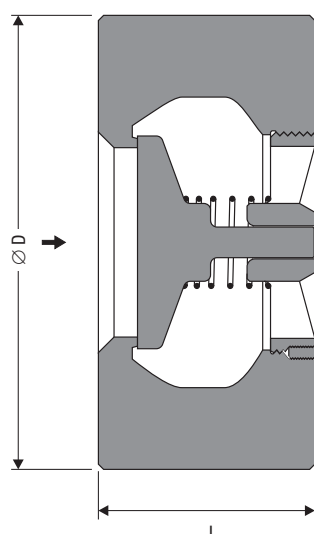
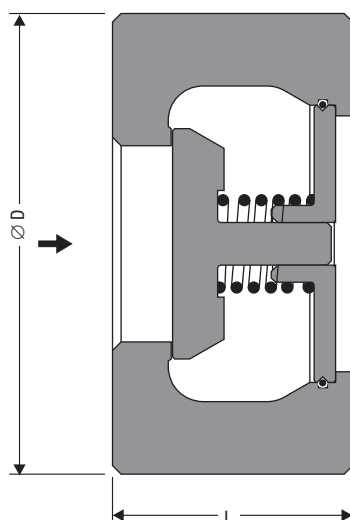




RK 29 A, DN 15-40 mm
PN 63/100/160/250/320/400
ASME Class 400/600/900/1500/2500
RK 29A, DN 50-100 mm
PN 250/320/400
ASME Class 1500/2500



RK 29A, DN 50-200 mm
PN 63/100/160
ASME Class 400/600/900

Application and Features

Type	PN	Application	Features
		for liquids, gases and vapours	
RK 29 A	PN 63 – 400 Class 400 – 2500	for high pressure ratings and special tasks	for pressure ratings up to ON 400 / Class 2500, centric cone guide unaffected by dirt, adjusted diameter ensures optimum body centering, material suitable for petrochemical applications

Materials

Type	Nominal sizes DN	EN reference	ASTM equivalent ¹⁾
RK 29A Body	15 – 200 mm	1.4571	AISI 316 Ti
Plug		1.4571	AISI 316 Ti

¹⁾ ASTM material similar to EN material. Observe different physical and chemical properties!

Dimensions

DN	[mm]	15	25	40	50	80	100	150	200
	[inch]	1/2	1	1 1/2	2	3	4	6	8
L	[mm]	35	40	56	56	71	80	125	160
PN 63	D	[mm]	63	84	105	115	149	176	250
PN 100	D	[mm]	63	84	105	121	156	183	260
PN 160	D	[mm]	63	84	105	121	156	183	260
PN 250	D	[mm]	74	84	111	126	173	205	–
PN 320	D	[mm]	74	95	121	136	193	232	–
PN 400	D	[mm]	80	106	138	153	210	259	–
Class 400	D	[mm]	54	73	95	111	149	176	247.5
Class 600	D	[mm]	54	73	95	111	149	193.5	266.5
Class 900	D	[mm]	63	79	98	142.5	168	205	288.5
Class 1500	D	[mm]	63	79	98	142.5	173	209.5	–
Class 2500	D	[mm]	69.5	84	117	146	196.5	234.5	–

Pressure/Temperature Ratings

Type	PN / Class	DN	p / T / [bar] / [°C]		
RK 29 A	PN 63	15 – 200	63 / –200	56.4 / 200	36.7 / 550 ²⁾
	PN 100	15 – 200	100 / –200	89.6 / 200	58.2 / 550 ²⁾
	PN 160	15 – 200	160 / –200	143.4 / 200	93.2 / 550 ²⁾
	PN 250	15 – 100	250 / –200	224.1 / 200	145.6 / 550 ²⁾
	PN 320	15 – 100	320 / –200	286.8 / 200	186.4 / 550 ²⁾
	PN 400	15 – 100	400 / –200	358.5 / 200	232.9 / 550 ²⁾
	Class 400	15 – 200	67.0 / –218	51.2 / 200	33.2 / 550 ²⁾
	Class 600	15 – 200	100.8 / –218	76.0 / 200	49.9 / 550 ²⁾
	Class 900	15 – 200	151.2 / –218	115.2 / 200	74.8 / 550 ²⁾
	Class 1500	15 – 100	252.0 / –218	192 / 200	124.7 / 550 ²⁾
	Class 2500	15 – 100	420.0 / –218	320 / 200	207.9 / 550 ²⁾

²⁾ If the operating temperatures exceed 300 °C intercrystalline corrosion may occur. Do not subject the equipment to operating temperatures higher than 300 °C unless intercrystalline corrosion can be ruled out.

Tightness of seat in accordance with DIN EN 12266-1, leakage rate D.

For information on chemical resistance go to www.gestra.de, click on “Service & Support” and then on “Chemical Resistance”

Sealing surfaces machined according to EN 1092-1, form B2, ASME B 16.5 RF smooth finish (63-125 µin). Other designs available on request.

Designs

Type	Seat				Springs			Earthing connection
	metal-to-metal	EPDM (–40 up to 150 °C) ³⁾	FPM (–25 up to 200 °C) ³⁾	PTFE (–190 up to 250 °C) ³⁾	without spring	special spring	Nimonic spring ⁴⁾	
RK 29A	X	–	–	–	0	–	X	0

³⁾ Observe pressure/temp. ratings of the equipment

⁴⁾ Required for temperatures above 300 °C.

X : standard
0 : optional
– : not available

Pressure Drop Charts

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 $\dot{V}_w$.

The values indicated in the chart are applicable to spring-assisted valves with horizontal flow.

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

$\dot{V}_w$ = Equivalent water volume flow
in [l/s] or [m³/h]

ρ = Density of fluid
(operating condition) in [kg/m³]

$\dot{V}$ = Volume of fluid (operating
condition) in [l/s] or [m³/h]

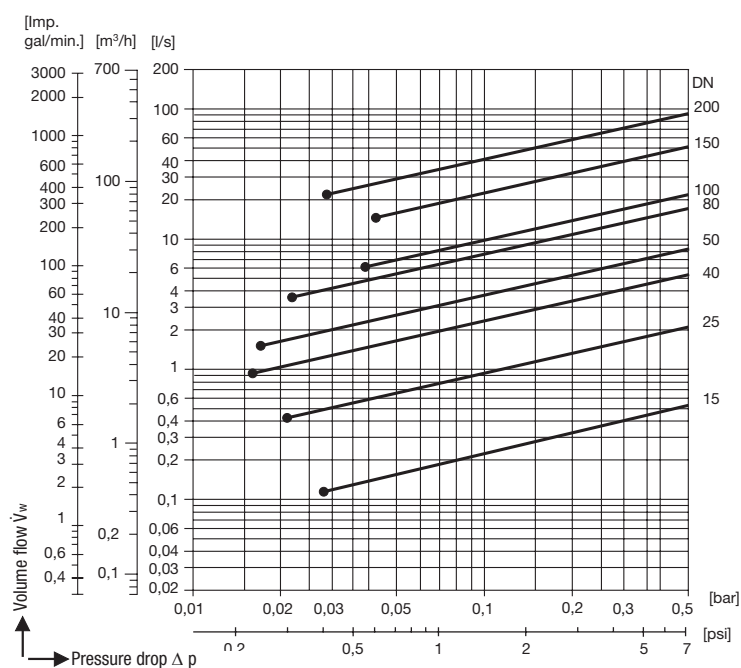
Opening Pressures

Differential pressures at zero volume flow.

RK 29 A

DN	Opening pressures [mbar]							
	Direction of flow							
	without spring ↑		with spring ↑		with spring →		with spring ↓	
	- PN 160 - CI 900	- PN 400 - CI 2500	- PN 160 - CI 900	- PN 400 - CI 2500	- PN 160 - CI 900	- PN 400 - CI 2500	- PN 160 - CI 900	- PN 400 - CI 2500
15	6	6	22	22	16	16	10	10
25	8	8	26	26	18	18	10	10
40	10	10	30	30	20	20	10	10
50	10	10	30	30	20	20	10	10
80	11	13	32	36	21	23	10	10
100	12	24	34	58	22	34	10	10
150	18	—	46	—	28	—	10	—
200	21	—	52	—	31	—	10	—

RK 29A



- Required minimum volume flow $\dot{V}_w$ for equipment with standard spring and horizontal flow.