations occur only within the range of partial opening.

$$\dot{V}_W = \dot{V} \cdot \sqrt{\frac{\varrho}{1000}}$$

 \dot{V}_w = Equivalent water volume flow in I/s

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

= Volume of fluid (operating condition) in I/s etc.

Enquiry Specification

GESTRA DISCO-non-return valves RK. Wafer design with extremely short overall length to DIN EN 558-1, table 11, series 49. Suitable for fitting between flanges to DIN or BS.

Indications on pressure, nominal size (DN).

Order Specifications

Type RK 71, DN...

Metal-to-metal seat.

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

Note

The valves should not be used on compressors or where pulsating flow exists.

For these applications please consult us.

Supply in accordance with our general terms of business.

Technical modifications reserved.

When selecting valve please consider Partial opening **Full opening** = stable range = instable range Imp. l/s DN m³/h gal/min 1000 _T 60 600 40 400 100 🛚 30 100 300 20 200 80 65 10 100 + 50 6 60 40 40 32 10 <u>-</u> 3 30 2 25 20 20 10 15 0.6 6 0.4 4 0.3 3 0.2 2 0.11 0.06 0.6 0.04 0.4 0.03 0.1 -0.3 Volume flow \dot{V}_w 0.02 0.2 0.01 -0.1 上 0.02 0.03 0.04 0.06 0.01 0.1 0.2 0.3 0.4 0.5 bar 0.1 0.2 0.3 0.4 0.6 ż → Pressure drop ∆ p

