Description

The BL-1 single line distributors (static system) deliver the lubricant under pressure via lines directly to the lube points. Only one lube point is assigned to each metering valve.

Metering can infinitely be adjusted for each lube point at each distributor, respectively each metering valve. The BL-1 single line distributors have an indicator pin for the visual control of the function.

We use elastomeric seals for the BL-1. Those can be replaced by the customer, if necessary. The required material for assembly can be ordered.

Technical data

Operating pressure:	max. 240 bar min. 140 bar
Relief pressure:	< 50 bar
Temperature range:	-26 °C to +93 °C
Medium:	fluid grease; grease up to NLGI-cl. 2
Dosage volume:	see table
Material:	steel, the category of corrosion protection means protection against red rust of up to 720 h
No. of outlets or metering valves of a single line distributor:	min. 1 max. 6
Weights:	see table

Table of metering volume:

Model	Adjustable metering volume (cm^3 / stroke and outlet)	Metering volume per turning of the set screw (cm^3)
BL-1	0,2 bis 1,2	approx. 0,13

Table of weights:

BL-1 metering valve with strip	Weights (kg)
single (w/o strip) à	0,53
single*	0,91
2-fold*	1,49
3-fold*	2,19
4-fold*	2,91
5-fold*	3,62
6-fold*	4,35

* see dimensional drawings

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Functional description

When lubricant is delivered through the inlet bore (1) and into the distributor, respectively 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

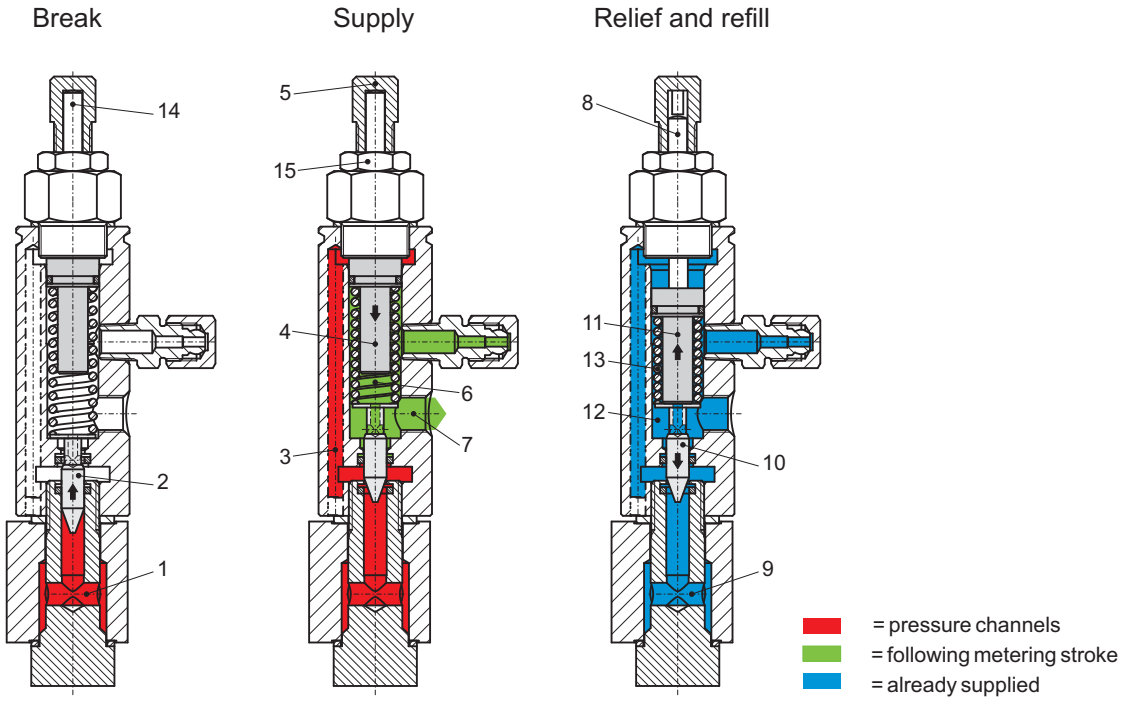
The distances of the metering strokes are adjusted with the set-screw (5) and this way is the dosage volume regulated. Turning the set-screw clockwise reduces the dosage volume, turning it counter-clockwise increases the dosage volume.

For adjustment, loosen the hexagon nut (15). Then adjust the dosage volume with the set-screw (5) and tighten the hexagon nut (15) again.

Optionally, you can choose between four different dosage sleeves which are available as accessory. 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

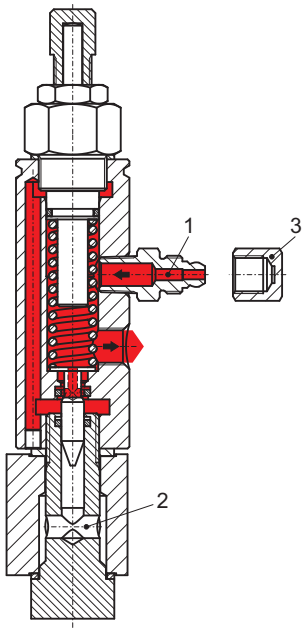
Lube points can be lubricated individually by means of the filling nipples (1). This has to be done with reliefed pressure connection (2). The lubricant then flows through the single line distributor and directly to the lube points, without being metered.

First filling of the single line distributors can be done via the filling nipple.

If hoses need to be replaced, those can also be individually filled via the filling nipples.

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 single line can no longer be ensured then. It is therefore recommended to use a hand lever grease gun with pressure gauge for lubricating or filling.



Metering valves

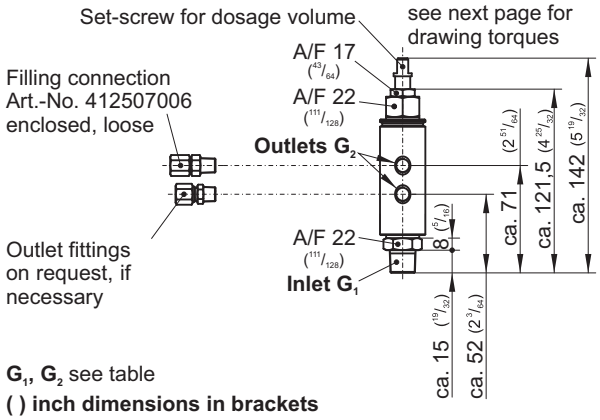
Metering valves can either be ordered individually or in form of a manifold with 1 to 6 positions (metering distributor block).

Two versions of the individual metering valves are available:
- for installation into the manifold (see next page)
- for installation into the line connection (see right side)

Metering valve for installation into line connection

Order-no. for metering valve:

Inlet G_1	Outlets G_2	Order-no.
3/8-18 NPTF	1/8-27 NPTF	41250120221000



G_1, G_2 see table
( ) inch dimensions in brackets

Subject to alterations!

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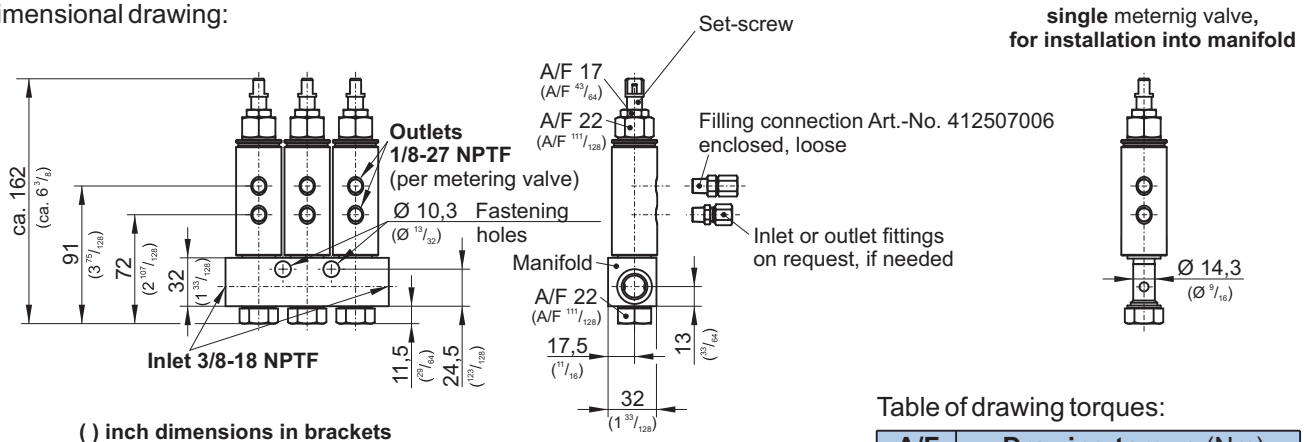
BL-1 (static system)

Dimensional drawing:



( ) inch dimensions in brackets

Table of drawing torques:

A/F	Drawing torque (Nm)
17	15 ± 2
22	65 ± 5

Single line distributor **BL-1** metering valve **1-fold**

Single line distributor **BL-1** metering valve **2-fold**

Single line distributor **BL-1** metering valve **3-fold**

Single line distributor **BL-1** metering valve **4-fold**

Single line distributor**BL-1** metering valve **5-fold**

Single line distributor **BL-1** metering valve **6-fold**

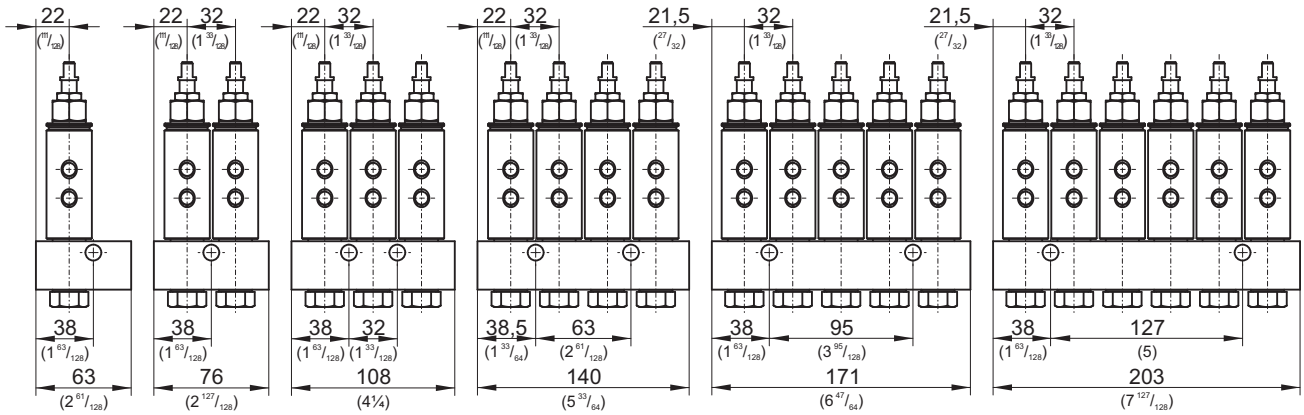


Table of order-no. for BL-1 single line distributor or metering valves, with filling connection (enclosed loose):

Metering valve	Order-no.
single w/o strip	41250080021
1-fold	41250081221
2-fold	41250082221
3-fold	41250083221
4-fold	41250084221
5-fold	41250085221
6-fold	41250086221

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Spare parts

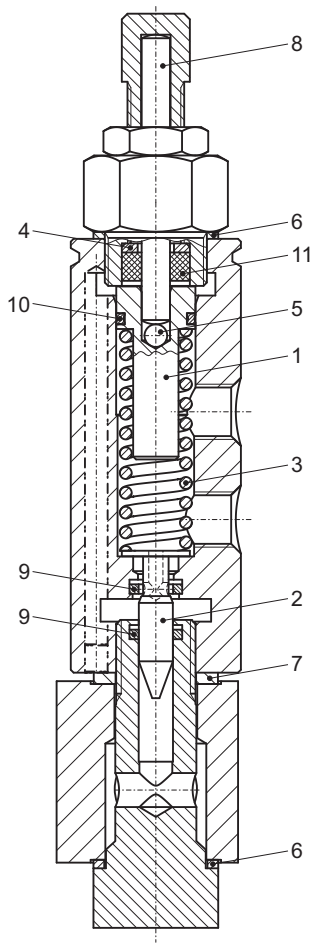
A repair kit or sealing kit can be ordered, if required. (see table):

Spare part kits			Order-no.
Repair kit including the following positions:			**4125009**
Pos.	**Name**	**Pcs.**	
1	Metering piston	1	
2	Control piston	1	
3	Compression spring	1	
4	Washer	1	
5	Ball	1	
6	Sealing ring	2	
7	Thread seal	1	
8	Indicator pin	1	
9	Edge seal	2	
10	Quad ring	1	
11	Grooved ring	1	
Sealing kit includes positions 7, 9, 10, 11 (see name / pcs. above)			**4125010**

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 part drawing:

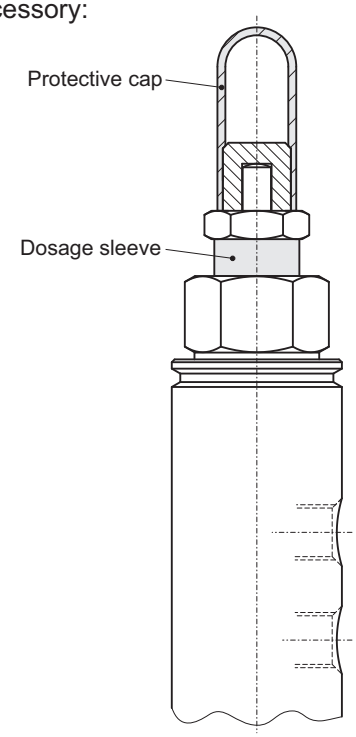


Accessory

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		1004010285
DOSAGE SLEEVE		
Output rate (cm^3/stroke)	**Color**	
0,50	red	F4125/51-00 001
0,75	natural	F4125/51-00 002
1,00	golden	F4125/51-00 003
1,20	green	F4125/51-00 004

Accessory:



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