1.2EN-28002-H08

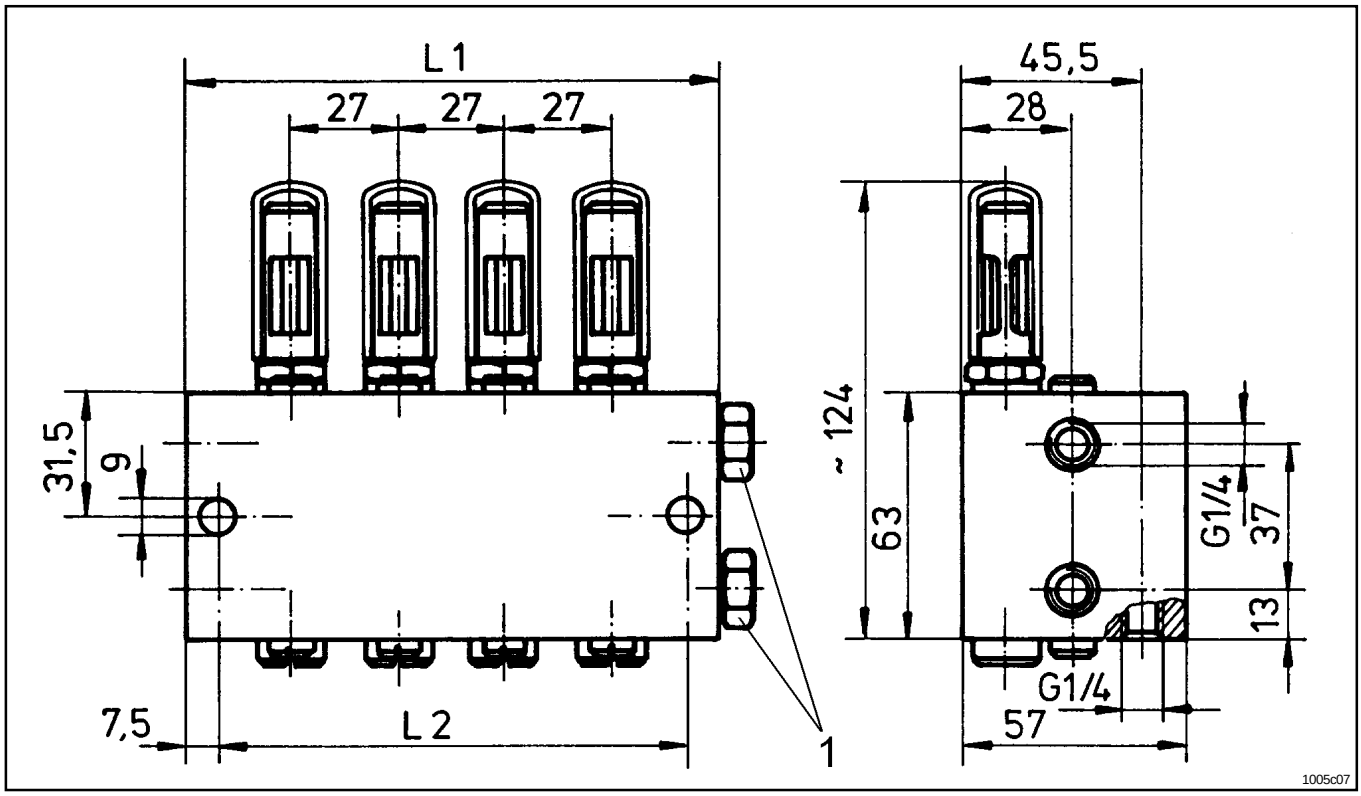
Two-line Lubricant Metering Devices Model VSKH / VSKV

Subject to modifications

LINCOLN GmbH • Postfach 1263 • D-69183 Walldorf • Tel +49 (6227) 33-0 • Fax +49 (6227) 33-259

Data sheet

Metering devices model VSKH-KR



1 - closure plug 6kt G1/4 part-no. 303-17441-1

Model	VSKH2-KR	VSKH4-KR	VSKH6-KR	VSKH8-KR
L1	51	79	107	135
L2	36	64	92	120

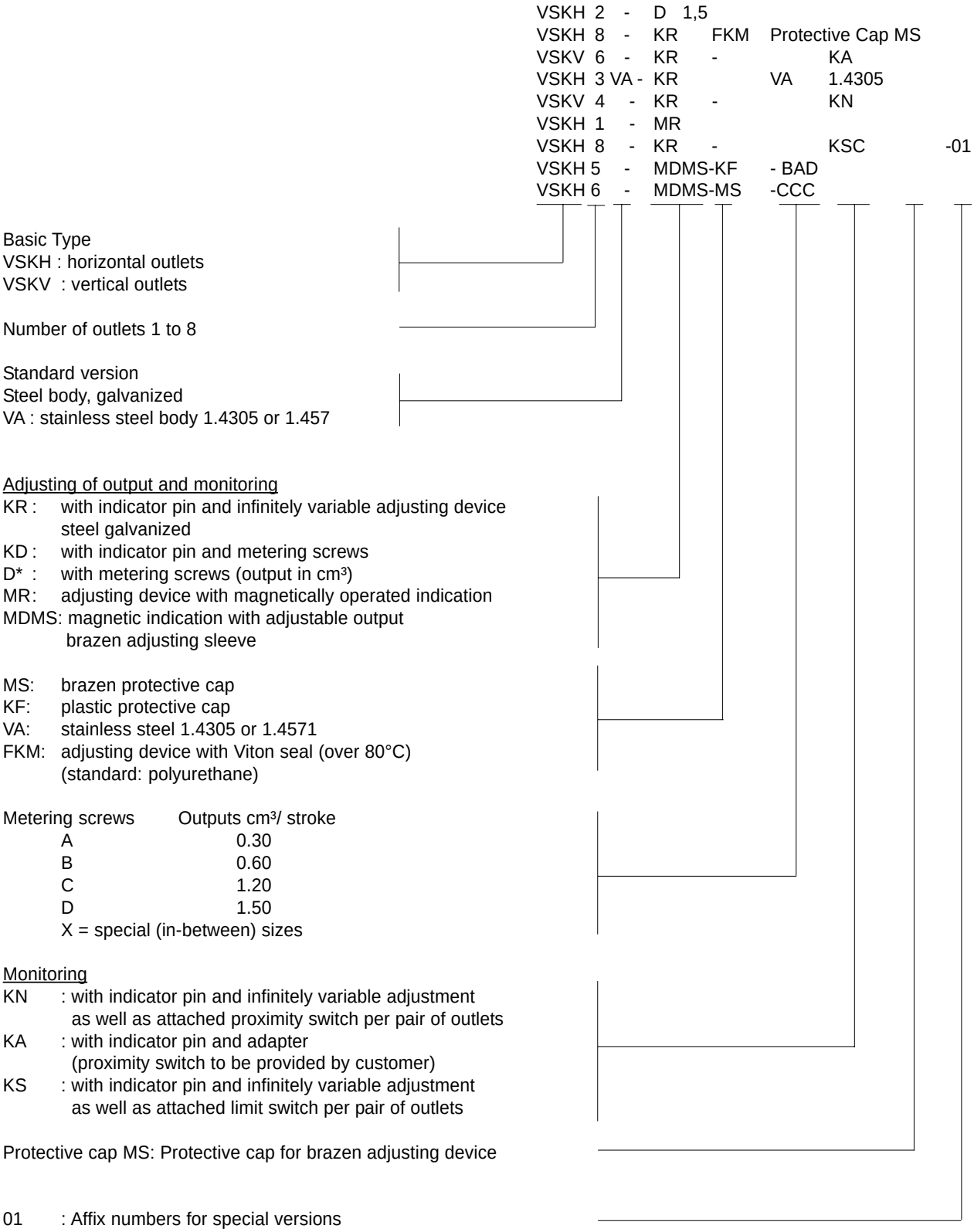
Technical data::

Output volume: Q = 0-1,5 cm³/stroke, adjustable
Operating pressure: p max = 400 bar
p min = 35 bar

Main line connection: G 1/4
Feed line connection: G 1/4

LINCOLN GmbH • Postfach 1263 • D-69183 Walldorf • Tel +49 (6227) 33-0 • Fax +49 (6227) 33-259

VSKH/VSKV Idendification Chart



Basic Type
VSKH : horizontal outlets
VSKV : vertical outlets

Number of outlets 1 to 8

Standard version
Steel body, galvanized
VA : stainless steel body 1.4305 or 1.457

Adjusting of output and monitoring
KR : with indicator pin and infinitely variable adjusting device steel galvanized
KD : with indicator pin and metering screws
D* : with metering screws (output in cm³)
MR: adjusting device with magnetically operated indication
MDMS: magnetic indication with adjustable output brazen adjusting sleeve

MS: brazen protective cap
KF: plastic protective cap
VA: stainless steel 1.4305 or 1.4571
FKM: adjusting device with Viton seal (over 80°C) (standard: polyurethane)

Metering screws	Outputs cm³/ stroke
A	0.30
B	0.60
C	1.20
D	1.50

X = special (in-between) sizes

Monitoring
KN : with indicator pin and infinitely variable adjustment as well as attached proximity switch per pair of outlets
KA : with indicator pin and adapter (proximity switch to be provided by customer)
KS : with indicator pin and infinitely variable adjustment as well as attached limit switch per pair of outlets

Protective cap MS: Protective cap for brazen adjusting device

01 : Affix numbers for special versions

**Metering device models D, KD and MD are supplied with metering screws for maximum output 1.5 cm³ if not other specification is made. The numbering (AB..) is effected in the order of the number of outlets. The type code specifies the size of the metering screw. In the case of odd outlet numbers the output doubles. In the case of an odd number of outlets, a metering screw with half output quantity will be mounted ex factory.*

LINCOLN GmbH • Postfach 1263 • D-69183 Walldorf • Tel +49 (6227) 33-0 • Fax +49 (6227) 33-259

Description operation

Metering devices VSKH-KR

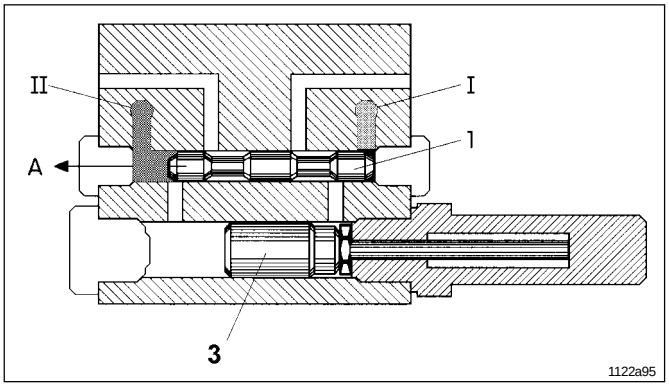


Fig. 1

Stage 1

Pressurised lubricant is supplied to the metering device via main line I. The control piston (1) starts moving in the direction of arrow A, displacing the lubricant in front of the control piston into the relieved main line II.

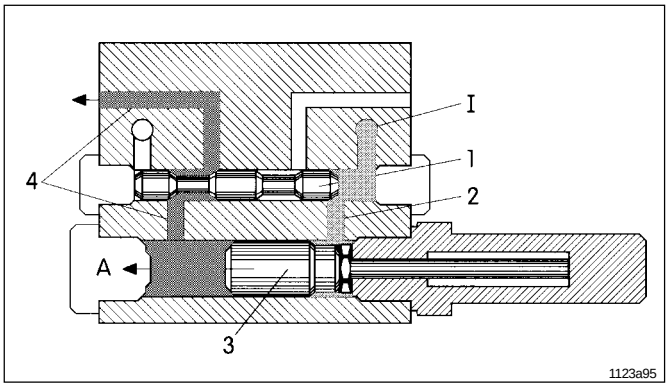


Fig. 2

Stage 2

When the control piston (1) uncovers the connecting passage (2) lubricant is transferred to the right end of the dispensing piston (3), thereby displacing it to the left in the direction of arrow A.
The lubricant volume ahead of the dispensing piston is transferred via the connection passage (4) to the lubrication point. With the dispensing piston in its terminal position, the pressure in main line I will continue to rise to reach the preset change-over pressure of the two-line system. At this stage, the change-over valve of the system operates to connect main line I which has so far been under pressure to the lubricant reservior of the lubrication pump and the lubricant in main line I is depressurized.

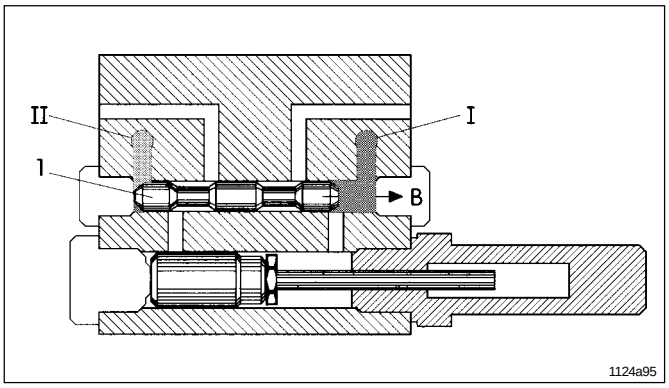


Fig. 3

Stage 3

At the same time the change-over valve connects main line II to the lubrication pump, thus pressurizing the lubricant in this main linc. The control piston (1) moves in the direction of arrow B, displacing the lubricant ahead of the control piston into the relieved main line I.

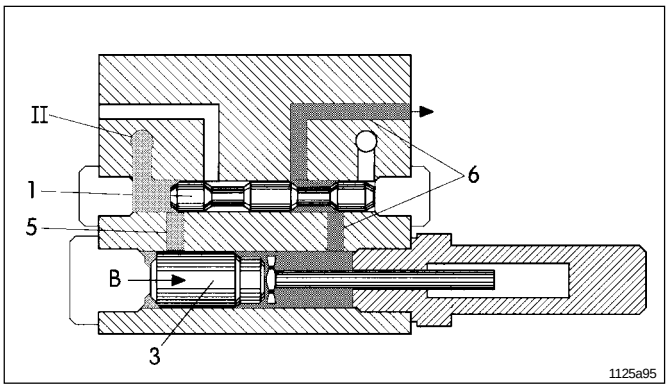


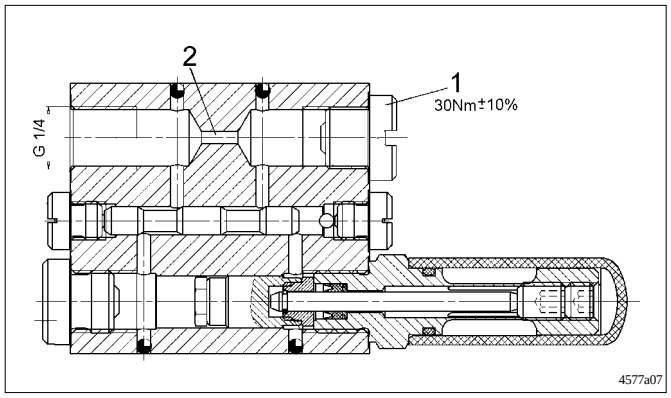
Fig. 4

Stage 4

When the control piston (1) uncovers the connecting passage (5) lubricant is transferred to the left end of the dispensing piston (3) and displaces it to the right in the direction of arrow B. The lubricant ahead of the dispensing piston (3) is transferred via the connecting passage (6) to the lubrication point. With the dispensing piston (3) in its terminal position, the pressure in main line II will continue to rise to reach the preset change-over pressure of the two-line system. At this stage, the change-over valve will once again cause a pressure changing-over in main lines I and II and the cycle will be repeated as described in stage 1.

LINCOLN GmbH • Postfach 1263 • D-69183 Walldorf • Tel +49 (6227) 33-0 • Fax +49 (6227) 33-259

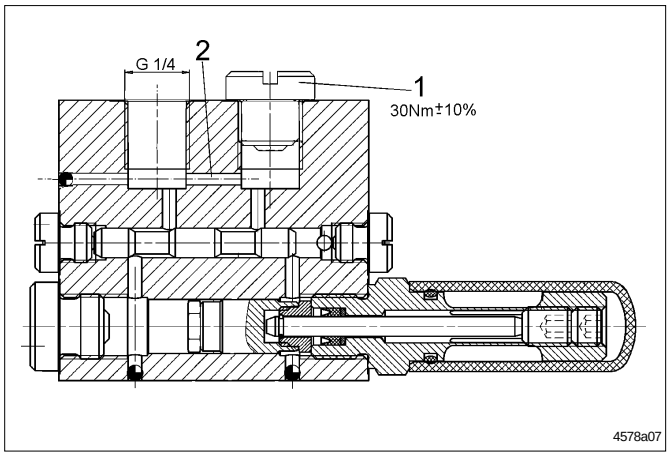
Metering devices with odd number of outlets VSKH/V –1 / 3 / 5 / 7



VSKH-KR with odd number of outlets
1 – closure screw SZ G ¼ part no. 303-19326-1
2 – connection duct

In the case of metering devices with an odd number of outlets, always two opposite outlets are connected by a connection duct (2). The connection bore is factory-made.

The opposite metering device outlet is closed with a closure screw.
The output is twice the amount of one outlet as the lubricant quantities are crossported. If this is not desired, the output of this pair of outlets must be reduced accordingly (to half of the output if the same output is desired).
If installation conditions allow for, the closure screw can be changed from one side to the other.



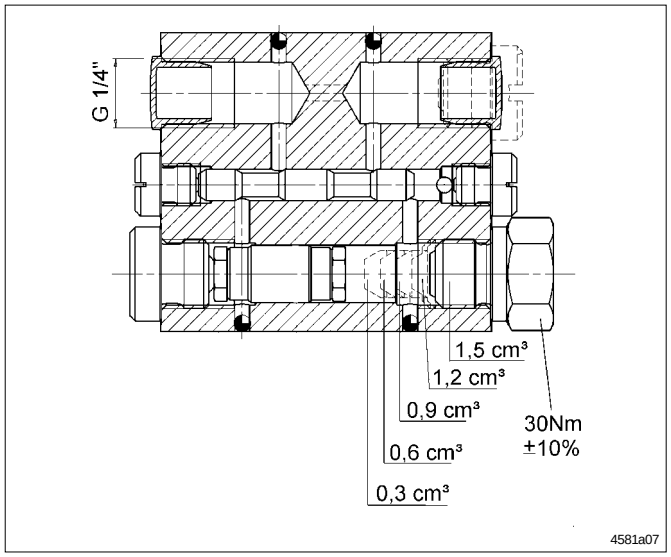
VSKV-KR with odd number of outlets
1 – closure screw SZ G ¼ part no. 303-19326-1
2 – connection duct

CAUTION

Closing of metering device outlets

If in the case of a metering device with an even number of outlets (2, 4, 6, 8) an outlet is closed, the opposite outlet will seize and no lubricant is supplied.
All other outlets are still provided with lubricant.
The same happens if one lubrication point seizes. In such case the opposite outlet will not receive any lubricant either.

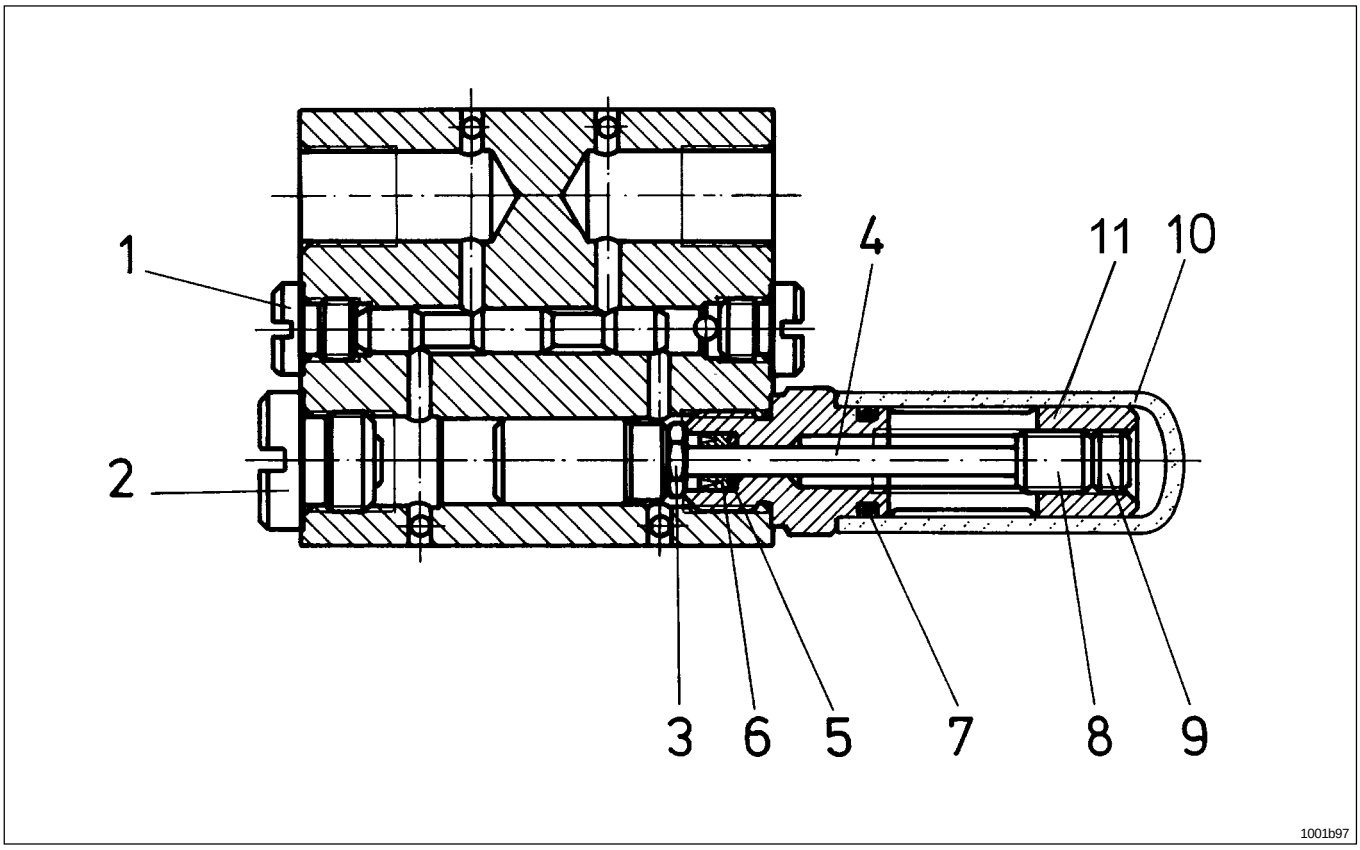
Metering devices with metering screws VSKH/V D



Metering screws for output volume /stroke	Part-No.
0,3 cm³	303-19351-1
0,6 cm³	303-19352-1
0,9 cm³	303-19353-1
1,2 cm³	303-19354-1
1,5 cm³	303-19374-1

LINCOLN GmbH • Postfach 1263 • D-69183 Walldorf • Tel +49 (6227) 33-0 • Fax +49 (6227) 33-259

Spare parts VSKH-KR/KRVA



Spare parts list VSKH-KR

Item	Description	Part-No.
1	closure plug	303-19327-1
2	closure plug	303-19326-1
3	holding screw	420-22351-3
4	pin with snap ring	520-32066-1
5	support ring	*
6	u-cup sealing ring	*
7	O-ring	219-12223-4
8	screw pin	204-12538-3
9	screw pin	204-12111-3
10	protection cap	420-23569-1
11	adjusting sleeve assembly including items 5, 6, 7	
	with polyurethan u-cup sealing ring	520-30828-1
	with FKM u-cup sealing ring	520-31887-1
	adjusting device assembly including items 11, 8, 9, 10	
	with polyurethan u-cup sealing ring	520-36076-9
	with FKM u-cup sealing ring	520-36700-3

* Not available as single parts, included in item 11

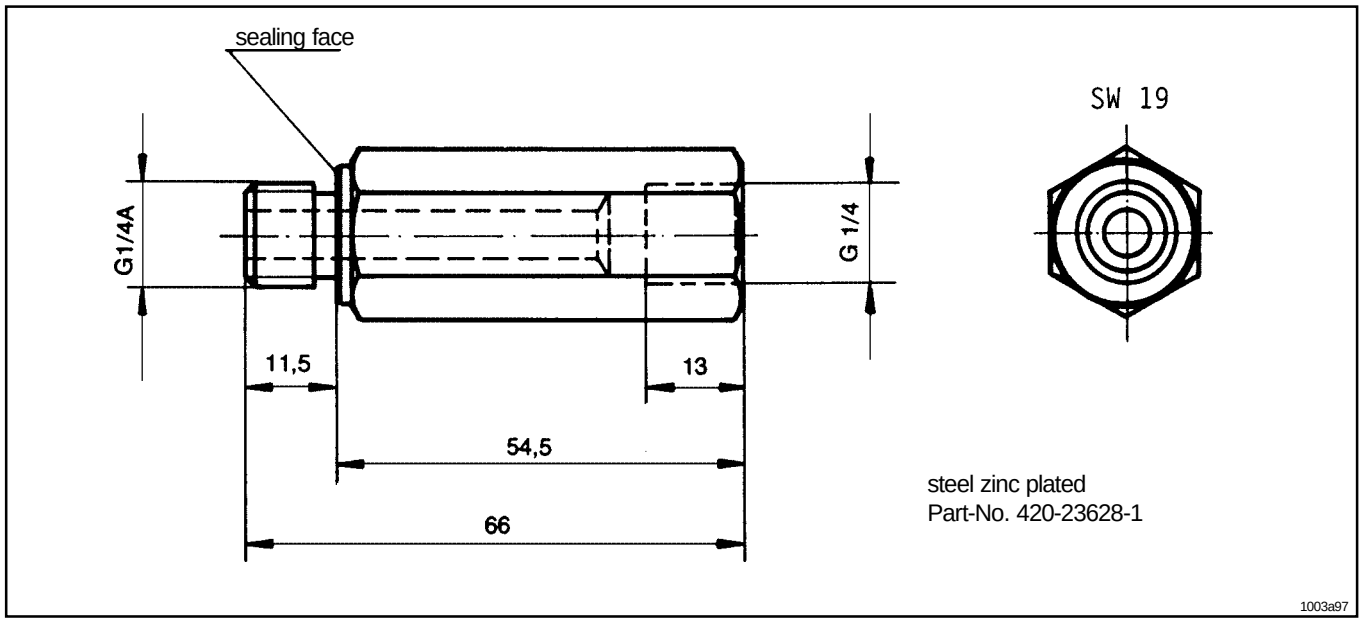
Spare parts list VSKH-KRVA

Item	Description	Part-No.
1	closure plug	303-19327-1
2	closure plug	303-19326-1
3	holding screw	420-22351-3
4	pin with snap ring	520-32066-1
5	support ring	*
6	u-cup sealing ring	*
7	O-ring	219-12223-4
8	screw pin, stainless steel	204-12538-4
9	screw pin, stainless steel	204-12111-4
10	protection cap	420-23569-1
11	adjusting sleeve (1.4305) assembly including items 5, 6, 7	
	with polyurethan u-cup sealing ring	520-30880-1
	with FKM u-cup sealing ring	520-32031-1
	adjusting device (1.4305) assembly including items 11, 8, 9, 10	
	with polyurethan u-cup sealing ring	520-36700-1
	with FKM u-cup sealing ring	520-36700-8

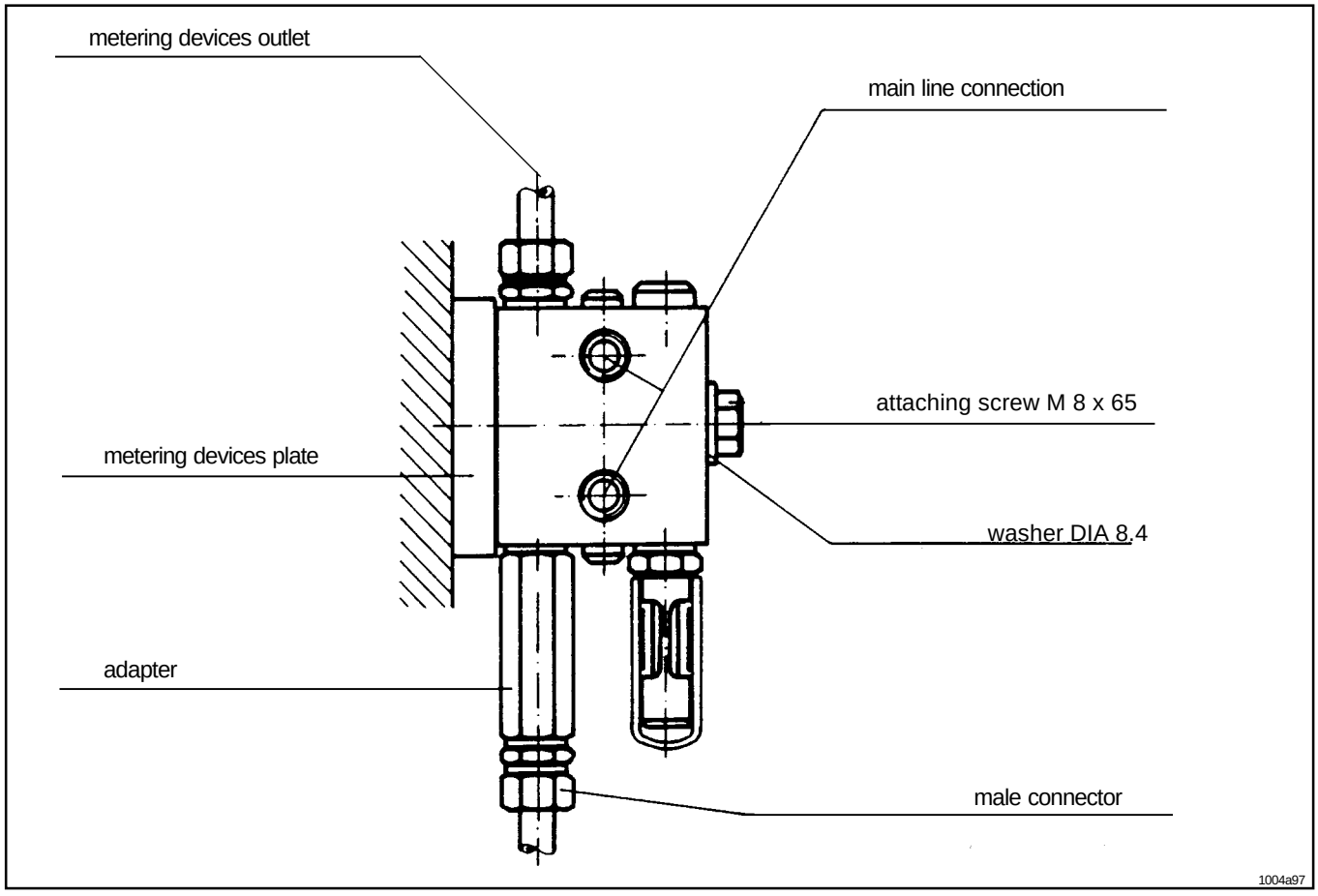
* Not available as single parts, included in item 11

LINCOLN GmbH • Postfach 1263 • D-69183 Walldorf • Tel +49 (6227) 33-0 • Fax +49 (6227) 33-259

Adapter for metering devices VSKH-KR

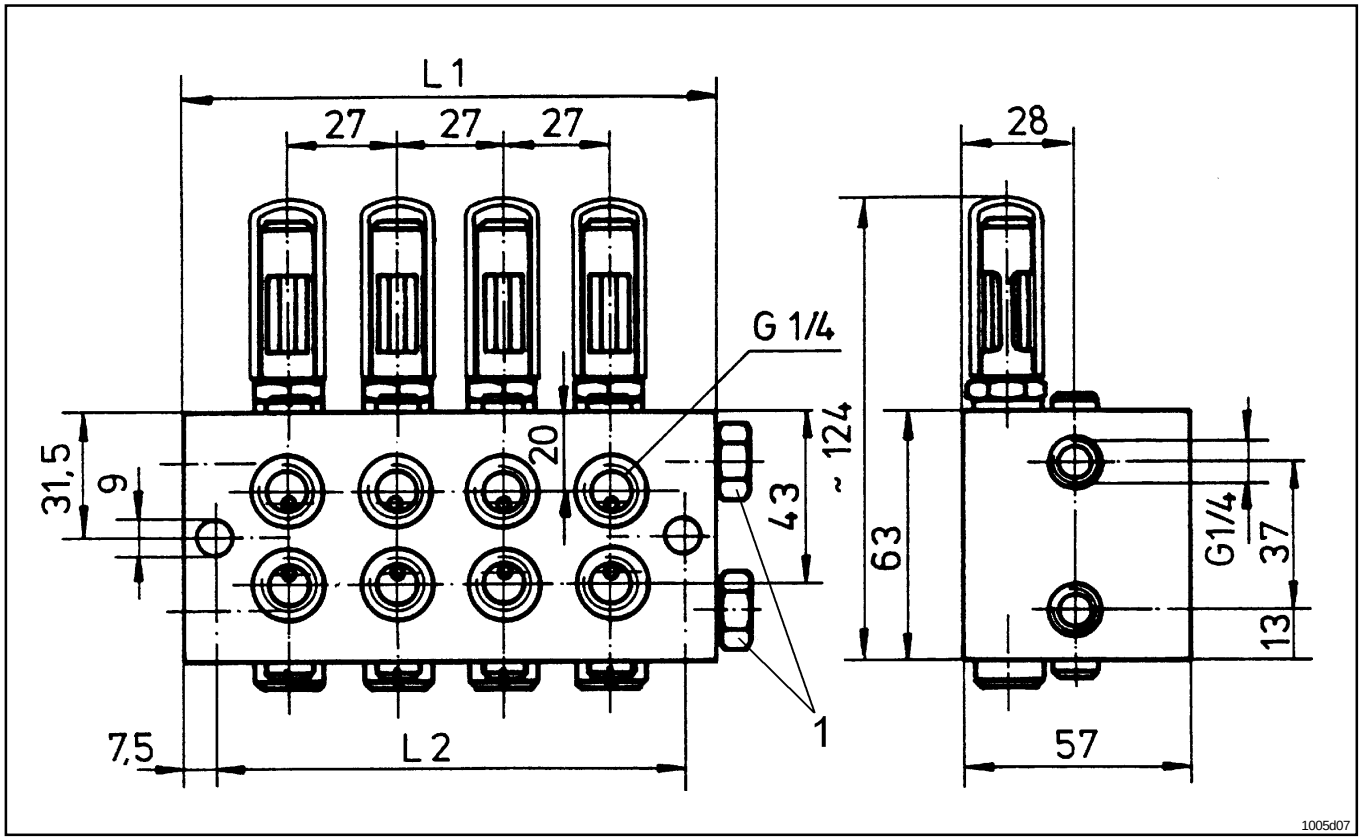


Example of installation of metering devices VSKH-KR



LINCOLN GmbH • Postfach 1263 • D-69183 Walldorf • Tel +49 (6227) 33-0 • Fax +49 (6227) 33-259

Data sheet
Metering devices model VSKV-KR



1 - closure plug 6kt G1/4 part-no. 303-17441-1

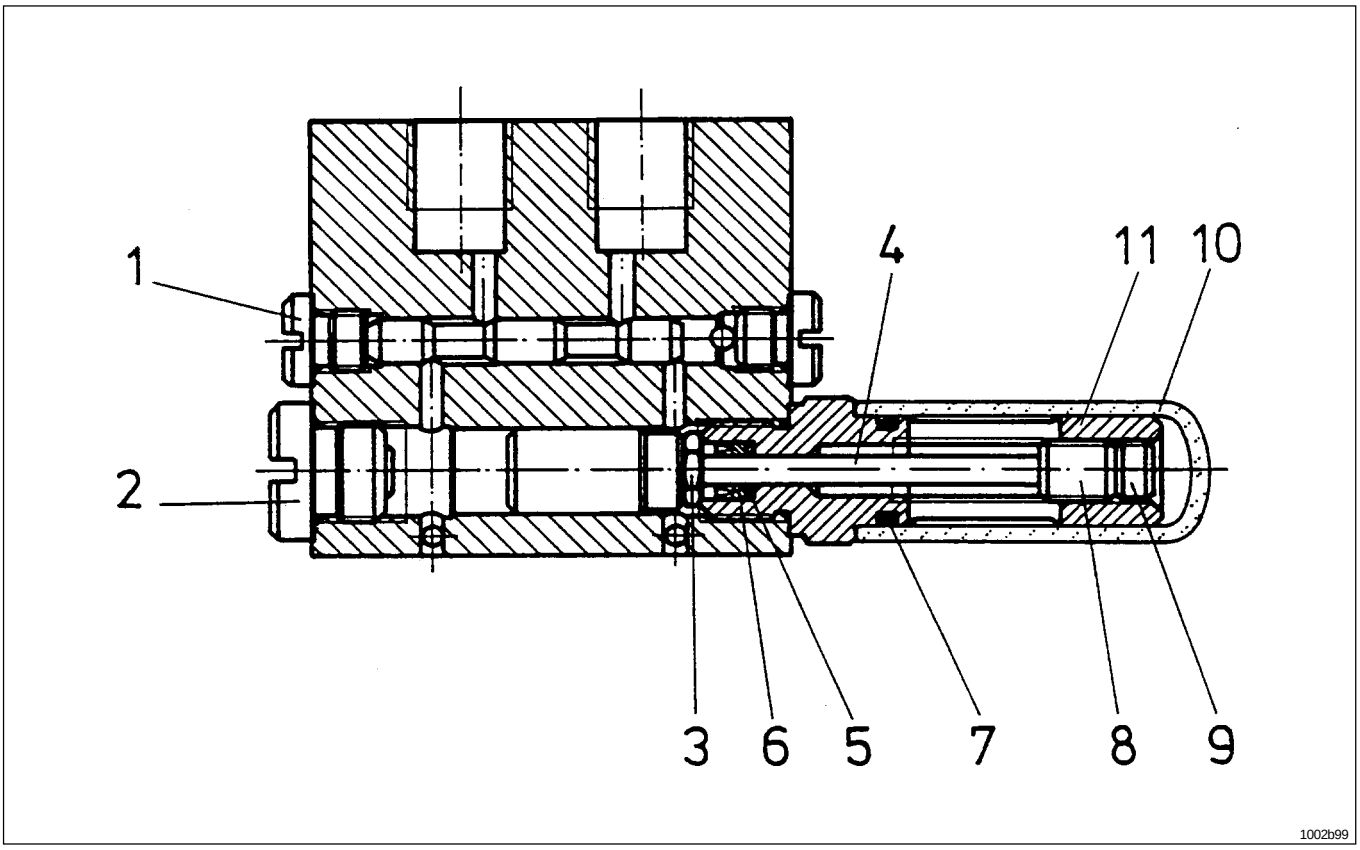
Model	VSKV2-KR	VSKV4-KR	VSKV6-KR	VSKV8-KR
L1	51	79	107	135
L2	36	64	92	120

Technical data::

Output volume:	Q = 0-1,5 cm³/stroke, ajustable
Operating pressure:	p max = 400 bar
	p min = 35 bar
Main line connection:	G 1/4
Feed line connection:	G 1/4

LINCOLN GmbH • Postfach 1263 • D-69183 Walldorf • Tel +49 (6227) 33-0 • Fax +49 (6227) 33-259

Spare parts VSKV-KR/KRVA



Spare parts list VSKV-KR

Item	Description	Part-No.
1	closure plug	303-19327-1
2	closure plug	303-19326-1
3	holding screw	420-22351-3
4	pin	301-17351-4
5	support ring	*
6	u-cup sealing ring	*
7	O-ring	219-12223-4
8	screw pin	204-12538-3
9	screw pin	204-12111-3
10	protection cap	420-23569-1
11	adjusting sleeve assembly including items 5, 6, 7	
	with polyurethan u-cup sealing ring	520-30828-1
	with FKM u-cup sealing ring	520-31887-1
	adjusting device assembly including items 11, 8, 9, 10	
	with polyurethan u-cup sealing ring	520-36076-9
	with FKM u-cup sealing ring	520-36700-3

* Not available as single parts, included in item 11

Spare parts list VSKV-KRVA

Item	Description	Part-No.
1	closure plug	303-19327-1
2	closure plug	303-19326-1
3	holding screw	420-22351-3
4	pin	301-17351-4
5	support ring	*
6	u-cup sealing ring	*
7	O-ring	219-12223-4
8	screw pin, stainless steel	204-12538-4
9	screw pin, stainless steel	204-12111-4
10	protection cap	420-23569-1
11	adjusting sleeve (1.4305) assembly including items 5, 6, 7	
	with polyurethan u-cup sealing ring	520-30880-1
	with FKM u-cup sealing ring	520-32031-1
	adjusting device (1.4305) assembly including items 11, 8, 9, 10	
	with polyurethan u-cup sealing ring	520-36700-1
	with FKM u-cup sealing ring	520-36700-8

* Not available as single parts, included in item 11

LINCOLN GmbH • Postfach 1263 • D-69183 Walldorf • Tel +49 (6227) 33-0 • Fax +49 (6227) 33-259