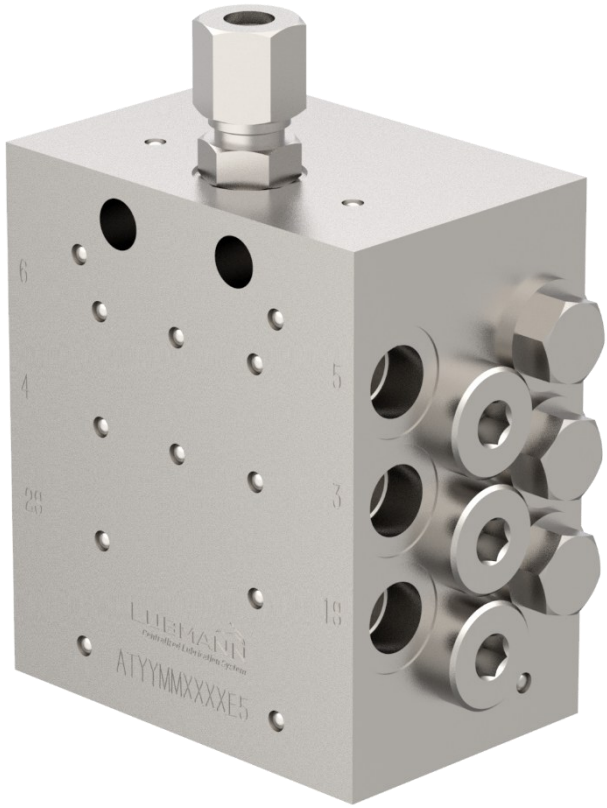
LUBMANN
Centralized Lubrication System

# Operating- and assembly manual
# Block divider SSVD
## progressive



LUBMANN
Centralized Lubrication System

## Contents



All information subject to technical changes.

| Rev. | Type of change | Date / Author | Date / Release |
|---|---|---|---|
| 00 | First edition | 29.01.2025 / HB | 29.01.2025 / RJ |
| | | | |
| | | | |
| | | | |

# 1 Imprint

**Manufacturer**
Lubmann GmbH
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**Training courses**
In order to provide a maximum of safety and economic viability, Lubmann GmbH carries out detailed training courses. It is recommended that the training courses are attended. For more information, please contact Lubmann GmbH.



**Disclaimer**
The manufacturer shall not be held responsible for damages caused by:

- Non appropriate use faulty assembly, operating, setting, maintenance, repair or accidents
- Use of inappropriate lubricants
- Improper or late response to malfunctions
- Unauthorized modifications of the product
- Intent or negligence
- Use of non-original Lubmann spare parts
- Faulty planning or layout of the centralized lubrication system

Liability for loss or damage resulting from the use of our products is limited to the maximum purchase price. Liability for consequential damages of whatever kind is excluded.

## 2 Explanation of symbols


Safety instructions which, if not complied with, may endanger persons, are marked specifically with the general hazard symbol!


This heading is used if inaccurate compliance or non-compliance with the Operating Instructions or specified work procedures etc. may result in damage.

Points out Special Information!

## 3 Warranty and extent of warranty

Inappropriate intervention will rule out your warranty claim!

Warranty regarding operational safety, reliability and performance of the grease lubrication pump is only accepted by the manufacturer under the following conditions:

- Assembly, connection, setting, maintenance and repair are carried out by authorized and specialized staff.
- The limits stipulated in the technical data must never be exceeded
- Only original components or components approved by the manufacturer may be used for repair and maintenance work.

All guarantees and warranties expire for damages to the grease lubrication pump that are caused by operation with improper lubricants (e.g., piston wear, piston jamming, plugins, embrittled sealings).
Lubmann does not assume liability on damages caused by lubricants, even if these lubricants have been tested and released by laboratory tests, as damages caused by lubricants (e.g., by expired or improper stored lubricants, batch variations etc.) can not be retraced to their root cause in retrospect.

**Service address:** Kleiner Johannes 21, 91257 Pegnitz, Germany

## 4 Safety instructions

**General information**
Any safety-related faults must be eliminated without delay.

Below please find fundamental instructions to be complied with, regarding assembly, operation and maintenance. The mechanical and the competent specialists / staff of the operating company must read the Operating Instructions on all accounts prior to starting assembly and commissioning. Moreover, the Operating Instructions must permanently be available on site.

Not only the safety instructions included under this item, but also the specific safety instructions appearing in other parts of this manual must be complied with.

**General risk reference**
All system components have been designed in view of operational safety and accident prevention according to the applicable provisions for the design of technical equipment.

Nevertheless, utilization thereof may result in risks for the user or third parties and/or technical equipment. Thus, the system may only be used in proper technical working within its intended fields of application and in compliance with the safety provisions and the Operating Instructions.

**Personal**
The staff in charge of operation, maintenance, inspection and assembly must be qualified accordingly for this work. The operating company must stipulate competences, responsibilities and the supervision of staff precisely. If the staff does not dispose of the appropriate knowledge, they must be trained and instructed. The operating company must ensure that the staff have understood the contents of the Operating Instructions.

**Danger due to non-observance of the safety information**


Non-compliance with the safety information may put persons at risk and endanger the environment and/or the machine. Non compliance with the safety instructions may rule out any claims for damages.

Non-compliance may lead, e. g. to the following dangers:

- Failure of important system functions,
- Failure of the specified maintenance and servicing methods,
- Endangering people due to electrical, mechanical and chemical effects,
- Endangering the environment due to leakages of dangerous materials.

**Use in conformity with the intended purpose:**
The divider of the series SSVD serve only for supply of lubrication points or secondary dividers at vehicles, systems and machines.
Any use beyond this scope is regarded as being not in conformity with the intended purpose.

**Assembly and maintenance**

Observe for all assembly works at vehicles, systems and machines the valid local accident prevention regulations and safety instructions as well as the specifications for operation and maintenance.


All maintenance, inspection and assembly work may only be carried out by trained specialists. All work must only be carried out when the plant is at a standstill and while wearing appropriate protective clothing.
All the safety and protective equipment must be replaced immediately after completing work.

Media that endangers the environment must be disposed in accordance with pertinent official specifications.

Secure the system during maintenance and repair works, against intentional and unintentional reoperation.

Dispose of process materials in accordance with the safety data sheets of the lubricant manufacturer.

**Safety information for operators/operating staff**

If hot or cold machine parts led to hazards, the customer must secure them from being touched.


The guards on moving or rotating parts must not be removed.

Drain leakages of dangerous materials in a way, that people or the environment are not endangered.

Comply with legal regulations.

Exclude any hazards by electric energy.

**Unauthorized modification and spare part production**


Modifications and alterations of the system require the manufacturer`s prior approval. Original spare parts and accessories authorized by the manufacturer serve for higher safety. The use of other parts may rule out liability for the consequences of such use. For components, which are retrofitted by the operator, Lubmann does not assume liability nor claims for compensation.

**Danger caused by the electrics**


The units may be connected to the power supply exclusively by appropriately trained qualified personal in conformity with the local connection conditions and regulation (e. g. DIN, VDE)!

Improperly connected equipment may lead to serious personal injury and damage to property!

**Danger caused by system pressure**


The units might be under pressure. Make them pressure less before you start with repairs, changes or extensions.

**Use of hydraulic hose lines:**

Installing hydraulic hose lines at the divider, the operator must observe respectively ensure the following items:

Checks for proper assembly and function must be carried out according to the regional valid guidelines.

Checks for a safe provisioning and use must be carried out according to the regional valid guidelines.


The check deadline must not be exceeded.

Exchange defect hydraulic hose lines immediately and professional.

Hydraulic hose lines subject to a wear process and must be exchanged regularly and according to the manufacturer`s details.

**Cleaning**

The progressive divider can be cleaned with a high-pressure cleaner.


If an optional divider monitoring sensor is installed, it is not permitted to clean it with a high-pressure cleaner!

The spray jet can cause water to penetrate the monitoring system via the seals.

In this case, Lubmann GmbH does not assume any warranty / guarantee!

**Lubricant**

The system has been designed for commercially available multi-purpose greases of NLGI class 2 for operation in summer and winter.

Use grease with high-pressure additives (EP greases).

Only use greases of the same saponification type.


Lubricants containing solid contents must not be used (lubricants like graphite or MoS2 on request).

Observe the vehicle manufacturer`s specifications, when you select the lubricant.

After the system has been shut down, check the lubricant for physical and chemical signs of ageing to ensure that it is still suitable for use.

Observe the safety data sheet for the lubricant used.

**Hazards to environment cause by lubricants**

The lubricants which are recommended by the manufacturer of your vehicle, system or machine correspond in their composition to the common safety regulations. Mineral oils and greases are generally hazardous to ground water and their storage, processing and transport requires special precautions.,

**Inadmissible methods of operation**


Operational security of the plant is only guaranteed if it is operated in accordance with the operating instructions. The limit values stated in the technical data must not be exceeded under any circumstances.

# 5 Delivery, Returns and Storage

**Delivery**
The progressive dividers of the SSVD series are packaged according to standard commercial packaging in accordance with the regulations of the recipient country and wishes of the customer.

There are no restrictions for land, sea or air transport.

After receipt of the shipment, check the shipment for damage and completeness according to the shipping documents. Immediately report any transport damages to the forwarding agent. Keep the packaging material until any discrepancies are resolved. During in-house transport ensure safe handling.

**Returns**
Clean all parts and pack them properly (i.e., following the regulations of the recipient country) before returning them.

Protect the product against mechanical influences such as impacts.

There are no restrictions for land, sea or air transport.

**Storage**
Lubmann products are subject to the following storage conditions:

- dry, dust- and vibration-free in closed premises
- no corrosive, aggressive materials at the place of storage (e. g. UV rays, ozone)
- protect from environmental influences such as UV rays
- protected against pests and animals (insects, rodents, etc.)
- possibly in the original product packaging
- shielded from nearby sources of heat and coldness
- in case of high temperature fluctuations or high humidity take adequate measures (e. g. heater) to prevent the formation of condensation water

**Storage conditions for parts filled with lubricant**
The conditions mentioned in the following will have to be adhered to when storing products filled with lubricant.

Storage period of up to 6 months
The filled products can be used without having to take further measures.

Step for Storage period from 6 to 18 months - Divider

1. Remove all connection lines and closure screws
2. Connect the pump which has been filled with new lubrication grease suitable for the application purpose to the divider
3. Let he pump run until new lubricant leaks from the divider
4. Remove leaked lubricant
5. Reinstall closure screws and connection lines

Storage period more than 18 months

To avoid dysfunctions, consult the manufacturer before commissioning. The general procedure to remove the old grease filling corresponds to that of a storage period from 6 to 18 months

# 6 Shutdown and disposal

**Temporary shutdown**

Temporarily shut the system down by:

- Switching off the superior machine.
- Disconnecting the product from the power supply.

**Final shutdown and disassembly**

The final shutdown and disassembly of the product must be planned and carried out by the operator in a professional manner and in compliance with all regulations to be observed.

**Disposal**

- for Countries within the European Union

Disposal should be avoided or minimized wherever possible. Disposal of products contaminated with lubricant must be affected via licensed waste disposal contractor in accordance with environmental requirements and waste disposal regulations as well as local authority requirements.

The specific classification of the waste is in the waste producer's responsibility, as the European Waste Catalogue provides different waste disposal codes for the same type of waste but of different origin.

Electrical components have to be disposed of or recycled following WEEE directive 2012/19/EU.

Plastic or metal parts can be disposed of with the commercial waste.

- for Countries outside the European Union

The disposal must be done according to the valid national regulations and laws of the country where the product is used

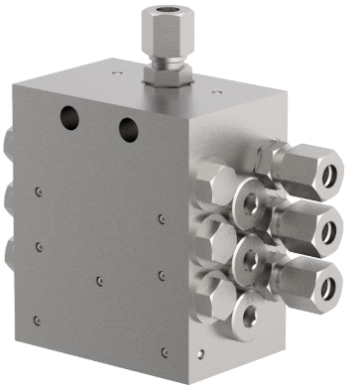
# 7 Accompanying documents

In addition to this manual, the following documents must be considered by the respective target audience:

- Operational instructions and release regulations for the pump used
- Safety data sheet for the lubricant used
- Project documentation
- Operating instructions for components installed during assembly of the central lubrication system
- Release regulations and regulations in the company

## 8 Technical Data

| | |
|---|---|
| Max. operating pressure: | 350 bar |
| Min. operating pressure: | 20 bar |
| Operating temperature: | -35°C to 70°C |
| Lubricant: | Greases up to NLGI-Cl. 2<br>(No grease with solids)<br>No Oil |
| In-/ Outlet thread: | M10x1 |
| Number of outlets: | 6 - 22 |
| Delivery: ($cm^3$ / Stroke) | 0,08 – 1,80 |

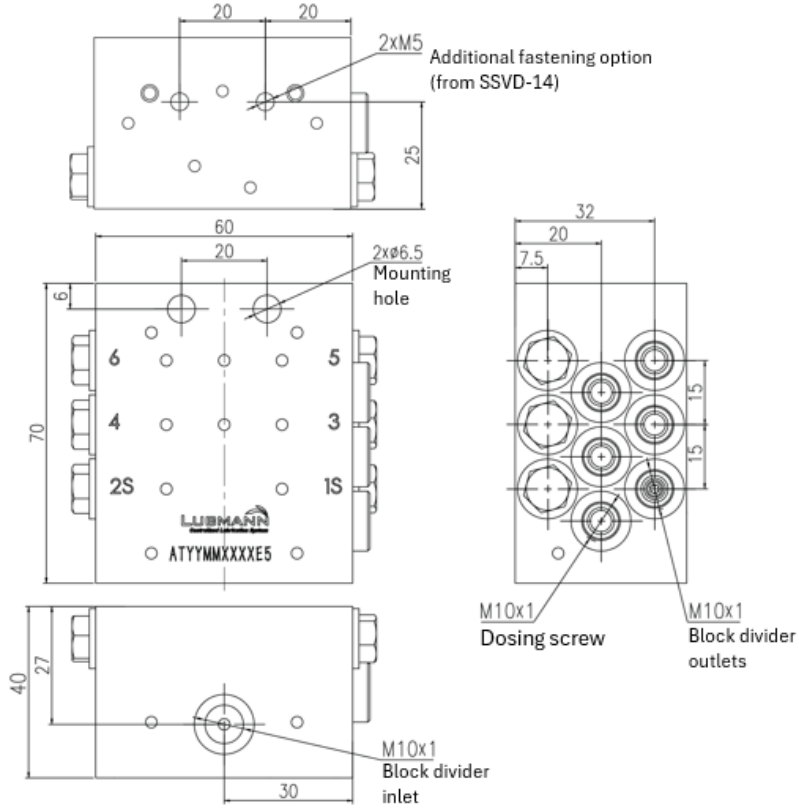


ATTENTION

Please note during assembly:
Vertical installation position (Piston of the block divider in a horizontal position!)

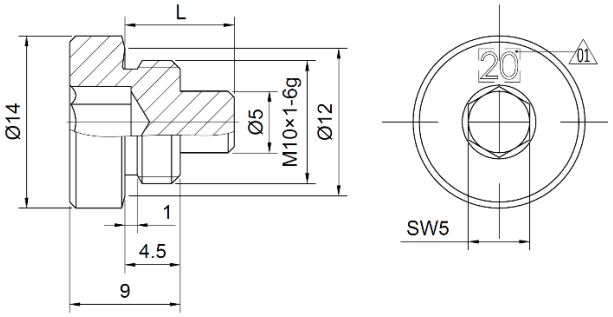
### 8.1 Block divider body

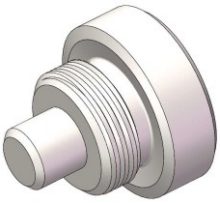
| Block divider | Part nr. | Number of outlets | L [mm] | Weight [kg] |
|---|---|---|---|---|
| SSVD-6 | 15010359 | 6 | 70 | 1,2 |
| SSVD-8 | 15010360 | 8 | 85 | 1,5 |
| SSVD-10 | 15010361 | 10 | 100 | 1,8 |
| SSVD-12 | 15010362 | 12 | 115 | 2,0 |
| SSVD-14 | 15010363 | 14 | 130 | 2,2 |
| SSVD-16 | 15010364 | 16 | 145 | 2,5 |
| SSVD-18 | 15010365 | 18 | 160 | 2,8 |
| SSVD-20 | 15010366 | 20 | 175 | 3,0 |
| SSVD-22 | 15010367 | 22 | 190 | 3,2 |




## 8.2 Dosing screw

In order to achieve the exact metering volume of different lubrication points, dosing screws with different metering volumes can be installed.



01 This marking on the dosing screw is the indicator for the dosing volume.
For example, 20 means that the dosing volume is 0.2 $cm^3$ per stroke.
Dosing screws are available from 0,08 to 1,80 $cm^3$ / stroke.

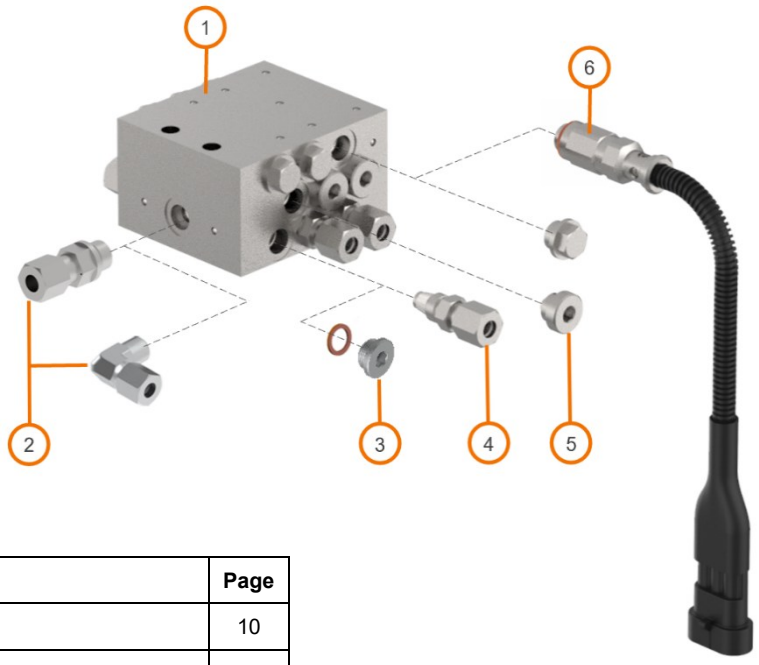
| **Dosing screw** [$cm^3$/Stroke] | **Part nr.** | **L** [mm] | **Weight** [kg] |
|---|---|---|---|
| SSVD-0,08 | 15010368 | 41,0 | 0,013 |
| SSVD-0,14 | 15010369 | 39,9 | 0,013 |
| SSVD-0,20 | 15010370 | 38,9 | 0,012 |
| SSVD-0,30 | 15010371 | 36,9 | 0,012 |
| SSVD-0,40 | 15010372 | 34,9 | 0,011 |
| SSVD-0,60 | 15010373 | 30,9 | 0,010 |
| SSVD-0,80 | 15010374 | 26,9 | 0,010 |
| SSVD-1,00 | 15010375 | 22,9 | 0,009 |
| SSVD-1,20 | 15010376 | 18,9 | 0,009 |
| SSVD-1,40 | 15010377 | 14,9 | 0,008 |
| SSVD-1,60 | 15010378 | 10,9 | 0,008 |
| SSVD-1,80 | 15010379 | 6,9 | 0,007 |

Install the dosing screws with a tightening torque of 19 ± 1 Nm.

# 9 Components

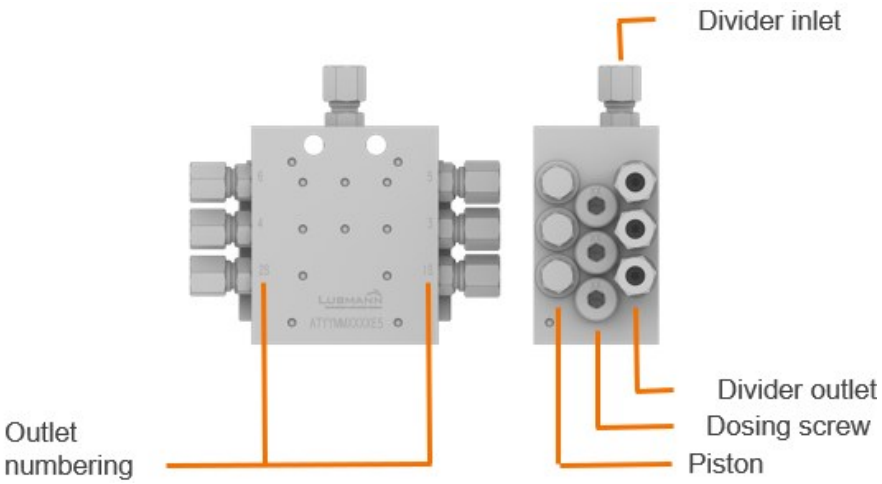
## 9.1 Block divider with attachments – Overview

The SSVD block divider can be used either as a main divider or as a secondary divider.




| Pos. | Components | Page |
|---|---|---|
| 1 | Block divider | 10 |
| 2 | Inlet screw coupling | 11 |
| 3 | Screw plug with sealing ring | 12 |
| 4 | Outlet screw coupling | 12 |
| 5 | Dosing screw | 9 |
| 6 | Divider monitoring sensor with sealing ring | 13 |

**Identification and assignment of the outlets:**



## 9.2 Inlet Screw Couplings

All screw couplings with M10x1k threads can be directly used for the inlet connection of the SSVD divider.

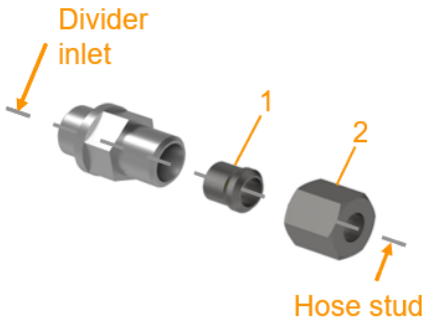
ATTENTION

All screw couplings with M10x1 threads must be used together with a sealing ring (ED sealed) for the inlet connection.

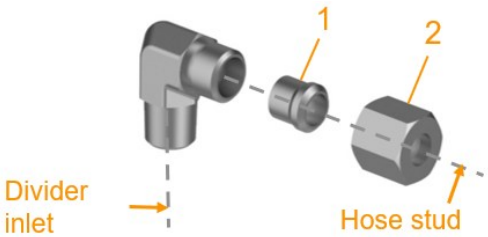
Install the inlet screw coupling with a tightening torque of 22 ± 2 Nm.

| **Straight screw coupling** | **Part nr.** complete |
|---|---|
| GE-D6LL-M10x1k-ST-ZnNi * | 9900111 |
| GE-D8LL-M10x1k-ST-ZnNi * | 9900112 |
| GE-D6LL-M10x1 (SW14-ED)-ST-ZnNi | 3050100890 |
| GE-D8LL-M10x1-(ED)-ST-ZnNi | 3050104830 |

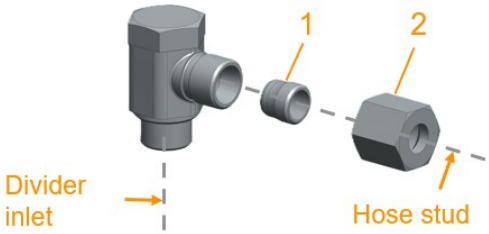
*Standard




| **Elbow screw coupling** | **Part nr.** complete |
|---|---|
| WE-D6LL-M10x1k-ST-ZnNi | 9900147 |
| WE-D8LL-M10x1k-ST-ZnNi | 9900149 |




| **Elbow swivel connector** | **Part nr.** complete |
|---|---|
| WS-D6LL-M10x1-(DK)-ST-ZnNi | 9900323 |
| WS-D8LL-M10x1-(DK)-ST-ZnNi | 9900324 |




| **Spare parts for Inlet screw couplings** | | **Part nr.** |
|---|---|---|
| Pos. 1 | Cutting ring-single edge-SRE-D6LL-ST-ZnNi | 9900209 |
| | Cutting ring-single edge-SRE-D8LL-ST-ZnNi | 9900211 |
| Pos. 2 | Union nut-ÜM-D6LL-ST-ZiNi | 9900199 |
| | Union nut-ÜM-D8LL-ST-ZiNi | 9900202 |

## 9.3 Outlet screw couplings

If the block divider is used as the main divider, an outlet screw coupling with non-return valve must be used at the outlet to the secondary divider. A high-pressure hose with a pre-assembled hose stud is installed as a connection.

If the block divider is used as a secondary divider, an outlet screw coupling with a non-return valve or a push-in coupling with a non-return valve must be used at the outlet. The connection to the lubrication point can be made with a high-pressure hose, polyamide hose or steel pipe.

ATTENTION

All screw couplings with sealing cone can be directly installed at the divider outlets.

All screw couplings with M10x1 threads must be used together with a sealing ring (or ED sealed) for the divider outlets.

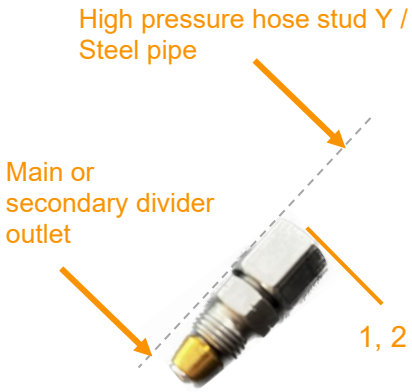
Install the outlet screw coupling with a tightening torque of 22 ± 2 Nm.

| Connector* | High-pressure hose ø 6 mm | Steel pipe ø 6 mm | Polyamide hose (PA) ø 6 mm |
|---|---|---|---|
| RGE | With hose stud Y * | ☑ | ☑ |
| RGES | With hose stud Y1 / N * | ---- | ☑ |

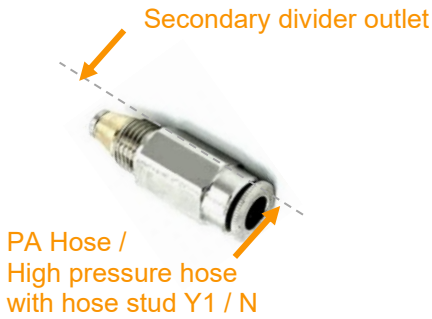
**For more informations about hose studs, check the accessories catalog.*

| | Part nr. complete |
|---|---|
| **Non return valve with sealing cone** (Brass) **RGE**-6LL-M10x1-ST-ZnNi | 3050101710 |

| **Spare parts for non-return valves with sealing cones** | | Part nr. |
|---|---|---|
| Pos. 1 | Cutting ring-single edge-SRE-D6LL-ST-ZnNi | 9900209 |
| Pos. 2 | Union nut-ÜM-D6LL-ST-ZiNi | 9900199 |




| | Part nr. complete |
|---|---|
| **Non return valve-straight screw coupling-push in-RGES-** D6-M10x1-with sealing cone (MS)-150 bar-MS-Ni | 9900243 |




## 9.4 Screw plug divider outlet

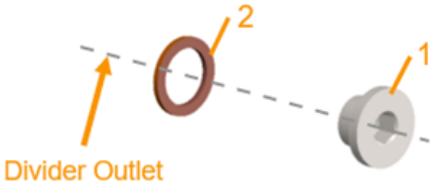
The function of the screw plug for the divider outlet is to forward the delivery quantity determined by the dosing screw to the corresponding next outlet. The sum of both dosing quantities is conveyed at this output.

ATTENTION

When installing this screw plug, a sealing ring must be installed.

Install the screw plug with a tightening torque of 19 ± 1 Nm.

| | | Part nr. |
|---|---|---|
| Pos. 1 | Screw plug-DIN908-M10x1-ST-ZnNi | 3010401940 |
| Pos. 2 | Sealing ring-DR-DIN7603 A-10x14x1-Cu | 3010401930 |

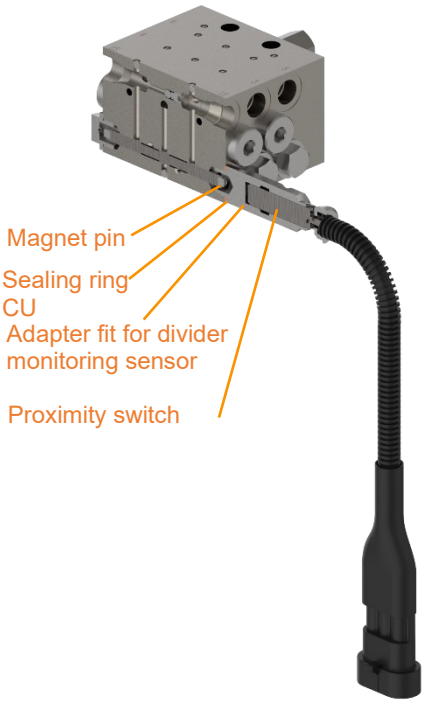


## 9.5 Divider accessories

### 9.5.1 Divider monitoring - Sensor

The SSVD block divider can be monitored using a sensor.

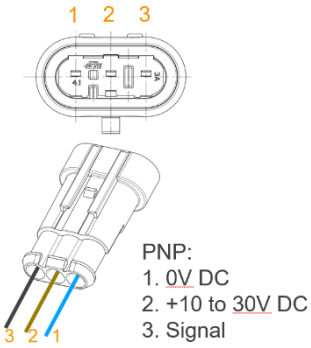
As standard, magnetic pins are installed in the piston at the outlets 1# and 2#. Here, a sensor can be mounted at the outlet on the right or left as required.
The sensor is damped by the piston movement.
The sensor sends the signals to the grease lubrication pump control unit. If the divider blocks, the grease lubrication pump control unit detects that no signals are being sent via the sensor.




PNP: Sensor signal is NO (+).
Standard for ALP-Series

| | Part number: |
|---|---|
| Kit-sensor-divider monitoring-SSVA_SSVD-M10x1-AMP_M_3P-PNP | 2111000147 |

| **Technical data:** | |
|---|---|
| Working principle: | solenoid |
| Thread of divider connection: | M10x1 |
| Plug of the sensor: | AMP_M_3P |
| Switching output: | PNP |
| Operating current Ie: | 200 mA |
| Operating voltage Ub: | 10 to 30 V DC |
| Temperature Range: | - 25 °C to + 85 °C |
| Visual display: | LED |
| Housing material: | Stainless steel |
| Protection Type: | IP 67 |
| Approval/Conformity: | cULus/CE/WEEE/EAC |




When installing a sensor on the progressive divider, pay attention to the installation space!

Install the divider monitoring sensor with a tightening torque of 15 ± 1 Nm.

The part number of the Sensor-Kit include the adapter and sealing ring.

ATTENTION

The connection cable between the monitoring sensor and the lubrication pump is NOT included in the scope of delivery!

For information about suitable cables, check “Divider monitoring – Cables”.

### 9.5.2 Divider monitoring - Cables

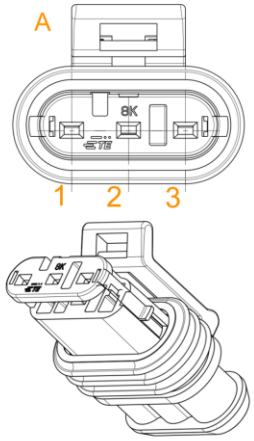
ATTENTION

The connecting cable between the sensor and the lubrication pump must be ordered separately.

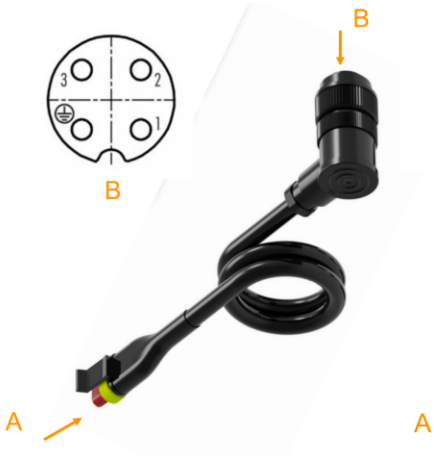
| | Cable kit-divider monitoring-with BD-Plug | Cable kit-divider monitoring-with HSC-Plug |
|---|---|---|
| Length 5,0 m: | 2110012410 | 2110010539 |
| Length 7,5 m: | 2110012409 | 2110002734 |

| | |
|---|---|
| Plug of the sensor: | TE - AMP Super Seal 1.5 SRS. 3P Stecker (IEC 529 and ISO 20653) |

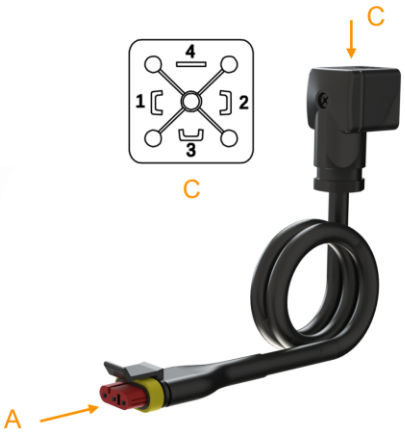
| | | |
|---|---|---|
| Plug at the lubrication pump: | RD24 Serie 693 | Device plug GDM 3011 J (DIN EN 175 301-803-A) |




Plug of divider




Cable kit-divider monitoring-with BD-Plug



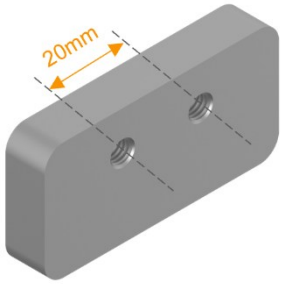

Cable kit-divider monitoring-with HSC-Plug

### 9.5.3 Mounting brackets

As an important accessory of the divider, the divider bracket is widely used in the installation of automatic lubrication systems. Especially when customers prefer that the installers do not drilling on their equipment.

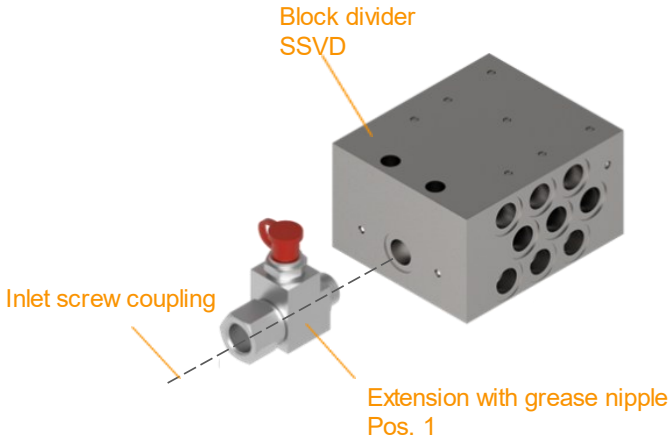
In our accessories catalogue you can find many more types of divider mounting brackets.

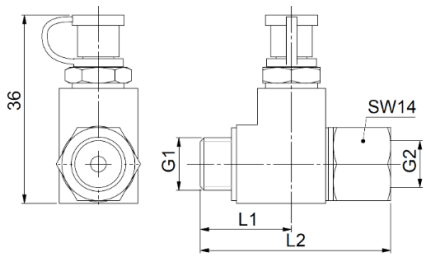
ATTENTION When selecting a suitable divider bracket, please note that the distances between the mounting holes vary between divider series.




### 9.5.4 Banjo with grease nipple (Swivel)

As an option, a banjo with grease nipple is provided to using a manual of hydraulic pump to refill the grease directly at the inlet connection of the divider.




| | Part nr. | G1 | G2 | L1 | L2 | SW1 | Material | Remark |
|---|---|---|---|---|---|---|---|---|
| Pos. 1 | 3050105240 | M10x1 | M10x1 | 17,5 | 38,5 | 14 | ST-ZnNi | Swivel |

ATTENTION Please check the hoses between the banjo and the pump before starting refilling grease from the banjo!

# 10 Working principle

## 10.1 General

Block divider supply lubrication points with lubricant in a progressive lubrication system.

The pistons of the progressive block divider are moving in sequence by hydraulic pressure, whereby each grease outlet discharges the grease to the different lubricating points following the sequence.

The delivery rate per outlet is determined by the installed dosing screws. Different sizes can be installed here.

A piston stroke is only carried out after the previous piston has reached the end position (complete piston stroke). All connected lubrication points are supplied with lubricant when a divider circulation is completed during operation. To do this, all pistons must have been moved from the initial to the final position and back again.

Intern kann das Dosiervolumen der Verteiler durch Verschließen der Ausgänge mit einer Verschlussschraube zusammengefasst werden. Dadurch entstehen bedarfsgerechte Dosiermengen für die an verschiedenen Schmierstellen benötigte Schmierstoffmenge.

To monitoring the proper functioning of the block divider, a divider monitoring sensor can optionally be installed.

## 10.2 Divider external combination principle

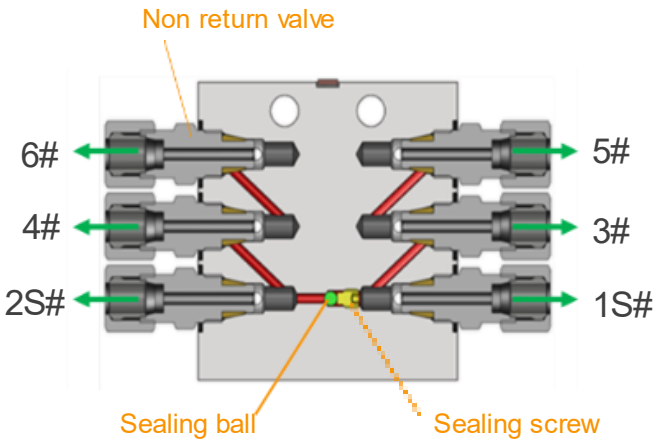
To meet the volume demand of the different greasing points under various application environment, sometimes it is necessary to combine the outlets of the divider internally to achieve more possibilities of the flow rate combination.

**Divider without combination**

As shown in the diagram below, the red slanted holes represent the channel connecting the two adjacent grease outlets.
Each divider is only installed with a sealing screw and sealing steel ball at the bottom piston (for outlets 1# and 2#) of the divider body.

ATTENTION

For divider with sealing screw and sealing steel ball, none of the outlets 1# and 2# can be blocked by a blind plug.



**Divider with combination (combination one side)**

As shown in the Diagram below, all outlets are blocked by screw plugs.

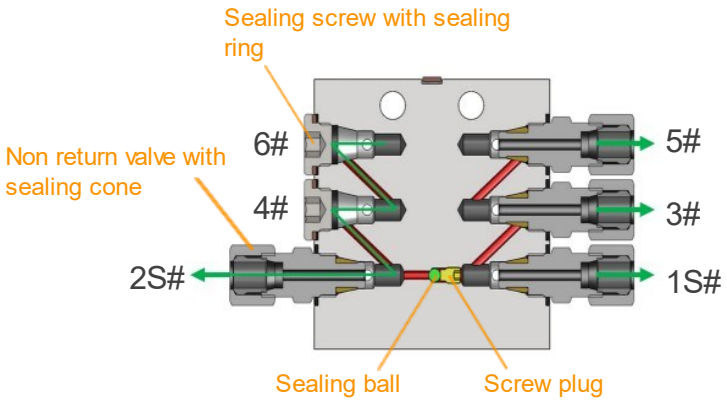
By that the outlets will be merged downward with the adjacent outlet. The opposite outlets cannot be bridged because the flow direction is exclusively vertical.
The delivery rate per stroke is determined by the installed dosing screws.

ATTENTION

For a divider with a sealing screw and sealing steel ball, **NONE** of the outlets 1# and 2# can be blinded by a blind plug.

***Example 1:*** *When the outlet 6# is blocked, the grease flows into outlet 4#, and the flowrate of discharged grease from 4# is twice as before (flowrate of 4# + 6#).*

***Example 2:*** *When the outlet 6# and outlet 4# are blocked at the same time, the grease flows into the 2# and grease is discharged from outlet 2# and the flowrate of the discharged grease from 2# is trebled (flowrate of 2# + 4# + 6#).*



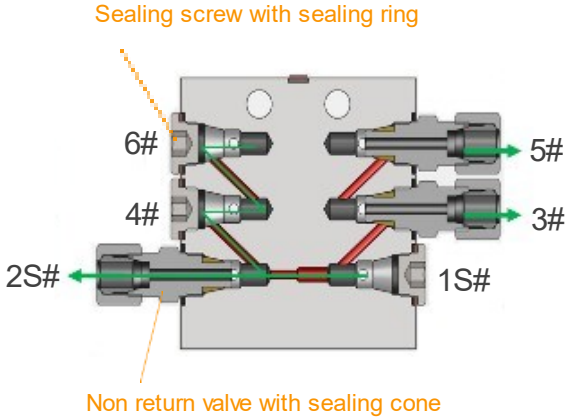

**Divider with combination (combination both sides)**

When the combined outlets on one side cannot meet the flowrate requirements, the sealing screw and sealing steel ball can be removed from the outlet 1# and implement with a blind plug either on 1# or 2, and the grease on the opposite side can be merged in.

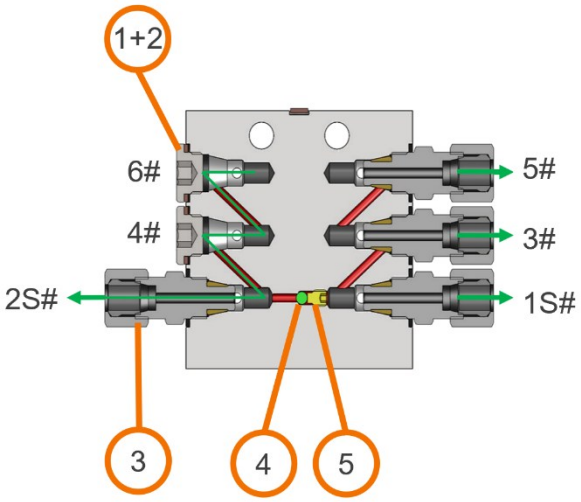
ATTENTION

For SSVD dividers, outlets 1# and 2# cannot be blocked at the same time.
The merging of the outlets in different sides can only be realized through the outlets 1# and 2#.

***Example:*** *A divider with 6 outlets needs 4 outlets to be combined and discharge 4 times of the flowrate as usual from the 2# outlet, then 1#, 4# and 6# need be blocked with a blind plug and remove the sealing screw and sealing steel ball.*



## 10.3 Part numbers of components for combination




| | | Part nr. |
|---|---|---|
| Pos. 1 | Screw plug-DIN908-M10x1-ST-ZnNi | 3010401940 |
| Pos. 2 | Sealing ring-DR-DIN7603 A-10x14x1-Cu | 3010401930 |
| Pos. 3 | Non return valve-RGE-6LL-M10x1-with sealing cone (MS)-ST-ZnNi | 3050101710 |
| Pos. 4 | Sealing steel ball for divider outlet separation-D3-ST | 3049000450 |
| Pos. 5 | Sealing screw for divider outlet separation-M4-ST | 3040102550 |

Install the In-/outlet screw coupling with a tightening torque of 22 ± 2 Nm.

Install the screw plug with a tightening torque of 19 ± 1 Nm.

Install the sealing screw for divider outlet separation with a tightening torque of 2,5 ± 0,2 Nm.

## 11 Commissioning / Assembly

Check the device for functionality and the presence of safety features.
Ensure that all warning labels are present, undamaged, and clearly visible. If this is not the case, they must be replaced immediately.

Please adhere to the technical specifications provided in the manual and do not exceed the specified limits.
Improper use is strictly prohibited. Only use lubricants intended for this purpose.
Make sure to use the product exclusively within its designated area of use.


Please note during assembly**:**
Vertical installation position
(Piston of the block divider in a horizontal position!)

We recommend filling the lubrication hoses with lubricant before assembly, this will vent the system and shorten the time for commissioning.

There are two mounting holes ø6,5 mm on the block divider for fastening.
Mount the block divider at the planned position with the appropriate torque according to the lubrication plan.

From the block divider size SSVD-14 onwards, there are two M5 threaded mounting holes on the bottom side for additional fastening.

An outlet fitting (with non-return valve) or sealing screw must be installed on each divider outlet.

Start the grease lubrication pump until lubricant comes out without bubbles at all outputs of the block divider.
Connect the block divider properly with lubrication lines to the intended secondary dividers or lubrication pump.

Make sure that all lubrication lines are installed correctly.

During operation, ensure that there is sufficient lubricant in the lubrication pump.

Please note the applicable documents!

## 12 Troubleshooting

| Fault | Possible Cause | Solution |
|---|---|---|
| Lubrication points get no or insufficient lubricant | Lubrication pump is empty | Refill lubricant |
| | Wrong dosing quantity at the divider | Replace the dosing screw according to the requirements. |
| | Clogged or broken lubrication hose | Replace lubrication hose |
| | Unsuitable lubricant | Replace lubricant |
| | Unsuitable or defective outlet fittings (non-return valve) at the divider outlets | Check outlet fittings and replace if necessary |
| | Blockage before the inlet of the main divider | Disconnect the hose from the pump to the main divider and check whether lubricant is leaking from the hose. If no lubricant is dispensed, the defect is from the hose to the main divider or the grease lubrication pump. |
| | Blockage on main divider | Disconnect the hose from the main divider to the secondary divider individually and check whether lubricant is leaking at the outlet of the main divider. If no lubricant is dispensed, the cause is from the main divider or the hose. Clean / replace the main divider if necessary. |
| | Blockage on secondary divider | Disconnect the hose from the secondary divider to the lubrication point individually and check whether lubricant is leaking at the outlet of the secondary divider. If no lubricant is dispensed, the cause is from the secondary divider or the hose. Clean / replace the secondary divider if necessary. |
| | Blockage of a lubrication point | Disconnect the hose from the secondary divider to the lubrication point individually and check whether lubricant is leaking at the outlet of the secondary divider. If lubricant is dispensed, the cause is from the lubrication point. Clean / replace the grease nipple if necessary. |
| A lubricant point gets too much or not enough lubricant | Wrong dosing quantity at the block divider | Dosierschraube entsprechend den Anforderungen tauschen |
| | Incorrect pump setting | Check the pump working and pause time, and adjust if necessary. |

Please also note the information on “Troubleshooting” in the Product Manual for the grease lubrication pump used.

To check, the grease lubrication pump must be in operation and several lubrication cycles must have run so that the main divider and any secondary dividers are sufficiently supplied with lubricant.

## 13 Order key

**SSVD - 6 / 4 - 111 - 1S/5 - 8/14/20 - 1P . 000**

| Block divider SSVD-X Number of outlets |
|---|
| 6 = max. 6 divider outlets (3 pistons) |
| 8 = max. 8 divider outlets (4 pistons) |
| 10 = max.10 divider outlets (5 pistons) |
| 12 = max.12 divider outlets (6 pistons) |
| 14 = max. 14 divider outlets (7 pistons) |
| 16 = max. 16 divider outlets (8 pistons) |
| 18 = max. 18 divider outlets (9 pistons) |
| 20 = max. 20 divider outlets (10 pistons) |
| 22 = max. 22 divider outlets (11 pistons) |

| No. of valid outlets |
|---|
| X |

| Fittings in divider inlets and outlets | | | | | | | |
|---|---|---|---|---|---|---|---|
| Outlet \ Inlet | None | GE D6 mm | GE D8 mm | WE D6 mm | WE D8 mm | WS D6 mm | WS D8 mm |
| None | 100 | 110 | 120 | 130 | 140 | 150 | 160 |
| RGE | 101 | 111 | 121 | 131 | 141 | 151 | 161 |
| RGES | 102 | 112 | 122 | 132 | 142 | 152 | 162 |

| Positions of blinded outlets |
|---|
| X = Number of blinded outlets |

ATTENTION: 0 ≙ no blinded outlets; outlets #S1 and #S2 cannot be blinded at the same time

| Dosing screws * | 8 | 14 | 20 | 30 | 40 | 60 | 80 | 100 | 120 | 140 | 160 | 180 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dosing volume $cm^3$ / stroke per outlet | 0,08 | 0,14 | 0,20 | 0,30 | 0,40 | 0,60 | 0,80 | 1,00 | 1,20 | 1,40 | 1,60 | 1,80 |

* Order from bottom to top

| Divider monitoring sensor at outlet #S1 or #S2 | |
|---|---|
| no additionals (Standard with screw plug) | 0 |
| Outlet #S1 with PNP divider monitoring sensor | 1P |
| Outlet #S2 with PNP divider monitoring sensor | 2P |

| Special models | |
|---|---|
| Standard version | 000 |
| Customized Version | XXX |

**Sample order:**

**SSVD-6/4-111-1S/5-8/14/20-1P.000**

6/4 ≙ Block divider-SSVD 6 (6 Outlets of which 4 are used)

111 ≙ Straight screw coupling. Ø 6, non-return valve and sealing cone at the outlets

1S/5 ≙ Outlets #1S und #5 with screw plug

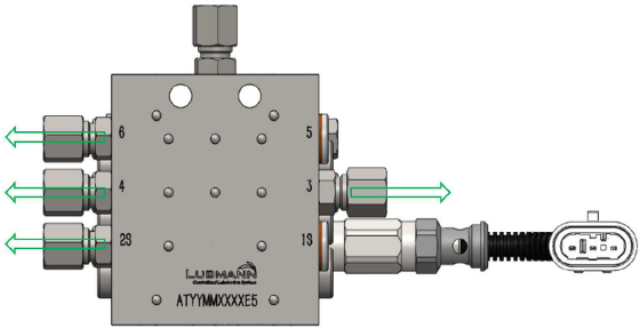
8/14/20 ≙ at the level of #1S and #2S is a metering screw 8 installed

≙ at the level of #4 and #3 is a metering screw 14 installed

≙ at the level of #5 and #6 is a metering screw 20 installed

1P ≙ Divider monitoring sensor at #1S

000 ≙ No customization




**The following flow rates are delivered by the block divider:**

#1S → blinded

#2S → 2 x 0,08 = 0,16 $cm^3$

#3 → 0,20 + 0,14 = 0,34 $cm^3$

#4 → 0,14 $cm^3$

#5 → blinded

#6 → 0,20 $cm^3$