

Single Line Lubrication Systems

Metering valve



BL-11 (static system)

Description

The BL-11 metering valve (static system) delivers the lubricant under pump pressure directly to the lubrication point.

The lubricant dosage can infinitely be adjusted. A pin serves for visual function control.

We use elastomeric seals for the BL-11. These seals can be replaced by the customer if necessary. The required tools for assembly can be ordered.



Technical data

Operating pressure:	max. 240 bar min. 70 bar
Relief pressure:	< 55 bar
Temperature range:	-40 °C to +93 °C
Medium:	fluid grease; grease up to NLGI-cl. 2
Dosage volume:	see table
Material:	galvanized steel, yellow chromated
Weights:	metering valve: 2,8 kg filling connection: 0,02 kg

Table of dosage volume:

Type	Adjustable dosage volume (cm ³ / stroke and outlet)	Dosage volume per revolution of set-screw (cm ³)
BL-11	1 to 11	approx. 0,6

Order-no.:

Metering valve BL-11: 4125034

Metering valve

03-9-50-01 State: 09.14EN

Functional description

When lubricant is delivered through the inlet drill (1) in the metering valve, the control piston (2) is pushed upwards by the lubricant. This enables the lubricant to flow on to the metering piston (4) in the pressure channel (3). The metering piston (4) is pushed downwards against the spring force and the lubricant volume, which has been preadjusted at the set-screw (5), is delivered from the relief chamber (6) to the outlet (7) by that. The retracted pin (8) indicates function.

With the following pressure relief in the inlet bore (9) is the control piston (10) pushed downwards by the spring (13). The lubricant above the metering piston (11) is delivered through the bore of the control piston (10) into the relief chamber (12). The metering piston (11) is moved upwards again by the spring (13). When the metering piston (11) is in top position, the indicator pin (14) will be in extended state.

The metering valve is now ready for the next lubrication cycle.

Dosage volume adjustment

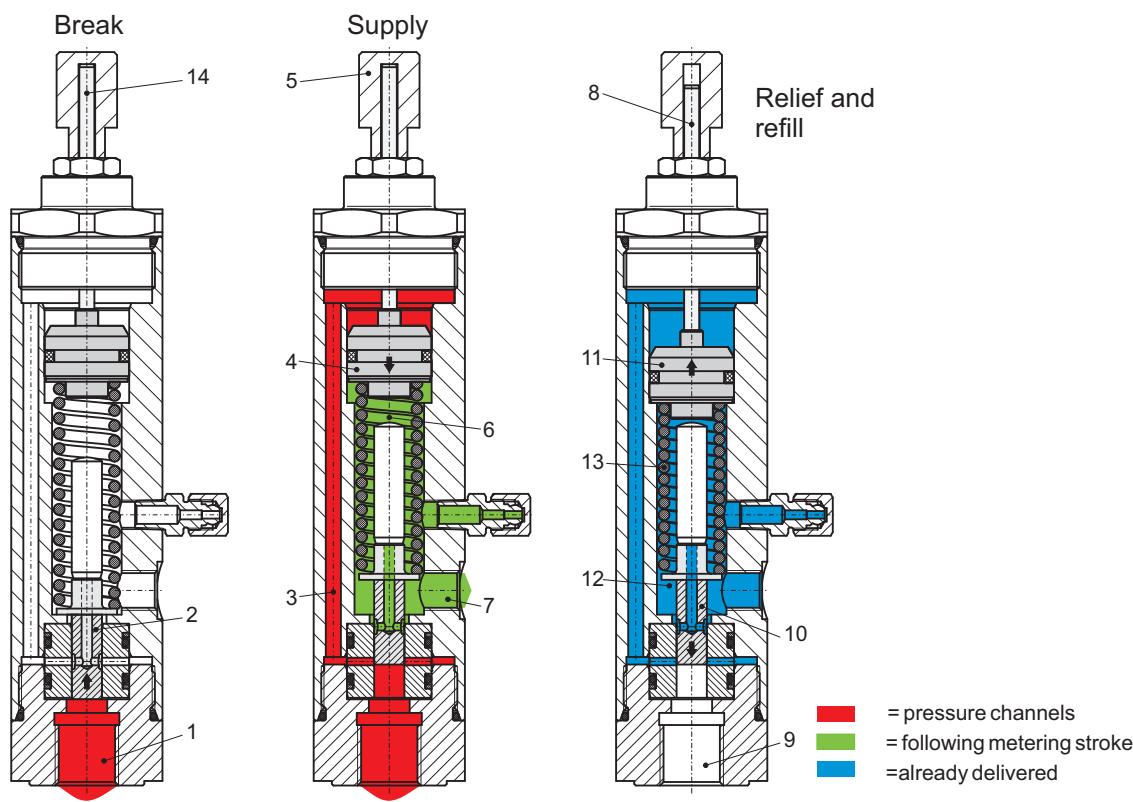
The distances of the metering strokes are adjusted with the set-screw and this way is the dosage volume regulated. Turning the set-screw clockwise reduces the dosage volume, turning it counter-clockwise increases the dosage volume.

For adjustment, loosen the hexagon nut. Then adjust the dosage volume with the set-screw and tighten the hexagon nut again.

Furthermore you can choose between four different dosage sleeves, which can be ordered optionally. They help to adjust the dosage volume even quicker (see table accessories). For better differentiation, each dosage sleeve has an assigned color.

It is possible to reduce the dosage volume down to only 10% of the maximum value without affecting the function of the metering valves.

The metering valves are delivered set to full stroke. Please only adjust the dosage volume after start-up, complete ventilation of the pressure connection and only with pressureless lubrication lines.



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Filling connection

The lubrication point can be lubricated individually by means of the filling nipple (1). This has to be done with relieved pressure connection (2). The lubricant then flows through the metering valve and directly to the lube point, without being metered.

First filling of the metering valve can be done via the filling nipple.

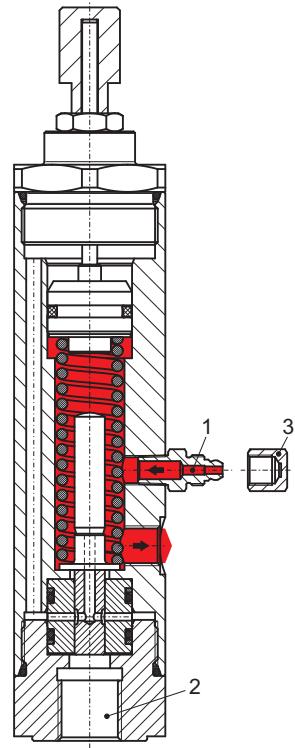
If the hose needs to be replaced, it can also be filled via the filling nipple.

During pressurization or when the filling nipple is not used, it has to be closed with a lock nut (3).

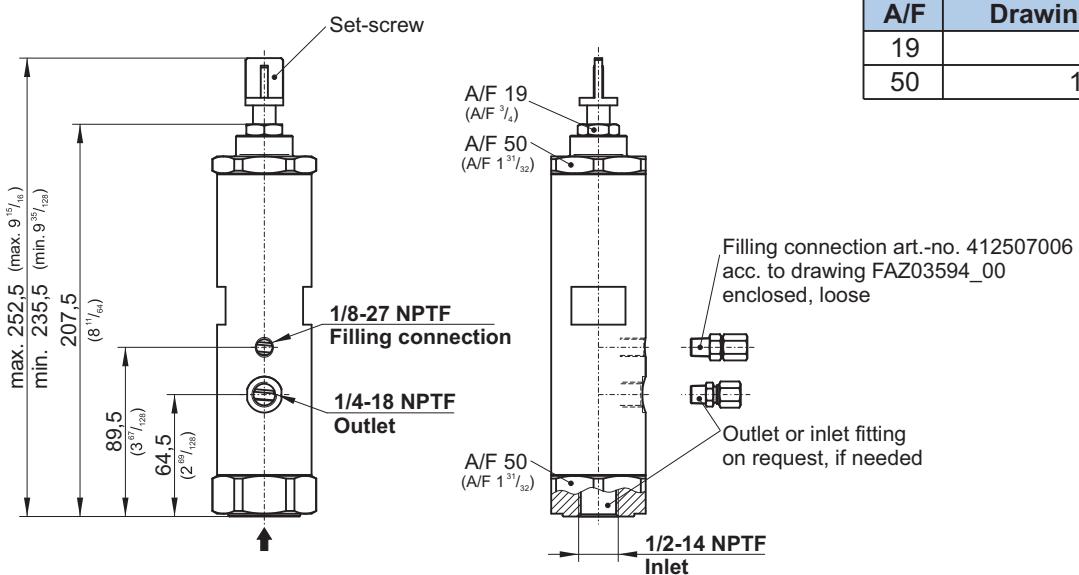
Attention:

Take care that the maximum pressure (see technical data) is not exceeded when the filling nipple is used, as otherwise seals might get damaged.

The proper function of the metering valve can no longer be ensured then. It is therefore recommended to use a hand lever grease gun with pressure gauge for lubricating or filling.



Dimensional drawing:



() inch dimensions in brackets

Table of drawing torques:

A/F	Drawing torque (Nm)
19	15 ± 2
50	160 ± 10

Spare parts

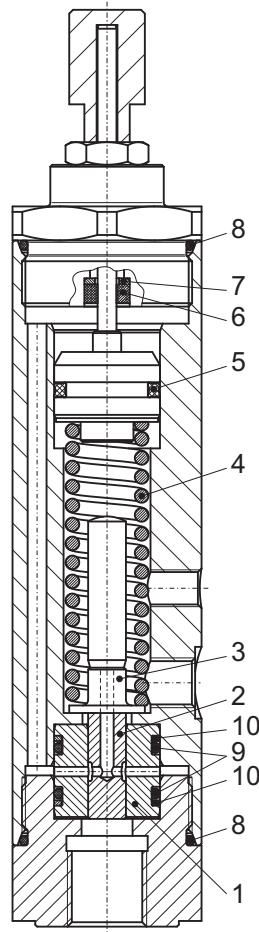
A repair kit can be ordered, if necessary (see table).

Spare parts		Order-no.
Repair kit		4125035
including the following positions:		
Pos.	Name	Pcs.
1	Guide sleeve	1
2	Control piston	1
3	Piston bushing	1
4	Compression spring	1
5	Quad ring	1
6	Grooved ring	1
7	Washer	1
8	O-ring Ø 42 x 2,5	2
9	O-ring Ø 23 x 2,62	2
10	Supporting ring	2

Pay attention to the torques of the hexagon parts and the correct seat of the sealing rings for the installation of spare parts.

Take care for utmost cleanliness when working at the distributors.

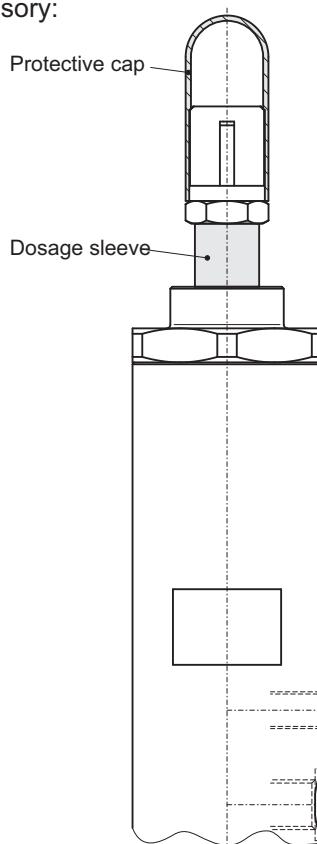
Spare parts drawing:

**Accessory**

A protective cap for the set-screw as well as dosage sleeves for quicker dosage volume adjustment can be ordered optionally (see table):

ACCESSORY		Order-no.
PROTECTIVE CAP		1004010201
DOSAGE SLEEVE		
Output rate (cm ³ /stroke)	Color	
3,0	red	F4125/51-00 005
5,0	natural	F4125/51-00 006
7,0	gold	F4125/51-00 007
9,0	black	F4125/51-00 008
11,0	green	F4125/51-00 009

Accessory:



Subject to alterations!