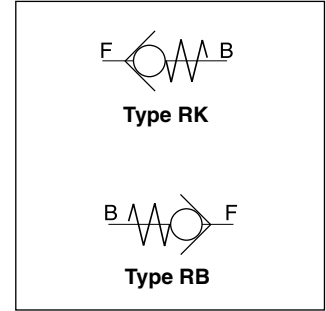


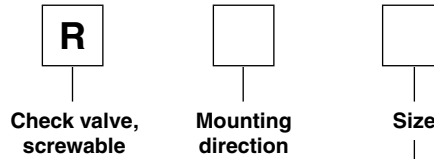
**Characteristics / Ordering Code**

The check valves series RK and RB are designed to go into simple, threaded cavities. The connection is O-ring sealed on the 118° shoulder in the mounting cavity.

The valve body is supplied as a unit, with a spring loaded, hardened and polished semisphere of stainless bearing steel inside. The seat is also hardened and ground.



**Ordering code**



| Code     | Mounting direction              |
|----------|---------------------------------|
| <b>K</b> | <b>in the blocked direction</b> |
| <b>B</b> | <b>in open flow direction</b>   |

| Code                   | Flow [l/min] | Thread       | Seal       |
|------------------------|--------------|--------------|------------|
| <b>0</b> <sup>1)</sup> | <b>10</b>    | <b>G1/8A</b> | <b>NBR</b> |
| <b>1</b>               | <b>20</b>    | <b>G1/4A</b> | <b>NBR</b> |
| <b>2</b>               | <b>50</b>    | <b>G3/8A</b> | <b>NBR</b> |
| <b>3</b>               | <b>80</b>    | <b>G1/2A</b> | <b>NBR</b> |

**Bold letters = Short-term availability**

<sup>1)</sup> Only series RK available

**Technical data**

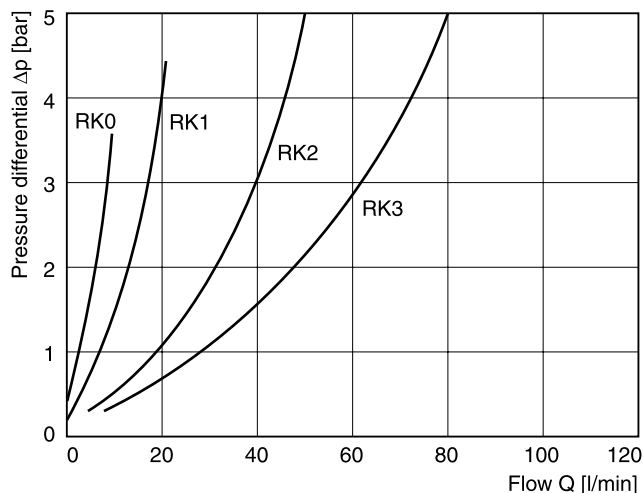
Series design with pipe thread

| General                  |             |                                      |            |       |       |       |       |       |
|--------------------------|-------------|--------------------------------------|------------|-------|-------|-------|-------|-------|
| Code                     |             | RK0                                  | RK1        | RK2   | RK3   | RB1   | RB2   | RB3   |
| Flow                     | [l/min]     | 10                                   | 20         | 50    | 80    | 20    | 50    | 80    |
| Operating pressure       | [bar]       | 700                                  | 700        | 700   | 500   | 700   | 700   | 500   |
| Opening pressure         | [bar]       | 0.15                                 | 0.18       | 0.2   | 0.25  | 0.15  | 0.07  | 0.17  |
| Thread (DIN ISO 228/1)   |             | G1/8A                                | G1/4A      | G3/8A | G1/2A | G1/4A | G3/8A | G1/2A |
| Tightening torque* ±20 % | [Nm]        | 10                                   | 15         | 20    | 40    | 15    | 20    | 40    |
| Weight                   | [g]         | 5                                    | 5          | 15    | 15    | 5     | 15    | 20    |
| Mounting position        |             | unrestricted                         |            |       |       |       |       |       |
| Ambient temperature      | [°C]        | -20 ... +60                          |            |       |       |       |       |       |
| Hydraulic                |             |                                      |            |       |       |       |       |       |
| Fluid                    |             | Hydraulic oil according to DIN 51524 |            |       |       |       |       |       |
| Viscosity,               | permitted   | [cSt] / [mm²/s]                      | 20 ... 400 |       |       |       |       |       |
|                          | recommended | [cSt] / [mm²/s]                      | 30 ... 80  |       |       |       |       |       |
| Temperatures             | [°C]        | -25...+70                            |            |       |       |       |       |       |
| Filtration               |             | ISO 4406 (1999); 18/16/13            |            |       |       |       |       |       |

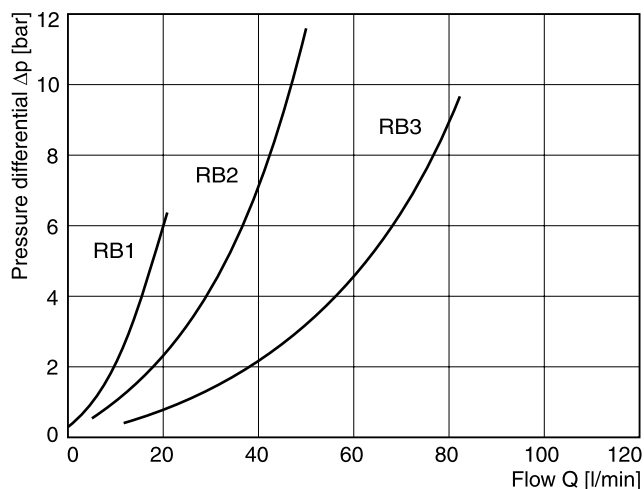
\* In case of strong vibration, it is recommended to secure the mounting threads.

**Δp/Q performance curves**

**Type RK**



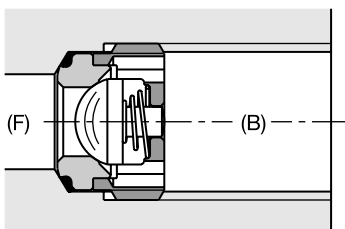
**Type RB**



All characteristic curves measured with HLP46 at 50 °C.

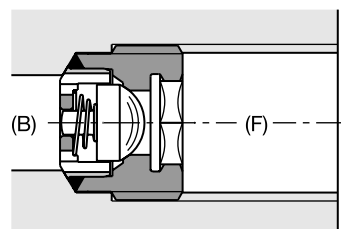
**Mounting direction**

**Type RK**



Screwed in, in the blocked direction

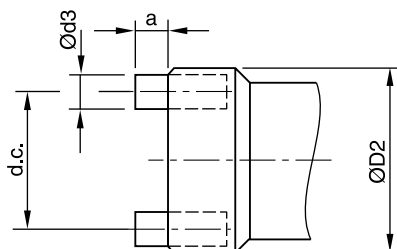
**Type RB**



Screwed in, in the open flow direction

**Mounting tool**

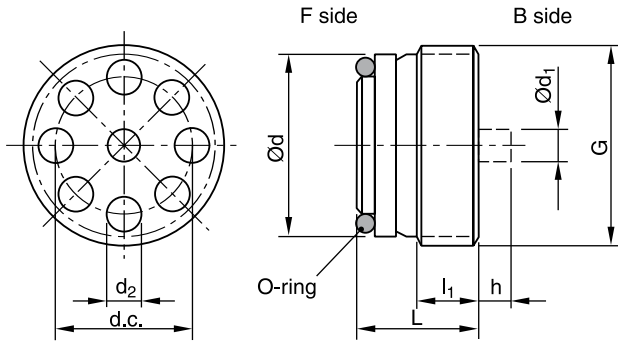
**Type RK**



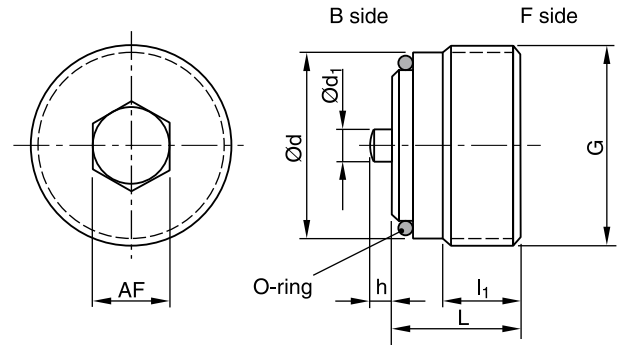
| Type | Ordering number | D <sub>2</sub> | a   | d <sub>3</sub> |
|------|-----------------|----------------|-----|----------------|
| RK0  | 5005216         | 8.6            | 2   | 1.5            |
| RK1  | 5005217         | 11.5           | 2.5 | 2              |
| RK2  | 5005218         | 15             | 2   | 2.5            |
| RK3  | 5005219         | 18.8           | 4   | 3.5            |

**Dimensions**

**Type RK**



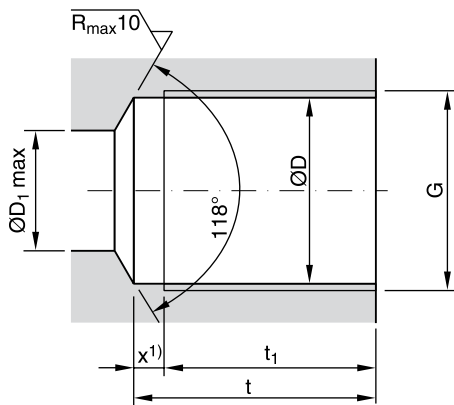
**Type RB**



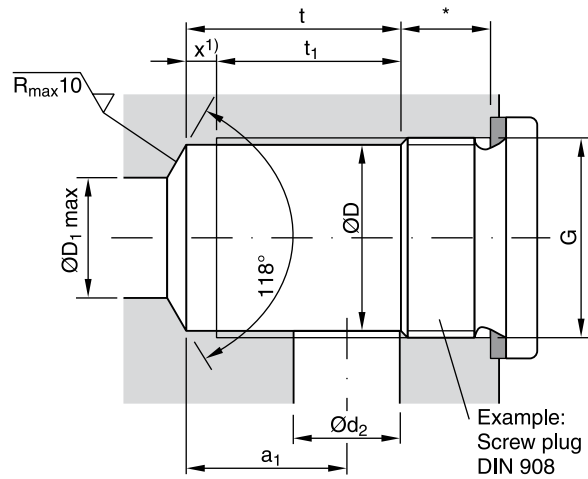
| Type | Thread | L   | l <sub>1</sub> | d    | d <sub>1</sub> | d <sub>2</sub> | h   | d.c.                 | O-ring | Nm |
|------|--------|-----|----------------|------|----------------|----------------|-----|----------------------|--------|----|
| RK0  | G1/8A  | 7.2 | 4              | 8.6  | 2              | 1.5            | 1.3 | 6.8                  | 6x1    | 8  |
| RK1  | G1/4A  | 9   | 4.5            | 11.5 | 2.6            | 2.2            | 1.5 | 8.8 <sub>-0.1</sub>  | 9x1    | 15 |
| RK2  | G3/8A  | 11  | 6              | 15   | 3.4            | 3              | 2.5 | 11                   | 11x1.5 | 20 |
| RK3  | G1/2A  | 13  | 7.5            | 18.5 | 4.3            | 3.8            | 3   | 14.2 <sub>-0.1</sub> | 14x1.5 | 40 |

| Type | Thread | L     | l <sub>1</sub> | d    | d <sub>1</sub> | h   | AF | O-ring | Nm |
|------|--------|-------|----------------|------|----------------|-----|----|--------|----|
| RB1  | G1/4A  | 9.8   | 5              | 11.6 | 2.2            | 1.3 | 5  | 9x1    | 15 |
| RB2  | G3/8A  | 11.5  | 7.0            | 15   | 3              | 2   | 6  | 11x1.5 | 20 |
| RB3  | G1/2A  | 13.15 | 7.5            | 18.5 | 3.4            | 2.5 | 8  | 14x1.5 | 40 |

**Type RK**



**Type RB**



| Type        | Thread | D     | D <sub>1</sub> | t    | t <sub>1</sub> <sup>2)</sup> | x <sup>1)</sup> |
|-------------|--------|-------|----------------|------|------------------------------|-----------------|
| RK0         | G1/8   | 8.7   | 5              | 16   | 13.7                         | 2.3             |
| RK1 and RB1 | G1/4   | 11.8  | 8              | 22   | 19                           | 3               |
| RK2 and RB2 | G3/8   | 15.25 | 9              | 24.5 | 21.5                         | 3               |
| RK3 and RB3 | G1/2   | 19    | 12             | 29   | 25.5                         | 3.5             |

| Type        | Thread | D     | D <sub>1</sub> | t    | t <sub>1</sub> <sup>2)</sup> | x <sup>1)</sup> | a <sub>1</sub> | d <sub>2</sub> |
|-------------|--------|-------|----------------|------|------------------------------|-----------------|----------------|----------------|
| RK0         | G1/8   | 8.7   | 5              | 12.3 | 10                           | 2.3             | 9.5            | 5              |
| RK1 and RB1 | G1/4   | 11.8  | 8              | 14   | 11                           | 3               | 11             | 6              |
| RK2 and RB2 | G3/8   | 15.25 | 9              | 17   | 14                           | 3               | 13             | 8              |
| RK3 and RB3 | G1/2   | 19    | 12             | 22   | 18.5                         | 3.5             | 16             | 12             |

**Mounting cavity**

- for connecting in combination with tube fitting
- for internal line channels

\* Required depth depending on type of screw plug, connecting plate etc. used.

1) Thread runout x must be maintained. It may be smaller, but not larger (requirement for a perfect seal using the O-ring).

2) Fully cut-out thread