Perfect lubrication – for a perfect system

In order to achieve a long service life, rack and pinion systems require adequate lubrication. We offer different models of lubricators, lubrication pinions and mounting axes, all adapted perfectly to our linear systems. The polyurethane foam lubricating pinion is supplied via a lubricator with a preset grease quantity determined by you. This ensures an optimal lubricating film on the rack and pinion. In addition to the supply of lubricant, the lubricating pinion also ensures cleaning of the open toothing.

Lubricators LUC⁺125 and LUC⁺400
Solutions for decentralized lubrication – a solution you can count on.

Up to 4 outlets with up to 2 different freely controllable lubricant quantities

Time control
Action panel for setting the operating time

Time control (24 V)
Voltage supply via machine control
Feedback signals for motor run, empty cartridge and error messages

Impulse control
Control and voltage supply via machine control system
Feedback signals for motor run, empty cartridge and error messages

Distribution systems
Ideal for integrated lubrication solutions in your application

Lubricating pinion
Perfectly adapted to our rack and pinion systems

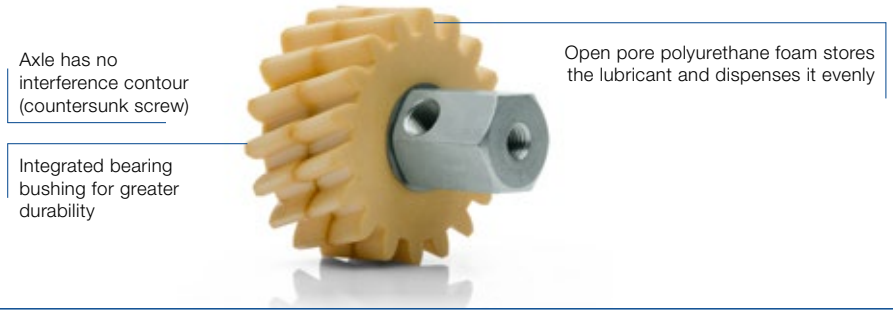
High-pressure plastic hose
Pre-filled, suitable for cable tracks

Your benefits

- Ready-to-install solutions – all the required parts are included in the scope of delivery
- Solutions adapted to your application
- With impulse control and 24 V power supply to be fully integrated in the machine control system: lubricant quantities can be precisely adjusted to the application (minimal-quantity lubrication)
- LUC⁺125 with time control and 24 V power supply (optionally battery-powered as stand-alone solution)
- Performance lubricants for different applications
- Significant reduction in maintenance costs
- Exceptionally reliable electromechanical design ensures an extremely long service life for the entire drive system
- Use of cartridges
- By means of splitters, up to 4 (LUC⁺125) or 16 (LUC⁺400) lubrication points can be supplied with only one lubricator
- By means of progressive distributors, up to 8 (LUC⁺125) or 32 (LUC⁺400) lubrication points can be supplied with only one lubricator
- In connection with WITTENSTEIN alpha G13 grease, linear guides and ball screws can also be supplied with lubricant
- WITTENSTEIN alpha G12 grease is also suitable for the food sector

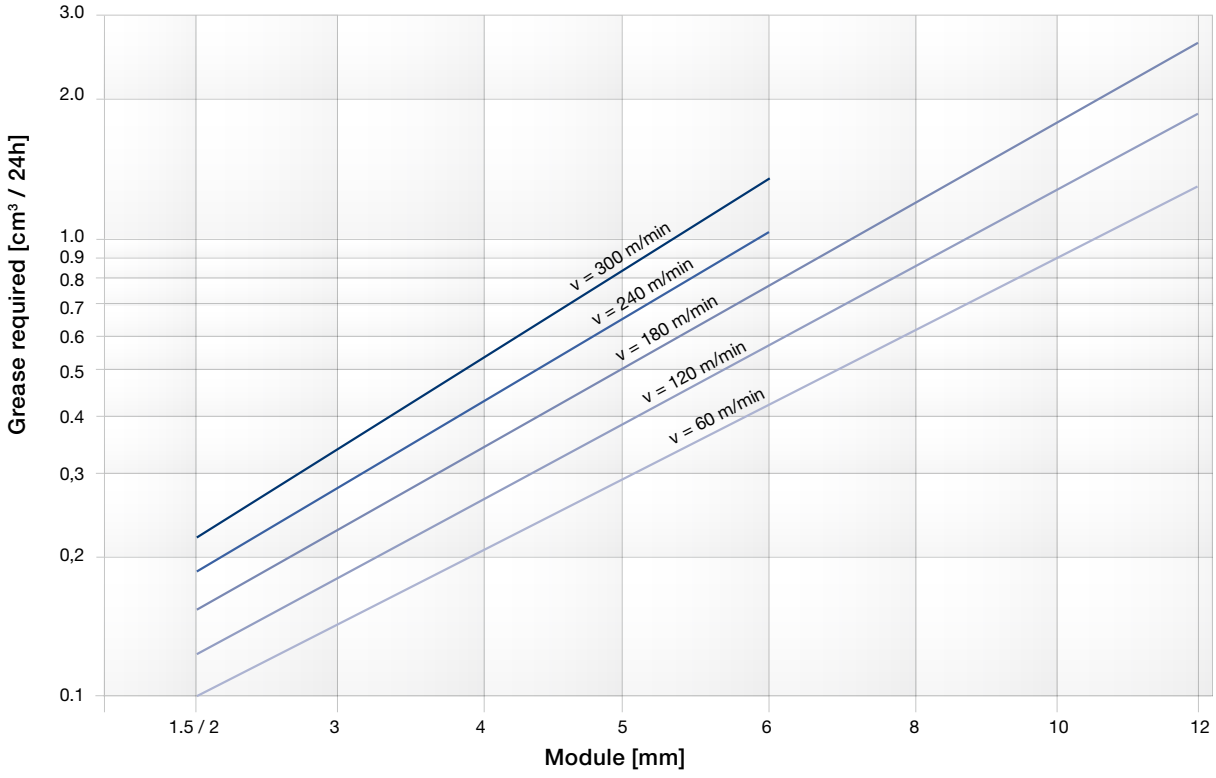
Perfect relubrication for open toothing

Due to the high feed forces which can occur in a rack and pinion drive, the open toothing must be lubricated at all times. Therefore we recommend automatic re-lubrication using our polyurethane lubricating pinions and lubricators. Re-lubrication with the PU lubricating pinion ensures that the lubricant is applied to the toothing continuously and automatically, while the lubricator supplies lubricant whenever it is needed. For this purpose, the lubricating pinion, which is adapted to the toothing of the pinion or rack, engages with the teeth to ensure that the lubricant is transferred to the toothing without load. The open-cell polyurethane foam ensures that the perfect quantity of lubricant is supplied to the toothing, even over extremely lengthy periods. The material stores a quantity of lubricant and dispenses it continuously in minute amounts to prevent wear caused by a lack of lubrication. In order to ensure immediate full functionality of the lubricating pinion and to prevent damage to the drive through dry starting, it must be pre-lubricated!



Determining lubrication quantities

The lubrication quantity can be estimated depending on the module and feed speed (valid for axes up to 5 m in length). If you wish to obtain a calculation adapted to your application, contact us on Tel. +49 7931 493-0 (Germany), Tel. +1 630 540-5300 (North America), Tel. +44 1782 286 427 (UK)



You have the choice – the following lubricants are available for selection:

WITTENSTEIN alpha G11 – Standard grease for open gearing

High-performance grease / adhesive grease for open gearing under extreme loads
- NLGI class 0 – 1
- Long-fibred lithium/calcium complex grease with high pressure additives
- Heat-resistant, good corrosion protection properties
- Does not contain solid lubricants

Available packages: Replacement cartridges LUC⁺125 / LUC⁺400; grease gun cartridge; 18 kg tub

Applications:
- Used together with a lubrication pinion and continuous re-lubrication for open gearing under extreme loads
- Suitable for a wide range of applications due to high-temperature properties

Adapted to

Open gearing

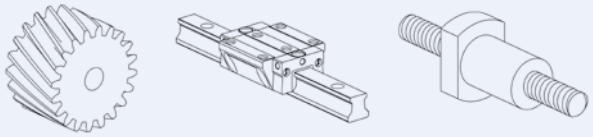
WITTENSTEIN alpha G12 – Special grease for rack and pinion drives, linear guides and ball screws in the food sector

- Extreme-performance grease formulated from overbased calcium sulfonate complex thickener and medical white oil
- High-pressure properties for a wide range of applications
- Thanks to its NSF H-1 certification, the solution is also suitable for HACCP systems (Hazard Analysis Critical Control Points)
- Very high load-carrying capacity
- Water resistance and corrosion protection

Available bundles: Exchange cartridges LUC⁺125 / LUC⁺400; grease gun cartridge

Applications:
- Food, animal feed, medical and pharmaceutical industry
- In combination with a lubrication pinion and continuous relubrication for open toothing
- Lubrication of linear guides and ball screws

Adapted to



Open gearing | Linear guide | Ball screw

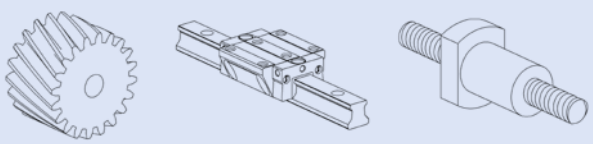
WITTENSTEIN alpha G13 – Special grease for rack and pinion drives, linear guides and ball screws

- Extremely short-fibred and homogeneous, lithium-saponified universal grease containing a mineral oil used to lubricate roller and slide bearings and is suitable for medium to high loads
- Extremely adhesive; suitable for short stroke applications
- Water-resistant and protects against corrosion

Available packages: Replacement cartridges LUC⁺125 / LUC⁺400; grease gun cartridge; 18 kg tub

Applications:
- Used together with a lubrication pinion and continuous re-lubrication for open gearing
- Lubrication of linear guides and ball screws

Adapted to



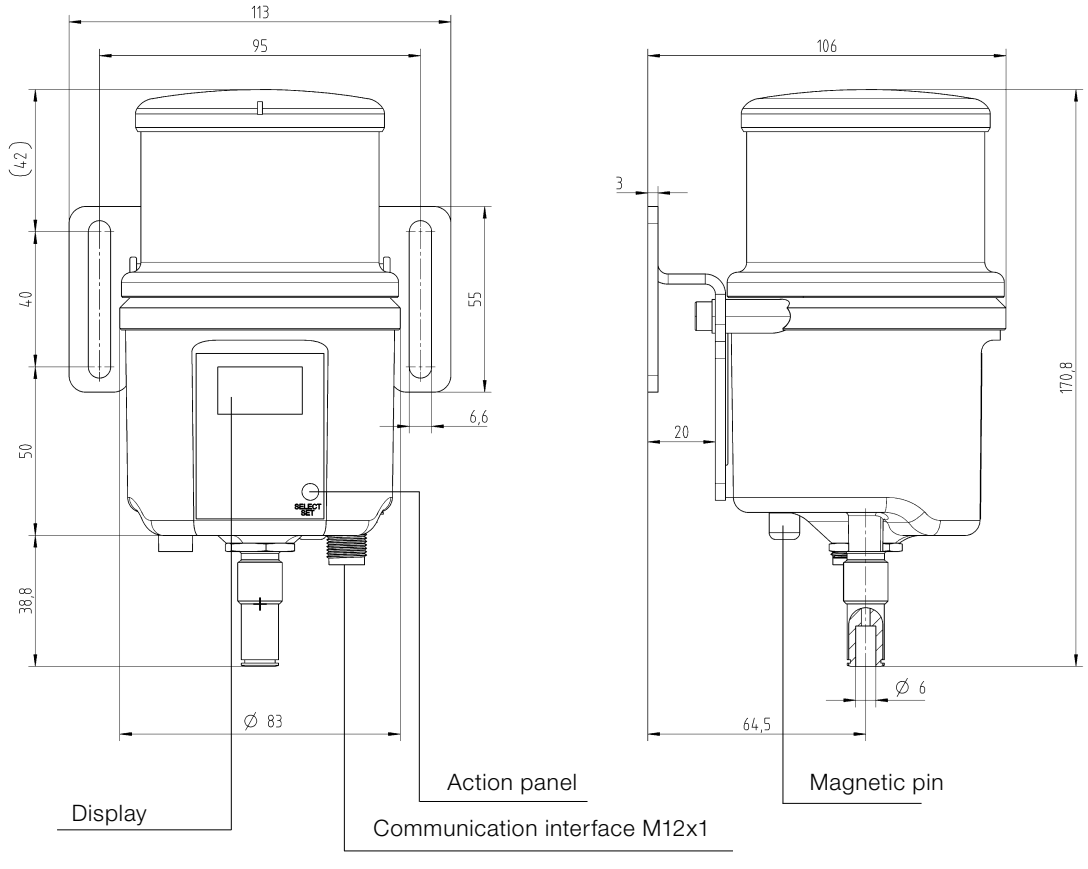
Open gearing | Linear guide | Ball screw

Lubricator LUC+125

Technical data

Weight [1]	660 g
Lubricant volume	125 cm³
Lubricant type	WITTENSTEIN alpha G11, G12, G13
Principle of operation	Piston pump
Maximum pressure	50 bar
Metering volume / stroke [2]	0.15 cm³
No. of outlets	1
Outlet	Straight hose connection 6 mm [3]
Max. number of lubrication points with splitters / progressive distributors	4 / 8
Operating voltage	24 V DC
Current input	300 mA
Fuse	1 A slow-blow
Protection class	IP 54
Operating temperature [4]	0° C to +60° C
Control system	Microelectronic
Pressure monitoring	Integrated, electronic
Fill level monitoring	Integrated, electronic
Communication interface	M12x1, 4-pole
Mounting position	vertical

[1] Depending on the version
[2] 24 V, time-controlled: 1–36 months; number of strokes per lubricating cycle can be adjusted;
24 V, pulse-controlled: lubricating strokes controlled by 2 s pulse signal
[3] Connection thread on lubricator M6x1 IG and G1/4 AG
[4] Depending on the lubricant used



Order information LUC+125

Preferred variants of lubricator LUC+125

Overview of lubricating sets	Control type	Lubricant	Scope of delivery	Material number
LUC+125-0511-02	Pulse-controlled	WITTENSTEIN alpha G11	Prefilled hose 2 m	20100983
LUC+125-0512-02	Time-controlled	WITTENSTEIN alpha G11	Prefilled hose 2 m	20100987
LUC+125-0611-02	Pulse-controlled	WITTENSTEIN alpha G12	Prefilled hose 2 m	20100984
LUC+125-0612-02	Time-controlled	WITTENSTEIN alpha G12	Prefilled hose 2 m	20100988
LUC+125-0711-02	Pulse-controlled	WITTENSTEIN alpha G13	Prefilled hose 2 m	20100985

Further variants, also as battery version on request.
Suitable exchange cartridges can be found on page 126.

Lubricator with external power supply for maximum operational reliability

Using the LUC+125 lubricator with 24 V power supply ensures maximum availability and offers the following advantages:

- The voltage supply of the lubricator is centralized
- When the machine is switched on or off, the lubricator is also switched on or off
- The lubricator can be constantly monitored via the machine control system for maximum operational reliability
- If an empty signal is received, only the empty cartridge must be replaced

Battery versions are primarily intended for supply of self-sufficient non-critical lubrication points which do not need to be monitored and which are only subject to regular visual inspection. If battery versions are to be monitored, a 24 V voltage supply is also required. This makes the use of the battery version obsolete.

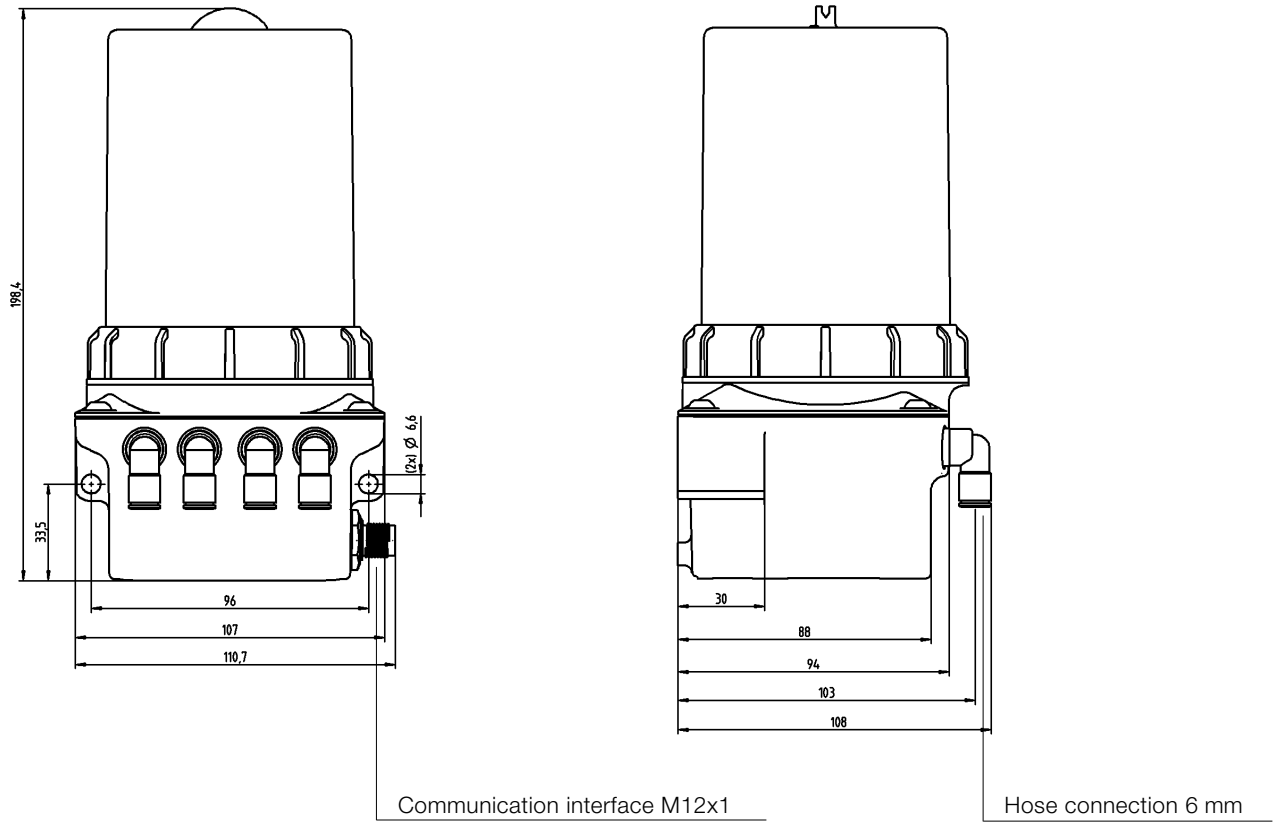
We therefore recommend the use of a pulse-controlled or time-controlled 24 V version to ensure operational reliability and sustainability.

Lubricator LUC+400

Technical data

Weight [1]	1700 g
Lubricant volume	400 cm^3
Lubricant type	WITTENSTEIN alpha, G11, G12, G13
Principle of operation	Piston pump
Operating pressure	Max. 70 bar
Metering volume / stroke	0.15 cm^3
No. of outlets [1]	1, 2, 3, 4
Outlet	Rotating, right-angled hose connections 6 mm
Max. number of lubrication points with splitters / progressive distributors	4 / 8 per output
Operating voltage	24 VDC
Current input	I_{max} 300 mA (I_{Ruhe} < 25 mA)
Fuse	750 mA (slow)
Protection class	IP 54
Operating temperature	0° C to +60° C
Control system	Integrated, microelectronic
Pressure monitoring	Integrated, electronic (system pressure measurement)
Fill level monitoring	Integrated, reed contact
Communication interface	Connector, M12x1, 4-pole
Mounting position	vertical or horizontal

[1] Depending on the version



Order information LUC+400

Lubricator LUC+400 – filled with WITTENSTEIN alpha G11

With 2 m hose

Overview of lubrication sets	Outlets	Pump body	Lubricant	Hoses included	Material number
LUC+400-0511-02	1	1	WITTENSTEIN alpha G11	2 m	20058416
LUC+400-0521-02	2	1	WITTENSTEIN alpha G11	2 x 2 m	20058418
LUC+400-0531-02	3	2	WITTENSTEIN alpha G11	3 x 2 m	20058420
LUC+400-0541-02	4	2	WITTENSTEIN alpha G11	4 x 2 m	20058422
LUC+400-0551-02	2	2	WITTENSTEIN alpha G11	2 x 2 m	20058424

Lengths up to 10 m max. per outlet possible via hose connector 6-0 and LUH hose.

With 5 m hose

Overview of lubrication sets	Outlets	Pump body	Lubricant	Hoses included	Material number
LUC+400-0511-05	1	1	WITTENSTEIN alpha G11	5 m	20058417
LUC+400-0521-05	2	1	WITTENSTEIN alpha G11	2 x 5 m	20058419
LUC+400-0531-05	3	2	WITTENSTEIN alpha G11	3 x 5 m	20058421
LUC+400-0541-05	4	2	WITTENSTEIN alpha G11	4 x 5 m	20058423
LUC+400-0551-05	2	2	WITTENSTEIN alpha G11	2 x 5 m	20058425

Lengths up to 10 m max. per outlet possible via hose connector 6-0 and LUH hose.

Lubricator LUC+400 – filled with WITTENSTEIN alpha G12

Overview of lubrication sets	Outlets	Pump body	Lubricant	Hoses included	Material number
LUC+400-0611-05	1	1	WITTENSTEIN alpha G12	5 m	20061470
LUC+400-0621-05	2	1	WITTENSTEIN alpha G12	2 x 5 m	20061468
LUC+400-0631-05	3	2	WITTENSTEIN alpha G12	3 x 5 m	20061473
LUC+400-0641-05	4	2	WITTENSTEIN alpha G12	4 x 5 m	20061475

Lubricator LUC+400 – filled with WITTENSTEIN alpha G13

With 2 m hose

Overview of lubrication sets	Outlets	Pump body	Lubricant	Hoses included	Material number
LUC+400-0711-02	1	1	WITTENSTEIN alpha G13	2 m	20059848
LUC+400-0721-02	2	1	WITTENSTEIN alpha G13	2 x 2 m	20059849
LUC+400-0731-02	3	2	WITTENSTEIN alpha G13	3 x 2 m	20059851
LUC+400-0741-02	4	2	WITTENSTEIN alpha G13	4 x 2 m	20059853
LUC+400-0751-02	2	2	WITTENSTEIN alpha G13	2 x 2 m	20059856

Lengths up to 10 m max. per outlet possible via hose connector 6-0 and LUH hose.

With 5 m hose

Overview of lubrication sets	Outlets	Pump body	Lubricant	Hoses included	Material number
LUC+400-0711-05	1	1	WITTENSTEIN alpha G13	5 m	20059813
LUC+400-0721-05	2	1	WITTENSTEIN alpha G13	2 x 5 m	20059850
LUC+400-0731-05	3	2	WITTENSTEIN alpha G13	3 x 5 m	20059852
LUC+400-0741-05	4	2	WITTENSTEIN alpha G13	4 x 5 m	20059854
LUC+400-0751-05	2	2	WITTENSTEIN alpha G13	2 x 5 m	20059856

Lengths up to 10 m max. per outlet possible via hose connector 6-0 and LUH hose.

Accessories for LUC+125 and LUC+400

Replacement cartridges for LUC+125

Designation	Lubricant	Filling quantity	Material number
LUE+125-05-1	WITTENSTEIN alpha G11	125 cm^3	20068231
LUE+125-06-1	WITTENSTEIN alpha G12	125 cm^3	20068233
LUE+125-07-1	WITTENSTEIN alpha G13	125cm^3	20068236

Replacement cartridges for LUC+400

Designation	Lubricant	Filling quantity	Material number
Replacement cartridge LUE+400-05-1	WITTENSTEIN alpha G11	400 cm^3	20058120
Replacement cartridge LUE+400-06-1	WITTENSTEIN alpha G12	400 cm^3	20058121
Replacement cartridge LUE+400-07-1	WITTENSTEIN alpha G13	400 cm^3	20058122

Pre-filled hoses

Designation	Lubricant	Type	Hose diameter [mm]	Material number
Hose 2 m, LUH-02-05 [a)]	WITTENSTEIN alpha G11	2 m	6	20058134
Hose 5 m, LUH-05-05 [a)]	WITTENSTEIN alpha G11	5 m	6	20058135
Hose 2 m, LUH-02-07 [a)]	WITTENSTEIN alpha G13	2 m	6	20058138
Hose 5 m, LUH-05-07 [a)]	WITTENSTEIN alpha G13	5 m	6	20058139
Hose connector 6-0	–	Straight	6	20058148

[a)] Hoses pre-filled. Only use air-free pre-filled hoses!

Lubricants

Designation	Lubricant	Filling quantity	Material number
Grease gun cartridge, LGC-400-05	WITTENSTEIN alpha G11	400 cm^3	20058111
Grease gun cartridge, LGC-400-06	WITTENSTEIN alpha G12	400 cm^3	20058112
Grease gun cartridge, LGC-400-07	WITTENSTEIN alpha G13	400 cm^3	20058113
Hobbock / tub, LUB 18-05	WITTENSTEIN alpha G11	18 kg	20065366
Hobbock / tub, LUB 18-07	WITTENSTEIN alpha G13	18 kg	20065524

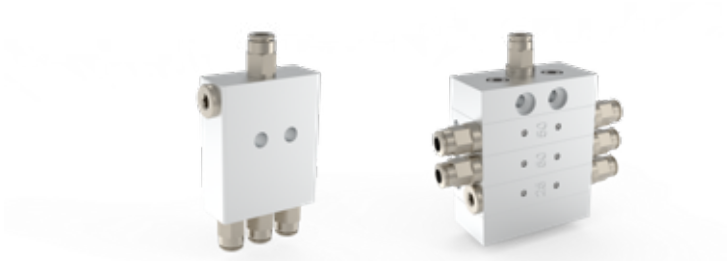
Hose connectors / communication interface connection

Designation	Thread/connection	Type	Hose diameter [mm]	Material number
Hose connection G1/4-6-0	G 1/4"	Straight	6	20058144
Hose connection M06-6-1	M6x1	Angled	6	20058145
Hose connection M10-6-0	M10x1	Straight	6	20070402
Hose connection G1/8-6-1	G 1/8"	Angled	6	20058146
Hose connection M10x1-6-1	M10x1	Angled	6	20061741
Hose connection G1/4-6-1	G 1/4"	Angled	6	20058147
Angled connector 24V, 4-pin	M12x1	Angled	-	20058149

Other versions available on request

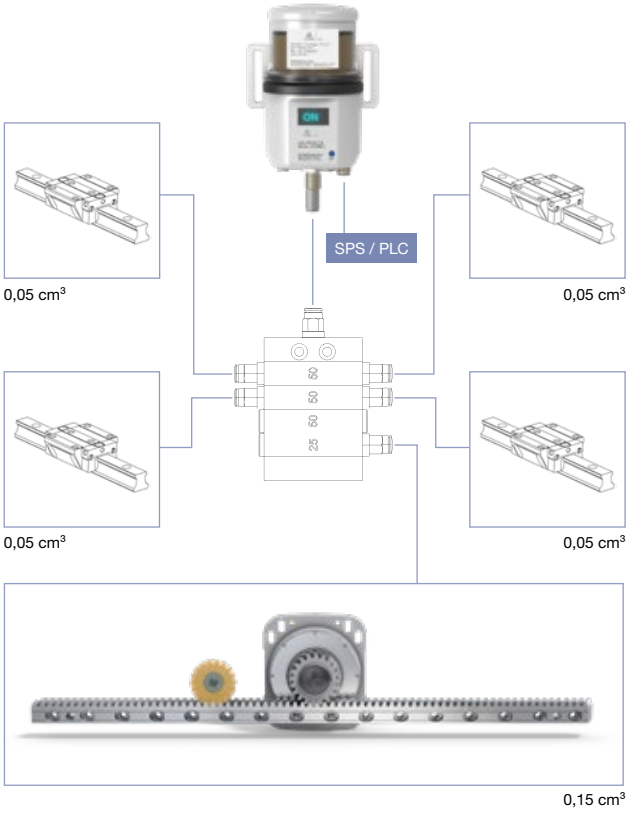
Distribution systems

Distributor systems are primarily intended for distribution of the lubricant supplied by the lubricator to several lubrication points. This makes it possible to centrally supply complete machines from one single lubricator. Depending on the requirements of the distribution system, splitters or progressive distributors can be applied. Progressive distributors can also be used to dispense different quantities of lubricants. For example, the same outlet of the lubricator can be used for lubrication of the pinion / rack and the linear guide.



Splitter

Progressive distributor



Splitter

Splitters evenly divide the lubricant volume between 2, 3 or 4 outlets. This function is realized by means of chokes leading to a pressure difference of approx. 10 bar between the inlet and outlet of the splitter. The outlets are equipped with integrated non-return valves to prevent backflow of lubricants.

Application conditions:

- Max. hose length between lubricator LUC+ and splitter inlet 300 mm
- Comparable lengths of the hoses at the outlet (+/-10 % difference)
- Comparable back pressures at the lubrication point
- Identical line cross sections at the outlet
- Straight hose connection at inlet and outlet
- For hose Ø 6 mm
- Operating temperature +10 °C to +60 °C (please see technical data sheet of lubricant)
- Approved lubricants: WITTENSTEIN alpha G11, G12, G13
- Splitters are vented with food grade H1 grease. Before commissioning, flushing with several pulses of the lubricator is recommended
- Splitters must not be set up in a cascaded arrangement

Progressive distributor

Progressive distributors sequentially distribute lubricant to the outlet by means of follower piston control of individual distributor discs (2–8 outlets available as standard). The outlets are equipped with integrated non-return valves to prevent backflow of the lubricant.

Application conditions:

- Use of a pulse-controlled lubricator LUC+125/400
- The hose length from the lubricator LUC+ to the distributor inlet should be as short as possible (max. 2000 mm)
- Max. length difference of hoses at the outlet 2.5 m
- Identical line cross sections at the outlet
- Straight hose connection at inlet and outlet
- For hose Ø 6 mm
- Operating temperature +10 °C to +60 °C (please see technical data sheet of lubricant)
- Approved lubricants: WITTENSTEIN alpha G11, G12, G13
- Progressive distributors are vented with food grade H1 grease. Before commissioning, flushing with several pulses of the lubricator is recommended
- Progressive distributors must not be set up in a cascaded arrangement
- Project-related individual solutions available on request

Progressive distributor

Symmetrical distributors – identical lubricant delivery per outlet

Designation	Quantity ratio	Circulation monitoring	Circulation volume [cm^3]	No. of outlets	Material number
LUP -02-0-01-030-0	1:1	-	0.30	2	20082711
LUP -03-0-01-030-0	1:1	-	0.30	3	20082712
LUP -04-0-01-020-0	1:1	-	0.20	4	20082713
LUP -05-0-01-025-0	1:1	-	0.25	5	20082714
LUP -06-0-01-030-0	1:1	-	0.30	6	20082715
LUP -07-0-01-035-0	1:1	-	0.35	7	20082716
LUP -08-0-01-040-0	1:1	-	0.40	8	20082717
LUP -02-1-01-030-0	1:1	x	0.30	2	20082718
LUP -03-1-01-030-0	1:1	x	0.30	3	20082719
LUP -04-1-01-020-0	1:1	x	0.20	4	20082720
LUP -05-1-01-025-0	1:1	x	0.25	5	20082721
LUP -06-1-01-030-0	1:1	x	0.30	6	20082722
LUP -07-1-01-035-0	1:1	x	0.35	7	20082723
LUP -08-1-01-040-0	1:1	x	0.40	8	20082724

Please observe the detailed information in the data sheets and dimension sheets available on request

Asymmetrical distributors – deviating lubricant delivery at one outlet

Designation	Quantity ratio	Circulation monitoring	Circulation volume [cm^3]	No. of outlets	Material number
LUP -05-0-03-035-1	1:3	-	0.35	4	20082725

Please observe the detailed information in the data sheets and dimension sheets available on request

Splitter

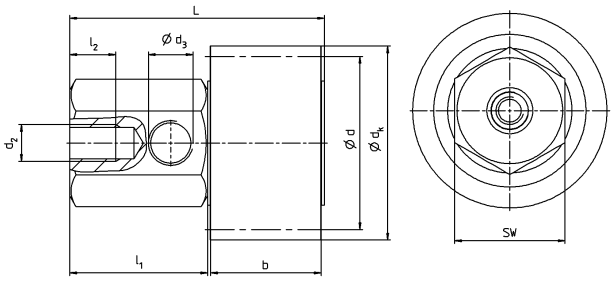
Designation	Hose connection	No. of outlets	Hose diameter [mm]	Material number
Splitter LUS 2-0-NL	Straight / plug-in	2	6	20058103
Splitter LUS 3-0-NL	Straight / plug-in	3	6	20058104
Splitter LUS 4-0-NL	Straight / plug-in	4	6	20058105

Dimensions of lubricating pinion and mounting axis

Set consisting of lubrication pinion and lubrication axis

Module [mm]	z	Flank direction	Use	*d* [mm]	d_2 [mm]	d_3 [2] [mm]	d_K [mm]	*b* [mm]	*L* [mm]	l_1 [mm]	l_2 [mm]	*SW* [mm]	Ordering code	Material number
1.5	24	Left	Rack	38.2	M8	M10x1	41.2	20	51.4	30	10	24	LMT 150-PU -24L1-020-1	20064005
		Right	Pinion										LMT 150-PU -24R1-020-1	20064007
		Straight	Pinion / Rack	36	M8	M10x1	39	20	51.4	30	10	24	LMT 150-PU -24G0-020-1	20064003
2	18	Left	Rack	38.2	M8	M10x1	42.2	24	55.4	30	10	24	LMT 200-PU-18L1-024-1	20053903
		Right	Pinion										LMT 200-PU-18R1-024-1	20053904
	17	Straight	Pinion / Rack	34	M8	M10x1	38	20	51.4	30	10	24	LMT 200-PU -17G0-020-1	20056502
3	18	Left	Rack	57.3	M8	M10x1	63.3	30	61.4	30	10	24	LMT 300-PU-18L1-030-1	20053905
		Right	Pinion										LMT 300-PU-18R1-030-1	20053906
	17	Straight	Pinion / Rack	51	M8	M10x1	57	30	61.4	30	10	24	LMT 300-PU -17G0-030-1	20056503
4	18	Left	Rack	76.4	M8	M10x1	84.4	40	71.4	30	10	24	LMT 400-PU-18L1-040-1	20053907
		Right	Pinion										LMT 400-PU-18R1-040-1	20053908
	17	Straight	Pinion / Rack	68	M8	M10x1	76	40	71.4	30	10	24	LMT 400-PU -17G0-040-1	20056504
5	17	Left	Rack	90.2	M8	M10x1	100.2	50	81.4	30	10	24	LMT 500-PU-17L1-050-1	20053909
		Right	Pinion										LMT 500-PU-17R1-050-1	20053910
		Straight	Pinion / Rack	85	M8	M10x1	95	50	81.4	30	10	24	LMT 500-PU -17G0-050-1	20056505
6	17	Left	Rack	108.2	M8	M10x1	120.2	60	91.4	30	10	24	LMT 600-PU-17L1-060-1	20053911
		Right	Pinion										LMT 600-PU-17R1-060-1	20053912
		Straight	Pinion / Rack	102	M8	M10x1	114	60	91.4	30	10	24	LMT 600-PU -17G0-060-1	20056506
8	17	Left	Rack	144.3	M8	M10x1	160.3	80	111.4	30	10	24	LMT 800-PU-17L1-080-1	20053913
		Right	Pinion										LMT 800-PU-17R1-080-1	20053914
		Straight	Pinion / Rack	136	M8	M10x1	152	80	111.4	30	10	24	LMT 800-PU -17G0-080-1	20056507

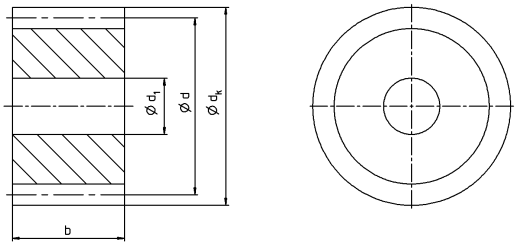
Straight connector for hose Ø 6x4 mm included in the scope of delivery. Lubrication pinions must be pre-greased before start-up. Please observe the notes in the operating manual.
z = Number of teeth
[2] Hose connection G1/8“ also compatible



Lubricating pinion

Module [mm]	Number of teeth	Flank direction	Use	*d* [mm]	d_1 [mm]	d_K [mm]	*b* [mm]	Ordering code	Material number
1.5	24	Left	Rack	38.2	12	41.2	20	RLU 150-PU-24L1-020	20063900
	24	Right	Pinion	38.2	12	41.2	20	RLU 150-PU-24R1-020	20063898
	24	Straight	Rack / Pinion	36	12	39	20	RLU 150-PU-24G0-020	20063902
2	18	Left	Rack	38.2	12	42.2	24	RLU 200-PU-18L1-024	20053683
	18	Right	Pinion	38.2	12	42.2	24	RLU 200-PU-18R1-024	20053684
	17	Straight	Rack / Pinion	34	12	38	20	RLU 200-PU-17G0-020	20056509
3	18	Left	Rack	57.3	12	63.3	30	RLU 300-PU-18L1-030	20053685
	18	Right	Pinion	57.3	12	63.3	30	RLU 300-PU-18R1-030	20053686
	17	Straight	Rack / Pinion	51	12	57	30	RLU 300-PU-17G0-030	20056510
4	18	Left	Rack	76.4	12	84.4	40	RLU 400-PU-18L1-040	20053687
	18	Right	Pinion	76.4	12	84.4	40	RLU 400-PU-18R1-040	20053688
	17	Straight	Rack / Pinion	68	12	76	40	RLU 400-PU-17G0-040	20056511
5	17	Left	Rack	90.2	20	100.2	50	RLU 500-PU-17L1-050	20053689
	17	Right	Pinion	90.2	20	100.2	50	RLU 500-PU-17R1-050	20053690
	17	Straight	Rack / Pinion	85	20	95	50	RLU 500-PU-17G0-050	20056512
6	17	Left	Rack	108.2	20	120.2	60	RLU 600-PU-17L1-060	20053691
	17	Right	Pinion	108.2	20	120.2	60	RLU 600-PU-17R1-060	20053692
	17	Straight	Rack / Pinion	102	20	114	60	RLU 600-PU-17G0-060	20056513
8	17	Left	Rack	144.3	20	160.3	80	RLU 800-PU-17L1-080	20053693
	17	Right	Pinion	144.3	20	160.3	80	RLU 800-PU-17R1-080	20053694
	17	Straight	Rack / Pinion	136	20	152	80	RLU 800-PU-17G0-080	20056514

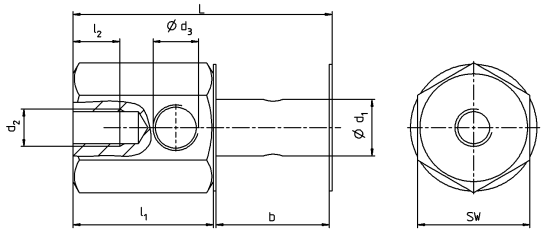
Lubricating pinions must be soaked in lubricant before operation.



Mounting axis, right-angle

Module [mm]	d_1 [mm]	d_2 [mm]	Connection thread d_3 [2] [mm]	b [mm]	L [mm]	l_1 [mm]	l_2 [mm]	SW [mm]	Ordering code	Material number
1.5	12	M8	M10x1	20	51.4	30	10	24	LAS-020-012-1	20056520
2	12	M8	M10x1	24	55.4	30	10	24	LAS-024-012-1	20053696
2 [1]	12	M8	M10x1	20	51.4	30	10	24	LAS-020-012-1	20056520
3	12	M8	M10x1	30	61.4	30	10	24	LAS-030-012-1	20053698
4	12	M8	M10x1	40	71.4	30	10	24	LAS-040-012-1	20053700
5	20	M8	M10x1	50	81.4	30	10	24	LAS-050-020-1	20053702
6	20	M8	M10x1	60	91.4	30	10	24	LAS-060-020-1	20053704
8	20	M8	M10x1	80	111.4	30	10	24	LAS-080-020-1	20053706

Straight connection for hose Ø 6x4 mm included in scope of delivery
[1] Only compatible with straight-toothed lubricating pinions
[2] Hose connection G1/8“ also compatible



Mounting axis, straight

Module [mm]	d_1 [mm]	d_2 [mm]	Connection thread d_3 [2] [mm]	b [mm]	L [mm]	l_1 [mm]	l_2 [mm]	SW [mm]	Ordering code	Material number
1.5	12	M10	M6	20	61.2	30	10	15	LAS-020-012-0	20056539
2	12	M10	M6	24	65	30	10	15	LAS-024-012-0	20053695
2 [1]	12	M10	M6	20	61.2	30	10	15	LAS-020-012-0	20056539
3	12	M10	M6	30	71	30	10	15	LAS-030-012-0	20053697
4	12	M10	M6	40	81	30	10	15	LAS-040-012-0	20053699
5	20	M16	M10x1 [2]	50	116.4	49	10	24	LAS-050-020-0	20053701
6	20	M16	M10x1 [2]	60	126.4	49	10	24	LAS-060-020-0	20053703
8	20	M16	M10x1 [2]	80	146.4	49	10	24	LAS-080-020-0	20053705

Straight connection for hose Ø 6x4 mm included in scope of delivery
[1] Only compatible with straight-toothed lubricating pinions
[2] Hose connection G1/8“ also compatible