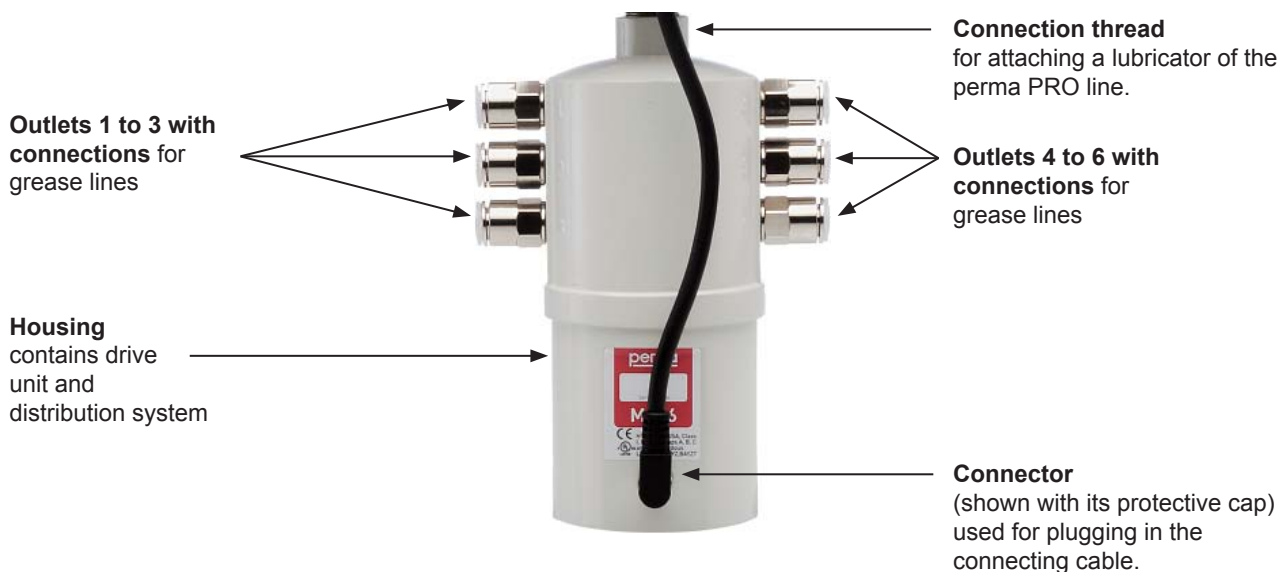




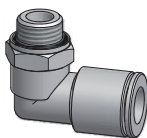
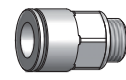
**Translation of the
Original Operating Instructions
perma
PRO MP-6 Distributor**

The Distributor perma MP-6



Accessories

Plug (4 pcs.)
for sealing the outlets that are not used.



6 connections
(straight or angle)
for grease lines.

Connecting cable (1 pc.)
used for power supply and for communication.



Activation of Outlets on Lubrication System PRO / PRO C

Activation/selection of outlets is done on the connected lubrication system PRO/PRO C. Please observe operating instructions (refer to chapter 6.8) of the attached lubrication system since the following chart does not go into detail. Outlets must be activated by the user before operation (factory setting = all outlets inactive).

		On/Off Outlet 1 PRO or PRO C	Configuration of outlets: Activation of outlet 1
			Outlet 1 active
		On/Off Outlet 2 PRO or PRO C	
			Outlet 2 active (if desired, remaining outlets can be turned On/Off the same way)

Quick Reference Guide for the Distributor perma MP-6

On this page you will find some important information for quick and easy operation and setting of your perma MP-6 distributor. Before the perma MP-6 is used, prior to the assembly of the distributor with a lubricator of the perma PRO range and whenever you need detailed information, you should read the complete Operating Instructions, which contain information that must be observed. Make sure to follow the instructions given in the chapter "Safety Instructions". Additionally, you have to observe the Operating Instructions of the connected lubricator.

1 Assembly of perma MP-6 (refer to chapter 4.1 und 4.2)

- ◆ Screw connections into the outlets that you want to activate and seal the other outlets with plugs.

2 Connect perma MP-6 to the Lubricator (refer to chapter 4.3)

- ◆ Screw the perma PRO lubricator tightly into the thread of the distributor.
- ◆ Position the rear sides of the lubricator and the distributor at one level.
- ◆ Attach the distributor and the lubricator to the mounting device and fix it using the four bores (refer to figure 6).
- ◆ Connect the lubricant tubes ($\varnothing 8 \times 1.5$, inner- $\varnothing 5$ mm, admissible total length per pipe up to 5 m) to the connecting pieces of the distributor and lay them between the distributor and the lubrication point.
- ◆ Connect the lubricator with the distributor using the enclosed connecting cable. For this, the lubrication system must be switched off.

3 Determine Discharge Period (refer to chapter 5.7)

- ◆ Determine the required lubricant volume (cc) per one hundred operating hours while taking into account the number of open outlets. For this, you have to multiply the lubricant volume with the number of open outlets.
- ◆ You have to take into account that this distributor is able to supply an equal amount of lubricant to up to six lubrication points.
- ◆ Determine the required discharge volume using the Operating Instructions of the lubricator. Depending on the size of the PRO LC unit you can then determine the setting of the discharge period and the setting mode.
- ◆ You may also refer to our perma SELECT program which can be downloaded from our web page free of charge. It helps you in selecting the correct settings.

4 Setting and Starting the Complete Lubrication System (refer to chapter 5.5)

- ◆ Set discharge period or Impulse mode, size of PRO LC unit, outlets, PIN (refer to PRO/PRO C operating instructions, chapter 6.8, of each lubricator).
- ◆ Keep the ON/OFF/SELECT button of the lubricator **PRO** pressed until the display no longer shows "--" (for Off). To start the lubrication system **PRO C** switch on power supply.
- ◆ An automatic initialization is carried out by the lubrication system and the display shows the counting of the outlets.
- ◆ After the initialization is complete, the display of the lubricator shows the remaining volume and the lubrication system starts to operate.

This operating manual is valid for the distributor **perma MP-6**.

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Without the specific approval of perma-tec GmbH & Co. KG no part of this documentation can be copied or made available to third parties.

We have taken great care when compiling all the details contained in this documentation. However, we cannot rule out discrepancies and we reserve the right to make technical changes to the product without giving advance notice.

We do not assume any judicial responsibility or liability for damages which may ensue as a result. We will include any necessary changes in the next edition.

Compiled and printed: 11 / 02 / 2009

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1. Miscellaneous

About this Operating Manual

- ◆ This operating manual is intended for the safe operation of the perma MP-6 distributor. It contains safety instructions which must be adhered to.
- ◆ Everyone who works on or with the perma MP-6 distributor must have access to this operating manual during their shift. They must also pay attention to all relevant instructions and notices.
- ◆ The operating manual must always be kept complete and in easy to read condition.
- ◆ In addition, the operating manual of the connected lubricator must be observed.

Terms Used

◆ perma PRO MP-6 Distributor

In the following text, the “perma PRO MP-6 distributor” will either be called “distributor” or by its name “perma MP-6”.

◆ Lubricator of the perma PRO Line

In the following text, the “lubricator of the perma PRO line” will be called “lubricator”.

Usage of Safety Instructions

All safety instructions in this operating manual are standardized.

Danger Signs



This sign warns you of any danger to people's health or to subjects.

Tips



This sign alerts you to application tips which will help you in doing certain tasks quicker and safer.

1.1 Delivery / Content

- ◆ The perma MP-6 is a distributor for the lubricators of the perma PRO line. The distributor is equipped with all necessary components and accessories and can be set and fitted according to customer requirements.
- ◆ Six optional connections (G1/8 straight or G1/8 90° for tubes Ø 8 x 1.5).
- ◆ Four plugs.
- ◆ One cable for connecting the perma MP-6 distributor to the lubricator.
- ◆ Screws for mounting the distributor.
- ◆ Operating Instructions and EC Conformity Declaration.
- ◆ Upon delivery, make sure to check if the delivered goods correspond to your order. perma-tec GmbH & Co. KG will not accept liability for subsequent claims of any shortcomings.
- ◆ Please immediately forward any claims:
 - of noticeable transport damage: directly to the forwarder.
 - of noticeable faults, shortcomings or defects: directly to your local supplier.

1.2 Markings

- ◆ The perma MP-6 distributor is clearly marked with a serial number and a label on the drive unit.
- ◆ **CE mark** on the drive unit.
- ◆ **UL mark** on the drive unit:
“This equipment is suitable for use in Class I, Div. 2, Groups A, B, C and D; or Non-Hazardous Locations only.
Warning - Explosions Hazard - Substitution of components may impair suitability for Class I, Division 2.”
- ◆ Manufacturer:

perma-tec GmbH & Co. KG
Hammelburger Straße 21
97717 Euerdorf
Germany

Tel: +49 (0) 9704 609-0 E-mail: info@perma-tec.com
Fax: +49 (0) 9704 609-50 Homepage: www.perma-tec.com

1.3 Intended Usage

The distributor perma MP-6

- ◆ May only be used together with a lubricator of the perma PRO line.
- ◆ Must be connected to the lubricator using the supplied connecting cable.
- ◆ Immediately supplies up to **six** lubrication points with lubricant, at a **pressure build-up of max. 25 bar (360 psi)**, constantly, precisely and independent of temperature.
- ◆ Has passed the environmental audit according to standard EN 60068-2-6 (vibration test) without any component damage or malfunctions. In test: PRO drive unit with MP-6, PRO LC unit 500 cc, and mounting device in various mounting positions.
- ◆ Can be used for all lubrication points of sliding- and roller bearings, drive- and transport chains, sliding guide ways, open gears and seals.
- ◆ May only be used at lubrication points of the same type, which require identical discharge volumes.
- ◆ May only be fitted with original connections and plugs from perma-tec.
- ◆ May only be used with original grease lines from perma-tec.
- ◆ Is intended for use on machinery and equipment.
- ◆ Is only to be used for the intended purpose and purposes confirmed by perma-tec.
- ◆ Is only to be used for operating conditions recommended in this operating manual.
- ◆ Is only to be used with settings and variations recommended in this operating manual.



Any other usage, setting, addition, and variation is considered to be inappropriate!!

1.4 Legal Requirements

Liability

- ◆ The information, data and tips stated in this operating manual were up-to-date as of the printing date. No claims for already delivered distributors perma MP-6 can be made based on the information, pictures and descriptions.
- ◆ perma-tec GmbH & Co. KG can not be held liable for damages and malfunctions caused by:
 - inappropriate usage
 - unauthorized alterations to the distributor
 - inappropriate operations on or with the distributor
 - incorrect operation and settings of the distributor
 - incorrect settings of time and size of the complete lubrication system
 - ignoring the operating manual of the distributor or the lubricator

Warranty

- ◆ Warranty terms and conditions: see terms and conditions of sale and delivery appertaining to perma-tec GmbH & Co. KG.
- ◆ Lodge any warranty claims with your local supplier immediately after the defect or error has been identified.
- ◆ The warranty expires in all instances where no liability claims can be enforced.

2. Safety Instructions

2.1 Persons Responsible for Safety

- ◆ The operator or his safety officer must warrant,
 - that all the relevant regulations, instructions and laws are adhered to;
 - that only qualified personnel will work with and on the distributor;
 - that unauthorized personnel are not allowed to work with and on the distributor;
 - that the safety regulations are adhered to when mounting the distributor or during maintenance.

2.2 General Safety Instructions

- ◆ We are not laying claim to completeness as regards these safety instructions. Please contact perma-tec Customer Service if you have any queries or problems.
- ◆ At the time of delivery the lubricator is in line with state-of-the-art technology and in principle is considered to be safe to operate.
- ◆ The distributor may only be used with a lubricator of the perma PRO line.
- ◆ Dangers emanate from the distributor perma MP-6 for persons, the distributor itself, the lubricator and for other material assets of the operator if:
 - unqualified personnel operates the distributor;
 - the distributor is used inappropriately and for operations that it was not intended to be used for;
 - the distributor setting/variation is incorrect;
 - the distributor is opened by force while in operation;
 - the distributor is not mounted with the perma mounting device and the lubricator;
 - the tube connection to the lubrication point was not carried out and attached correctly.
- ◆ Operate the distributor only when it is in perfect condition.
- ◆ Retrofitting, changing, or reconstructing the distributor is not allowed. perma-tec must be consulted first.
- ◆ Only original tube connections and connectors from perma-tec can be used on or with the distributor since these will withhold high pressures of up to 25 bar (360psi.).
- ◆ Ambient media, especially chemically aggressive substances, can attack seals and plastic.

2.3 Safety Information for perma MP-6



Safety during Installation and Maintenance

- ◆ Ensure that all workstations and traffic routes are clean and safe!
- ◆ Ensure that the relevant regulations and guidelines are adhered to when the installation or maintenance work is carried out in places where danger of falling exists.
- ◆ Ensure that the relevant safety and operating instructions are observed when the lubricators and distributors are installed or serviced on machines or in factories (i.e. to stop the machine).



Safety When Handling Lubricants

- ◆ Avoid contact of lubricant with eyes, skin, and clothing!
- ◆ Avoid swallowing of lubricant!
- ◆ Prevent lubricant from getting into soil or sewer system!
- ◆ Observe safety data sheets of lubricants!
You may also download data sheets of lubricants supplied by perma-tec from perma-tec's web page (www.perma-tec.com) or ask your local supplier.
- ◆ Lubricant on traffic ways will increase the danger of slipping! Therefore, immediately clean lubricant from floors with special cleaner!

3. Technical Data

	perma PRO MP-6 Distributor
Length	148 mm
Diameter	64 mm
Weight	ca. 0.960 kg
Number of outlets	2 minimum 6 maximum
Maximum working pressure	25 bar (360 psi)
Lubricants	Greases up to rated consistency NLGI 2
Ambient temperature	-20 °C to +60 °C / -4 °F to +140 °F
Power supply	from the lubricator via connecting cable
Emission sound pressure level	< 70 dB(A)
Connection thread for lubricators of the PRO line	G3/8 inside
Connection thread for grease line	G1/8 inside
Diameter of grease line	8 x 1.5 (inner-Ø 5 mm)
Length of the grease line	admissible total length per pipe up to 5 m; for details please regard operating manual PRO/PRO C, chapter 3, page 7
Storage conditions	Dry, dust-free at temperatures of +20 °C ± 5 °C / 68 °F ± 9 °F
Protection class	IP 54

chart 1

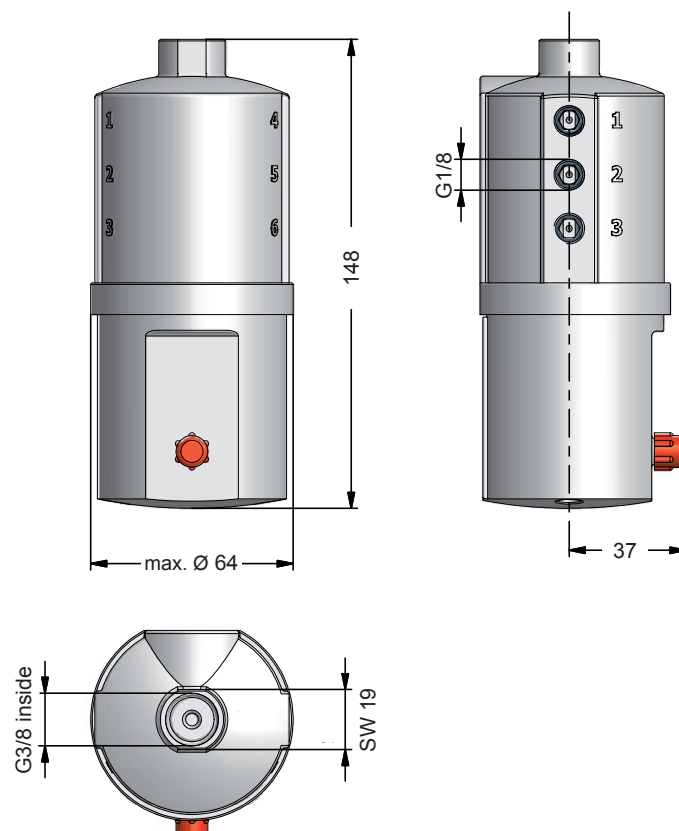
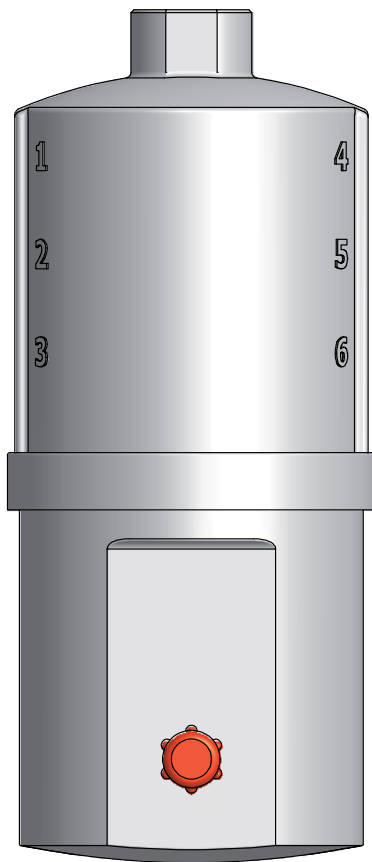


figure 1

3.1 Design of the perma MP-6 Distributor

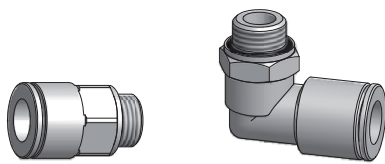
Each distributor (refer to figure 2) is supplied with all necessary accessories (refer to figure 3). The user has to install the required connections or plugs and must connect the distributor to a lubricator of the perma PRO line. The perma MP-6 distributor consists of:



← Housing containing the drive unit and the distribution system (max. 6 outlets).

figure 2

3.2 Accessories



← Connections (6 pcs.) for grease lines



← Plugs (4 pcs.) for sealing the outlets which are not used.



← Connecting cable (short) for power supply of the distributor and for communication between distributor and lubricator.

figure 3

4. Assembly and Mounting of the Distributor

4.1 Mounting the Connections

- ◆ Chose the number (6 max.) and the position of the outlets that you intend to use.
- ◆ Screw the connections tightly (max. torque of 2 Nm) into the outlets to be opened (refer to figure 4).
- ◆ Seal all the remaining outlets using the enclosed plugs.



figure 4

4.2 Distributor Housing



Never loosen these screws at the bottom of the distributor and **never** open the housing.

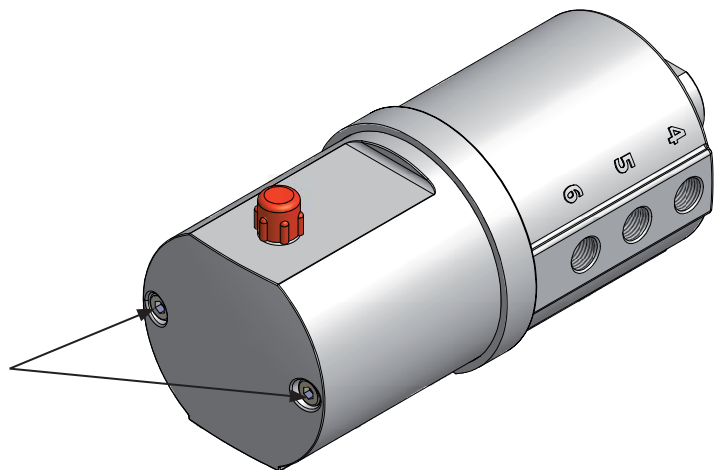


figure 5

4.3 Combination of Distributor and Lubricator

After you have equipped the perma MP-6 with connections, you can connect the distributor to a lubricator of the PRO line.



Screw the distributor and the lubricator together. Attach both to the perma mounting device and install the mounting device.

Direct Mounting of the Distributor onto the Lubricator

- ◆ Before you connect the distributor and the lubricator, all lubrication points must be pre-greased and all grease lines must be pre-filled with the same lubricant that the PRO LC unit contains. For that, perma-tec offers a 400 g lubrication cartridge for manually-operated grease presses with the requested lubricant.
- ◆ Screw the lubricator tightly into the G3/8 thread of the distributor.
- ◆ Position the rear sides of the lubricator and the distributor at one level.
- ◆ Attach the supplied mounting device to the distributor and the lubricator using the enclosed hex head bolts (M6 x 16) and the washers.
- ◆ Screw the mounting device together with the lubrication system onto a support of your system. For the position of the bores of the four fixing screws refer to figure 6 below. You have to use four hexagon screws M6 x 25 (e.g. on metal ground).
- ◆ Connect the grease lines to the connections of the distributor and install the tubes correctly between the distributor and the lubrication point. Tube length may not exceed five meters per outlet.
- ◆ Attach the required connections to the ends of the lubricant tubes.
- ◆ While the lubrication system is **switched off** connect the lubricator to the distributor with the enclosed connecting cable.
- ◆ The lubrication system is now ready for operation.



Ensure correct and tight assembly of the connections and grease lines to avoid possible leakage.

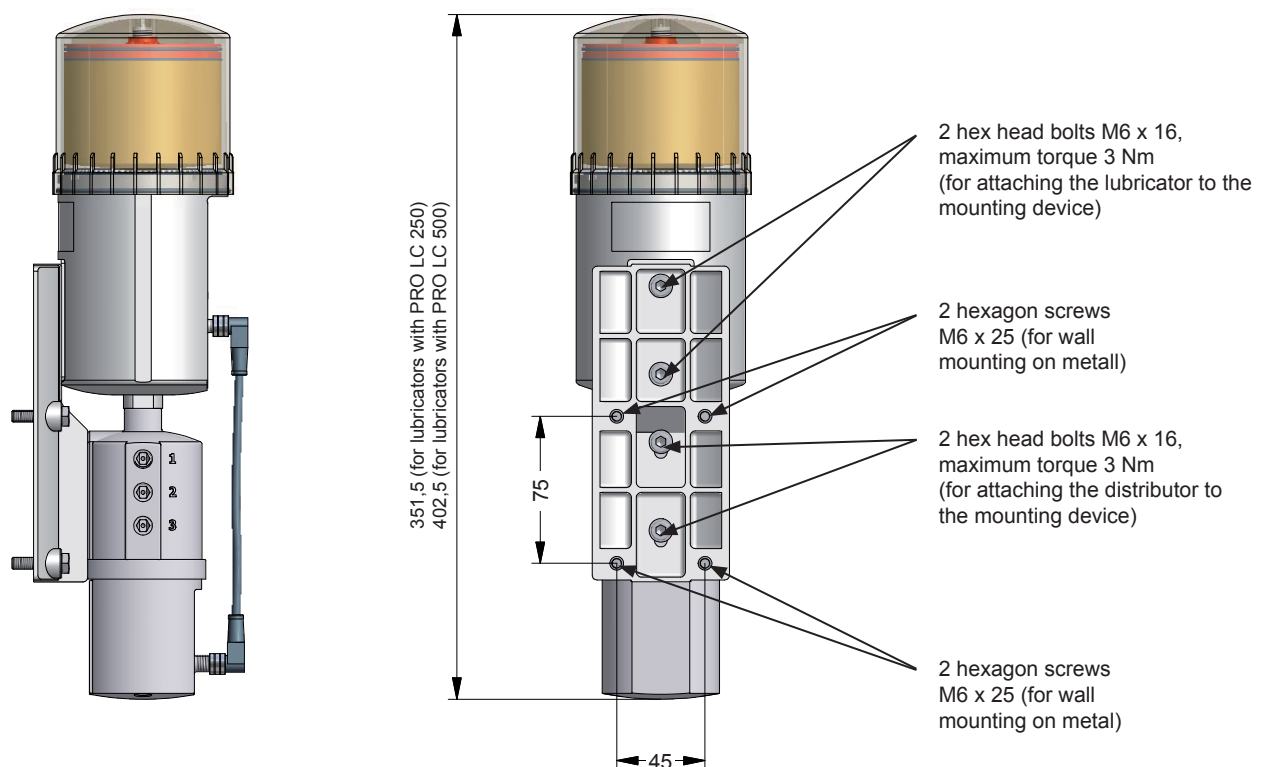


figure 6

Separate Mounting of Distributor and Lubricator

Separate mounting of the distributor and the lubricator is possible. For this, perma-tec offers an additional mounting device, the necessary tube connections and a longer connecting cable (refer to chapter 7).

Attach the lubricator of the PRO line to your system as described in its Operating Instructions and mount the distributor as follows:

- ◆ Attach the mounting device to the distributor using the enclosed hex head bolts (M6 x 16) and the washers.
- ◆ Screw the mounting device with the distributor onto a support of your system. For the bore position of the four fixing screws refer to figure 7 below. At least four hexagon screws M6 x 25 must be used (e.g. on metal ground).
- ◆ Before you connect the outlets of the distributor to any grease lines and hoses you have to pre-lubricate all lubrication points and pre-fill all grease lines with the same lubricant that is contained in the PRO LC unit of the lubricator. For that, perma-tec offers a 400 g lubrication cartridge for manually-operated grease presses with the requested lubricant.
- ◆ Fit the straight G 1/8 tube connection (Art. No. 27.008.010) on the lubricator and fit the G3/8 tube connection (Art. No. 27.008.013) on the distributor (max. torque 2 Nm).
- ◆ Connect the distributor to the PRO lubricator with the grease line. Maximum tube length 2 meters (\varnothing 8 x 1.5, inner- \varnothing 5 mm).
- ◆ Connect the grease lines to the connections of the distributor and install them correctly between the distributor and the lubrication point. **The grease line between lubricator, distributor and lubrication point must not exceed a total length of 5 meters (for details about temperature and lubricant please refer to operating instructions of PRO/PRO C, chapter 3, page 7).**
- ◆ Fit the ends of the grease lines with the required tube connections.
- ◆ While the lubrication system is **switched off**, connect the lubricator to the distributor with the connecting cable (long).
- ◆ The lubrication system is now ready for operation.



Ensure correct and tight assembly of the connections and grease lines to avoid possible leakage.

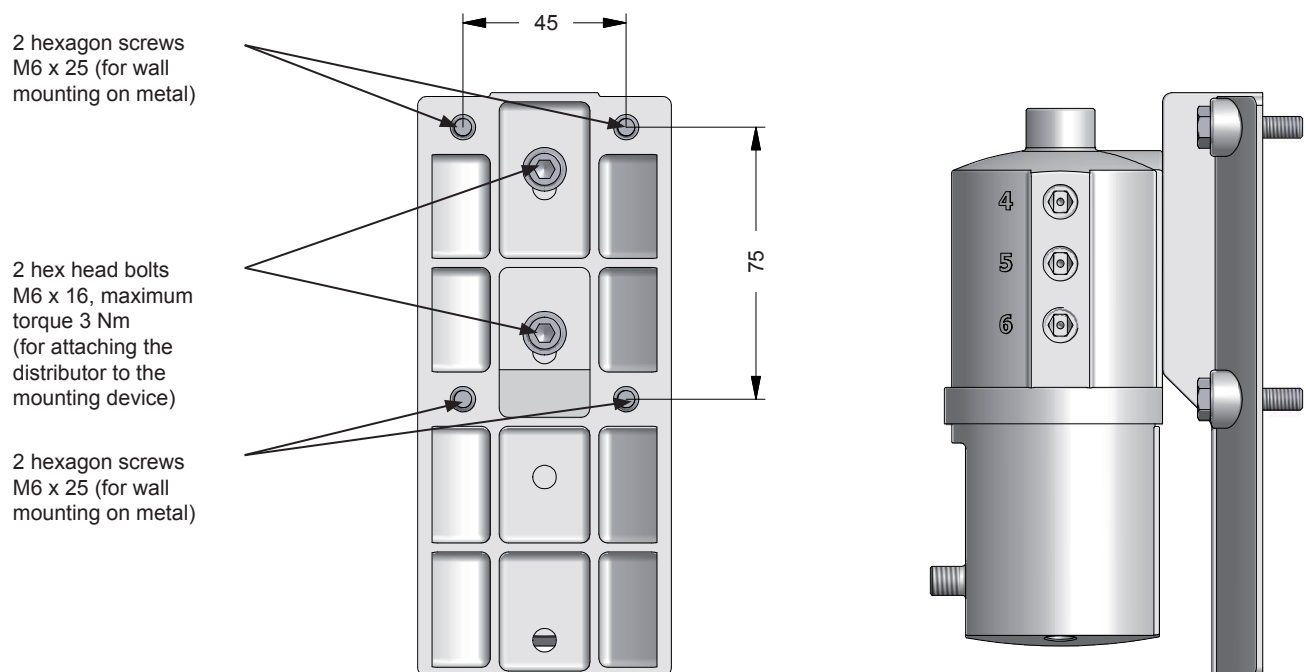


figure 7

5. Operation and Control

Please note that the perma MP-6 distributor may only be connected to a lubricator of the PRO line. If you combine the distributor with a PRO lubricator, you also have to observe the Operating Instructions of the lubricator.

5.1 Preparations

- ◆ Prior to installing the lubrication system (lubricator and distributor), all lubrication points must be pre-lubricated and all grease lines must be sufficiently pre-filled with the same lubricant that is contained in the LC unit of the PRO lubricator. For this, perma-tec offers a 400 g lubrication cartridge for grease presses with the corresponding lubricant (refer to chart 3, chapter 7).
- ◆ When installing the lubrication system, the supplied perma-tec mounting device should be used. The lubricator and the distributor should be fixed to this mounting device (refer to chapter 4.3).
- ◆ The grease lines must be installed and mounted correctly. Grease lines must be from perma-tec and cannot exceed a length of 5 meters per outlet.



For the initial setting into operation of a perma PRO lubricator, the pump system in the drive unit is pre-filled with SF04 from perma's standard range of lubricants. An exception is made with regard to lubricants for the food industry. A complete discharge of this pump filling is guaranteed after approx. 10 discharges (carry out additional discharges, if necessary).

5.2 Prior to Operation

- ◆ Check all parts of the distributor and the complete lubrication system for obvious damages!
- ◆ Did you correctly assemble, mount, and tighten all of the connections and the plugs of the distributor?
- ◆ Are the grease lines, coming from the distributor, mounted correctly on the connections?
- ◆ Did the lubricator recognize the distributor with all open outlets during initialization?
- ◆ Was the drive unit of the lubricator set to the discharge period requested by the operator while taking into account the required discharge volume and the number of open outlets?
- ◆ Did you correctly assemble, mount and tighten all of the parts?

5.3 Setting into Operation

- ◆ Open the required number of outlets by mounting the connections and seal the unused outlets with plugs (refer to chapter 4.1).
- ◆ Screw together the distributor and the lubricator (refer to chapter 4.3).
- ◆ If required, mount the distributor together with the lubricator onto the mounting device and onto a fixing device for wall-mounting (refer to chapter 4.3).
- ◆ Connect the distributor to the lubricator with the connecting cable to enable signal exchange (refer to chapter 4.3).
- ◆ If necessary, carry out a manual initialization (refer to chapter 5.9).
- ◆ Determine the discharge period for the open outlets (refer to chapter 5.7).
- ◆ Set the discharge period with the push buttons on the lubricator (refer to chapter 5.8).
- ◆ Activate the desired outlets with the push buttons on the lubricator (refer to chapter 5.9).
- ◆ If necessary, do a manual initialization after a distributor exchange (refer to chapter 5.10).
- ◆ Did the lubricator correctly recognize the distributor during initialization?
- ◆ Carry out an additional discharge (refer to chapter 5.8).
If the drive motor has started and the green LED is lit, the lubricator has started to discharge. The display of the lubricator indicates the remaining volume (% Vol.) of the PRO LC unit.



The operator must always check the customer-specific settings and if necessary change them before the lubricator is set into operation! In addition, the Operating Instructions of the lubricator must be observed.

5.4 During Operation

- ◆ Carry out regular inspections during operation. You should pay special attention to leakage, to the condition of the distributor, and the complete lubrication system!
- ◆ Regularly check the condition of the grease lines and the connections!
- ◆ Regularly check the filling level of the transparent PRO LC unit of the lubricator!
- ◆ After one or several additional discharges, you have to calculate the remaining discharge period and mark it in your lubrication and maintenance schedule.
- ◆ If a malfunction is indicated on the display, you can determine the cause using the trouble shooting guide (refer to chart 3, chapter 6.2). If the fault cannot be fixed, please contact your supplier for technical support.



Additional discharges and long machine standstills must always be taken into account with regard to the remaining discharge period of the lubrication system.

5.5 Switching the Complete Lubrication System On

To switch on the lubrication system **PRO** (refer to figure 8), keep the ON/OFF/SELECT button of the lubricator pressed until the display no longer shows “--”.

To start the lubrication system **PRO C** you have to switch on power supply.

After switch-on, the lubricator automatically does an initialization (system recognizes the activated outlets). During initialization, the outlets (represented by squares) in the display are blinking. Activated outlets (squares) will be blackened, inactive outlets (squares) are blank. When the initialization process is finished, the green LED blinks and the display shows the outlets (squares), the remaining volume (in percent), and the LC unit size (250 and 500 cc).

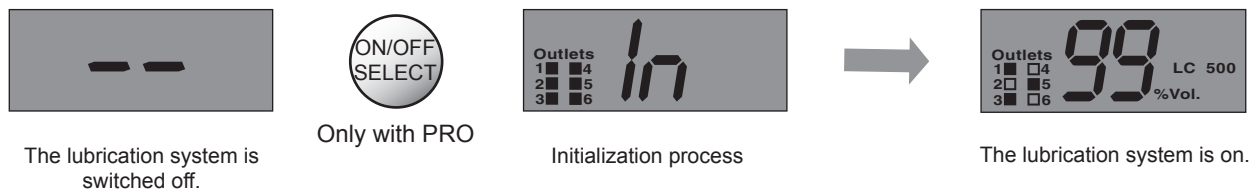


figure 8



When the lubrication system is switched on for the first time, the initialization is carried out automatically by the lubricator. The outlets (squares), the remaining volume (in percent), and the LC unit size (250 or 500 cc) are only displayed after the initialization process is finished.

5.6 Switching the Complete Lubrication System Off

To switch off the lubrication system **PRO** (refer to figure 9), keep the ON/OFF/SELECT button of the lubricator pressed until the display no longer indicates the remaining volume but indicates “--” instead.

To stop the lubrication system **PRO C** you only have to switch on power supply.

When the lubrication system is switched off, all of the settings are saved. This means that if you start the lubricator again, it will take up operation at the point where it had been switched off.



figure 9

5.7 Determining the Discharge Period



The required discharge period must be determined using the Operating Instructions of the connected lubricator. You have to take into account that the distributor perma MP-6 is able to supply an equal amount of lubricant to up to six lubrication points.

When determining the discharge volume, you have to multiply the number of open outlets with the required discharge volume per outlet. With the result of this calculation you can determine the setting point of the discharge period using the Operating Instructions of the connected lubricator.

5.8 Setting the Discharge Period

The discharge period can be set any time via the lubricator and without having to interrupt the operation. It does not matter if the lubrication system is switched on or off, since the system switches back to its original operating status after the changes have been made.

For a precise setting of the discharge period, please refer to the Operating Instructions of the connected perma PRO lubricator.

Additional Discharge

With an additional discharge, all open lubrication points can be supplied with an additional amount of the lubricant. Each open outlet provides 1.0 cc of the lubricant.

For an additional discharge, the lubrication system must be **switched on** and you have to press and hold down both buttons of the lubricator simultaneously (refer to figure 10).

An additional discharge is carried out at each activated outlet (it takes approx. 30 seconds between outlets). This means that if all outlets are open, the process of an additional discharge takes maximum 14 minutes.



figure 10

For an additional discharge, press both buttons of the lubricator and hold them down.

An additional discharge is only possible at temperatures **above 0 °C (32 °F)**.

Every additional discharge reduces the remaining discharge period since an increased amount of the lubricant has been supplied. This must be taken into account in your lubrication and maintenance schedule.



The time between two additional discharges is at least 30 seconds. Each additional long push of both buttons (figure 15) will be recorded by the system and leads to further additional discharges on all outlets. The system records up to 5 additional discharges.

Calculation of the Remaining Discharge Period



Please note, that in case of one or several additional discharges, the remaining discharge period of the lubrication system must be recalculated. This also applies in case of a shut-off of the lubrication system due to an extended machine standstill (e.g. weekends or annual holidays).

For information on the calculation of the remaining discharge period, please refer to the Operating Instructions of the connected perma PRO lubricator.

You should also note the result of your calculation of the remaining discharge period in your lubrication and maintenance schedule.

5.9 Activation of Outlets

Chart no. 2 below only includes part of the complete Operating Instructions. Therefore please also refer to the Operating Instructions (refer to chapter 6.8) of your lubricator.



All outlets must be activated by the user before operation (factory setting = all outlets inactive). The lubricator must be turned off before carrying out initialization.

Chart no. 2 shows an example for the configuration of outlets:

All outlets are inactive (factory setting). You want to activate outlets 1, 3, 5.

Outlets 2, 4, and 6 should be inactive (closed).

	Display	PRO or PROC	Meaning/Description
		Activation Outlet 1 or	Outlet configuration: Activation of outlet 1 Outlets are only displayed if MP-6 is connected
			Outlet 1 active
			Outlet 2 inactive
		Activation Outlet 3 or	Activation of outlet 3
			Outlet 3 active Outlet 4 inactive
		Activation Outlet 5 or	Activation of outlet 5
			Outlet 5 active Outlet 6 inactive
			Outlet configuration finished

Outlets

chart 2

Caption:

Function	Short push	Long push	Blinking in Display
Symbol			

5.10 Initialization of Distributor

Automatic Initialization of the Distributor

In order to supply lubricant to all open outlets and to ensure a correct operation of the perma MP-6, an automatic initialization of the lubrication system is carried out when the system is switched on for the first time. During initialization the system recognizes the activated outlets. Outlets (represented by squares) in the display are blinking. Activated outlets (squares) will be blackened, inactive outlets (squares) are blank.



When initialization is finished, the display shows the remaining volume and activated outlets. The green LED starts to blink and the lubrication system operates.

Manual Initialization of the Distributor



If you connect a new distributor to the lubricator (exchange old distributor with new one), you must do a manual initialization of the perma MP-6. The system recognizes the activated outlets. Outlets (represented by squares) in the display are blinking. Activated outlets (squares) will be blackened, inactive outlets (squares) are blank.

A manual initialization (long push of both buttons on the lubricator – refer to figure 11) can only be done when the lubrication system is turned OFF (display of lubricator shows “--” for OFF)

PRO will immediately start initialization (refer to figure 12)

PRO C will show a blinking “In” in the display for the triggered initialization – the actual initialization will be carried out as soon as the system is turned ON (refer to figure 12).



figure 11

For a manual initialization, press and hold down both buttons of the lubricator simultaneously.



Lubricator PRO

When the manual initialization is completed, the display of the lubricator PRO shows “--” for OFF and the lubrication system is switched off.



Lubricator PRO C

When the manual initialization is completed, the display of the lubricator PRO C shows the remaining volume of the PRO LC unit and the lubrication system is switched on.

Initialization Sequence

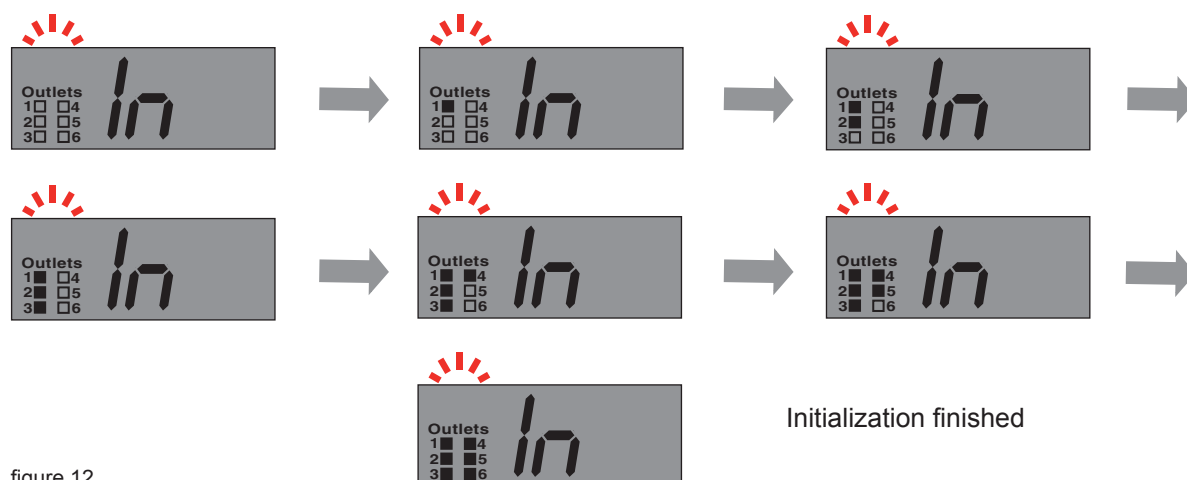


figure 12

6. Trouble Shooting

6.1 Error Messages of the Distributor on the Display of the Lubricator

Possible errors of the distributor and the complete lubrication system are detected by the electronic control unit and are indicated on the display of the lubricator. For example, if the error message $F2$ is shown on the display, the required pressure at the second connected lubrication point exceeds 25 bar (360psi).

This means that this lubrication point is no longer supplied with lubricant. The distributor still provides lubricant to all other activated lubrication points. Correct the malfunction of the second lubrication point (e.g. grease line bent or blocked) and acknowledge it by pushing the ON/OFF/SELECT button on the lubricator PRO or the SELECT button on lubricator PRO C.



Error messages are acknowledged and reset by pushing the ON/OFF/SELECT or SELECT button.

6.2 Trouble Shooting Guide

If there are malfunctions during the operation of the distributor or the lubrication system, please check for possible causes using the following chart (refer to chart 2). If you have to deal with a malfunction that is not listed in the chart below, please contact your local supplier for technical support.


Every time that an error message is shown on the display of the lubricator, the red LED at the lubricator is also blinking.

Indication of the display	Error	Possible cause	Remedial measures
$E0$	Lubrication system has been switched off	Excess motor current of the perma MP-6	Replace perma MP-6 distributor
$F1$ to $F6$	Error at the displayed lubrication point	Excess motor current of the lubricator motor caused by a blocking of the displayed outlet	Clear the blockage and acknowledge the fault by pushing and holding down the ON/OFF/SELECT or SELECT button
$E2$	Lubrication system has been switched off	Outlets of distributor not correctly recognized	Replace distributor
$E3$	Lubrication system has been switched off	Timeout while activating distributor Connection cable damaged	Replace distributor Replace connection cable
$E4$	Lubrication system has been switched off	Drive mechanism of the lubricator is defective	Replace the drive unit of the lubricator
$E5$	Outlet configuration missing	Outlets were not activated	Activate desired outlets (Turn off power supply on PRO C before you acknowledge error messages)
LC	Lubrication system does not detect the PRO LC unit	No PRO LC unit installed	Install an PRO LC unit (Observe the Operating Instructions of the lubricator)
$L0$ (Only with PRO)	No power supplied to the lubrication system	No power supplied to the lubricator	Establish a power supply (Observe the Operating Instructions of the lubricator)

chart 3

7. Accessories and Spare Parts

Due to the high pressure of up to 25 bar (360 psi), you should only use **genuine** spare parts and accessories from perma-tec in order to ensure a reliable operation of the distributor and the complete lubrication system. This especially applies to connections and lubricant tubes.

 **Spare parts and accessories must meet the technical requirements!**
This is always guaranteed with genuine spare parts and accessories from perma-tec.




Spare parts	Part. No.	Illustration
PRO MP-6 Distributor	2291 000 000	
Tube Connector G1/8a for tube aØ 8 mm straight	27 008 010	
Plug	70 613 007	
Tube Connector G1/8a for tube aØ 8 mm 90°	27 008 011	
PRO tube 8 x 1.5 (inner-Ø 5 mm) with different lengths	27 008 009	
PRO MP-6 Connecting cable (14 cm)	2291 000 001	
PRO MP-6 Connecting cable (2 m)	2291 000 002	
PRO Mounting Device	27 008 007	
Grease cartridge 400 g filled with to be used for pre-filling grease lines with a grease gun	on request	

chart 4

8. Disposal

 Help us in protecting the environment and saving resources by recycling valuable raw material. Please follow the individual waste disposal regulations in your country.

9. Service

- ◆ If you wish to return a perma MP-6 that is no longer used, please check with your local supplier for possible return to recycle or dispose of the used parts in an environmentally safe manner.

10. Declaration of conformity for perma PRO MP-6 Distributor

EC declaration of conformity

- according to the Machinery Directive 98/37/EC^[1] and according to EMV (Electromagnetic Compatibility) - Directive 2004/108/EC
- according to the Machinery Directive 2006/42/EC^[2] and according to EMV (Electromagnetic Compatibility) - Directive 2004/108/EC

The manufacturer

perma-tec GmbH & Co. KG
Hammelburger Straße 21
97717 Euerdorf
Germany

hereby declares that the product as described in the given statement conforms to the regulations appertaining to the directives referred to above, including any amendments thereto which are in force at the time of the declaration.

Product description: Distributor for a lubrication system out of the perma PRO product range
Product name: perma PRO MP-6 Distributor
Type: PRO MP-6 Distributor

The following harmonized standards were applied:

- | | |
|---------------------|---|
| EN ISO 12100-1:2003 | Safety of machinery – basic concepts, general terms of reference as regards design and construction – Section 1: Basic Terminology, Methodology |
| EN ISO 12100-2:2003 | Safety of machinery – basic concepts, general terms of reference as regards design and construction – Section 2: Technical terms of reference |
| EN 60204-1:2006 | Machinery's electrical equipment |

Euerdorf, 11 February 2009

perma-tec GmbH & Co. KG

Walter Graf, Managing Director

Egon Eisenbacher, Technical management
and authorized documentation representative
(see manufacturer address)

This declaration certifies conformity to the directives referred to but it is not a warranty of qualities. The safety instructions of the operating manual are to be observed.

1. Directive 98/37/EC is valid until and including the 28th of December 2009.
2. Directive 2006/42/EC is valid as of 29 December 2009.

Lubrication system consisting of a perma MP-6 distributor and a lubricator of the PRO line



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