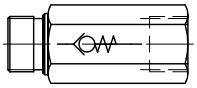
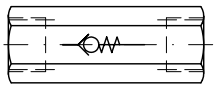
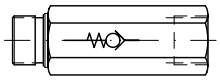
Check valve type B

Pressure p_{max} = 500 bar
Flow Q_{max} = 160 lpm

1. General

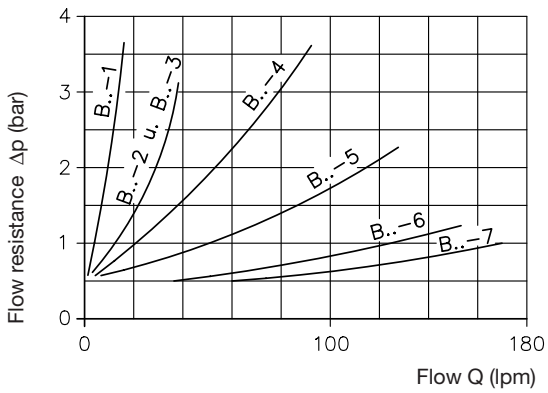
Check valves block the flow in one direction whilst permitting free flow in the opposite direction (DIN ISO 1219-1).

2. Available versions, main data

				Pressure p_{max} (bar)	Flow Q_{max} (lpm)
Coding and main data	**B 1 - 1**	**B 2 - 1**	**B 3 - 1**	500	15
	B 1 - 2	**B 2 - 2**	**B 3 - 2**		20
	B 1 - 3	**B 2 - 3**	**B 3 - 3**		30
	B 1 - 4	**B 2 - 4**	**B 3 - 4**		45
	B 1 - 5	**B 2 - 5**	**B 3 - 5**		75
	B 1 - 6	**B 2 - 6**	**B 3 - 6**		120
	B 1 - 7	**B 2 - 7**	**B 3 - 7**		160

Design	Spring-loaded, leakage free ball seated valve
Mounting	Type B 1 and B 3 with tapped journal, type B 2 is for in-line installation
Installed position	Arbitrarily
Mass (weight)	See unit dimensions in sect. 3
Pressure fluid	Hydraulic oil conforming DIN 51 514 part 1 to 3: ISO VG 10 to 68 conforming DIN 51 519. Viscosity limits: min. approx. 4, max. approx. 1500 mm^2/s; optimal operation approx. 10 ... 500 mm^2/s. Also suitable are biologically degradable pressure fluids types HEPG (Polyalkylenglycol) and HEES (Synth. Ester) at service temperatures up to approx. +70 °C.
Temperature	Ambient: approx. -40 ... +80°C Fluid: -25 ... +80°C, note viscosity range Permissible temperature during start: -40°C (Note Start-viscosity!), as long as the service temperature is at least 20K higher for the following operation. Biological degradable pressure fluids: Note manufacturers information. Due the seals compatibility not above +70°C.
Opening pressure	approx. 0.4 to 0.5 bar B 2-2 and B 3-2 also available with an opening pressure of 3 bar (order coding e.g. B 2-2 - 3 bar)

Δp-Q-Characteristic



Oil viscosity during measurement approx. 30 mm^2/s

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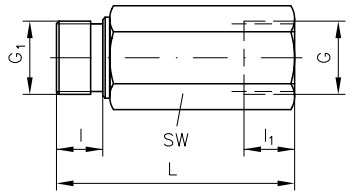
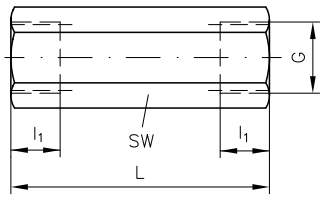
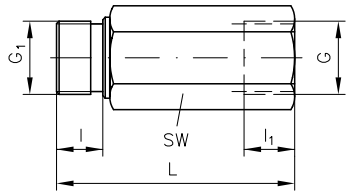
3. Unit dimensions

SW = a/f







Type	Ports DIN ISO 228/1 (BSPP) G	G1	L	l	l1	SW	Mass (weight) approx. (kg)
B 1-1	G 1/4	G 1/4 A	50	12	12	19	0.1
B 1-2	G 3/8	G 3/8 A	58	12	13	24	0.2
B 1-3	G 1/2	G 1/2 A	60	12	16	27	0.2
B 1-4	G 3/4	G 3/4 A	70	16	16	36	0.4
B 1-5	G 1	G 1 A	94	18	20	41	0.7
B 1-6	G 1 1/4	G 1 1/4 A	110	20	23	55	1.3
B 1-7	G 1 1/2	G 1 1/2 A	115	22	25	60	1.5
B 2-1	G 1/4	--	55	--	12	19	0.1
B 2-2	G 3/8	--	62	--	12	24	0.2
B 2-3	G 1/2	--	70	--	16	27	0.2
B 2-4	G 3/4	--	77	--	16	36	0.4
B 2-5	G 1	--	102	--	20	41	0.7
B 2-6	G 1 1/4	--	120	--	23	55	1.5
B 2-7	G 1 1/2	--	122	--	24	60	1.8
B 3-1	G 1/4	G 1/4 A	60	12	12	19	0.1
B 3-2	G 3/8	G 3/8 A	67	12	13	24	0.2
B 3-3	G 1/2	G 1/2 A	66	12	14	27	0.2
B 3-4	G 3/4	G 3/4 A	58	16	16	36	0.3
B 3-5	G 1	G 1 A	114	18	21	41	0.8
B 3-6	G 1 1/4	G 1 1/4 A	130	20	23	55	1.7
B 3-7	G 1 1/2	G 1 1/2 A	136	22	25	60	2.0

All dimensions in mm, subject to change without notice !

4. Note for installation

Check valves at return pipe ends

If the check valves are installed as final elements in return pipes, e.g. to prevent running empty of the pipes, they are capable of maintaining a head of oil
H = 4 meter.
However, bearing in mind the tolerances on the spring preload, only about 75% of this load should be assumed in calculations.