

Technical description

The single line distributor UEN supplies lubricant after pressure- relief process into the lines towards the lube points, i.e. after the pump is switched off. Each outlet has one lube point.

Due to the piston control unit of the distributor, high system pressures are possible. Because of the restoring force of the metering piston, high operational safety is possible at large line lengths or at cold temperatures.

Technical data

Operating pressure at inlet: 210 bar
max. 300 bar

Outlet pressure: max. 50 bar

Relief pressure: max. 40 bar

Temperature range: -30 °C to +60 °C

Lubricant: fluid grease; greases up to NLGI-cl. 2
acc. to release list

Metering volume: see table

Material: steel,
zinc-nickel-coating acc. to DIN 50979

Number of metering elements or of outlets of one single line distributors:
min. 1 metering element: UEN-1
max. 6 metering elements: UEN-6
(up to 12 metering elements possible with a connecting element, up to 24 metering elements possible with two connecting elements)

Weights: see table of dimensional drawing
(next page)

Table of metering volume:

Designation metering element	Metering volume* (mm ³ /stroke)
25 UEN	25
50 UEN	50
100 UEN	100
200 UEN	200
400 UEN	400

* Metering tolerance is approx. 20 % and depends on lubricant and temperature



Dimensional drawing:

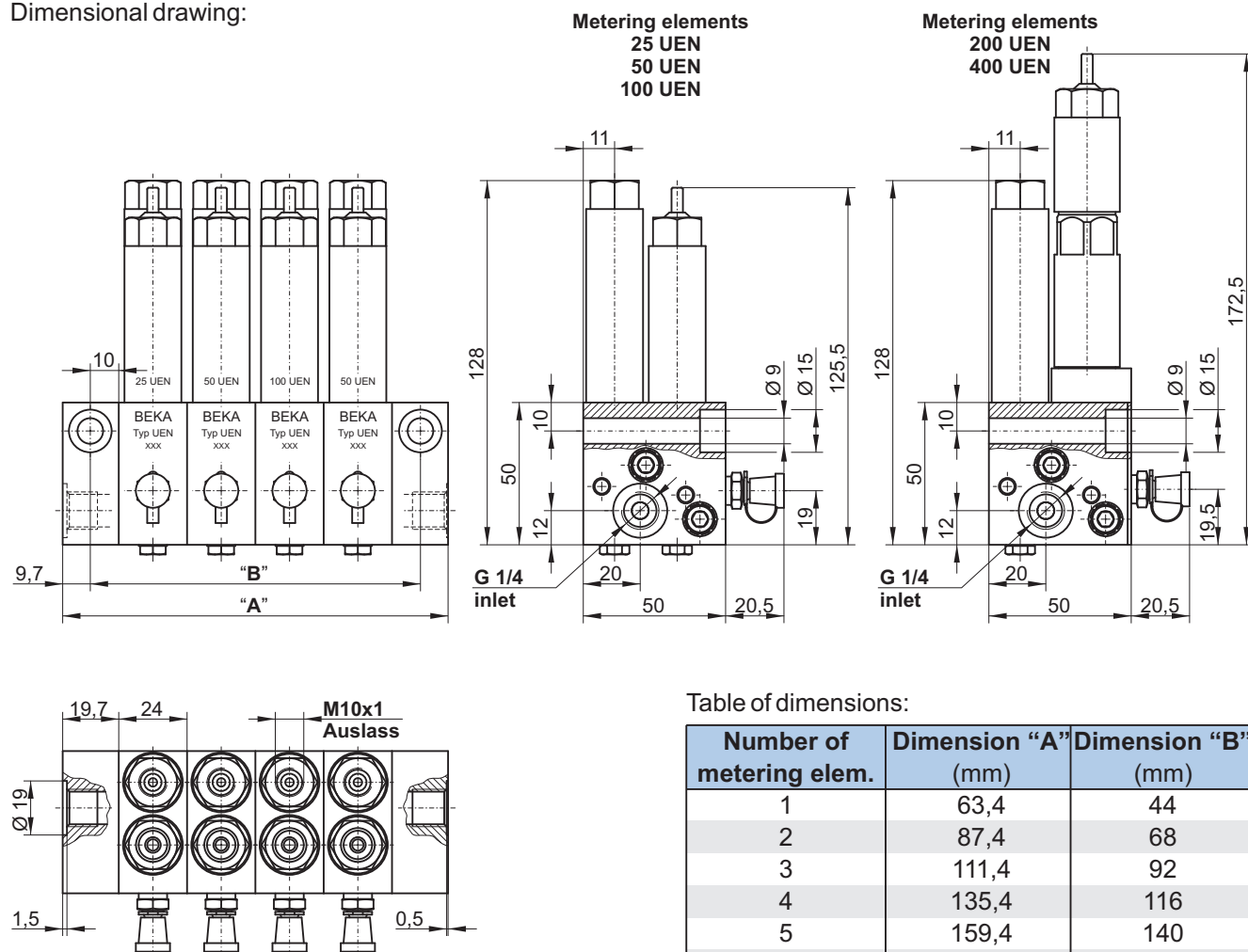


Table of dimensions:

Number of metering elem.	Dimension "A" (mm)	Dimension "B" (mm)
1	63,4	44
2	87,4	68
3	111,4	92
4	135,4	116
5	159,4	140
6	183,4	164

Table of weight for one single line distributors UEN:

Number of metering elements	Weight of a distributor (kg)	
	with metering elements 25/50/100 UEN	with metering elements 200/400 UEN
1	2,44	2,89
2	4,24	5,14
3	6,04	7,39
4	7,84	9,64
5	9,64	11,89
6	11,44	14,14

Function

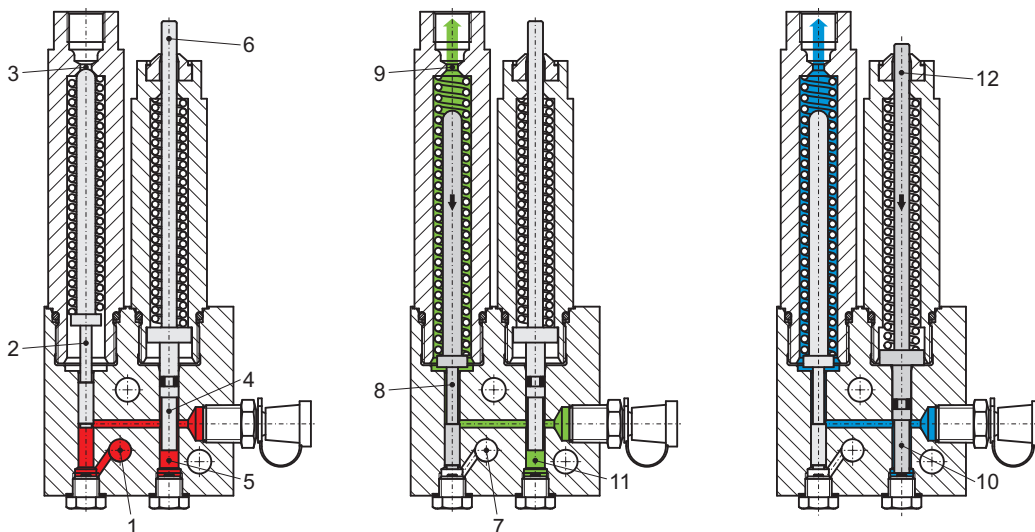
When lubricant is supplied through the inlet drilling (1) into the distributor, it presses the control piston (2) upwards against the spring force whereupon the lubricant outlet (3) is closed. When pressure increases, the metering piston (4) is pressed upwards against the spring force and the lubricant chamber (5) is filled. The indicator pin (6) is displayed and shows that the distributor is filled with lubricant.

As soon as all distributors are filled, the pump is switched off by reaching the switching pressure. The following pressure relief at the inlet drilling (7) makes the control piston (8) being pressed down and hence, the lubricant outlet (9) is opened.

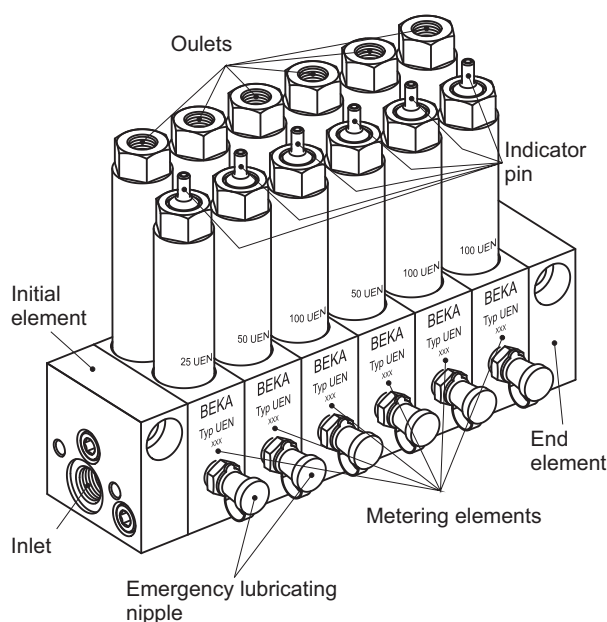
Now the metering piston (10) is pressed downwards and the stored lubricant in the lubrication chamber (11) is rearranged and supplied to the outlet (9). The indication pin (12) is not displayed anymore.

A new lubrication cycle starts as soon as the adjusted break time is processed.

- = pressure channels
- = following metering stroke
- = already supplied



Order key



The single line distributor UEN without accessories can be ordered with max. six metering elements according to the order key below as standard.

Other single line distributors UEN with accessories or with more than six metering elements must be ordered separately because of their variation.

Order key type-no. 4124

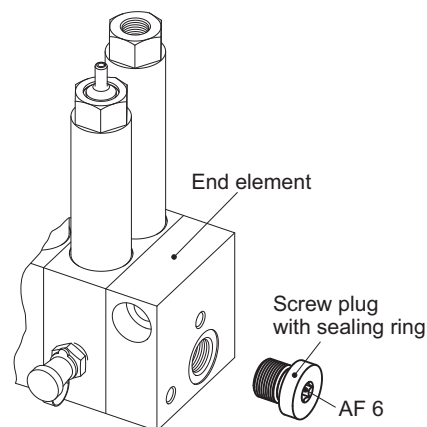
Type number	4124					
Code-no.	4124					
Number of metering elements	1	2	3	4	5	6
Code-no.	1	2	3	4	5	6
Metering vol. per outlet (mm³/stroke)	25	50	100	200	400	
Code letter	C	D	A	E	B	
Special model	no					
Code-no.	000					

Screw plug

In order to lock the threaded connection at the end element, a screw plug with sealing ring has to be ordered separately.

Screw plug G 1/4 (ZnNi-coating) with sealing ring

Order-no.: 04030189342100



Subject to alterations!

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Elements

The single line distributor UEN consists of one initial element, one to six metering elements and one end element.

Each metering element has one outlet and a functional indication (indication pin).

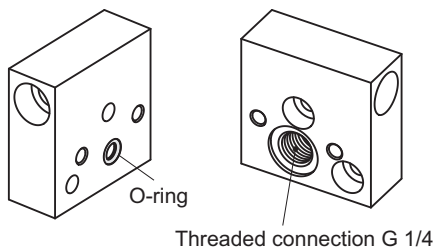
Initial element

The initial element has a threaded connection G 1/4.

Order-numbers

Initial element (with O-ring): 4124990010
Weight: 0,31 kg

O-ring DIN 3771 - Ø 6 x 1,5 - NBR as spare part:
09037710031181



Metering elements

Each metering element has a threaded connection M10x1 at the outlet.

Order numbers

Metering element 25 UEN (with O-ring):
4124990022

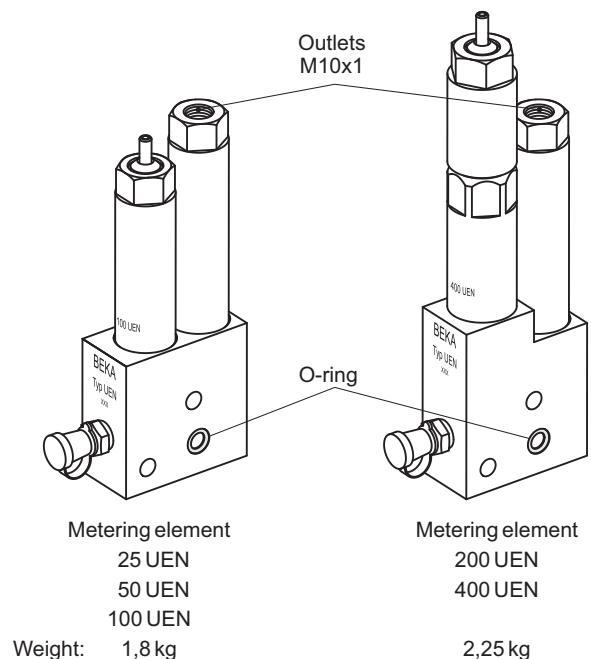
Metering element 50 UEN (with O-ring):
4124990023

Metering element 100 UEN (with O-ring):
4124990020

Metering element 200 UEN (with O-ring):
4124990024

Metering element 400 UEN (mit O-ring):
4124990021

O-ring DIN 3771 - Ø 6 x 1,5 - NBR as spare part:
09037710031181

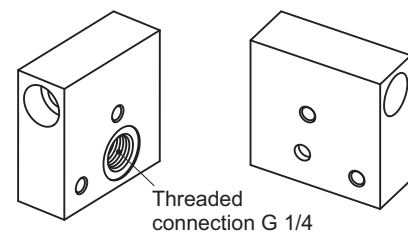


End element

The end element has a threaded connection G 1/4.

Order number

End element: F4124/03-02
Weight: 0,33 kg



Subject to alterations!

Combination of outlets

For lube points with divergent metering volumes, two, three or four outlets can be combined by means of a distributor bridge.

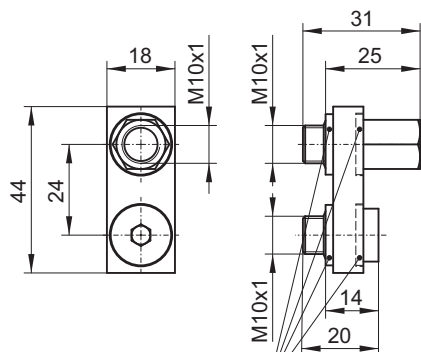
Distributor bridge 2-outlets

Order-no. total:

4124990005

Hollow screw
with outlet
AF 13

Hollow screw
without outlet
AF 5



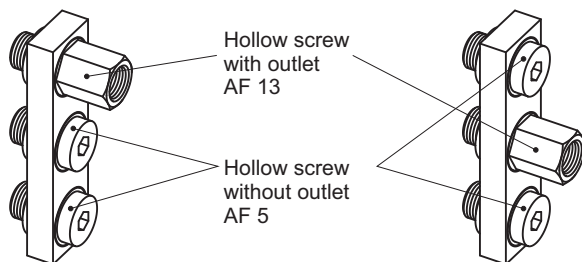
USIT-ring U 10,35x16x2
(1.4401 + NBR 80)
Order-no.: 100150010383
(for spare part)

Distributor bridge 3-outlets

Order-no. total:

4124990081

4124990082



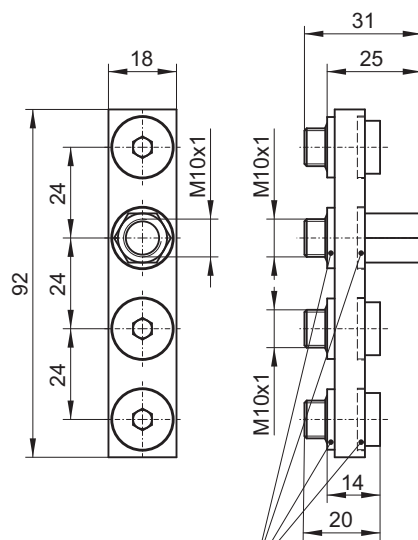
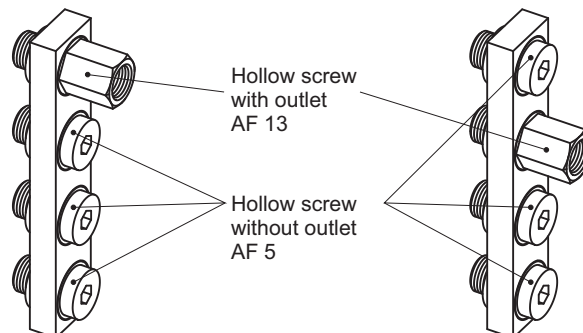
USIT-ring U 10,35x16x2
(1.4401 + NBR 80)
Order-no.: 100150010383
(as spare part)

Distributor bridge 4-outlets

Order-no. total:

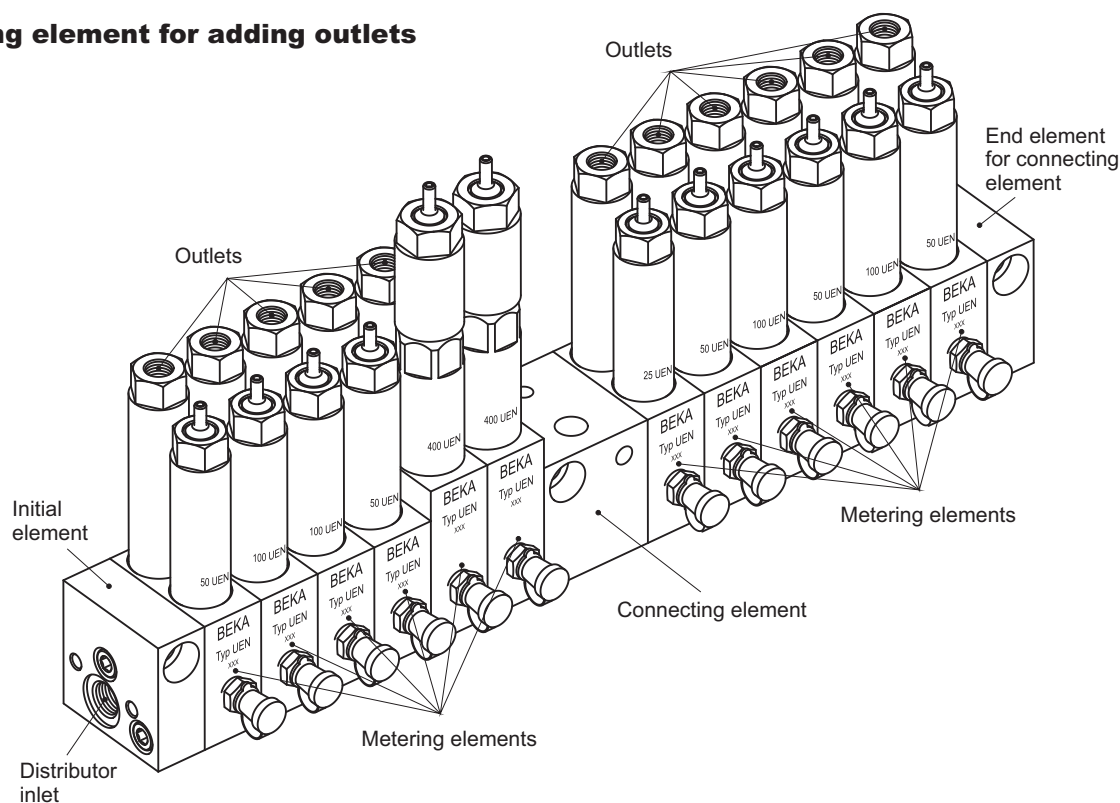
4124990083

4124990084



USIT-ring U 10,35x16x2
(1.4401 + NBR 80)
Order-no.: 100150010383
(as spare part)

Connecting element for adding outlets



If distributors with more than six metering elements are necessary, they can be extended to max. 12 outlets (2x6 metering elements) by means of connecting elements. When using a connecting element, a special end element is needed.

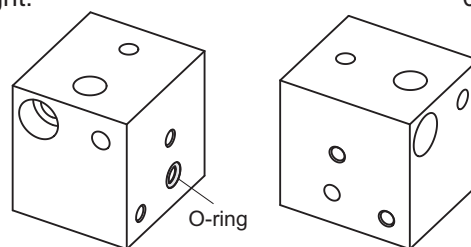
Connecting element

Order-no. (with O-ring):

4124990040

Weight:

0,75 kg



O-ring DIN 3771 - Ø 6 x 1,5 - NBR as spare part:

09037710031181

End element for connecting element

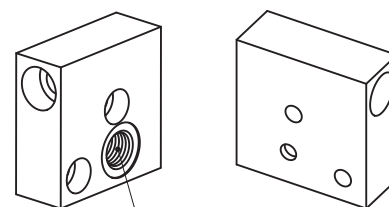
The end element for connecting element has a threaded connection G 1/4.

Order-no.:

F4124/03-04

Weight:

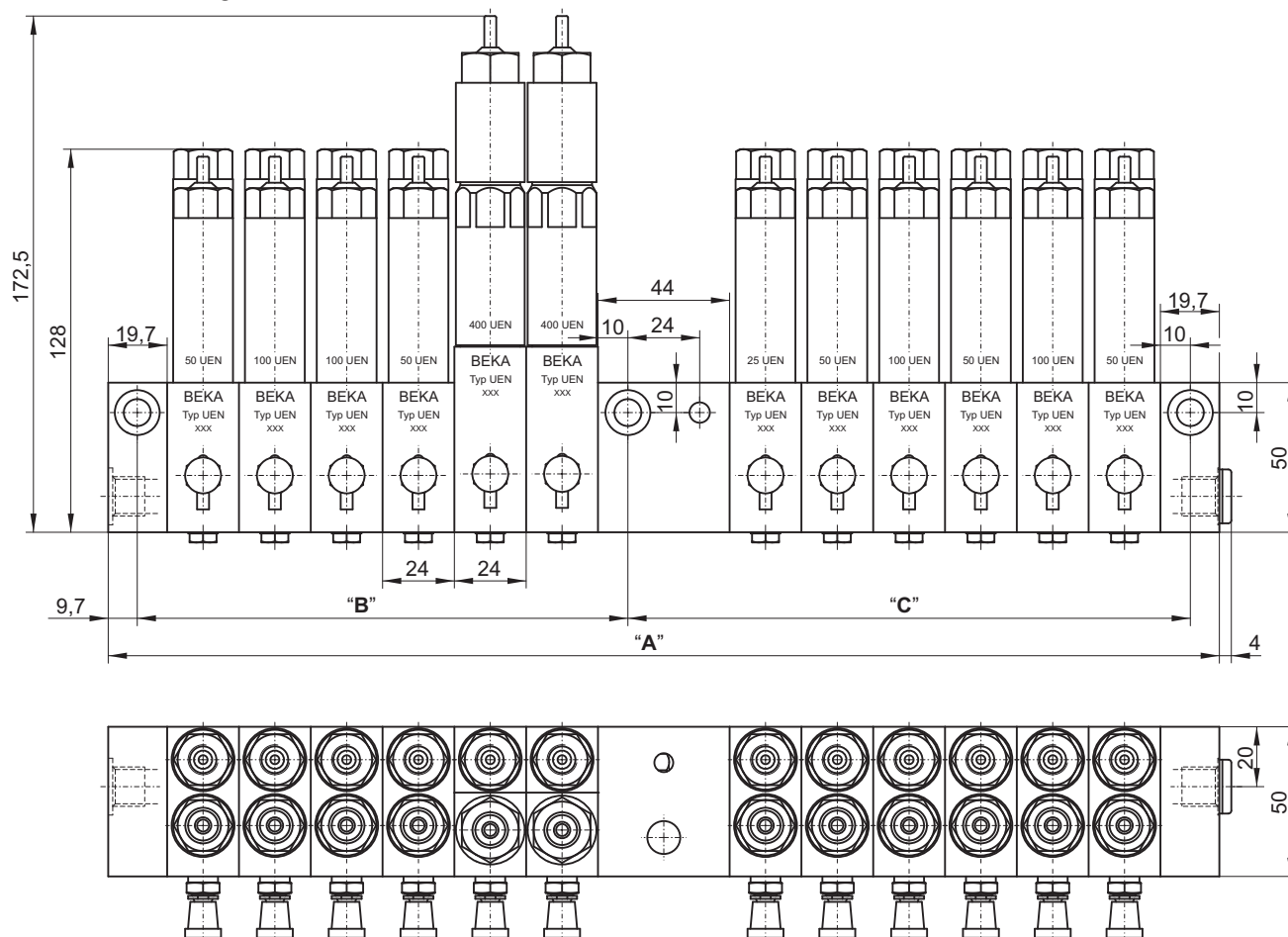
0,32 kg



Threaded connection G 1/4

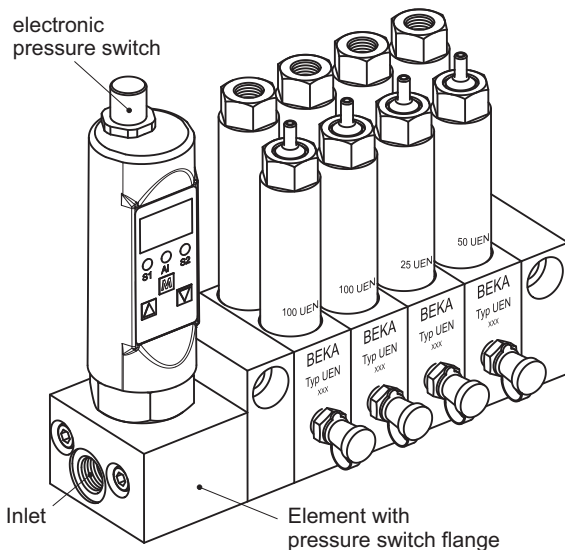
Subject to alterations!

Dimensional drawing:



Number of Metering elem.	Dim. "A" (mm)	Dim. "B" (mm)	Dim. "C" (mm)
1	-	44	68
2	-	68	92
3	-	92	116
4	-	116	140
5	-	140	164
6	-	164	188
7	131,4	-	-
8	179,4	-	-
9	227,4	-	-
10	275,4	-	-
11	323,4	-	-
12	371,4	-	-

Electronic pressure switch



The electronic pressure switch monitors the system pressure in the pressure line and switches off the pump when reaching 210 bar to start the relief in the pressure lines.

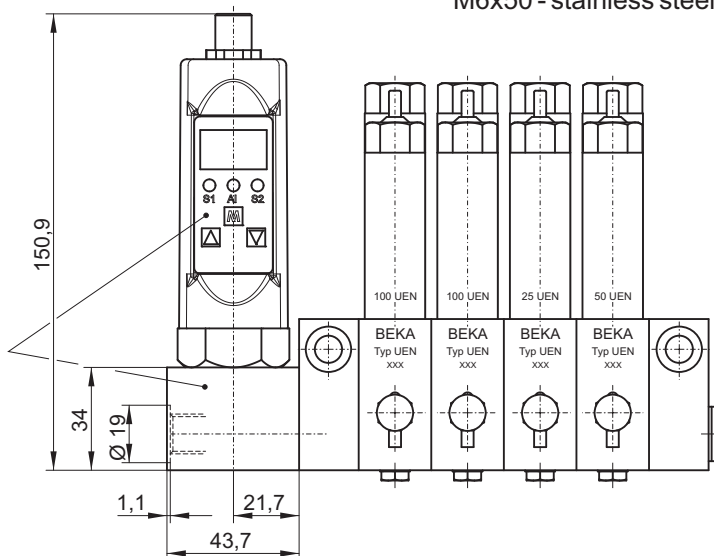
If more single line distributors are installed in the lubrication system, the electronic pressure switch shall be installed at the inlet, which is the farthest away from the pump to ensure that the switching pressure is reached in the complete system.

Compared with a mechanic pressure switch, the electrical one exclude lubricant hardenings at the measuring inlet.

For installing the electronic pressure switch, there is an **element with pressure switch flange** that is assembled as standard at the initial element.

Electronic pressure switch with pressure switch flange and fastening (complete).

Order-no.:
4124990012



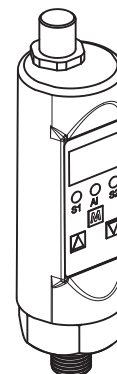
Order number

Electronic pressure switch:

042100415

Weight:

0,75 kg



Element with pressure switch flange

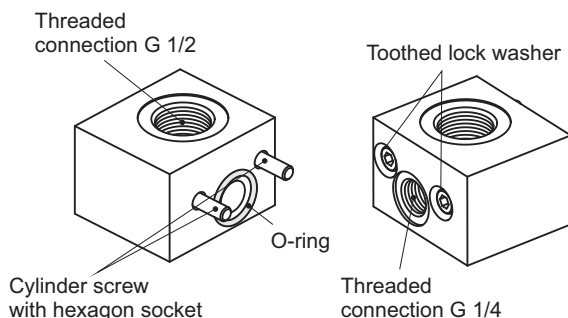
Order-no.:

4124990080

(w. O-ring, toothed lock washer and cylinder screw)

Weight:

0,5 kg



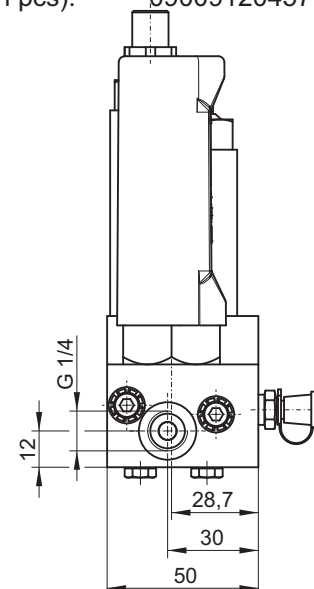
Spare parts

O-ring DIN 3771 - Ø 16 x 2 - NBR: 09037710034141

Toothed lock washer DIN 6797 - A 6,4 - stainless steel (1 pcs):

0906797003311

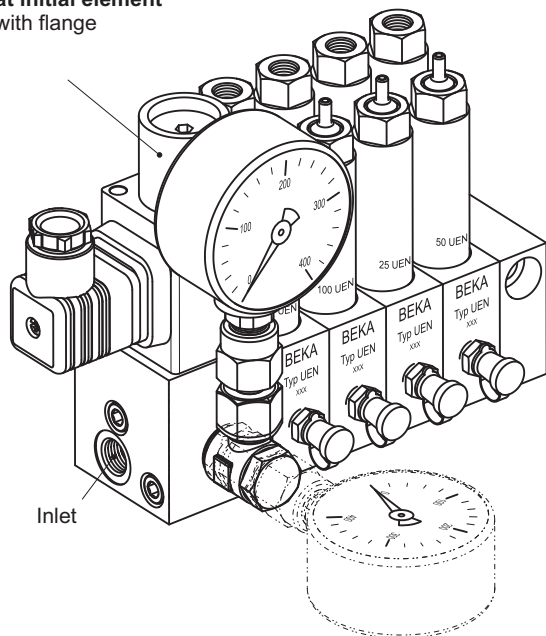
Cylinder screw with hexagon socket DIN 912 - M6x50 - stainless steel (1 pcs): 090091204571



Subject to alterations!

Mechanical pressure switch

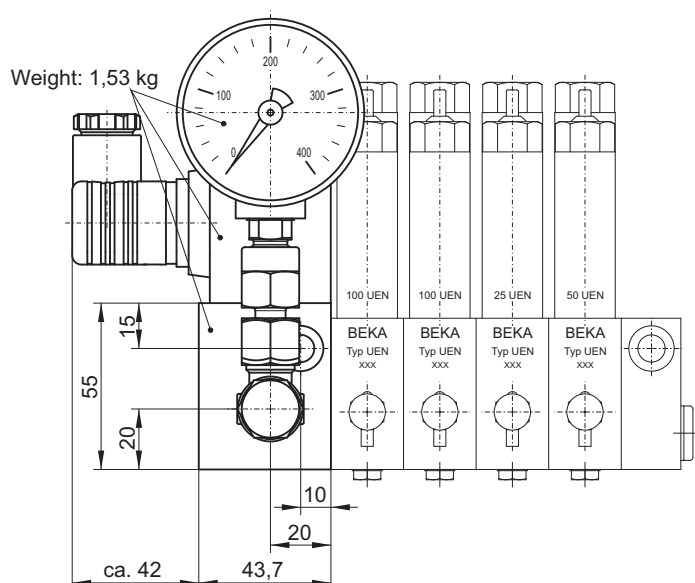
mechanical pressure switch
at initial element
with flange



The mechanic pressure switch monitors the system pressure in the line and switches off the pump when reaching 210 bar in order to start the pressure line relief.

When installing the mechanic pressure switch, a widened **initial- or end element** is necessary instead of the standard ones. Hence, five or eleven metering elements can be combined to one single line distributor by means of a connecting element.

Dimensional drawing

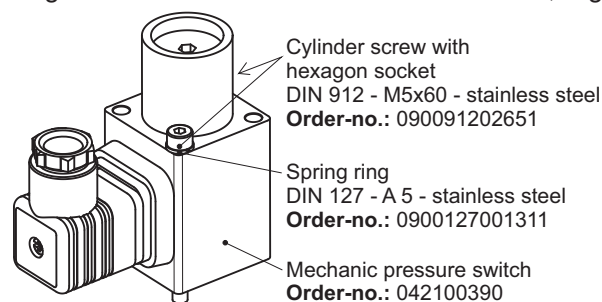


Subject to alterations!

Order number

Mechanic pressure switch: 4124990500
(with cylinder screws and spring ring)

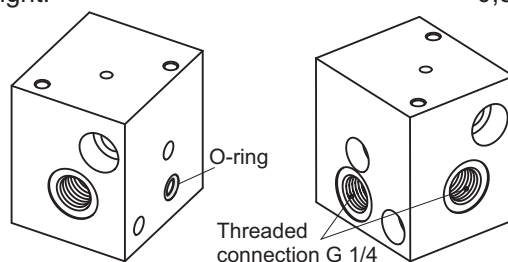
Weight: 0,5 kg



Initial element with pressure switch flange

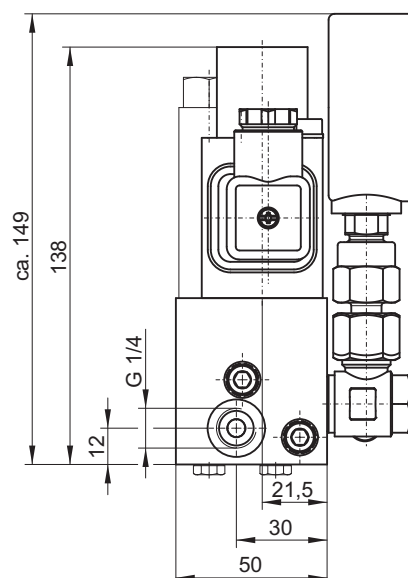
Order-no. (with O-ring): 4124990011

Weight: 0,81 kg



O-ring DIN 3771 - Ø 6 x 1,5 - NBR as spare part:

09037710031181



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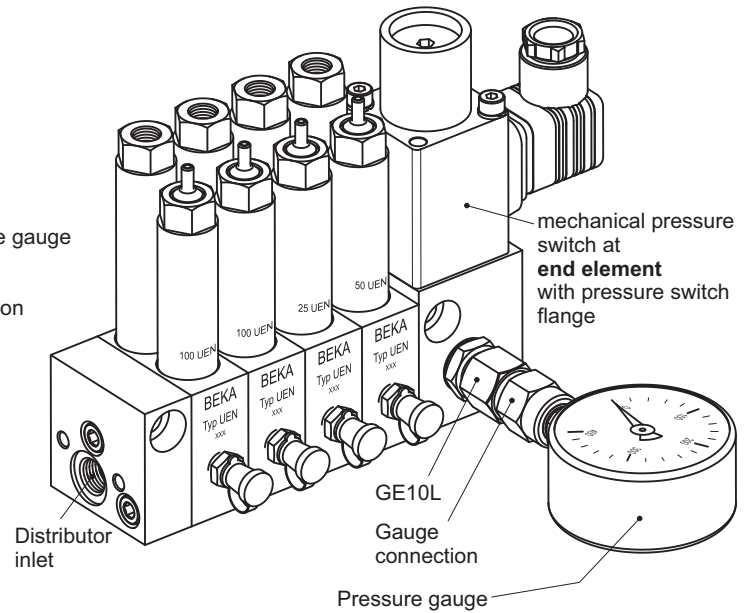
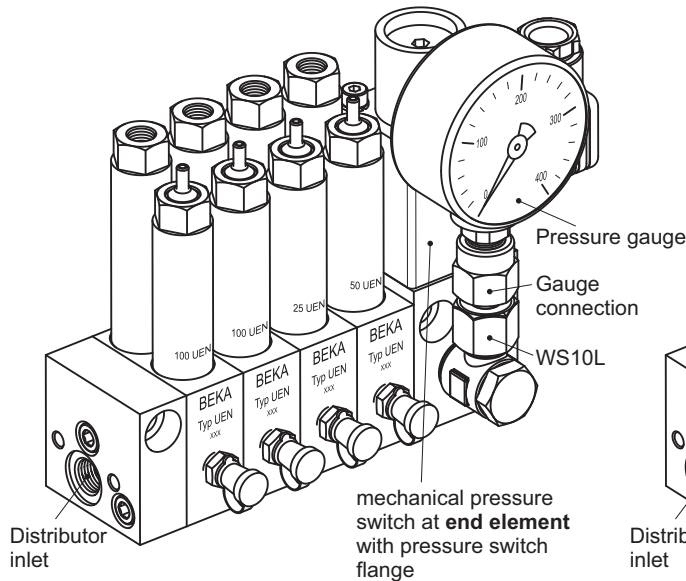
Single Line Lubrication Systems

Single line distributor



UEN (relubrication system)

Single line distributor



Order number

Manometer, 0 - 400 bar, with glycerine filling:

0460110122141

Manometer connection G1/4 - L10:

04062961

Male stud coupling with cutting ring with cylindric threaded connection G 1/4, for pipe-Ø 10, series L: 04062450

Elbow swivelling fitting with cutting ring with cylindric threaded connection G 1/4, for pipe-Ø 10, series L: 04062452

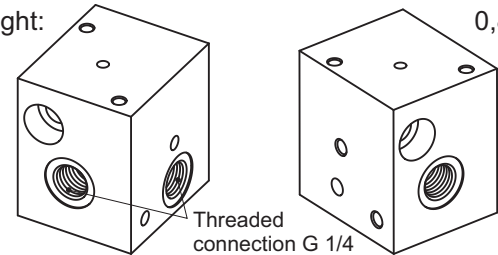
End element with pressure switch flange

Order-no.:

F4124/03-03

Weight:

0,83 kg



End element with pressure switch flange for connection element

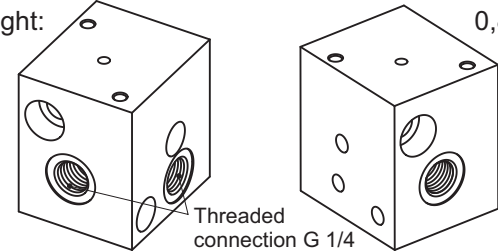
(beginning at six metering elements),

Order-no.:

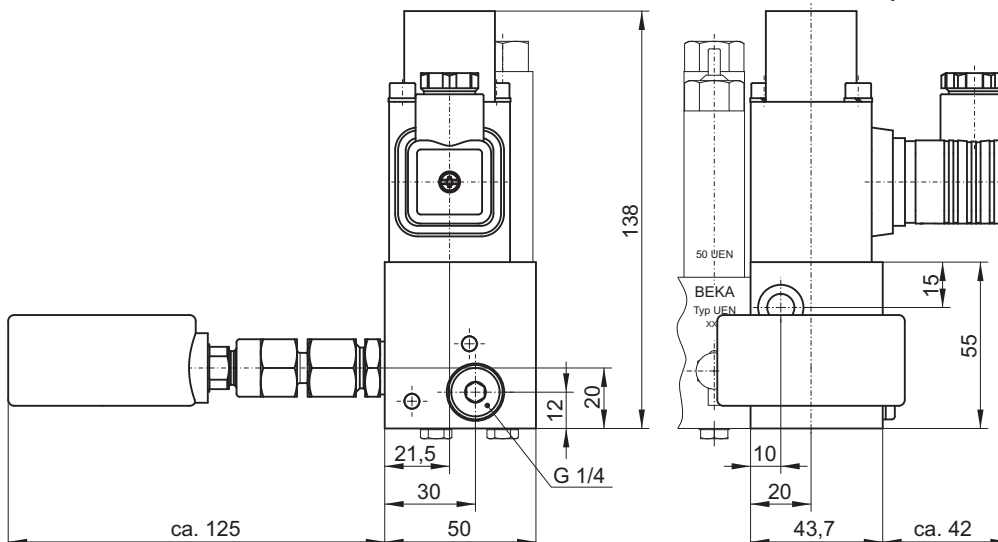
F4124/03-05

Weight:

0,81 kg



Dimensional drawing:



Single line elements UEN with mech. pressure switches (beginning at six metering elements) must be equipped with an end element with **pressure switch flange for connection elements**

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03-9-20-11 State: 09.14EN

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Emergency grease nipple

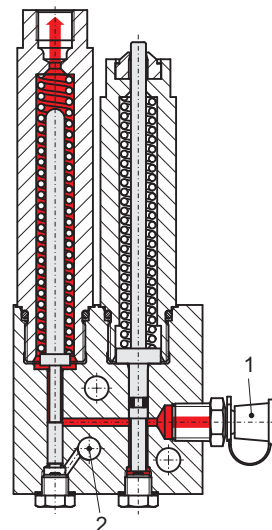
Lubrication points can be lubricated individually by an emergency grease nipple (1). This must be done at relieved pressure connection (2). Lubricant then flows, without any metering, through the single line distributor towards the lubrication points.

The initial filling for distributors that are delivered without grease filling can be done via the emergency grease nipple.

If hoses must be exchanged, they can also be filled via the emergency grease nipple

Attention:

When lubricating or filling via the emergency grease nipple, the max. pressure of 280 bar must not be exceeded as otherwise the sealings will be damaged. The function of the single line distributor can no more be guaranteed. Therefore it is recommended to use a hand lever grease press for lubrication or filling.



Extend or shorten a distributor

The single line distributors UEN can be adjusted at any time to their applications of use due to their disk construction. If lube points are added or reduced, the single line distributor can be extended or shortened by metering elements.

Description

- unscrew the cylinder screws that fix the distributor

Attention: at single line distributors with electronic pressure switch, the element with pressure switch flange must be removed before

- separate the distributor at the requested disk
- add or remove the metering elements
- screw the single line distributor together with the according cylinder screws (see table) and toothed lock washers

Table of order-no. for cylinder screw with hexagon socket DIN 912 or DIN 6912 (1 pcs) in stainless steel only for single line distributor UEN **with electronic pressure switch or without pressure switch**:

Distributor size	Cylinder screw	Order-no.
UEN-1	M6 x 50	090691201931
UEN-2	M6 x 70	090091203671
UEN-3	M6 x 95	090691202631
UEN-4	M6 x 120	0900912111E1
UEN-5	M6 x 140	0900912050D1
UEN-6	M6 x 170	0900912112E1

Table of order-no. for cylinder screw with hexagon socket DIN 912 or DIN 6912 (1 pcs) in stainless steel only for single line distributor UEN **with mechanical pressure switch**:

Distributor size	Cylinder screw	Order-no.
UEN-1	M6 x 70	090091203671
UEN-2	M6 x 95	090691202631
UEN-3	M6 x 120	0900912111E1
UEN-4	M6 x 140	0900912050D1
UEN-5	M6 x 170	0900912112E1

If an O-ring, that seals the distributors between the elements, is damaged and does not seal anymore, it can be ordered.

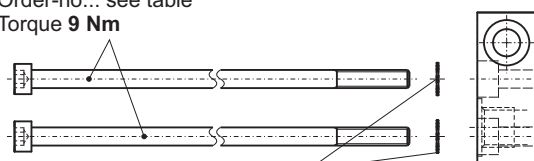
O-ring DIN 3771 - Ø 6 x 1,5 - NBR for initial element and metering element,

Order-no.: 09037710031181

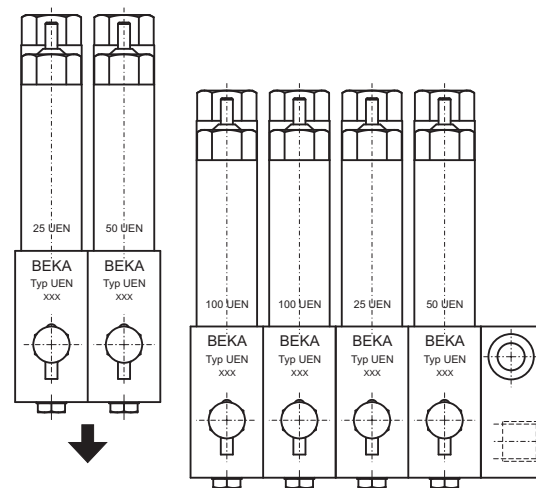
Enlargement of a single line distributor UEN-4 by two metering elements (400 UEN):

Attention: Take care of utmost cleanness!

Cylinder screw with hexagon socket M6
Order-no.: see table
Torque **9 Nm**



Toothed lock washer DIN 6797 - A 6,4 - stainless steel
Order-no.: 0906797003311 (1 pcs)



Example

The single line distributor UEN can be adjusted according to customer requests.

In the drawing are four individual single line distributors UEN combined to one distributor by means of two connecting elements.

