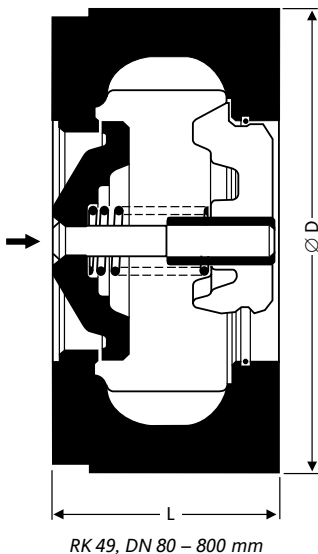
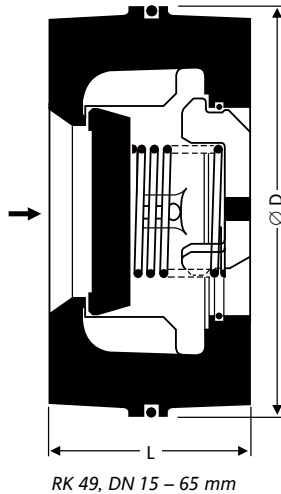
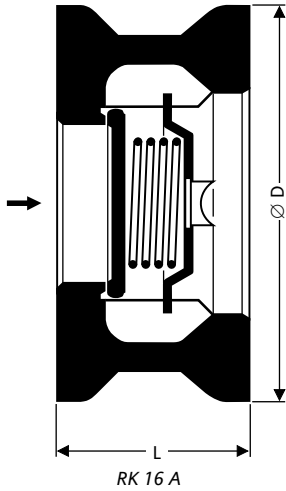


Non-Return Valves RK – PN 40 to PN 160

Short overall length according to DIN EN 558-2, table 11, series 52 (≅ DIN 3202, part 3, series K5)



Application

| Type | PN | |
|---------|-----|--|
| RK 16 A | 40 | For liquids, gases, vapours. Application as check valve, breather, foot valve, pressure-relief valve or pressure-maintaining valve. RK 16 A for aggressive fluids and low temperatures RK 49 for high pressures and temperatures |
| RK 49 | 160 | |

Body Material

| Type | Nominal sizes (DN) | DIN reference | ASTM equivalent |
|---------|--------------------|---------------|-----------------|
| RK 16 A | 15 – 100 mm | 1.4571 | A 351 CF 8 |
| RK 49 | 15 – 65 mm | 1.4581 | A 351 CF 8 |
| | 80 – 200 mm | 1.7357 | A 217 WC 6 |

Physical and chemical properties comply with DIN grade.
ASTM nearest equivalent is stated for guidance only.

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] | 25 | 31.5 | 35.5 | 40 | 45 | 56 | 63 | 71 | 80 | 110 | 125 | 160 |
| RK 16 A | D [mm] | 52 | 63 | 72 | 81 | 93 | 108 | 128 | 143 | 163 ¹⁾ 169 ²⁾ | – | – | – |
| RK 49 | D [mm] | 54 | 63 | 74 | 84 | 95 | 110 | 130 | 147 | 173 | 209 | 245 | 301 |

1) PN 10/16

2) PN 25/40

Non-Return Valves RK – PN 40 to PN 160

Short overall length according to DIN EN 558-2, table 11, series 52 (Δ DIN 3202, part 3, series K5)



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.

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] 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.

Differential pressures at zero volume flow.

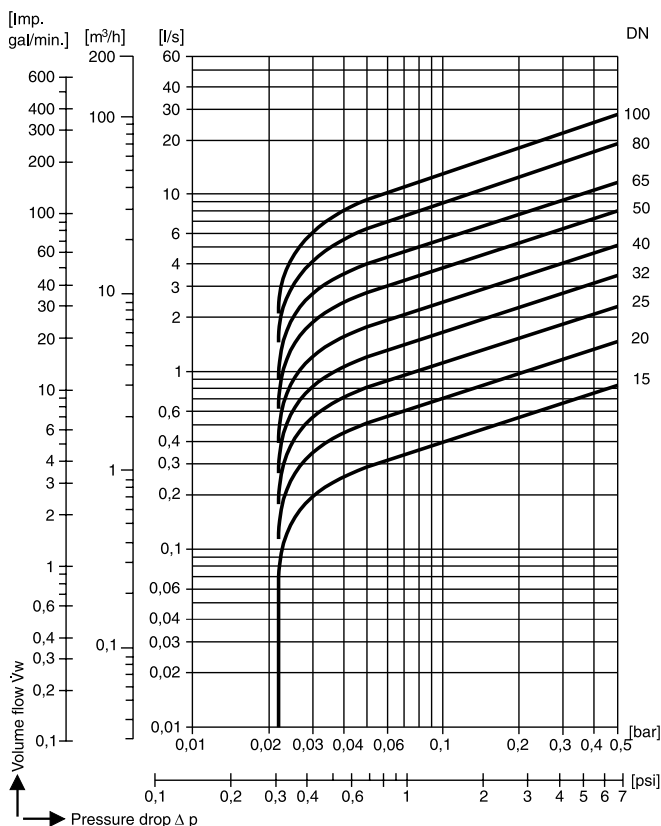
RK 16 A

| DN | Opening pressures [mbar] | | | |
|-----|--------------------------|-------------|------|----|
| | Direction of flow | | | |
| | without spring | with spring | | |
| | ↑ | ↑ | → | ↓ |
| 15 | 2.5 | 25 | 22.5 | 20 |
| 20 | 2.5 | 25 | 22.5 | 20 |
| 25 | 2.5 | 25 | 22.5 | 20 |
| 32 | 3.5 | 27 | 23.5 | 20 |
| 40 | 4.0 | 28 | 24.0 | 20 |
| 50 | 4.5 | 29 | 24.5 | 20 |
| 65 | 5.0 | 30 | 25.0 | 20 |
| 80 | 5.5 | 31 | 25.5 | 20 |
| 100 | 6.5 | 33 | 26.5 | 20 |

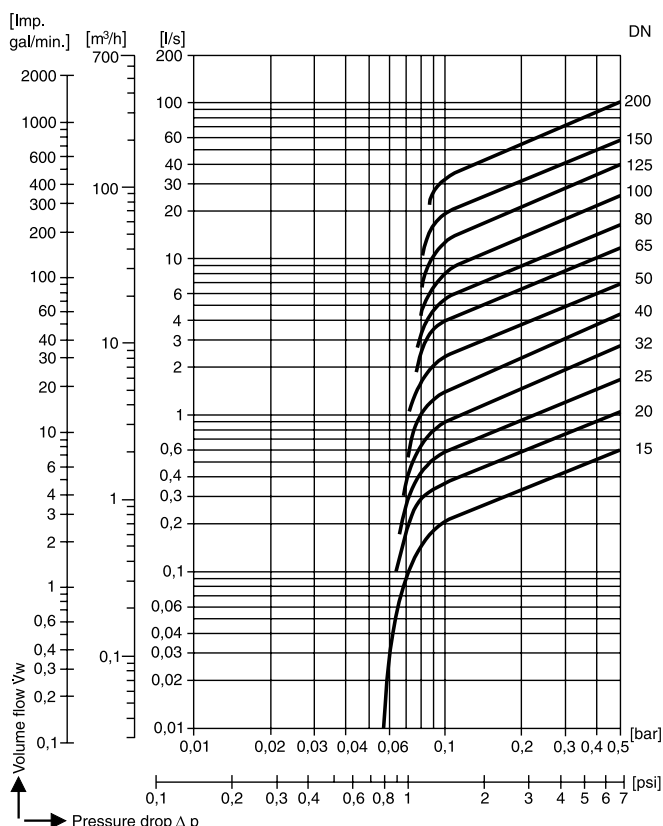
RK 49

| DN | Opening pressures [mbar] | | | |
|-----|--------------------------|-------------|------|----|
| | Direction of flow | | | |
| | without spring | with spring | | |
| | ↑ | ↑ | → | ↓ |
| 15 | 16.5 | 73 | 56.5 | 40 |
| 20 | 17.5 | 74 | 57.0 | 40 |
| 25 | 18.0 | 76 | 58.0 | 40 |
| 32 | 18.0 | 76 | 58.0 | 40 |
| 40 | 19.5 | 79 | 59.5 | 40 |
| 50 | 22.0 | 84 | 62.0 | 40 |
| 65 | 23.0 | 87 | 63.0 | 40 |
| 80 | 17.5 | 75 | 57.5 | 40 |
| 100 | 20.0 | 80 | 60.0 | 40 |
| 125 | 23.0 | 86 | 63.0 | 40 |
| 150 | 24.0 | 88 | 64.0 | 40 |
| 200 | 29.0 | 98 | 69.0 | 40 |

RK 16 A



RK 49



DISCO Non-Return Valves RK PN 40 to PN 160



Stock Code

| Type | PN | DN [mm] | Stock code |
|----------------|-------------|---------|------------|
| RK 16 A | 10/16/25/40 | 15 | 1181201 |
| | 10/16/25/40 | 20 | 1181401 |
| | 10/16/25/40 | 25 | 1181501 |
| | 10/16/25/40 | 32 | 1181601 |
| | 10/16/25/40 | 40 | 1181701 |
| | 10/16/25/40 | 50 | 1181801 |
| | 10/16/25/40 | 65 | 1181901 |
| | 10/16/25/40 | 80 | 1182001 |
| | 10/16 | 100 | 1182103 |
| | 25/40 | 100 | 1182106 |
| RK 49*) | 63/100/160 | 15 | 1071200 |
| | 63/100/160 | 20 | 1071400 |
| | 63/100/160 | 25 | 1071500 |
| | 63/100/160 | 32 | 1071600 |
| | 63/100/160 | 40 | 1071700 |
| | 63/100/160 | 50 | 1071800 |
| | 63/100/160 | 65 | 1071900 |
| | 63/100/160 | 80 | 1072000 |
| | 63/100/160 | 100 | 1072100 |
| | 63/100/160 | 125 | 1072200 |
| | 63/100/160 | 150 | 1072300 |
| | 63/100/160 | 200 | 1072500 |

*) RK 49 not available with soft seat or special spring.
Other materials available on request.

Soft Seats

| Material | Available for type | Stock code suffix |
|--|---|-------------------|
| EPDM up to 150 °C for water and steam | RK 41, RK 44, RK 16 A RK 86, RK 86 A | ...76 |
| FPM up to 200 °C for oils, gases and air | RK 41, RK 44, RK 16 A RK 86, RK 86 A | ...77 |
| PTFE up to 200 °C for aggressive fluids | RK 16 A RK 86, RK 86 A | ...78 |