

Check valves type RK/RB, RC, RE, and ER

The check valves type RK/RB, RC, RE, and ER are used to block the flow in one direction and enable free flow in the opposite direction.

The check valves type RK/RB are ball seated valves, where the valve element is spring loaded. They are sturdy and contamination tolerant due to their design.

The screw-in check valves type RC may be installed in both directions with the spring loaded valve shim enabling rapid switching sequences.

The screw-in check valves type RE is a shim type check valve also but without spring pre-load. This enables a very compact and simple method of blocking the oil flow in one direction. This valve can be used as a "foot valve" in the suction pipe of pumps.

The mounting hole for all screw-in check valves can be easily machined with a standard drill (point angle 118°).

The check valve inserts type ER feature a ball seated design and are commonly installed in the ports of ball seated directional valves or other manifold mounted valves.



Nomenclature:	Check valve
Design:	Screw-in valve Valve insert with housing for in-line installation
p_{max}:	400...700 bar
Q_{max}:	6...120 lpm

Basic types and general parameters

Size	Ball seated valves		Shim type valves		Ball seated valves	Connection thread (BSPP) ¹⁾	
Symbol							
Basic type	RK	RB	RC	RE	ER ¹⁾		
0	Q _{max} (lpm)	10	10	---	12	6	G 1/8 A
	p _{max} (bar)	700	700	---	500	500	
1	Q _{max} (lpm)	20	20	20	25	12	G 1/4 A
	p _{max} (bar)	700	700	700	500	500	
2	Q _{max} (lpm)	50	50	35	40	30	G 3/8 A
	p _{max} (bar)	700	700	700	500	500	
3	Q _{max} (lpm)	80	80	60	70	65	G 1/2 A
	p _{max} (bar)	500	500	500	450	500	
4	Q _{max} (lpm)	120	120	---	120	120	G 3/4 A
	p _{max} (bar)	500	500	---	400	400	

¹⁾ Type ER is a valve insert

Additional versions

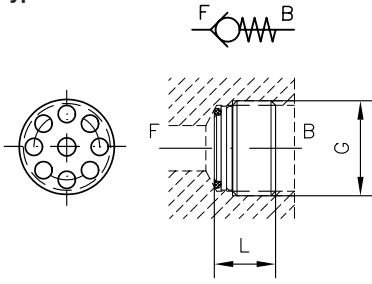
- Type RK/RB and RC with housing for in-line installation
- Type RK with an raised open-up pressure
- Type RK/RB, RC, and RE also available with metric thread
- Type ER also available in stainless (size 01...31)

Order examples

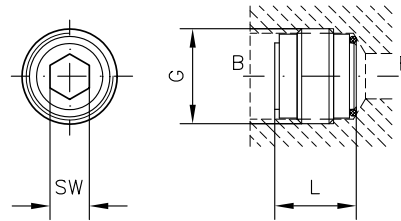
RK 1 Check valve insert type RK, size 1	RB 2 Check valve insert type RB, size 2	RC 1 Check valve insert type RC, size 1	RE 4 Check valve insert type RE, size 4	ER 31 Check valve insert type ER, size 31
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Dimensions

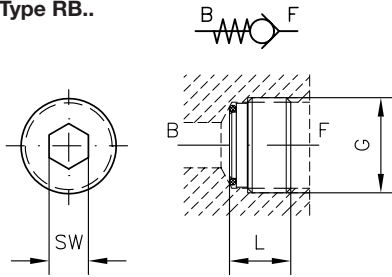
Type RK..



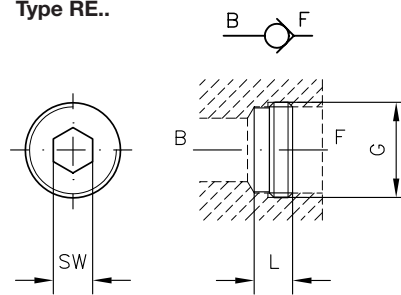
Type RC.. (arbitrary installation direction)



Type RB..

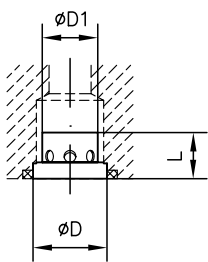


Type RE..



SW = a/f

Type ER...



All dimensions in mm, subject to change without notice!

Basic type	L	G ²⁾	SW	m (g)
RC 1	13	G 1/4 A	a/f 4	6
RC 2	15	G 3/8 A	a/f 5	13
RC 3	18	G 1/2 A	a/f 8	24
RE 0	5	G 1/8 A	a/f 4	2
RE 1	6	G 1/4 A	a/f 5	4
RE 2	7	G 3/8 A	a/f 8	6
RE 3	7.5	G 1/2 A	a/f 10	10
RE 4	9	G 3/4 A	a/f 12	18

Basic type	L	G ²⁾	SW	m (g)
RK 0 / RB 0	7.2/7.9	G 1/8 A	a/f 5	5
RK 1 / RB 1	9/10.3	G 1/4 A	a/f 7	5
RK 2 / RB 2	11.2/11.7	G 3/8 A	a/f 6	15
RK 3 / RB 3	13.5/13.2	G 1/2 A	a/f 8	15/20
RK 4 / RB 4	17.5/17.5	G 3/4 A	a/f 12	35/40

Basic type	L	D	D1
ER 01	5.6	6.1	4.6
ER 11	5.5	8.1	6.5
ER 21	8	14	10.5
ER 31	10	17	13
ER 41	17.5	28	21

²⁾ G = BSPP

Further information

- Check valve inserts type ER D 7325
- Check valves type RE D 7555 R
- type RC D 6969 R
- type RK, RB D 7445
- type CRK, CRB D 7712
- type B D 1191

- Restrictor check valves type BE D 7555 B
- type BC D 6969 B
- Orifice inserts type EB D 6465
- See also section "Devices for special applications" (Screw-in valves and installation kits, Devices for up to 700 bar)

For page and section of the devices additionally listed, see type index