



**Application** for liquids, gases and vapours.

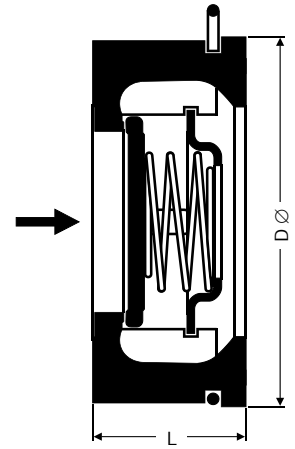
**Pressure/Temperature Rating**

Nominal sizes DN	[mm] [in]	15-100 1/2-4"			
Nominal pressure	PN	40 <sup>1)</sup>			
Max. service pressure [barg] for <b>RK 76</b>	[psig]	40 580	35 508	32 464	28 406
Related temperature	[°C] [°F]	20 68	100 212	200 392	300 572
Minimum temperature <sup>2)</sup>		- 10 °C (14 °F)			

<sup>1)</sup> Also rated for ANSI class 300, but see flange details below.

<sup>2)</sup> Minimum temperature at nominal pressure rating.

Tight shut-off in accordance with DIN 3230, part 3, leakrate BN2/BO3.



**Connections** of wafer-type valves <sup>3)</sup>

DIN	Valves for universal fitting between flanges to	
	BS	ASME
DIN 2501 (BS 4504) PN 6/10/16/25/40	BS 10 tables D, E, F, H, J <sup>4)</sup> BS 4504	ASME B 16.1 class 125 FF ASME B 16.5 class 150/300 RF

<sup>3)</sup> With universal centering ring.

<sup>4)</sup> Tables D/E, DN 65 mm and DN 80 mm (2 1/2 and 3"): Choose nominal size one size smaller each.

**Dimensions**

DN	[mm] [in]	15 1/2	20 3/4	25 1	32 1 1/4	40 1 1/2	50 2	65 2 1/2	80 3	100 4
Dimensions in mm	L <sup>5)</sup>	16	19	22	28	31.5	40	46	50	60
	D	45	55	65	75	85	98	118	134	159
Weight	[kg]	0.18	0.3	0.45	0.7	0.9	1.5	2.1	3.4	5.2

<sup>5)</sup> Overall length according to DIN EN 558-1, series 49 (≅ DIN 3202, part 3, series K4)

**Materials**

DN 15-100 mm (1/2 - 4")	DIN reference		ASTM equivalent
Body, seat and guide ribs	G-X 8 CrNi 13	1.4008	A 217-CA 15
Valve disc, spring retainer	X 6 CrNiMoTi 17 12 2	1.4571	A 182 F 316
Spring			A 313 Type 316
Centering ring	X 12 CrNi 17 7	1.4310	Type 302

# A<sub>2</sub>

**Non-Return Valves**  
PN 6/10/16/25/40  
DN 15-100 mm  
(1/2-4")

RK 76



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Flow Control Division

### Opening pressures

Differential pressures at zero volume flow

DN		Opening pressures in mbar		
		Direction of flow with springs		
[mm]	[in]	↑	→	↓
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 1/2	28	24.0	20
50	2	29	24.5	20
65	2 1/2	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.

### Enquiry Specification

GESTRA DISCO non-return valves RK76.  
Wafer design with extremely short overall length to DIN EN 558-1, table 11, series 49 ≙ DIN 3202, part 3, series K4)

Suitable for fitting between flanges to DIN, BS or ASME FF.

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

### Order Specifications

Type RK 76, DN..  
Metal-to-metal  
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.

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### 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.

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

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

$\rho$  = Density of fluid (operating condition) in kg/m<sup>3</sup> etc.

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

