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.

Type RK

Type RB

Ordering code

R		
Check valve, screwable	**Mounting direction**	**Size**

Code	Mounting direction
K	**in the blocked direction**
B	**in open flow direction**

Code	Flow [l/min]	Thread	Seal
0 [1]	**10**	**G1/8A**	**NBR**
1	**20**	**G1/4A**	**NBR**
2	**50**	**G3/8A**	**NBR**
3	**80**	**G1/2A**	**NBR**

Bold letters =
Short-term availability

[1] Only series RK available.

Technical data

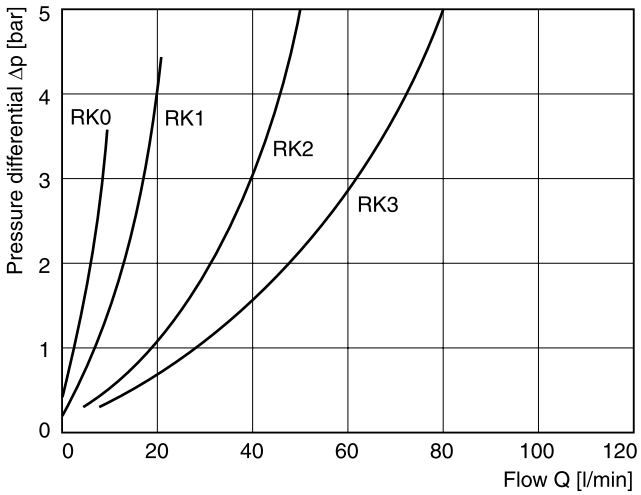
Series design with pipe thread

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						
Fluid temperature		[°C]	-25...+70						
Viscosity,	permitted	[cSt] / [mm²/s]	20 ... 400						
	recommended	[cSt] / [mm²/s]	30 ... 80						
Filtration			ISO 4406 (1999); 18/16/13						

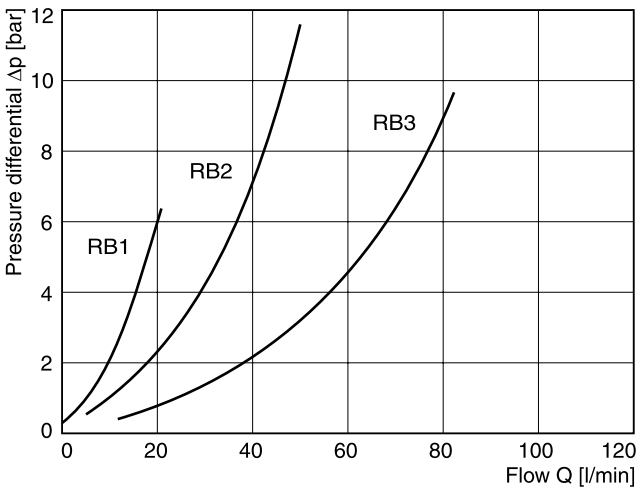
* In case of strong vibration, it is recommended to secure the mounting threads.

Δp/Q performance curves

Type RK



Type RB



All characteristic curves measured with HLP46 at 50 °C.

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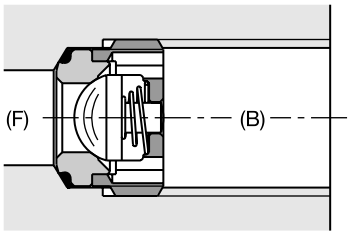
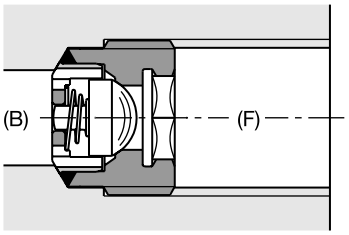
Mounting direction

Type RK



Screwed in, in the blocked direction

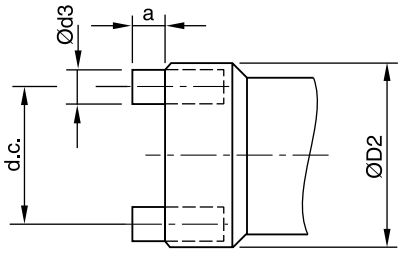
Type RB



Screwed in, in the open flow direction

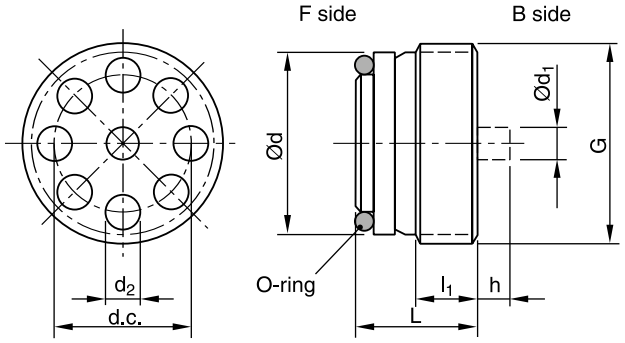
Mounting tool

Type RK



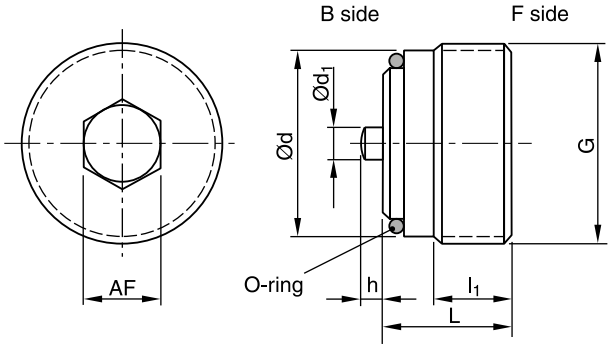
Type	Ordering number	D_2	a	d_3
RK0	5005216	8.6	2	1.5
RK1	5005217	11.5	2.5	2
RK2	5005218	15	2	2.5
RK3	5005219	18.8	4	3.5

Type RK



Type	Thread	L	l_1	d	d_1	d_2	h	d.c.	O-ring	Nm
RK0	G1/8A	7.2	3.8	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	$8.8_{-0.1}$	9x1	15
RK2	G3/8A	11.5	6.5	15	3.4	3	2.5	11	11x1.5	20
RK3	G1/2A	13.5	8	18.5	4.3	3.8	3	$14.2_{-0.1}$	14x1.5	40

Type RB



Type	Thread	L	l_1	d	d_1	h	AF	O-ring	Nm
RB1	G1/4A	10.3	5.5	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	8	18.5	3.4	2.5	8	14x1.5	40

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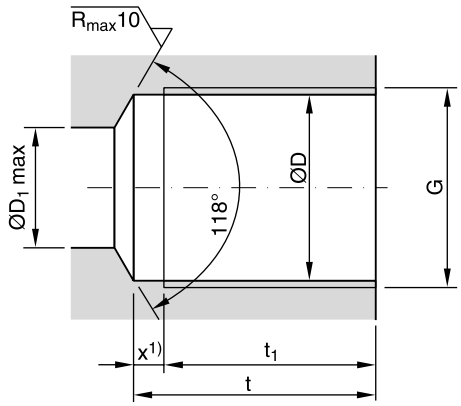
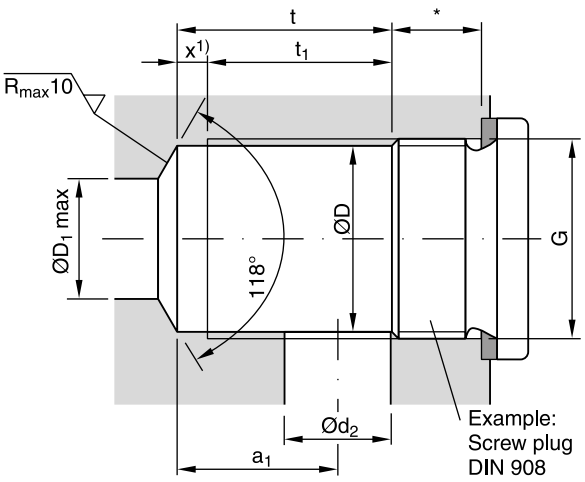
Type RK



Type	Thread	D	D_1	t	t_1 2)	x 1)
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 RB



Type	Thread	D	D_1	t	t_1 2)	x 1)	a_1	d_2
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