5. Mounting position

To ensure trouble-free operating conditions pay attention to the mounting position of PRV-M. The delivery pistons in the middle elements should always run in horizontal direction, vertical direction has to be avoided (see double arrows). An incorrect installation position may lead to a blockage of PRV-M.

The following mounting positions are recommended:

Figure 4: Mounting position hanging, piston horizontal

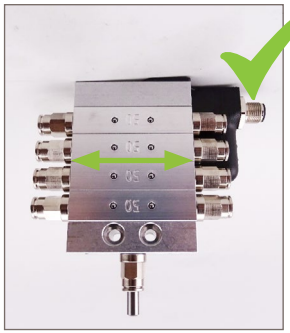

Figure 5: Mounting position hanging, rotated 180°

Figure 6: Installation position lying

The following mounting positions are to be avoided:

Figure 7: Vertical mounting position, vertical piston

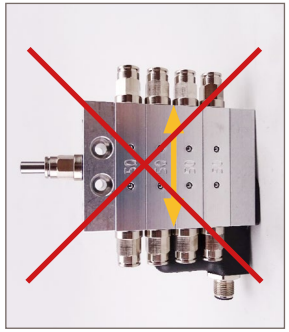

Figure 8: Vertical mounting position, rotated 180°

6. Important notes

A functional test is carried out on each PRV-M and each distributor is flushed with an H1 approved lubricating oil.
It is therefore important that the distributor is prefilled with the lubricant used in the application before commissioning.

Do not use a hand-operated press to fill the PRV-M, as this may cause damage. Use only our designated lubrication systems.

NOTE

To ensure the PRV-M functions correctly, tie rods, grub screws and hose fittings must not be opened, tightened or replaced. Failure to do so may result in leaks or malfunctions. Under no circumstances should you block the outlets. Once any modifications have been made to the PRV-M, proper functioning can no longer be guaranteed and the manufacturer's warranty will be void.

7. Operation with Lubricus

In the interests of dosing accuracy it is recommended that the delivery pistons perform at least two complete circulations during each lubrication process.
When using PRV with the lubricant pumps of the Lubricus series ensure the number of delivery cycles mentioned in the following table are executed.

Art. no.	Width [mm]	Length [mm]	Weight [g]	Outlets	Recommended minimum lubrication cycles using Lubricus
PRV-2-M	121	95	476	2	4
PRV-3-M	121	95	476	3	4
PRV-4-M	121	95	476	4	4
PRV-5-M	121	95	476	5	4
PRV-6-M	121	95	476	6	4
PRV-7-M	121	109,5	567	7	5
PRV-8-M	121	109,5	567	8	6
PRV-9-M	121	124	657	9	6
PRV-10-M	121	124	657	10	7

Monitored progressive distributors

Quick start guide LAT-PRV-M

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GRUETZNER AUTOMATIC LUBRICATION

This brief instruction of mounting PRV-M addresses to experienced users. Please visit www.G-LUBE.com to download the complete user manual including all safety instructions.

1. Overview PRV-M

Figure: 1: Top view

Figure: 2: Side view

PRV-M is used to reliably supply multiple lubrication points in machines and systems with oil or grease.

The lubricant supplied by a pump is divided in subsets according to the number of outlets of PRV-M and is delivered to the lubrication points.

The number of outlets and their delivery rates are defined by the design for PRV-M standard distributors and described below. Various special distributors are available on request.

2. Product description

PRV-M is a progressive lubricant distributor for a maximum working pressure of 100 bar (1,450 psi). It is therefore particularly suitable for use with lubricant pumps of the G-LUBE EM series, all LUBRICUS models and LUB-S-V.
PRV-M offers the possibility of functional remote monitoring. A signal is transmitted to a sensor with each cycle and generates an analyzable return signal that can be picked up at the plug. A yellow flashing LED on the housing indicates the switching condition. A continuous green light indicates the presence of operating voltage.

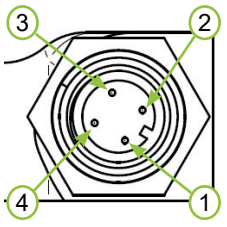
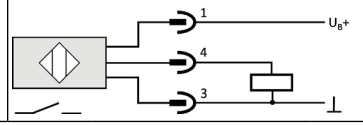
To improve the dosing accuracy, check valves are integrated as standard in the outlets of the distributor. External check valves on the connected lubricant lines are therefore not required.
PRV-M distributes lubricant to up to 10 outlets and is largely independent of backpressure. However, pressure differences of more than 15 bar between the individual outlets should be avoided in the interests of dosing accuracy.

Because of the forced delivery of the lubricant through the delivery pistons of the progressive distributor, the blockage of a single lubrication point leads in blocking the entire progressive distributor.
PRV-M is a disk distributor by design. It consists of dosing elements as well as each an initial and end element which are clamped together with screws. The individual elements are sealed against each other by special seals.

As a result from using aluminium as housing material, PRV-M is particularly light and therefore particularly suitable for use in highly dynamic applications. Due to the lightweight construction most applications allow fastening the distributor through the holes in the initial element. When mounting, pay attention to a flat mounting surface.

PRV-M is ready to install when delivered. The distributor is vented and functionally tested. A removable steel pin seals the inlet for transport.

3. Technical data

General information			
Number of outlets		2-10	
Tube connector inlet/outlet		Straight for tube Ø = 6 mm / M10x1 special tube connectors on request	
Mounting options		2 blind holes in the initial element for cylinder head screw M5 (DIN 912)	
Max. pressure		100	bar
Operating temperature*		-20 ... +70*	°C
Grease delivery per outlet		0.050	ml
Lubricant characteristics**	Grease	Up to NLGI Cl. 2	
	Oil	Minimal viscosity ISO 100 VG	
Materials			
Initial, end and dosing elements		Aluminium 3.1645	
Accessories, vent caps		Brass, nickel plated	
Connecting rod		Steel, galvanised	
Sensor housing		Polyamide	
Elektrics			
Connector		M12x1 female connector, 4-pin, A-coded	
	PIN1	Input voltage UB +24V DC ± 10% Current consumption: max. 0.04 A	
	PIN2	Not engaged	
	PIN3	Ground	
	PIN4	Current rating: max. 0.03 A Short-circuit strength: ~5 min Output level: >+22.5V DC (with +24V DC UB)	
Electrical version		PNP	
Output function		Turnkey	
Max. switch frequency DC		10 Hz	
IP protection class		IP65	
Circuit configuration			

** depending on lubricant*
*** warranty is only given for lubricants with Gruetzner approval*

4. Dimensions

The following sketch shows the outer dimensions of PRV-6-M. The length L of each standard distributor can be found in the table in chapter 7 (overlief).

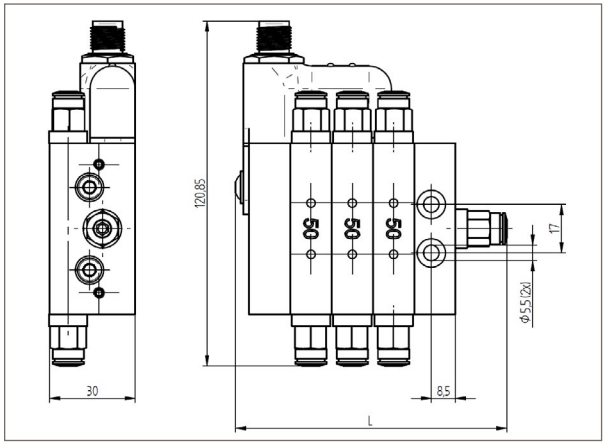


Figure 2: Dimensions PRV-3

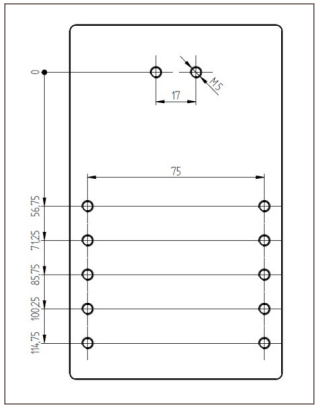


Figure 3: Drilling pattern