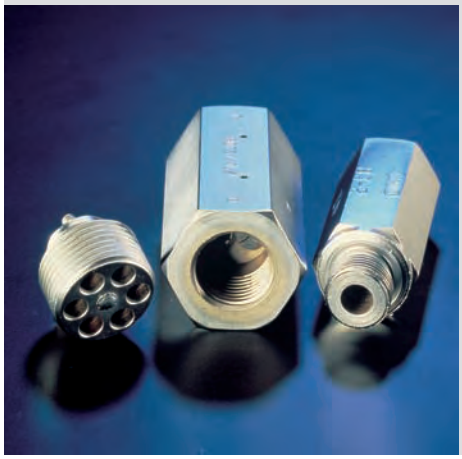
Line rupture safety valves type LB

The line rupture safety valves type LB are check valves. They are available as screw-in valves or with housing for in-line installation.
The line rupture safety valves are best installed directly on the actuator (cylinder) which is to be safeguarded. This will prevent an uncontrollable, accelerated movement (drop) of a loaded cylinder, when the hydraulic back-pressure is lost as a result of a rupture of the pressurized line or pipe connection.
When the flow through the valve increases above the pre-set limit, the flow forces will exceed the opposing spring force and the valve will block the flow immediately. The valve element in these valves is a shim.



There are two different versions available. One valve design completely blocks the flow when actuated, whereas the other one allows a minimum flow (via an orifice) to slowly drop the load.

Nomenclature:	Line rupture safety valve
Design:	Valve insert with housing for in-line installation
Adjustability:	Tool adjustable
p_{max}:	700 bar
Q_{max}:	4 ... 160 lpm

Basic types and general parameters

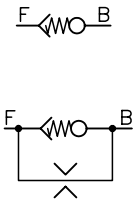
Basic type and size	Flow Q_{max} (lpm)	Pressure p_{max} (bar)	Connection thread (BSPP)
LB 1	4 ... 25	500	G 1/4 (A)
LB 11 [1]	4 ... 25	700	G 1/4 (A)
LB 2	6.3 ... 50	500	G 3/8 (A)
LB 21 [1]	6.3 ... 45	700	G 3/8 (A)
LB 3	16 ... 80	500	G 1/2 (A)
LB 4	25 ... 160	500	G 3/4 (A)

Symbol

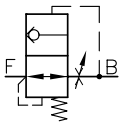
Standard

with add. bypass

Simplified



Detailed



[1] The mounting thread is sealed additionally

Available orifice diameters **0.5 / 0.8 / 1.0 / 1.2 / 1.5 / 2.0**
depending on type and size

Additional versions

- Line rupture safety valve with housing featuring a thread reduction for special applications
- Versions with metric and UNF thread

Order examples

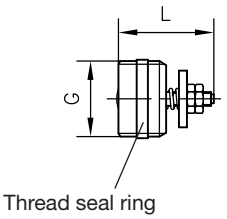
LB 4 C - 40
Line rupture safety valve size 4 as screw-in valve (coding C), factory set for a response flow of 40 lpm

LB 2 G - 25
Line rupture safety valve size 2 with housing (coding G), factory set for a response flow of 25 lpm

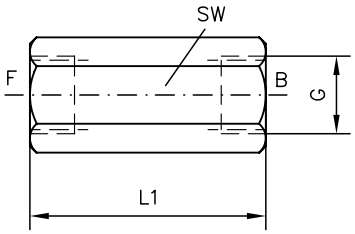
Dimensions

Screw-in valve type LB ..C

Screw-in valve type LB 11(21)C

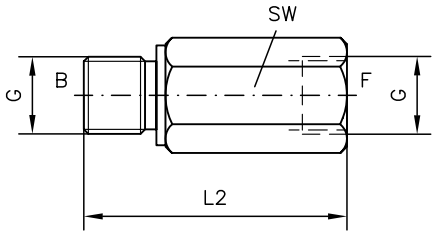


Valve with housing type LB ..G



SW = a/f

Valve with housing type LB ..F



Basic type	L	L1	L2	G (BSPP)	SW	m (g) 2)
LB 1 (C, G, F)	17.5	48	50	G 1/4 (A)	a/f 19	6 / 70
LB 11 C	17.5	--	--	G 1/4 (A)	--	6 / 70
LB 2 (C, G, F)	21	52	58	G 3/8 (A)	a/f 22	12 / 100
LB 21 C	25	--	--	G 3/8 (A)	--	12 / 100
LB 3 (C, G, F)	25	60	65	G 1/2 (A)	a/f 27	21 / 170
LB 4 (C, G, F)	30.5	72	78	G 3/4 (A)	a/f 36	45 / 375

All dimensions in mm, subject to change without notice!

2) Mass for screw-in valve versions with housing

Further information

- Line rupture safety valve type LB — D 6990
- Line rupture safety valve type LB.E incl. housing — Sk 6990 E
- See also section “Devices for special applications” (Industrial trucks, Hydraulics for mobile applications, Screw-in valves and installation kits)

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