

### Application and Features

Type	PN	Application for liquids, gases and vapours	Features
RK 70	PN 6	suitable for heating and hot-water installations	Centric cone and spring guide, unaffected by dirt (DN 125-200)
RK 71	PN 16		Spiral centering ring for easy alignment between flanges
MB 14	PN 16		Screwed socket end connection

### Body Material

Type		Nominal sizes DN	EN reference	ASTM equivalent <sup>1)</sup>
RK 70	Body	15 – 100 mm	Brass (CW617N)	Brass
	Valve disk		Plastic PPE	–
	Plug		Plastic Polyamid 6	–
RK 71	Body	125 – 200 mm	Grey cast iron (5.1301)	A126 Class A
	Valve disk		1.4571	AISI 316 Ti
MB 14	Body	15 – 50 mm	Brass (CW614N)	Brass
	Valve disk		1.4571	AISI 316 Ti

<sup>1)</sup> ASTM material similar to EN material.  
Observe different physical and chemical properties!

### Dimensions

	DN	[mm]	15	20	25	32	40	50	65	80	100	125	150	200	
			[in]	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8
			L	[mm]	16	19	22	28	31.5	40	46	50	60	90	106
RK 70	D	[mm]	40	47	56	72	82	95	115	132	152	184	209	264	
RK 71	D	[mm]	40	47	56	72	82	95	115	132	152	–	–	–	
MB 14	L	[mm]	49	49	61	61	72	72	–	–	–	–	–	–	
	D	[mm]	42	42	62	62	83	83	–	–	–	–	–	–	
	A.F.	[mm]	30	30	46	46	65	65	–	–	–	–	–	–	

### Pressure/Temperature Ratings

Type	PN	DN	p / T / [bar] / [°C]		
RK 70	PN 6	15 – 100	6 / -10	3.0 / 50	2.0 / 80
	PN 6	125 – 200	6 / -10	1.5 / 100	0.5 / 130
RK 71	PN 16	15 – 100	16 / -10	16 / 150	13.5 / 200
MB 14	PN 16	G 1/2 – G 2	16 / -60	14 / 200	13 / 250

### RK Designs

Type	Seat				without spring	Spring		Earthing connection
	metal-to-metal	EPDM	FPM	PTFE		special spring	Nimonic spring	
RK 70	(Plastic)	–	–	–	–	–	–	Use RK 86
RK 71	X	Use RK 41		Use RK 86	Use RK 41	–	–	
MB 14	X	–	–	–	–	–	–	–

X : standard  
– : 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 for spring-assisted valves with horizontal flow and to valves without spring installed in vertical pipes with upward flow.

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

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

$\rho$  = 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 71\*)

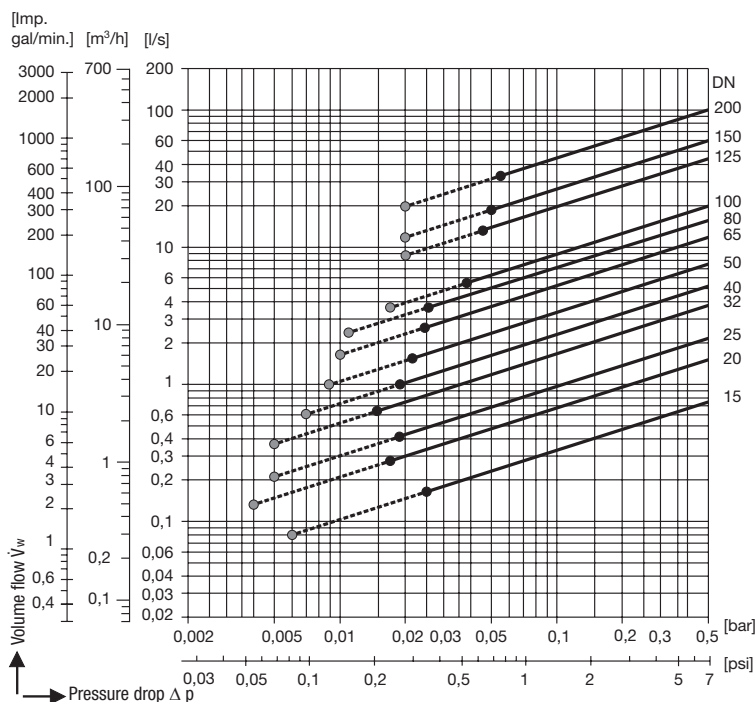
DN	Opening pressures [mbar]			
	Direction of flow			
	without spring	with spring		
	↑	↑	→	↓
15	2.5	10	7.5	5
20	2.5	10	7.5	5
25	2.5	10	7.5	5
32	3.5	12	8.5	5
40	4.0	13	9	5
50	4.5	14	9.5	5
65	5.0	15	10	5
80	5.5	16	10.5	5
100	6.5	18	11.5	5

#### RK 70\*)

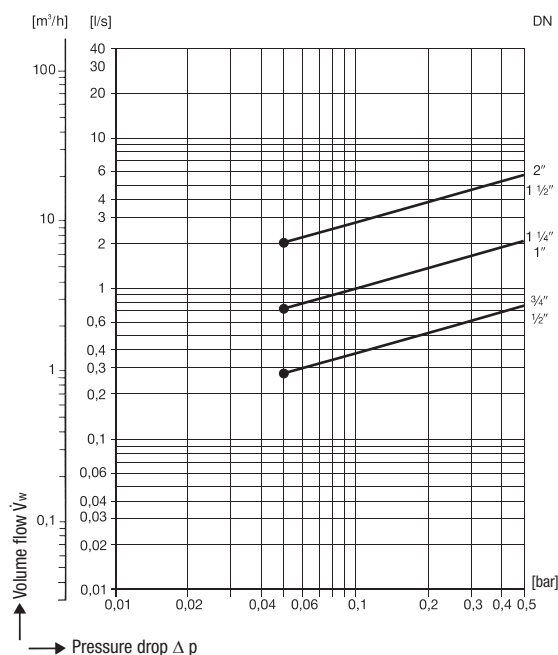
DN	Opening pressures [mbar]			
	Direction of flow			
	without spring	with spring		
	↑	↑	→	↓
15	0.4	5.8	5.4	5
20	0.4	5.8	5.4	5
25	0.4	5.8	5.4	5
32	0.5	6.0	5.5	5
40	0.5	6.0	5.5	5
50	0.6	6.2	5.6	5
65	0.7	6.4	5.7	5
80	0.8	6.6	5.8	5
100	0.9	6.8	5.9	5
125	2.0	9.0	7.0	5
150	2.5	10.0	7.5	5
200	2.5	10.0	7.5	5

\*) RK 70, 71 are not available with special spring or without spring

### RK 70, RK 71



### MB 14



- Required minimum volume flow  $\dot{V}_w$  for equipment without spring installed in vertical pipes with upward flow (only RK 70, RK 71).
- Required minimum volume flow  $\dot{V}_w$  for equipment with standard spring and horizontal flow.