

Lincoln Multi-line and progressive systems



People, capabilities and systems to save resources and increase productivity

Industry leader

Continually satisfying our customers with the world's best lubrication equipment and pumping systems has made Lincoln the largest and most successful company in our field. For nearly a century, companies have relied on our technical and quality leadership, our world-class manufacturing and customer service, and our vast network of distributors and support facilities.

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In order to provide the best worldwide and regional application solutions, Lincoln develops new products and systems at research and development facilities in the United States, Germany, and India.

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Industrial customers in large processing plants, automotive manufacturing, pulp and paper mills, food and beverage and other manufacturing facilities can rely on solutions from Lincoln. For the toughest mobile applications, on the road or in the field, Lincoln protects heavy equipment used in mining, construction, agriculture and over-the-road trucking. In addition, Lincoln offers the best lubrication equipment to meet the needs of automotive service professionals.

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Lincoln supplies automated lubrication systems, pumps and pump stations and top-quality lubrication equipment and accessories. Our quality systems in the Czech Republic, Germany, India and the United States are ISO 9001 registered. Additionally our production sites in the Czech Republic and Germany are ISO 14001 registered.

Worldwide support

With five technical support centers on three continents and a network of distributors supported by regional sales and service offices, our customers can always draw on our worldwide resources.



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ATTENTION

See important product usage information on page 47.

Multi-line and progressive systems

Applications

Multi-line systems

- Dispersed, single lubrication points
- Large quantities of lubricant per lube point
- Individual adjustment for each lube point
- Continuous supply requirement

Progressive systems

- Several lubrication points within small to medium distances
- Ideal for machines and small systems

Sample applications

Small to medium sized systems and machines.

Industries

General industry, construction machines, mobile applications, multi-line and progressive systems constantly operate as long as lubricant is fed by the pump.

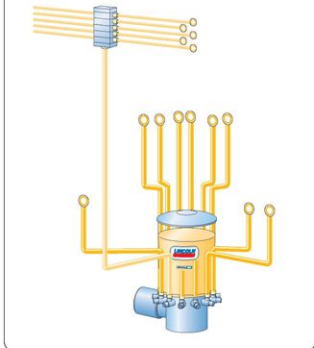
For systems that have more than one lubrication point within a relatively short distance, a pure multi-line system is not always economical. Additionally, pure multi-line systems are not easily monitored. As a result, progressive systems or combined progressive/multi-line systems often provide the best solution.

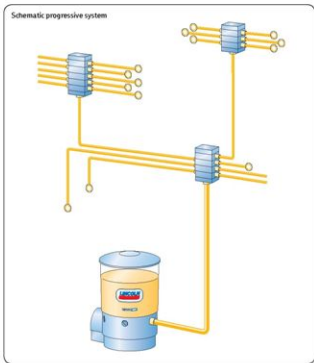
The high precision SSV progressive metering device divides the lubricant input into desired quantities.

Capabilities of progressive or combined progressive and multi-line systems

- Visual or electric monitoring of the entire system via metering device
- Reliable lubrication even under severe conditions
- Easily extendible via available pump element
- Capable of completely supplying machines or small systems with lubricant.

Schematic multi-line system





Functions

The system will continue to operate as long as the pump is in operation. When the pump is turned off, the progressive metering device will stop in its current position. Upon restarting, the progressive metering device will carry on where it left off.

Common components

- Manual pumps: HJ*, HP, HPG, HP500-SSV
- Electric pumps: 203, 233, 205, 215, 230, QLS 301, 401, ZPU01/02*
- Pneumatic pumps: PR, PPG
- Hydraulic pumps: FlowMaster**, HTL 101, HTL 201
- Metering Devices: SSV, SSV0, SSVM, SSVFL

* See Dual-line catalogue

** Not covered in this catalogue, ask your Lincoln representative for details.

Pumps HP, HPG

Product survey



These economically priced hand-operated single-stroke pumps deliver an accurately metered amount of lubricant, either grease or oil, depending on the version. The grease versions, HP and HPG, are equipped with a spring-loaded follower plate and a control rod for lubricant control. The oil version comes with a clear plastic reservoir for visual level control. When used in conjunction with SSV divider blocks, they can supply grease to 1 to 64 lubrication points.

Technical Data

| | Unit | HP15 | HPG15 |
|---|--------------------|---------------|---------------|
| Output per stroke | [cm ³] | 1,6 | 1,6 |
| Lubricant output per outlet metering device | [cm ³] | | 0,2 |
| Pressure | | | |
| Maximum operating pressure | [bar] | 250 | 250 |
| Threaded outlet part | [mm] | 6* | 6* |
| Follower plate | | spring-loaded | spring-loaded |

* see 10V metering device

Dimensions

| Model | Width* | Height | Depth |
|--------|--------|--------|-------|
| HP 15 | 190 | 460 | 112 |
| PPG 15 | 190 | 435 | 112 |

* All lengths in mm, weights in g
* 225 mm with actuated hand lever level indicator fully extended

Models

| Part No. | Pumps | Reservoir capacity [l] | Outlets Piece | Level Indicator |
|-------------|--------|------------------------|---------------|-----------------|
| 604-25103-1 | HP 15 | 1,5 | 1 | Indicator rod |
| 604-25109-2 | HPG 15 | 1,5 | 2-8 | Indicator rod |

HP500 and HP500 SSV Pumps

Product survey



The HP500W and HP500W SSV manual pumps offer a special low-cost possibility of equipping a machine with a manual centralized lubrication pump.

The pumps are used where no automatic or continuous lubricant supply is required, but where a simple lubrication process by a centralized lubrication pump is desired.

The filling of the grease-reservoir can be performed by means of a standard 400-g cartridge, or directly from a grease barrel or with a filling pump.

Technical Data

| | Unit | HP500W | HP500W-SSV |
|---|--------------------|---------------|---------------|
| Output per stroke | [cm ³] | 1,5 | 1,5 |
| Lubricant output per outlet metering device | [cm ³] | | 0,2 |
| Pressure | | | |
| Maximum operating pressure | [bar] | 400 | 250 |
| Threaded outlet port | [mm] | M 10 x 1 | M 10 x 1 |
| Lubricants | | Grease NLGI-2 | Grease NLGI-2 |

Models

| Part No. | Pumps | Reservoir capacity [l] | Outlets Piece |
|-------------|--------------|------------------------|---------------|
| 404-28304-0 | HP500W | 0,5 | 1 |
| 404-28306-0 | HP500W-SSV4 | 0,5 | 2 - 4 |
| 404-28307-0 | HP500W-SSV8 | 0,5 | 2 - 8 |
| 404-28308-0 | HP500W-SSV20 | 0,5 | 2 - 10 |
| 404-28309-0 | HP500W-SSV32 | 0,5 | 2 - 12 |

PP and PPG Pumps

Product survey



The PP pump series has been designed for progressive systems.

These pumps are pneumatically driven single-stroke pumps that require a 3/2-way air valve to activate the air cylinder. The pumps (PP and PPG) can be used to supply grease. They are equipped with a spring-loaded follower plate and an indicator rod for level control purposes.

Technical Data

| | Unit | PP | PPG |
|--|-------|----------------------|----------------------|
| Pump pressure ratio | | 40:1 | 40:1 |
| Air pressure minimum/maximum | [bar] | 4/10 | 4/10 |
| Pressure Maximum operating pressure | [bar] | 300 | 250 |
| Lubricant outlet per outlet metering device | [mm] | | Rohr 6* |
| Air inlet | [in] | G 1/8" female (BSPP) | G 1/8" female (BSPP) |

* see 10V metering device

Model

| Part No. | Pump | Reservoir capacity [l] | Outlets Piece | Lubricant output/stroke [cm ³] |
|-------------|---------|---------------------------|------------------|---|
| 604-25805-2 | PP15 | 1,5 | 1 | 2,6 |
| 604-25111-3 | HPO15 | 1,5 | 8 | 2,6 |
| 604-23969-1 | PPG4-K | 0,4 | 8 | 0,2 per outlet |
| 604-25130-3 | PPG15-K | 1,5 | 8 | 0,2 per outlet |

Dimensions

| Model | Width | Height | Depth |
|---------|-------|--------|-------|
| PP15 | 115 | 550 | 122 |
| PPG15 | 115 | 725* | 112 |
| PPG4-K | 115 | 526* | 80 |
| PPG15-K | 115 | 725* | 122 |

All lengths in mm, weights in g

* level indicator fully extended

HTL101 Hydraulic lubrication pump

Product survey



The HTL101 is a hydraulically driven centralized lubrication pump. It is used mainly for the lubrication of hydraulic hammers. However, it can also be used for the lubrication of other hydraulically driven devices.

As a compact small-sized pump, the HTL101 is ideal for being mounted directly on the hammer or any other attached devices. The drive is effected via the hydraulic system of the carrier device. While the hammer or any other attached device operates, the pump continuously supplies lubricants such as chisel paste or greases up to NLG 2 to the connected lube points.

The pump is provided with lubricant by means of an exchangeable 380 g cartridge. The red follower piston in the cartridge serves as a visual control of the filling level. When the follower piston reaches the low-level position (control window), the cartridge must be replaced.

The pump's lubricant output can be controlled via an adjustable fine throttle and can therefore be adapted to most hammer sizes.

The pump's function can be checked by observing whether the eccentric shaft turns or whether the grease-level position of the follower piston changes. The pump is suitable for operating at ambient temperatures down to -25°C as well as under water (10 m).

Technical Data

| | Unit |
|--|---|
| Lubricant output per rotation | [cm ³] 0,22 |
| Operating pressure Adjustment of pressure relief valve | [bar] 1,20 (gross pressure) |
| Maximum hydraulic pressure | [bar] 300 |
| Minimum hydraulic pressure | [bar] 40 |
| Temperature Operating temperature | [°C] -25 to $+80$ |
| Pressure connection Oil pressure connection | [mm] M 26 x 5 or 65 |
| Oil return connection | [mm] M 26 x 5 or 65 |
| Lubricant feed line Lube point connections | [in] G 1/4 Piece 3 (top, bottom, back) |
| Eccentric shaft Factory setting | [µm] 4 |
| Adjusting range | [µm] 2-20 |
| Dimensions Height [incl. cartridges] | [mm] 302 |
| Width | [mm] 173 |
| Depth | [mm] 85 |

Standard models

| Part No. | Model |
|-------------|--------------|
| 642-40950-1 | HTL101 |
| 642-40950-4 | HTL101 Range |

Standard cartridges

| Part No. | Packages Piece | Qty Piece | Weight [cm ³] | Contents |
|-------------|-------------------|--------------|------------------------------|--------------|
| 642-37635-1 | 5 | 12 | 380 | Chisel paste |
| 642-37635-2 | 10 | 12 | 380 | Chisel paste |
| 642-37609-2 | 1 | 12 | 380 | Grease NLG 2 |
| 642-37608-1 | 1 | 12 | 380 | Chisel paste |
| 642-37608-8 | 1 | 12 | 380 | Chisel paste |

HTL201 Hydraulic lubrication pumps



The HTL201 hydraulic lubrication pump was developed especially for the minimization of friction and wear on smaller hydraulic hammer series as of 300 kg. It is a miniature version of the successful HTL 101 hydraulic pump. The HTL 201 suits all types of hydraulic attachments like hammers, clamshells or grippers. It can also be used in mini excavators. The HTL201 is extremely compact [length 183 mm x width 80 mm x height 80 mm – plus cartridge dimensions] and can therefore easily be attached to hammers or other devices, even to smaller equipment where normally there is no space for attachment. The HTL201 is driven by the hydraulic system of the carrier device and facilitates a continuous adjustable lubricant supply during the operation of the hydraulic device.

Technical Data

| | Unit | Hydraulic system (carrier device) |
|-----------------------------------|--------------------|-----------------------------------|
| Pressure | | |
| Hydraulic inlet pressure P | [bar] | 80 – 210 |
| Minimum run-in pressure | [bar] | 30 |
| | Unit | HTL 201 lubrication pump |
| Lubricant output/stroke | | |
| per stroke | [cm ³] | 0.22 |
| Maximum operating pressure | | |
| Pressure relief valve, standard | [bar] | 120 |
| Pressure relief valve, optional | [bar] | 270 |
| Temperature | | |
| Operating Temperature | [°C] | -25 to +75 |
| Pressure connection P | [in] | G 1/4 |
| Return connection T | [in] | G 1/4 |
| Lubricant feed line | [in] | G 1/4 |
| Factory setting | | |
| Throttle | | fully open |
| Maximum lubricant output | | depending on the inlet pressure P |

Standard models

| Part No. | Model |
|-------------|----------------------|
| 642-41184-2 | with K7 pump element |
| 642-41184-1 | with C7 pump element |

Dimensions

| Model | Width* | Height | Depth |
|-------|--------|--------|-------|
| PP15 | 190 | 660 | 112 |
| PP025 | 635* | 190 | 112 |

*All heights in mm, weight in kg
 *with standard pump element

HTL201 Hydraulic lubrication pumps

Product survey

Accessories

| Part No. | Description |
|-------------|--|
| 542-33136-1 | Adapter kit for 380 ml cartridges, trapezoidal thread TR 22 x 2,75 |
| 542-33135-1 | Adapter kit for 500 ml cartridges, trapezoidal thread TR 20 x 2,5 |
| 542-33134-1 | Reservoir capacity for oil, including strainer and adapter kit |

Standard cartridges

| Part No. | Qty Piece | Weight [g] | Contents |
|-------------|--------------|---------------|---------------|
| 642-37608-4 | 12 | 150 | Chisel paste |
| 642-37609-3 | 12 | 150 | Grease NLGI 2 |
| 642-37636-2 | 12 | 310 | Chisel paste |
| 642-37609-4 | 12 | 310 | Grease NLGI 2 |

QLS 301 and QLS 311 Pumps with integrated controller



The QLS pumps 301 and 311 are completely monitored lubrication systems with low-level control for a maximum of 28 lubrication points. The QLS family includes pumps with or without mounted 500 metering devices. The pumps have been designed for standard high-pressure plastic tubing 4-5 x 1.5. The 1-liter reservoir pumps are available in 12 or 24 VDC and 120 and 230V AC.

Refer to the pump identification codes for a complete listing of available pump configurations.

The pumps are equipped with an integrated controller for pause times and lubrication times.

QLS 301 and QLS 311 with integrated controller

Technical data

| | Unit | QLS 301 | QLS 311 |
|--|---------|--|---|
| Reservoir capacity Clear plastic with electronic level | [l] | 1 | 1 and 2 |
| Lubricant output per outlet and lube cycle | [ml] | approx. 0.2 | approx. 0.2 |
| Pressure Max. operating pressure | [bar] | 205 | 80 |
| Flow rate connections Operating voltage | [V DC] | 12 / 24 | 24 / 24 |
| Current rating | [A] | 2.0 / 2.0 | 2.0 / 2.0 |
| Operating voltage | [V AC] | 120 / 230 | 230 / 230 |
| Current rating | [A] | 1.0 / 0.5 | 2.0 / 0.5 |
| Type of protection | | IP40 / IP44 | IP40 / IP44 |
| Outputs | Number | 1-18 | 1-28 |
| Temperatures Operating temperature | [°C] | -25 to +75 | -25 to +75 |
| Lubrication cycles Dry | [times] | 1 to 6 full strokes (V DC) 1 to 18 strokes (V AC) 1 to 28 strokes (V AC) | 1 to 6 full strokes (V DC) 1 to 3 strokes (V AC) 3 to 28 strokes (V AC) |
| Run time In case of internal controller | [min] | max. 4 | max. 4 |
| Pause times V AC | [min] | 20 - 3600 | 20 - 3600 |
| V DC | [min] | 4 - 1600 | 4 - 3600 |
| Time memory | | optional (EEPROM) | optional (EEPROM) |

QLS 301 and QLS 311 Pumps without integrated controller



QLS 301 and QLS 311 for use with external

The QLS pumps 301 and 311 are completely monitored/lubrication systems with low-level control for a maximum of 58 lubrication points. The QLS family includes pumps with or without mounted 300° rotating devices. The pumps have been designed for standard/high-pressure plastic, tubing 4 to 2.5. The 3-liter reservoir pumps are available in 12 or 24 V DC and 120 and 230 V AC.

Refer to the pump-identification-codes for a complete listing of available pump configurations.

The pumps without integrated controller for pause times and lubrication times are available as an option. They have to be controlled by an external controller.

Technical data

| | Unit | QLS 301 | QLS 311 |
|---|--------------------------------|---|---|
| Reservoir capacity Clear plastic with electric low-level | [l] | 1 | 1 and 2 |
| Lubricant output per rotation and tube cycle | [cm ³] | approx. 0.2 | approx. 0.2 |
| Pressure max. operating pressure | [bar] | 200 | 80 |
| Electric connections Operating voltage Connecting Operating voltage Connecting | [V DC] [V] [V AC] [V] | 12/24 20/2.8 120/230 1.0/1.5 | 12/24 20/2.8 120/230 1.0/1.5 |
| Type of protection | | IP67/6, M0M4 | IP67/6, M0M4 |
| Outputs Number | | 1-58 | 1-58 |
| Temperatures Operating temperature | [°C] | -25 to +70 | -25 to +70 |
| Lubrication cycle Qty | [times] | 1 - 5 at 60/min (2 [3]) 1 - 5 at 100/150/180 (2, 3, 4) 1 at 300/21 / 500 / 600 (3, 4) | 1 - 5 at 60/min (2 [3]) 1 - 5 at 100/150/180 (2, 3, 4) 1 at 300/21 / 500 / 600 (3, 4) |
| Run time in case of external controller | [min] | max. 4 | max. 6 |
| Pause times VAC VDC | [min] [min] | 20 - 3600 4 - 3600 | 20 - 3600 4 - 3600 |
| Time memory | | unlimited (EEPROM) | unlimited (EEPROM) |

QLS 301 and QLS 311 Pumps

Standard models QLS 301 for grease lubrication

| Part No. | Type of divider | Divider installation position | Voltage | | Cable |
|---------------|-----------------|-------------------------------|---------|--------|-------|
| | | | [V DC] | [V AC] | |
| P30131211154* | SSV6 | back | 12 | | 10 |
| P30131411154* | SSV6 | back | 24 | | 10 |
| P30142611114* | SSV8 | bottom | | 120 | - |
| P30142811114* | SSV8 | bottom | | 230 | - |
| P30161211154* | SSV12 | back | 12 | | 10 |
| P30161411154* | SSV12 | back | 24 | | 10 |
| P30162611114* | SSV12 | bottom | | 120 | - |
| P30162811114* | SSV12 | bottom | | 230 | - |
| P30191211154* | SSV18 | back | 12 | | 10 |
| P30191411154* | SSV18 | back | 24 | | 10 |
| P30192611114* | SSV18 | bottom | | 120 | - |
| P30192811114* | SSV18 | bottom | | 230 | - |

* primed with Fimcol FN 745 grease

Standard models QLS 311 for oil lubrication

| Part No. | Type of divider | Divider installation position | Voltage | | Cable |
|--------------|-----------------|-------------------------------|---------|--------|-------|
| | | | [V DC] | [V AC] | |
| P31131211154 | SSV6 | back | 12 | | 10 |
| P31131411154 | SSV6 | back | 24 | | 10 |
| P31142611114 | SSV8 | bottom | | 120 | - |
| P31142811114 | SSV8 | bottom | | 230 | - |
| P31161211154 | SSV12 | back | 12 | | 10 |
| P31161411154 | SSV12 | back | 24 | | 10 |
| P31162611114 | SSV12 | bottom | | 120 | - |
| P31162811114 | SSV12 | bottom | | 230 | - |
| P31191211154 | SSV18 | back | 12 | | 10 |
| P31191411154 | SSV18 | back | 24 | | 10 |
| P31192611114 | SSV18 | bottom | | 120 | - |
| P31192811114 | SSV18 | bottom | | 230 | - |

Standard models QLS 311 for external controller

| Part No. | Type of divider | Divider installation position | Voltage | | Lubricant |
|--------------|-----------------|-------------------------------|---------|--------|-----------|
| | | | [V DC] | [V AC] | |
| P30131411110 | SSV6 | back | 24 | | Grease |
| P30161411110 | SSV12 | back | 24 | | Grease |
| P30191411110 | SSV18 | bottom | 24 | | Grease |
| P31131411110 | SSV6 | bottom | 24 | | Oil |
| P31161411110 | SSV12 | back | 24 | | Oil |
| P31191411110 | SSV18 | back | 24 | | Oil |
| 650-40768-3 | SSV8 | bottom | | 120 | Grease |
| 650-40768-4 | SSV12 | bottom | | 120 | Grease |
| 650-40768-5 | SSV18 | back | | 120 | Grease |
| 650-40765-4 | SSV8 | back | | 120 | Oil |
| 650-40765-5 | SSV18 | bottom | | 120 | Oil |
| 650-40765-6 | SSV18 | bottom | | 120 | Oil |

QLS301 and QLS311 Pumps- Type Identification Code

The complete pump aggregate is defined by a type designation (see type identification plate).

Examples of type designations:

| Designation | P | 301 | 6 | 2 | 4 | 1 | 0 | 1 | 5 | 4 |
|---------------------------------------|---|-----|---|---|---|---|---|---|---|---|
| Basic type | | | | | | | | | | |
| P301 | | | | | | | | | | |
| P311 | | | | | | | | | | |
| SSV metering device | | | | | | | | | | |
| 0 | | | | | | | | | | |
| 1 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| SSV metering device | | | | | | | | | | |
| 0 | | | | | | | | | | |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| Voltage supply¹⁾ | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| Reservoir capacity | | | | | | | | | | |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| Number of possible connections | | | | | | | | | | |
| 0 | | | | | | | | | | |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| Socket | | | | | | | | | | |
| 1 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| Electrical connection | | | | | | | | | | |
| 1 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| Control printed circuit boards | | | | | | | | | | |
| 0 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 4 | | | | | | | | | | |

¹⁾For external metering devices that use the intended SSK...XQLS metering devices only

²⁾Allowed use in the mobile sector or in machines that are subject to shocks and impacts, see below Safety Instructions

³⁾Standard 120V and 230V AC for industrial applications come as a standard without connecting cable

⁴⁾In combination with a square plug only

⁵⁾In combination with a bayonet plug only

Extension kits for QLS systems

| Part No. | Type of divider | Dimension of the kit | Lubrication fitting |
|-------------|-----------------|----------------------|---------------------|
| 550-36970-1 | SSV6/8 | metric | no |
| 550-36970-2 | SSV12 | metric | no |
| 550-36970-3 | SSV18 | metric | no |

QLS 401 Pumps



QLS 401 Pump

The QLS 401 is a completely monitored lubrication system with or without low-level indication for up to 18 lubrication points.

The QLS family includes pumps available with or without mounted 55l metering devices. The pumps are made for standard high-pressure plastic tubing $\varnothing 6 \times 1.5$. The pumps with 1- or 2-liter reservoir are available in 12- or 24 V DC and 120 and 230 V AC. Refer to the type identification codes for a complete listing of available pump configurations.

The pumps are available with integrated controller for the control of pause and operating times, or are available without controller as an option.

Standard Models QLS 401 without low-level indication

| Part No. | Type of divider | Divider installation position | Voltage | | Cable [m] |
|--------------|-----------------|-------------------------------|---------|------|-----------|
| | | | V DC | V AC | |
| P40121201154 | SOV6 | back | 12 | | 10 |
| P40121401154 | SOV6 | back | 24 | | 10 |
| P40121601134 | SOV8 | bottom | | 120 | - |
| P40121801134 | SOV8 | bottom | | 230 | - |
| P40121201154 | SOV12 | back | 12 | | 10 |
| P40121401154 | SOV12 | back | 24 | | 10 |
| P40121601134 | SOV12 | bottom | | 120 | - |
| P40121801134 | SOV12 | bottom | | 230 | - |
| P40121201154 | SOV18 | back | 12 | | 10 |
| P40121401154 | SOV18 | back | 24 | | 10 |
| P40121601134 | SOV18 | bottom | | 120 | - |
| P40121801134 | SOV18 | bottom | | 230 | - |

Standard Models QLS 401 with low-level indication

| Part No. | Type of divider | Divider installation position | Voltage | | Cable [m] |
|--------------|-----------------|-------------------------------|---------|------|-----------|
| | | | V DC | V AC | |
| P40121211154 | SOV6 | back | 12 | | 10 |
| P40121411154 | SOV6 | back | 24 | | 10 |
| P40121611134 | SOV8 | bottom | | 120 | - |
| P40121811134 | SOV8 | bottom | | 230 | - |
| P40121211154 | SOV12 | back | 12 | | 10 |
| P40121411154 | SOV12 | back | 24 | | 10 |
| P40121611134 | SOV12 | bottom | | 120 | - |
| P40121811134 | SOV12 | bottom | | 230 | - |
| P40121211154 | SOV18 | back | 12 | | 10 |
| P40121411154 | SOV18 | back | 24 | | 10 |
| P40121611134 | SOV18 | bottom | | 120 | - |
| P40121811134 | SOV18 | bottom | | 230 | - |

QLS 421 Pumps



The QLS 421 pump is a lubrication system for up to 18 lubrication points. The QLS 421 has been designed especially for the lubrication of truck trailers and semi-trailers. The pump is available with a back-mounted 50V metering device only. It is made for standard high-pressure plastic tubing a 5 x 1.5. The 1-liter reservoir pump is available in 12 or 24 V DC.

Refer to the type identification codes for a complete listing of available pump configurations.

Standard models QLS 421 for grease lubrication of trailers

| Part No. | Type of divider | Divider installation position | Voltage [V DC] | Capacity [l] |
|--------------|-----------------|-------------------------------|----------------|--------------|
| P42511202531 | 50V6 | back | 12 | 1 |
| P42531402531 | 50V6 | back | 24 | 1 |
| P42511402541 | 50V6 | back | 24 | 1 |
| P42561202531 | 50V12 | back | 12 | 1 |
| P42561222531 | 50V12 | back | 12 | 2 |
| P42561402531 | 50V12 | back | 24 | 1 |
| P42591202531 | 50V18 | back | 12 | 1 |
| P42591402531 | 50V18 | back | 24 | 1 |

QLS 401 and QLS 421 Pumps

Technical Data QLS 401 and QLS 421

| | Unit | QLS 401 | QLS 421 |
|--|---------------------------------|--|---|
| Reservoir capacity Clear plastic with stirring paddle | [l] | 1 – 2 | 1 |
| Pressure Maximum operating pressure | [bar] | 205 | 205 |
| Electrical connections Operating voltage Current rating Operating voltage Frequency | [V DC] [A] [V AC] [Hz] | 12 / 24 2.0 / 1.0 120 / 230 50 / 60 | 12 / 24 2.0 / 1.0 |
| Temperature Operating temperature | [°C] | -25 to +70 | -25 to +70 |
| Type of protection | | IP6K9K, NEMA 4 | IP6K9K |
| Lubricants Grease | | up to NLGI 2 | up to NLGI 2 |
| Outlets | Piece | 1-18 | 1-18 |
| Lubricant output per outlet and lube cycle | [cm ³] | approx. 0.2 | approx. 0.2 |
| Lube cycles with control pcb | times | 1-5 all dividers [VDC] 1-3 for SSV6/SSV8 [VAC] 1 for SSV12/SSV18 [VAC] | |
| without control pcb | duration | max. 4 minutes | |
| Pause times with integrated controller | VDC VAC | 4 min - 60 h 20 min - 60 h | 1 - 16 h |
| external control pcb | VDC VAC | at least 4 minutes at least 20 minutes | at least 4 minutes at least 20 minutes |
| Operating time | | | 1 - 32 minutes |
| Time memory | | unlimited (EEPROM) | |

Extension kits for QLS systems

| Part No. | Type of divider | Dimension of the kits | Lube point and fitting included |
|-------------|-----------------|-----------------------|---------------------------------|
| 550-36970-1 | SSV6/8 | metric | no |
| 550-36970-2 | SSV12 | metric | no |
| 550-36970-3 | SSV18 | metric | no |

QLS401 Pumps - Type Identification Code

The complete pump aggregate is defined by a type designation (see type identification plate). Examples of type designations:

| Designation | P 401 | 6 | 2 | 4 | 1 | 1 | 5 | 7 | 4 |
|---|-------|---|---|---|---|---|---|---|---|
| Basic type P401 Pumps for grease | | | | | | | | | |
| SSV metering device 0 external, SSV6/SSV8 ¹⁾ 1 external, SSV12/SSV18 ¹⁾ 3 SSV6 back mounted 4 SSV8 bottom mounted 6 SSV12 9 SSV18 | | | | | | | | | |
| SSV metering device 0 without 1 back mounted 2 bottom mounted ²⁾ | | | | | | | | | |
| Voltage supply³⁾ 2 12 V DC 4 24 V DC 6 120 V AC, with control pcb only 8 240 V AC, with control pcb only | | | | | | | | | |
| Reservoir capacity 0 1 Liter without low-level indication 1 1 Liter with low-level indication 2 2 Liters without low-level indication 3 2 Liters with low-level indication | | | | | | | | | |
| Number of possible connections 0 1 connection, left side, square plug, supply voltage V DC/V AC, industrial applications 1 2 connections, 1 connection left side, supply voltage V DC/V AC, 1 connection right side, low-level indication or fault display, square plug 2 1 connection, left side, bayonet plug, supply voltage V DC/V AC, low-level indication or fault signal | | | | | | | | | |
| Socket 1 Square plug following DIN 175301-803, form of construction A ⁴⁾ 5 Bayonet plug, DIN 72585-1, 4-pole ⁵⁾ | | | | | | | | | |
| Electric type of connection 1 Socket, without cable ⁶⁾ 5 Socket, with 10 m cable ⁶⁾ 6 Socket, 10 m ADR cable ⁶⁾ 7 Socket (bayonet), 10 m cable ⁶⁾ 8 Socket (bayonet), 10 m ADR cable ⁶⁾ | | | | | | | | | |
| Control printed circuit boards 0 None, connecting pcb only 4 Control pcb S4 for 12/24 V DC, V AC, NO or NC contact programmable, 1 - 5 cycles 4 Control pcb S4 for 120 V AC, NO or NC contact programmable, 1-3 cycles for SSV 6/8, 1 cycle for SSV 12/18 4 Control pcb S4 for 230 V AC, NO or NC contact programmable, 1-3 cycles for SSV 6/8, 1 cycle for SSV 12/18 | | | | | | | | | |

¹⁾ For external metering devices that use the intended SSV...KXLS metering devices only

²⁾ Do not use in the mobile sector or in machines subject to shocks or impacts; see below Safety Indications

³⁾ Standard 120 and 230 V AC pumps for industrial applications come without connecting cable as a standard.

⁴⁾ Pumps for mobile applications (12/24 V DC) can be provided with a 10 m cable, see „Electric type of connector“

⁵⁾ In combination with square plug only

⁶⁾ In combination with bayonet plug only

QLS 421 Pumps- Type Identification Code

The complete pump aggregate is defined by a type designation (see type identification plate). Examples of type designations:

| Designation | P 421 6 1 4 0 1 5 7 1 |
|--|-----------------------|
| Basic type P421 Pumps for grease | 1 |
| SSV metering device 3 SSV6 back mounted 6 SSV12 9 SSV18 | 6 |
| SSV metering device alignment 1 back mounted, vertical alignment | 1 |
| Voltage supply 2 12 V DC 4 24 V DC | 4 |
| Reservoir capacity 0 1 Liter without low-level indication | 0 |
| Number of possible connections 1 1 connection left side, bayonet, supply voltage V DC | 1 |
| Socket 5 Bayonet plug, DIN 72585-1, 4-pole | 5 |
| Type of electrical connection 7 Socket, bayonet, 6 m cable 8 Socket, bayonet, 6 m ADR cable | 7 |
| Control PCB 1 with variably adjustable stand-by and lubrication time | 1 |

P203 Pumps



The P203 centralized lubrication pump is a powerful and robust compact multi-line pump that can drive up to 3 elements and is used in progressive automated lubrication systems. The P203 pump is perfect for mobile applications, small- and medium-sized machinery and general industries. Versatile, compact and economical, this pump can be enhanced with low-level control and printed circuit board that allow for controlling the lubrication cycles.

The family of P203 pumps includes 12 and 24 V DC, and VAC pumps that can be connected to 110 or 230 VAC supply voltages. The pumps are available with 1, 2 or 3 pump elements in 5, 6 or 7 mm piston diameter or with adjustable pump elements. Reservoir sizes are 2, 4, 8 or 15 liters. Refer to the type identification code for a complete listing of available pump configurations.

Technical Data

| | Unit | | | | | |
|---|------------------------|--|--------------------------|---------------------------|--|--|
| Reservoir capacity Clear plastic | [l] | 2, 4, 8, and 15 | | | | |
| Outlets | Number | 1-3 | | | | |
| Threaded connection | | G 3/4" female | | | | |
| Lubricants Grease Oil | | up to NIGL 2 with a viscosity of at least 40 mm ² /s | | | | |
| Lubricant output per element | [cm ³ /min] | KS/ST approx. 2 | KS approx. 2,8 | KT/ST approx. 4 | CT for chisel paste approx. 4 | KR adjustable approx. 0,7 - 3 |
| Operating voltage | [V DC] [V AC] | 12, 24 110 - 230 (motor and controller 24 V DC) | | | | |
| Pressure Maximum operating pressure | [bar] | 350 | | | | |
| Type of protection | | IP6K 9K following DIN 40507/9 | | | | |
| Temperature Operating temperature | [°C] | -25 to +75 | | | | |

P203 Pumps

Product selection table

Standard models

| Part No. | Model* | Voltage | | Reservoir [l] | Lubricant | | Low-level | Control PCB |
|-------------|------------------------------|---------|------|------------------|-----------|-----|-----------|-------------|
| | | V DC | V AC | | Grease | Oil | | |
| 644-37426-1 | P203-20N-1K6-24-2A1.10-V10 | 24 | | 2 | • | | | • |
| 644-40716-2 | P203-20NB0-1K6-AC-1A1.01-V10 | | • | 2 | • | | | • |
| 644-40717-5 | P203-20NB0-1K6-AC-1A1.01 | | • | 2 | • | | | • |
| 644-40583-3 | P203-2YL80-1K6-24-1A1.01 | 24 | | 8 | | • | • | |
| 644-40718-7 | P203-4YN80-1K6-AC-1A1.01 | | • | 4 | • | | | • |
| 644-40719-5 | P203-4YNB0-1K6-AC-1A1.01-V10 | | • | 4 | • | | | • |
| 644-40719-6 | P203-4YLB0-1K6-AC-1A1.01-V10 | | • | 4 | | • | • | • |
| 644-40718-1 | P203-4XLB0-1K6-AC-2A1.01 | | • | 4 | • | | | • |
| 644-40718-8 | P203-4YLB0-1K6-AC-1A1.01 | | • | 4 | • | | | • |
| 644-40718-5 | P203-4XLB0-1K7-AC-2A1.01 | | • | 4 | • | | | • |
| 644-40721-5 | P203-8XLB0-1K6-AC-2A1.01 | | • | 8 | • | | | • |
| 644-40762-2 | P203-8XLB0-1K6-AC-2A1.01-V10 | | • | 8 | • | | | • |
| 644-40645-2 | P203-8YLB0-1K6-24-1A1.10 | 24 | | 8 | | • | • | |
| 644-40550-4 | P203-8XLB0-1K7-24-2A1.01 | 24 | | 8 | • | | | • |
| 644-40645-3 | P203-8XLB0-1K7-24-2A1.10 | 24 | | 8 | • | | | • |

* These pumps do not include any pressure relief valve. The pressure relief valve must be ordered separately.

Accessories

| Part No. | Description |
|-------------|--|
| 600-26875-2 | Pump element with piston ø 5 mm (K5) |
| 600-26876-2 | Pump element with piston ø 6 mm (K6) |
| 600-26877-2 | Pump element with piston ø 7 mm (K7) |
| 600-28750-1 | Pump element with piston for chisel paste and grease based on silicon oil (C7) |
| 600-29185-1 | Pump element with piston ø 7 mm (B7 = bypass element) |
| 655-28716-1 | Adjustable pump element (KR) |
| 624-28894-1 | Pressure relief valve SVTE-350-1/4 for tube 6 mm, 350 bar |
| 624-28892-1 | Pressure relief valve SVTE-270-1/4 for tube 6 mm, 270 bar |
| 624-28859-1 | Pressure relief valve SVTSV-270-1/4 with grease fitting for manual operation |
| 624-28891-1 | Pressure relief valve SVTE-200-1/4, for tube 6 mm, 200 bar |
| 624-28931-1 | Pressure relief valve with return to reservoir SVTSV-350-1/4 for tube 6 mm, 350 bar |
| 226-14105-5 | Adapter for pressure relief valve for 2-l flat reservoir as well as 4 and 8-l reservoirs |
| 244-14161-1 | Filling pump (without connecting parts) FP-500 |
| 638-37549-1 | Filling pump with straight connection fitting, for 2-l reservoir |
| 638-37548-1 | Filling pump with 90° connection fitting, for 2-l reservoir |
| 638-37561-1 | Filling pump with 90° connection fitting, for 2-l flat reservoir as well as 4 and 8-l reservoirs |
| 638-37549-2 | Filling pump with straight adapter, for 2-l flat reservoir, as well as 4 and 8-l reservoirs |
| 538-36763-5 | Straight adapter for filling pump, for 2-l flat reservoir as well as 4 and 8-l reservoirs |
| 538-36763-4 | 90° connection fitting for filling pump, for 2-l flat reservoir as well as 4 and 8-l reservoir |

Dimensions

| Reservoir | Description | Width | Height | Depth |
|-----------|-----------------|-------|--------|-------|
| 2 | Standard | 205 | 367 | 224 |
| 4 | | 232 | 395 | 250 |
| 8 | | 232 | 495 | 250 |
| 15 | Stirring paddle | 216 | 705 | 243 |
| 15 | Follower plate | 216 | 743 | 243 |

All lengths dimensions in mm, reservoir in l

P203 V DC Type Identification Code with/without PCB V10-V13, H

Any pumps differing from the standard pumps described here can be combined and ordered by making use of the currently valid type identification code.

| Designation | P 203 | 2XL | - | 1 K6 | 24 | 1A | 7 | 16 | V10 | |
|--|--|-----|---|------|----|----|---|----|-----|--|
| Basic type | P 203 | | | | | | | | | |
| P203 UL | Pumps for grease or oil, with 1-3 outlets and DC motor for the USA | | | | | | | | | |
| P203 ADR | for transport of hazardous goods (on request) | | | | | | | | | |
| Reservoir | 2XL | | | | | | | | | |
| 2 | Plastic reservoir, transparent, 2 l | | | | | | | | | |
| 4 | Plastic reservoir, transparent, 4 l | | | | | | | | | |
| 8 | Plastic reservoir, transparent, 8 l | | | | | | | | | |
| 15 | Plastic reservoir, transparent, 15 l | | | | | | | | | |
| X | Reservoir for grease | | | | | | | | | |
| Y | Reservoir for oil | | | | | | | | | |
| N | Standard version | | | | | | | | | |
| L | Low-level control | | | | | | | | | |
| Version | - | | | | | | | | | |
| - | Standard reservoir (2, 4, and 8 l) | | | | | | | | | |
| B0 | Filling from top | | | | | | | | | |
| BF | Reservoir with follower plate | | | | | | | | | |
| FL | Flat reservoir (only available in 2 l without low-level control) | | | | | | | | | |
| Pump elements | - | | | | | | | | | |
| 1-3 | Number of elements used | | | | | | | | | |
| K5, K6 or K7 | Piston diameter (mm) | | | | | | | | | |
| KR | Pump elements, adjustable, piston 7 mm | | | | | | | | | |
| B7 | Piston diameter = 7 mm, output of K5 | | | | | | | | | |
| C7 | Piston diameter = 7 mm* | | | | | | | | | |
| Voltage supply | - | | | | | | | | | |
| 12 | 12 V DC | | | | | | | | | |
| 24 | 24 V DC | | | | | | | | | |
| Number of possible connections | - | | | | | | | | | |
| 1A | 1 connection, left side, supply voltage ¹⁾²⁾ | | | | | | | | | |
| 1A | 1 Connection, voltage supply, left side + illuminated pushbutton for additional lubrication, Low-level control ³⁾⁴⁾⁵⁾ | | | | | | | | | |
| 2A | 2 connections, supply voltage, left side ¹⁾⁶⁾ + illuminated pushbutton for additional lubrication, Low-level control (right side) ²⁾⁴⁾⁵⁾ | | | | | | | | | |
| Type of connection | - | | | | | | | | | |
| 1 | Square plug (DIN 175301-803, form of construction A) ¹⁾ , industrial applications | | | | | | | | | |
| 5 | Bayonet plug, 4/3-pole, DIN 72585-1 ²⁾ (V10-V13, V3 bei V20-V23, H), for mobile applications only | | | | | | | | | |
| 7 | Bayonet plug, 7/6-pole, DIN 72585-1 ³⁾ (V10-V13, V20-V23), for mobile applications only | | | | | | | | | |
| 6 | Bayonet plug, 7/5-pole, DIN 72585-1 ⁴⁾ (M08-M23) | | | | | | | | | |
| Place of connection outside of pump | - | | | | | | | | | |
| 01 | Connection socket, without cable ¹⁾ | | | | | | | | | |
| 10 | Connection socket, with 10 m cable ¹⁾ | | | | | | | | | |
| 11 | Connection socket, 10 m ADR cable ¹⁾⁴⁾ | | | | | | | | | |
| 14 | Bayonet socket with cable 10 m, 4/3-core ²⁾ V10-V13, 7/3 for V 20-V23, without low-level control and without illuminated pushbutton ⁵⁾⁶⁾ | | | | | | | | | |
| 15 | Bayonet socket with cable 10 m, 7/5-core (M08-M23) | | | | | | | | | |
| 16 | Bayonet socket with cable 10 m, 7/6-core ³⁾ V10-V13, V 20-V23, with low-level control or with illuminated pushbutton ⁵⁾⁶⁾ | | | | | | | | | |
| 17 | Bayonet socket with 10 m ADR cable ⁴⁾ , 4/3-core ²⁾ (V10-V13, H) | | | | | | | | | |
| Control printed circuit boards 12/24 V DC | - | | | | | | | | | |
| V10-V13 | with variably adjustable pause and lubricating time ¹⁾³⁾⁵⁾ | | | | | | | | | |
| H | for trailers and semi-trailers ¹⁾³⁾ | | | | | | | | | |
| M08-M23 | with microprocessor or control (piston detector 4 pole), different setting variants, see jumper setting combinations | | | | | | | | | |
| - | without control printed circuit board ¹⁾³⁾ | | | | | | | | | |

¹⁾²⁾³⁾⁴⁾⁵⁾⁶⁾ Numbers to be referred to the connection plug
¹⁾ for transports of hazardous material
²⁾ = C7 = Designation of pump elements for the supply of chisel paste and lubricants containing silicone
³⁾ = Low-level control for oil, connection of low-level control is considered

P203 V DC Type Identification Code with/without control printed circuit board V10-V13, V20-24, M08-M23

Any pumps differing from the standard pumps described here can be combined and ordered by making use of the currently valid type identification code.

| Designation | P 203 | 2XL | - | 1 K6 | AC | 2A | 7 | 16 | V10 |
|--|--|-----|---|------|----|----|---|----|-----|
| Basic type | P203 | | | | | | | | |
| | P203 UL | | | | | | | | |
| Reservoir | 2 | | | | | | | | |
| | 4 | | | | | | | | |
| | 8 | | | | | | | | |
| | 15 | | | | | | | | |
| | X | | | | | | | | |
| | Y | | | | | | | | |
| | N | | | | | | | | |
| | L | | | | | | | | |
| Version | - | | | | | | | | |
| | 80 | | | | | | | | |
| | FL | | | | | | | | |
| Pump elements | 1-3 | | | | | | | | |
| | K5, K6 or K7 | | | | | | | | |
| | KR | | | | | | | | |
| | 87 | | | | | | | | |
| | 57 | | | | | | | | |
| Voltage supply | AC | | | | | | | | |
| | 110 - 230 V AC, +/- 10%, 50-60 Hz +/- 5% | | | | | | | | |
| Number of possible connections | 1A | | | | | | | | |
| | 2A | | | | | | | | |
| | 3A | | | | | | | | |
| Type of connection | 1 | | | | | | | | |
| | 5 | | | | | | | | |
| | 6 | | | | | | | | |
| | 7 | | | | | | | | |
| Place of connection outside of the pump | 01 | | | | | | | | |
| | 14 | | | | | | | | |
| | 15 | | | | | | | | |
| | 16 | | | | | | | | |
| Control printed circuit boards 12/24 V DC | V10 - V13 | | | | | | | | |
| | V20 - V23 | | | | | | | | |
| | M08-M23 | | | | | | | | |
| | - | | | | | | | | |

P223 and P233 Pumps



The P223 and P233 centralized lubrication pumps are powerful and robust compact multi-line pumps. They can drive up to 3 elements and are used in progressive automated lubrication systems. The pumps are ideal for mobile applications like in utility vehicles and construction machines as well as for stationary systems. Versatile, compact and economical, the P233 pump is enhanced with low-level control, printed circuit board MDFOO with attached data logger module and a keypad with display.

• QuickData displays

- Current status and operating data
- Malfunctions of the lubrication system with the time of occurrence
- Remedying of the malfunction with date, time and duration of malfunction
- Low-level signal of reservoir and regular refilling
- Modifications in the pause time programming
- Number of automatically and manually triggered
- Lube cycles as well as the corresponding lubricant consumption
- Power supply interruptions

All data can be read out by means of a laptop or pda via an integrated or separate infrared interface. All indications enable the users to draw their conclusions regarding the condition, function, reliability, usability and duration of service of the machine or device. All information can be analysed and documented and is then available as a written protocol.

The family of P223/P233 pumps includes 12 and 24 VDC pumps. They are available with 1, 2 or 3 elements in 5, 6 or 7 mm or with an adjustable output element. Reservoir sizes are 2, 4 or 8 liters. Refer to the pump identification code for a complete listing of available pump configurations.

Standard models P 223 without and P 233 with QuickData data logger

| Part No. | Model | Reservoir [l] | Lubricant Grease Oil | Low-level | Control PCB |
|-------------|---------------------------------|---------------|----------------------|-----------|-------------|
| 644-40864-2 | P 223-290-185-24-245.14-MFO1 | 2 | • | • | • |
| 644-40864-6 | P 223-290-185-24-246.15-MFO1 | 2 | • | • | • |
| 644-40864-3 | P 223-290.00-190-24-245.14-MFO2 | 2 | • | • | • |
| 644-40864-5 | P 223-290.00-190-24-246.15-MFO2 | 2 | • | • | • |
| 644-40864-1 | P 223-290.00-1K7-24-245.14-MFO2 | 2 | • | • | • |
| 644-40864-4 | P 223-290.00-1K7-24-246.15-MFO2 | 2 | • | • | • |
| 644-44172-3 | P 223-385-185-24-246.15-MFO1 | 2 | • | • | • |
| 644-41037-1 | P 223-480.00-190-24-246.15-MFO2 | 4 | • | • | • |
| 644-40864-3 | P 223-490.00-190-24-246.15-MFO2 | 6 | • | • | • |
| 644-40864-2 | P 223-490.00-1K7-AC-246.15-MFO2 | 6 | • | • | • |
| 644-40864-4 | P 223-490.00-1K9-AC-246.15-MFO2 | 6 | • | • | • |
| 644-40864-1 | P 223-490.00-1K7-24-245.14-MFO1 | 6 | • | • | • |
| 644-40864-5 | P 223-490.00-1K7-24-246.15-MFO1 | 6 | • | • | • |

These pumps do not include a pressure relief valve. This must be ordered separately. Other technical data and dimensions are identical to the P203.

P223 and P233 V DC Type Identification Code

Any pumps differing from the standard pumps described here can be combined and ordered by making use of the currently valid type identification code.

| Designation | P 223 | 2XL | 80 | 1KR | 24 | 2A | 6 | 15 | MDF01 | | | |
|--|-------|---|--------------|--|----|---------------------------------------|----|--------------------------------------|-------|------------------------|---|-------------------|
| Basic type | P223 | Pump for grease, with 1-3 outlets and DC motor, without data logger | P233 | Pump with data logger | | | | | | | | |
| Reservoir | 2 | Plastic reservoir, transparent, 2 l | 4 | Plastic reservoir, transparent, 4 l | 8 | Plastic reservoir, transparent, 8 l | 15 | Plastic reservoir, transparent, 15 l | X | Reservoir for grease | L | Low-level control |
| Version | - | Standard reservoir (2, 4, 8 and 15 l) | 80 | Filling from the top | | | | | | | | |
| Pump elements | 1-3 | Number of elements used | K5, K6 or K7 | Piston diameter (mm) | KR | Pump element, adjustable, piston 7 mm | B7 | Piston diameter = 7 mm, output of K5 | C7 | Piston diameter = 7 mm | | |
| Voltage supply | 12 | 12 V DC | 24 | 24 V DC | | | | | | | | |
| Number of possible connections | 2A | 1 connection, left side, for supply voltage, external illuminated pushbutton for additional lubrication and fault display, low-level control and 2. connection, right side, for piston detector ¹⁾ | | | | | | | | | | |
| Type of connection | 6 | Bayonet plug, 7/6-pole, DIN 72585-1 | | | | | | | | | | |
| Place of connection outside of the pump | 15 | Bayonet socket with cable 10 m, 7/5-core | | | | | | | | | | |
| Control printed circuit boards 12/24 V DC | MDF01 | with microprocessor and membrane keypad (P223) | MDF01 | with microprocessor and membrane keypad and data logger (P233) | | | | | | | | |

¹⁾Piston detector, bayonet plug 4-pole

P223 and P233 AC Type Identification Code

Any pumps differing from the standard pumps described here can be combined and ordered by making use of the currently valid type identification code.

| Designation | P 223 | 8XL | 80 | 1K7 | AC | 3A | 7 | 15 | MFO1 |
|--|--|-----|----|-----|----|----|---|----|------|
| Basic type | Pumps for grease and oil, with 1-3 outlets and DC motor, without data logger | | | | | | | | |
| Reservoir | 2 Plastic reservoir, transparent, 2 l 4 Plastic reservoir, transparent, 4 l 8 Plastic reservoir, transparent, 8 l 15 Plastic reservoir, transparent, 15 l X Reservoir for grease Y Reservoir for oil L Low-level control | | | | | | | | |
| Version | - Standard reservoir (2, 4 and 8 l) B0 Filling from the top FL Flat reservoir (only 2 l without low-level control) | | | | | | | | |
| Pump elements | 1-3 Number of elements used K5, K6 or K7 Piston diameter (mm) KR Pump element, adjustable, piston 7 mm B7 Piston diameter = 7 mm, output of K5 C7 Piston diameter = 7 mm, food industry | | | | | | | | |
| Voltage supply | AC 110 - 230 V AC, +/- 10%, 50-60 Hz +/- 5% | | | | | | | | |
| Number of possible connections | 3A 3 connections, supply voltage (square plug only), bottom left, illuminated pushbutton + low-level control (bayonet plug), top left, and piston detector (bayonet plug) top right | | | | | | | | |
| Type of connection | 1 Square plug (DIN EN 175301-803, form of construction A) 7 Bayonet plug, 7/5-pole, DIN 72585-1 | | | | | | | | |
| Place of connection outside of the pump | 00 Connection socket, without cable, special equipment 16 Bayonet socket with cable 10 m, 7/5-core, connection for low-level control and illuminated pushbutton | | | | | | | | |
| Control printed circuit boards 12/24 V DC | MFO1 with microprocessor and membrane keypad MFO1 with microprocessor and membrane keypad and data logger | | | | | | | | |

P205 Pumps



The P205 centralized lubrication pump is a high pressure multi-line pump that can drive up to 5 elements and is used in progressive automated lubrication systems. It is capable of handing direct supply of lubrication points or can be used as a centralized lubrication pump in larger progressive systems.

The design of the drive and eccentric shaft, the high efficiency worm gear, a minimal number of parts, and the multi-range motor, provide the P205 pump with several advantages. The P205 pumps are available with a three-phase flange mount and multi-range motor for 380-420 volts at 50 Hz or 440-480 volts at 60 Hz, or with a free shaft end for use with other motors. Various gear ratios and reservoir sizes, with or without level control, are available. The reservoir, available in 4, 5 or 8 liter sizes, is suitable for both, grease and oil.

Technical Data

| | | Unit | | | |
|------------------------------------|--------------|--------------------|---|------|------------|
| Reservoir | | | | | |
| Transparent plastic | | | 4 and 8 | | |
| Metal | | | 5 | | |
| Outlets | | Qty | 1 - 5 | | |
| Threaded connection | | | G 1/4" female (JISPP) | | |
| Lubricants | | | up to NGL1 2, NGL1 3 on request | | |
| Grease | | | at a viscosity of at least 20 mm ² /s | | |
| Oil | | | | | |
| Piston diameter | | [mm] | 5 | 6 | 7 |
| Lubricant output per piston stroke | | [cm ³] | 0.11 | 0.16 | 0.23 |
| Maximum lubricant output per hour | Ratio | | | | adjustable |
| | 70:1 | [cm ³] | 115 | 172 | 253 |
| | 280:1 | [cm ³] | 29 | 43 | 63 |
| | 700:1 | [cm ³] | 11 | 17 | 25 |
| | | | | | 46 - 200 |
| | | | | | 11.5 - 52 |
| | | | | | 5 - 22 |
| Pressure | | | | | |
| Maximum operating pressure | | [bar] | 350 | | |
| Type of protection | | | IP55 | | |
| Temperature | | | | | |
| Operating temperature | | [°C] | -20 up to +70 | | |
| Level indicator | | | | | |
| (option) | | | ultrasonic sensor for high- and low-level control | | |

P205 pumps

Product selection table

Standard models

| Part No. | Description | Motor | Gear ratio | Reservoir | Level control | Elements | |
|-------------|-------------------------------------|---------------------|------------|-----------|---------------|----------|----|
| | | | | | | Unit | mm |
| | | alternating current | | { } | | | |
| 655-40655-9 | P205-M280-4XYN-4K6-380/420/440/480 | • | 280:1 | 4 | | 4 | 6 |
| 655-40654-2 | P205-M070-5XYN-1K7-380-420/440-480 | • | 70:1 | 5 | | 1 | 7 |
| 655-40655-3 | P205-M280-5XYBU-1K6-380-420/440-480 | • | 280:1 | 5 | • | 1 | 6 |
| 655-40673-2 | P205-M070-8XYBU-1K6-380-420/440-480 | • | 70:1 | 8 | • | 1 | 6 |
| 655-40704-2 | P205-M070-5XYN-4K6-380-420/440-480 | • | 70:1 | 5 | | 4 | 6 |

These pumps do not include a pressure relief valve. This must be ordered separately.

Accessories

| Part No. | Description |
|-------------|--|
| 624-29056-1 | Pressure relief valve SVET-350-G 1/4" D6 for tube 6 mm |
| 624-29054-1 | Pressure relief valve SVET-350-G 1/4" D8 for tube 8 mm |
| 304-17571-1 | Filling connector G 1/4" female* |
| 304-17574-1 | Filling connector G 1/2" female* (BSP) |
| 600-26875-2 | Pump element with assy. piston ø 5 (K5) |
| 600-26876-2 | Pump element with assy. piston ø 6 (K6) |
| 600-26877-2 | Pump element with assy. piston ø 7 (K7) |
| 655-28716-1 | Adjustable pump element (KR) |

*Filling connector fits for vacant outlet ports.

Dimensions

| Reservoir | Material | Width* | Height | Depth* |
|-----------|---------------------|---------|--------|---------|
| 4 | Transparent plastic | 280/360 | 406 | 227/300 |
| 8 | Transparent plastic | 280/360 | 529 | 227/300 |
| 5 | Metal | 280/360 | 520 | 227/300 |

All length dimensions in mm, reservoir capacity in l

P205 Type Identification Code

The complete pump aggregate is defined by a type designation (see type identification plate).

Examples of type designations:

| Designation | P 205 | F | 280 | 4XYBU | 1K7 | 440-480 |
|--------------------------------|---|---|-----|-------|-----|---------|
| Basic type P205 | Housing Assy for all pump variants | | | | | |
| Drive M | AC flange motor designation with supplement, e.g. for voltages, frequencies, is attached to the end of the Type Identification Code | | | | | |
| F | Free shaft end | | | | | |
| Gear ratio 280 | Gear ratio $i = 1 : 280$ | | | | | |
| 700 | Gear ratio $i = 1 : 700$ | | | | | |
| 070 | Gear ratio $i = 1 : 70$ | | | | | |
| Reservoir 4 | Plastic reservoir, 4 l | | | | | |
| 8 | Plastic reservoir, 8 l | | | | | |
| 5 | Plastic reservoir, 5 l | | | | | |
| XY | Reservoir for grease and oil | | | | | |
| N | Reservoir without level indicator | | | | | |
| BU | Reservoir with level indicator (ultrasonic sensor) ¹⁾ | | | | | |
| Pump element 1 - 5 | Number of pump elements | | | | | |
| K5, K6, K7 | Piston diameter (mm) | | | | | |
| KR | Pump elements, adjustable, piston diameter 7 mm | | | | | |
| Pump element 380-420 | Standard multi-range motor for nominal supply voltages 380-420 V/50 Hz | | | | | |
| 440-480 | Multi-range motor for nominal supply voltages 440-480 V/60 Hz | | | | | |
| 000 | Pumps without motor, but with connection flange | | | | | |

¹⁾ The sensor for the level indicator generally possesses 2 switch points, low- and high-level controls. If a low-level control is desired only, the corresponding contacts must be connected. The sensor requires a voltage of 24 VDC.

P215 Pumps



P215 Pump

The P215 centralized lubrication pump is a high-pressure multi-line pump that can drive up to 15 adjustable pump-elements and is used in progressive automated lubrication systems. It is capable of handling direct supply of lubrication points or as a central lubrication pump in large-sized progressive systems.

P215 pumps are available with a three-phase multi-range motor for 380–420 volts at 50 Hz or 440–480 volts at 60 Hz, with a single-range 500 volt, 50 Hz motor, with a free shaft end for use with other motors, or with an oscillating drive. Various gear ratios and reservoir sizes, with or without level control, are available. The reservoir, available in 4, 8, 10 or 30 liter sizes, is suitable for both, grease and oil.

Technical Data

| | | Unit | |
|---|--------------|--------------------|---|
| Reservoir | | | |
| Transparent plastic | | | 4 and 8 |
| Metal | | | 10 and 30 |
| Outlets | | Qty | 1-15 |
| Threaded connection | | | G 1/4" female |
| Lubricants | | | |
| Grease | | | up to NLGI 2, NLGI 3 on request |
| Oil | | | at a viscosity of at least 20 mm ² /s |
| Piston diameter | | [mm] | 6 |
| Adjusting range from 25% to maximum 100% | | [cm ³] | 0,04–0,16 |
| Maximum output per hour (Output increases by 20% in case of 60 Hz motors) | | | 7 0,057–0,23 |
| | Ratio | [cm ³] | |
| | 4/0:1 | [cm ³] | 27 cm ³ |
| | 10/0:1 | [cm ³] | 132 cm ³ |
| | 4/1:1 | [cm ³] | 268 cm ³ |
| | 7:1 | [cm ³] | 396 cm ³ |
| | | | (for F and P only) |
| Pressure | | | |
| Maximum operating pressure | | [bar] | 350 |
| Type of protection | | | IP55 |
| Temperature | | | |
| Operating temperature | | [°C] | -20 up to +70 |
| Level indicator (option) | | | Ultrasonic sensor for high- and low-level control |

P215 Pumps

Product selection table

Standard models

| Part No. | Description | Motor | Gear ratio | Reservoir capacity | Level Control | Number of Elements | |
|-------------|---------------------------------------|----------------------------|------------|--------------------|---------------|--------------------|----|
| | | | | | | Qty | mm |
| | | AC | | [l] | | | |
| 660-40707-1 | P215-M100-30X7BU-13K7-380-420/440-480 | • | 100:1 | 30 | • | 13 | 7 |
| 660-40724-4 | P215-M490-10X7BU-2K7-380-420/440-480 | • | 490:1 | 10 | • | 2 | 7 |
| 660-40729-4 | P215-M100-10X7BU-1K6-380-420/440-480 | • | 100:1 | 10 | • | 1 | 6 |
| 660-40751-1 | P215-M100-10X7BU-6K7-380-420/440-480 | • | 100:1 | 10 | • | 6 | 7 |
| 660-40569-7 | P215-F049-30XW-13K7-000 | free shaft end no motor | 49:1 | 30 | | 13 | 7 |
| 660-40751-6 | P215-M100-10X7BU-2K6-380-420/440-480 | • | 100:1 | 10 | • | 2 | 6 |

These pumps do not include any pressure relief valve. The pressure relief valve must be ordered separately.

P215 Pump accessories

| Part No. | Description | Tube diameter | Pressure [mmHg] |
|-------------|-------------------------------|-----------------------------|-----------------|
| 624-25478-1 | Pressure relief valve | Tube stud 6 mm via T-piece | 200 |
| 624-25479-1 | Pressure relief valve | Tube stud 8 mm via T-piece | 350 |
| 624-25480-1 | Pressure relief valve | Tube stud 8 mm via T-piece | 200 |
| 624-25481-1 | Pressure relief valve | Tube stud 8 mm via T-piece | 350 |
| 624-25482-1 | Pressure relief valve | Tube stud 10 mm via T-piece | 200 |
| 624-25483-1 | Pressure relief valve | Tube stud 10 mm via T-piece | 350 |
| 304-17571-1 | Filter fitting G 1/4" female* | | |
| 304-17574-1 | Filter fitting G 1/4" female* | | |
| 600-25047-3 | Pump element K7 | | |
| 600-25046-3 | Pump element K6 | | |

* Filling connector fits for vacuum outlets below.

Dimensions

| Reservoir capacity* [l] | Material | Width* | Height | Depth |
|-------------------------|---------------------|---------|--------|-------|
| 4 | Transparent plastic | 411/453 | 438 | 326 |
| 8 | Transparent plastic | 411/453 | 539 | 326 |
| 10 | Metal | 411/453 | 520 | 326 |
| 30 | Metal | 411/453 | 760 | 326 |
| Low-level sensor | | 125 | 30 | 65 |

All lengths dimensions in mm, weight in g
* In case of versions with low-level control

P215 Type Identification Code

The complete pump aggregate is defined by a type designation (see type identification plate).

Examples of type designations:

| Designation | P 215 | M | 049 | 10XYBU | 5K6 | 380-420 |
|---|--|---|-----|--------|-----|---------|
| Basic type | P215 | | | | | |
| P215 | Housing Assy for all pump variants | | | | | |
| Drive | M | | | | | |
| M | AC flange motor | | | | | |
| | Motor designation with supplement, e.g. for voltages, frequencies, is attached to the end of the Type Identification Codes | | | | | |
| F | Free shaft end | | | | | |
| P | Oscillating drive | | | | | |
| Gear ratio | 049 | | | | | |
| 490 | Gear ratio $i = 1 : 490$ | | | | | |
| 100 | Gear ratio $i = 1 : 100$ | | | | | |
| 049 | Gear ratio $i = 1 : 49$ (for oil only) | | | | | |
| 007 | Gear ratio $i = 1 : 7$ (for P and F drive assemblies only) | | | | | |
| Reservoir | 10XYBU | | | | | |
| 4 | Plastic reservoir, 4 l | | | | | |
| 8 | Plastic reservoir, 8 l | | | | | |
| 10 | Steel plate reservoir, 10 l | | | | | |
| 30 | Steel plate reservoir, 30 l | | | | | |
| XY | Reservoir for grease and oil | | | | | |
| N | Reservoir without level control | | | | | |
| BU | Reservoir with level control (ultrasonic sensor) ¹⁾ | | | | | |
| Pump elements | 5K6 | | | | | |
| 1-15 | Number of pump elements | | | | | |
| K6 or K7 | Piston diameter (mm) | | | | | |
| Supplements to motor designation | 380-420 | | | | | |
| 380-420 | Standard multi-range motor for nominal voltages 380-420 V/50 Hz | | | | | |
| 440-480 | Multi-range motor for nominal voltages 440-480 V/60 Hz | | | | | |
| 500 | Single-range motor for nominal voltage 500 V/50 Hz | | | | | |
| 000 | Pump without motor, but with coupling flange | | | | | |

¹⁾ The sensor for the level control generally possesses 2 switch points: low- and high-level. If a low-level control is desired only, connect the corresponding contacts only. The sensor requires a voltage of 24 V DC.

P230 Pumps

The P230 pump is a variant of the P215 multi-line pump. The P230 pump can drive up to 30 adjustable pump elements. As a result of the increased number of possible pump elements, an 0.25 kW motor is used. All other technical specifications, including accessories, are equivalent to the P215 pump.

Dimensions: height 831 mm x width 463 mm x depth 328 mm

Multi-line and Progressive Systems

SSV metering devices - Product survey



SSV metering devices

SSV progressive metering devices are piston-type metering devices which reliably dispense the lubricant volume fed to the inlet in predetermined single quantities. By closing one outlet, the lubricant is fed to the next outlet before.

This combining of outlets provides a large variety of metering possibilities. Additionally the internal porting avoids cumbersome external T-fittings. A special feature of the progressive metering device is that a previous feed line must supply lubricant before the next one can be supplied. This makes the progressive system easy to visually or elec-

trically monitor. It is available with 4 to 20 outlets and can be used for pressures up to 160 bar or oils of at least 40 mm²/s.

Lineith progressive metering devices in block design have no defect prone rubber seals.

They can therefore be used with no problem at high differential pressure (up to 100 bar between two outlets) and for a wide range of temperatures. The max. operating pressure is 350 bar.

Advantages

- No rubber seals
- Single-block design
- Internal combining of outlets
- Exact lubricant metering
- Easy to monitor
- Fault-free replacement: Should a metering device be exchanged, connection and output or adjustment errors are avoided
- High operating pressure

Standard models without metering

Outlets: Inlet thread: G 1/2" female

Material:
Steel

Stainless steel 1.4308

Stainless steel 1.4478

Inlet thread: G 1/2" NPT female

Material:
Steel

Stainless steel 1.4308

| | | | | | |
|----|-------------|-------------|-------------|-------------|-------------|
| 4 | 629-26475-0 | 629-27671-1 | 629-27824-0 | 629-27125-0 | 629-27750-1 |
| 5 | 629-26735-2 | 629-27671-1 | 629-27824-0 | 629-26385-2 | 629-27750-1 |
| 10 | 629-26441-0 | 629-27471-1 | 629-27887-0 | 629-26444-0 | 629-27880-1 |
| 12 | 629-25731-0 | 629-27471-1 | 629-27988-0 | 629-25298-0 | 629-27880-1 |
| 14 | 629-28847-0 | 629-28843-1 | | 629-28408-0 | |
| 14 | 629-28843-0 | 629-28844-1 | | 629-28408-0 | |
| 16 | 629-28844-0 | 629-28841-1 | | | |
| 20 | 629-28845-1 | 629-28840-1 | | | |
| 22 | 629-28846-1 | 629-28771-1 | | | |

SSV Metering Devices with Indicator Pin for Visual Monitoring

Product Survey



Indicator pin for visual monitoring

| Outlets | Inlet thread R 1/2" female | | Inlet thread R 1/2" NPT female | | |
|---------|----------------------------|------------------------|--------------------------------|-------------|------------------------|
| | Material | Stainless steel 1.4305 | Stainless steel 1.4571 | Material | Stainless steel 1.4305 |
| 6 | 619-26474-3 | 619-27472-1 | 619-28840-1 | 619-27122-1 | 619-27793-1 |
| 8 | 619-25754-4 | 619-27474-1 | 619-28841-1 | 619-26644-2 | 619-27797-1 |
| 10 | 619-26842-2 | 619-27476-1 | 619-28842-1 | 619-26845-2 | 619-27801-1 |
| 12 | 619-25755-4 | 619-27478-1 | 619-28843-1 | 619-26648-2 | 619-27805-1 |
| 14 | 619-28871-1 | 619-29067-1 | | 619-28899-1 | |
| 16 | 619-28872-1 | 619-29068-1 | | 619-28900-1 | |
| 18 | 619-28873-1 | 619-29069-1 | | 619-28901-1 | |
| 20 | 619-28874-1 | 619-29074-1 | | 619-28902-1 | |
| 22 | 619-28875-1 | | | | |

SSV Metering Devices with Piston Detector for Electronic Monitoring

Product survey



SSV N with piston detector

Technical data - SSV metering devices with piston detector (N)

| | Unit | |
|----------------------------|--------------------|-------------------------------|
| Outlets | Qty | 6 - 22 |
| Pressure | | |
| Max. operating pressure | [bar] | 350 |
| Max. differential pressure | [bar] | 300 |
| Output | | |
| per outlet and stroke | [cm ³] | 0.2 |
| Outlet thread | | M 10 x 1 |
| Material | | |
| Steel | | Surface, black chrome-treated |
| Stainless steel | | 1.4305 |
| Stainless steel | | 1.4571, for SSV-12 |
| Temperature | | |
| Operating temperature | [°C] | -25 to +75 |

Dimensions

| Outlets | Width | Width | Depth |
|---------|-------|-------|-------|
| 6 | 60 | 60 | 30 |
| 8 | 75 | 60 | 30 |
| 10 | 90 | 60 | 30 |
| 12 | 105 | 60 | 30 |
| 14 | 120 | 60 | 30 |
| 16 | 135 | 60 | 30 |
| 18 | 150 | 60 | 30 |
| 20 | 165 | 60 | 30 |
| 22 | 180 | 60 | 30 |

All length dimensions in mm

SSV metering devices with piston detector for electronic monitoring

| Outlets | Inlet thread 1/4" female | | Inlet thread 1/4" NPT female |
|---------|--------------------------|---------------------------|------------------------------|
| | Material | Material | |
| | Steel | Stainless steel 1.4305 | Steel |
| 6 | 619-28257-1 | 619-29003-1 | 619-28653-1 |
| 8 | 619-28258-1 | | 619-28654-1 |
| 10 | 619-28259-1 | 619-28529-1 | |
| 12 | 619-28260-1 | 619-29004-1 | |
| 14 | 619-28890-1 | 619-77088-1 | |
| 16 | 619-28907-1 | 619-77617-1 | |
| 18 | 619-28957-1 | | |
| 20 | 619-28935-1 | | 619-28937-1 |
| 22 | 619-29015-1 | | |

SSVD Metering Devices with Metering Screw Technology

Product survey



SSVD metering devices are adjustable per outlet pair. The metering occurs within the metering block via metering screws that are available in different sizes. The output of the progressive metering device can be easily changed, even after installation.

One or more outlet pairs of the metering device can be internally combined to achieve greater lubricant outputs. The primary function of the SSV remains unchanged in the SSVd.

The SSVd metering device's dimensions have been changed from those of the standard SSV in order to allow the same thread sizes. As a result, both metering device types use the same components such as piston detector and piston-side closure plugs.

The SSVd offers a greater metering range flexibility. The SSVd can be integrated into

systems using standard SSV metering devices.

System properties

The adjustable SSVd metering devices are available in the standard sizes from 6 to 22 outlets – using Lincoln's single-block technology.

Metering screws can be pre-assembled or supplied as a separate set.

Metering screws per outlet pair are available in 10 sizes – 0.08cm³, 0.14cm³, 0.2cm³, 0.3cm³, 0.4cm³, 0.6cm³, 0.8cm³, 1.0cm³, 1.4cm³, and 1.8cm³ per outlet and stroke

Technical data

| | Unit | |
|----------------------------|--------------------|--|
| Outlets | Qty | 6 to 22 |
| Pressure | | |
| Max. operating pressure | [bar] | 350 |
| Max. differential pressure | [bar] | 100 |
| Max. run-in pressure | [bar] | 20 |
| Output | | |
| per outlet and stroke | [cm ³] | 0,08; 0,14; 0,2; 0,3; 0,4; 0,6; 0,8; 1,0; 1,4; 1,8 |
| Thread | | |
| Outlet | | M 10 x 1 |
| Piston-side closure plug | | M 11 x 1 |
| Inlet | | R 1/2" or 1/2" NPTF |
| Material | | |
| Steel | | Surface, black-chromate treated |

Standard models

| Outlets | Inlet thread |
|---------|--------------|
| | R 1/2" NPT |
| 6 | 649-29485-1 |
| 8 | 649-29486-1 |
| 10 | 649-29487-1 |
| 12 | 649-29488-1 |
| 14 | 649-29489-1 |
| 16 | 649-29587-1 |
| 18 | 649-29588-1 |
| 20 | 649-29589-1 |
| 22 | 649-29590-1 |

SSVD Metering Devices with Metering Screw Technology

Product survey

SSVD metering devices with piston detectors

| Outlets | Part No. |
|---------|-------------|
| 6~...N | 649-29495-1 |
| 8~...N | 649-29496-1 |
| 10~...N | 649-29497-1 |
| 12~...N | 649-29498-1 |
| 14~...N | 649-29499-1 |
| 16~...N | 649-29423-1 |
| 18~...N | 649-29423-1 |
| 20~...N | 649-29423-1 |
| 22~...N | 649-29424-1 |

SSVD metering devices with combined outlets 1 & 2

| Outlets | Part No. |
|---------|-------------|
| 6/5 | 649-29490-1 |
| 8/7 | 649-29491-1 |
| 10/9 | 649-29492-1 |
| 12/11 | 649-29493-1 |
| 14/13 | 649-29494-1 |
| 16/15 | 649-29593-1 |
| 18/17 | 649-29592-1 |
| 20/19 | 649-29593-1 |
| 22/21 | 649-29594-1 |

SSVD metering device with combined outlets, inlet thread 1/2" NPTF

| Outlets | Part No. |
|---------|-------------|
| 6/5 | 649-29540-1 |
| 8/7 | 649-29541-1 |
| 10/9 | 649-29542-1 |
| 12/11 | 649-29543-1 |
| 14/13 | 649-29544-1 |
| 16/15 | 649-29631-1 |
| 18/17 | 649-29632-1 |
| 20/19 | 649-29633-1 |
| 22/21 | 649-29634-1 |



Check valve, screwable



Quickline, check valve



Outlet closure plug

SSV and SSVD accessories

Outlet fittings, screwable

| Part No. | Description |
|-------------|---|
| 504-30345-2 | Check valve for tube 4 mm |
| 504-30344-4 | Check valve for tube 6 mm |
| 504-31709-1 | Check valve for tube 4 mm - stainless steel |
| 504-31705-1 | Check valve for tube 6 mm - stainless steel |

Quickline quick coupling

| Part No. | Description |
|-------------|---|
| 226-14091-4 | Check valve for tube 6 mm - high pressure (for main metering device) |
| 226-14091-6 | Check valve for tube 6 mm - medium pressure (for secondary metering device) |
| 226-14091-2 | Check valve for tube 6 mm - medium pressure (for secondary metering device) |

Other accessories

| Part No. | Description |
|-------------|---|
| 303-17499-3 | Outlet closure plug M10 x 1 |
| 303-19344-2 | Outlet closure plug M10 x 1 - stainless steel |
| 219-11798-3 | O-ring for stainless steel closure plug |

SSVM Metering Devices

Product survey



SSVM metering devices offer similar benefits as the SSN, but are smaller in size and output. This makes the SSVM ideal for compact applications – little space and short distances.

They can be monitored visually or electronically depending on the options selected. They are available with 6 to 12 outlets and can be used for grease up to NLGI 2, or oil of at least 40 cSt.

Technical data

| | Unit | |
|-------------------------|--------------------|---------------------------------|
| Outlets | Qty | 6 - 12 |
| Pressure | | |
| Max. operating pressure | [bar] | 200 |
| Max. back pressure | [bar] | 40 |
| Output | | |
| per outlet and stroke | [cm ³] | 0,07 |
| Outlet thread | | M 8 x 1 |
| Material | | |
| Steel | | Surface, black-chromate treated |
| Temperature | | |
| Operating temperature | [°C] | -25 to +70 |

Dimensions

| Outlets | Height | Width | Depth |
|---------|--------|-------|-------|
| 6 | 48,5 | 50 | 25 |
| 8 | 60 | 50 | 25 |
| 10 | 71,5 | 50 | 25 |
| 12 | 83 | 50 | 25 |

All lengths dimensions in mm

Accessories

| Part No. | Description |
|-------------|---|
| 519-31661-1 | Threaded connections, check valve for tube 4 mm |
| 224-14091-5 | Quickline quick coupling, check valve for tube 4 mm |
| 303-16284-1 | Outlet closure plug M 8 x 1, with sealing edge |

SSVM Metering Devices

Product survey

Standard models

| Outlets | Inlet thread R 1/2" female | R 1/2" NPT female |
|---------|-------------------------------|-------------------|
|---------|-------------------------------|-------------------|

| | | |
|----|-------------|-------------|
| 6 | 619-26761-1 | 619-26764-1 |
| 8 | 619-37044-1 | 619-26650-1 |
| 10 | 619-26846-1 | 619-26848-1 |
| 12 | 619-37049-1 | 619-26653-1 |

with indicator pin (K)

| Outlets | Inlet thread R 1/2" female | R 1/2" NPT female |
|---------|-------------------------------|-------------------|
|---------|-------------------------------|-------------------|

| | | |
|----|-------------|-------------|
| 6 | 619-26762-3 | 619-26765-3 |
| 8 | 619-37045-3 | 619-26651-3 |
| 10 | 619-26847-2 | 619-26849-2 |
| 12 | 619-37050-3 | 619-26654-3 |

With indicator pin and limit switch (KS)

| Outlets | Inlet thread R 1/2" female |
|---------|----------------------------|
|---------|----------------------------|

| | |
|----|-------------|
| 6 | 619-27078-1 |
| 8 | 619-27079-1 |
| 10 | 619-27080-1 |
| 12 | 619-27081-1 |

With indicator pin and proximity switch

| Outlets | Inlet thread R 1/2" female |
|---------|----------------------------|
|---------|----------------------------|

| | |
|----|-------------|
| 6 | 619-27667-1 |
| 8 | 619-27668-1 |
| 10 | 619-27669-1 |
| 12 | 619-27670-1 |

With indicator pin and adapter for proximity switch

| Outlets | Inlet thread R 1/2" female |
|---------|----------------------------|
|---------|----------------------------|

| | |
|----|-------------|
| 6 | 619-27663-1 |
| 8 | 619-27664-1 |
| 10 | 619-27665-1 |
| 12 | 619-27666-1 |

SSVFL Flange Metering Devices

Product survey



SSVFL flange metering device



SSVFL-RN

The SSVFL is based on the standard SSK flanged to a manifold block. Ideal for rigorous conditions such as those found in steel plants.

This design allows for connections up to dia. 10 mm tubing. Additionally, the metering devices can easily be exchanged during maintenance routines without having to disconnect lubricant feed lines – thus saving valuable time.

They can be monitored visually (SSVFL-K) or electronically via a proximity switch (SSVFL-RN). They are available with 1 to 12 outlets and can be used for grease up to NGLI 2 or oil of at least 40 cSt.

Technical Data

| | Unit | |
|--------------------------|--------------------|---------------------------------|
| Outlets | Qty | 1 - 2 |
| Pressure | | |
| max. operating pressure | [bar] | 350 |
| max. back pressure | [bar] | 300 |
| Output | | |
| per outlet and stroke | [cm ³] | 0.2 |
| Thread | | |
| Outlet | | G 1/2, female |
| Piston-side closure plug | | G 1/2, female |
| Material | | |
| Steel | | Surface, black-chromate treated |
| Temperature | | |
| Operating temperature | [°C] | -25 up to +70 |

Standard models

| Outlets | SSVFL metering devices | SSVFL-RN metering devices |
|---------|------------------------|---------------------------|
| 1 | 629-40646-1 | 619-40678-1 |
| 2 | 629-40646-2 | 619-40678-2 |
| 3 | 629-40646-3 | 619-40678-3 |
| 4 | 629-40646-4 | 619-40678-4 |
| 5 | 629-40646-5 | 619-40678-5 |
| 6 | 629-40646-6 | 619-40678-6 |
| 7 | 629-40646-7 | 619-40678-7 |
| 8 | 629-40646-8 | 619-40678-8 |
| 9 | 629-40646-9 | 619-40678-9 |
| 10 | 629-40647-1 | 619-40679-1 |
| 11 | 629-40647-2 | 619-40679-2 |
| 12 | 629-40647-3 | 619-40679-3 |

SSVFL Flange Metering Devices

Product survey

Dimensions

| Outlets | Height | Width | Depth |
|---------|--------|-------|-------|
| 1-3 | 97 | 120 | 66 |
| 4 | 112 | 120 | 66 |
| 5-6 | 97 | 120 | 66 |
| 7-8 | 112 | 120 | 66 |
| 9-10 | 127 | 120 | 66 |
| 11-12 | 142 | 120 | 66 |

All lengths dimensions in mm

Accessories

| Part No. | Description |
|--------------------|-----------------------------------|
| 223-13052-1 | Outlet check valve for tube 6 mm |
| 223-13052-2 | Outlet check valve for tube 8 mm |
| 223-13052-3 | Outlet check valve for tube 10 mm |

Notes

A complete line of lubrication solutions and industrial pumping products

Automatic lubrication

Our automatic systems dispense measured amounts of lubricant at predetermined intervals. Systems include Helios and Duo-Matic dual-line systems, and Centro-Matic, Modular Lubre, Quicklub and DRSCD precision oil lubrication. With our BearingSaver programme, we find the best automatic solution for you from our wide range of systems for grease, fluid grease and oil.

General lubrication

Sometimes a simple approach is the best solution. Our wide range of products includes smaller, self-contained automatic lubricators and general lubrication equipment.

Industrial pumping

Lincoln has developed specialized pumps and pumping stations, to handle the difficult job of transferring thick fluids. From the industry-best PileDriver III and PowerMaster III pumps and air motors to specialty pumps, controls and mounting accessories, Lincoln is the preferred pumping system for many tough applications.





The Power of Knowledge Engineering

Drawing on five areas of competence and application-specific expertise amassed over more than 100 years, SKF brings innovative solutions to OEMs and production facilities in every major industry worldwide. These five competence areas include bearings and units, seals, lubrication systems, mechatronics (combining mechanics and electronics into intelligent systems), and a wide range of services, from 3-D computer modelling to advanced condition monitoring and reliability and asset management systems. A global presence provides SKF customers uniform quality standards and worldwide product availability.

! Important information on product usage

All products from Lincoln may be used only for their intended purpose as described in this brochure and in any instructions. If operating instructions are supplied with the products, they must be read and followed.

Not all lubricants are suitable for use in centralized lubrication systems. Lincoln does offer an inspection service to test customer supplied lubricant to determine if it can be used in a centralized system. Lincoln lubrication systems or their components are not approved for use with gases, liquefied gases, pressurized gases in solution and fluids with a vapor pressure exceeding normal atmospheric pressure (1 013 mbar) by more than 0,5 bar at their maximum permissible temperature.

Hazardous materials of any kind, especially the materials classified as hazardous by European Community Directive EC 67/548/EEC, Article 2, Par. 2, may not be used to fill SKF centralized lubrication systems and components and delivered and/or distributed with the same.

Lincoln GmbH
Heinrich-Hertz-Str. 2-8
69190 Walldorf
Germany

Tel. +49 (0)6227 33-0
Fax +49 (0)6227 33-259

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