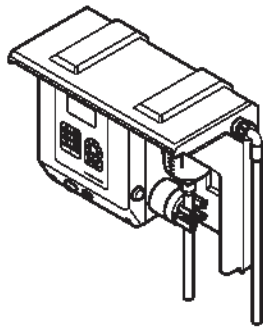
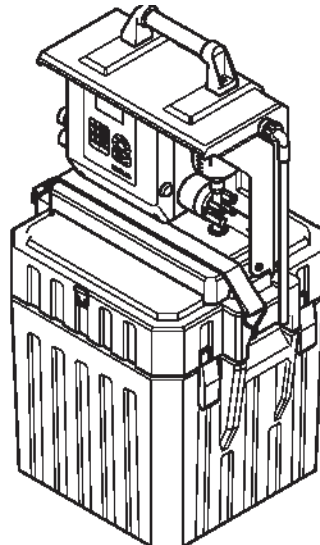


Portable Sampler MAXX TP5 W / P / C

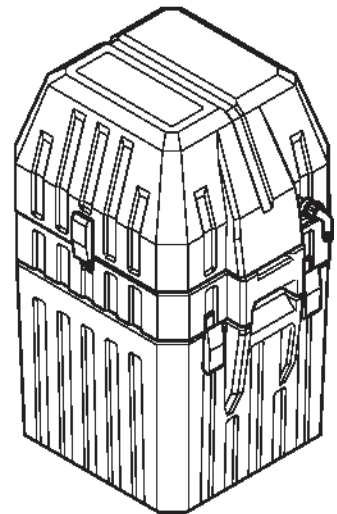


TP5 W



TP5 P

(pic. with optional Box)



TP5 C

Access code for programming and settings

Password:

6299

Your Password:

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Section 1 Specifications

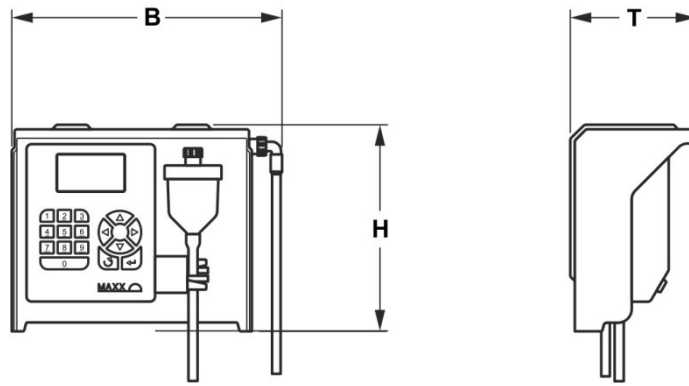
These are subject to change without notice.

	TP5 W	TP5 P	TP5 C	TP5 P	TP5 C
	Without active cooling			With active cooling	
Electrics					
Power supply, sampler compartment					
With integrated battery	–	12 V-7,5 Ah (DC)	12 V-10 Ah (DC)	12 V-7,5 Ah (DC)	12 V-10 Ah (DC)
With integrated power pack	110–230 V/50–60 Hz.	–			
With optional power pack	–	110–230 V/50–60 Hz.			
Power supply, bottle compartment					
With integrated power pack	–	12 V (DC) 110 V/60 Hz 230 V/50 Hz	or (optional) or (optional)		
Rating	16 A				
Power consumption	approx. 30 VA			approx. 50 VA	
Environment					
Medium temperature	0 to 40°C [32 to 104 °F]				
Ambient temperature	0 to 50 °C [32 to 122 °F]			0 to 43 °C [32 to 110 °F]	
Delivery height	< 6 m [20 ft], optional < 8 m [26 ft]				
General specifications					
Coolant	–			R134a	
Maintenance requirements	Maintenance-free				
Weight					
Top part	approx. 6.6 kg	approx. 10 kg	approx. 14.3 kg	approx. 10 kg	approx. 14.3 kg
Bottle compartment	–	approx. 11 kg		approx. 25 kg	
Complete	–	approx. 22 kg	approx. 25 kg	approx. 35 kg	approx. 40 kg
Dimensions (W X H X D)					
Top part	475 x 362 x 222 [18.7x14.3x8.7]	445 x 442 x 222 [17.5x17.4x8.7]	510 x 390 x 468 [20x15.4x18.4]	445 x 442 x 222 [17.5x17.4x8.7]	510 x 390 x 468 [20x15.4x18.4]
Bottle compartment	–	510 x 534 x 430 [20 x 21 x 16.9]		550 x 775 x 468 [21.7 x 30.5 x 18.4]	
Complete	–	510 x 942 x 430 [20 x 37 x 16.9]	510 x 787 x 468 [20 x 31 x 18.4]	510 x 970 x 468 [20x38.2x18.4]	550 x 1028 x 468 [21.7x40.5x18.4]
With cap opened (55°)	–	–	510 x 970 x 468 [20x38.2x18.4]	–	510 x 1210 x 468 [20 x 47.6 x 18.4]
Certification					
Certification	CE, sampling in accordance with ISO 5667-2/3-10				

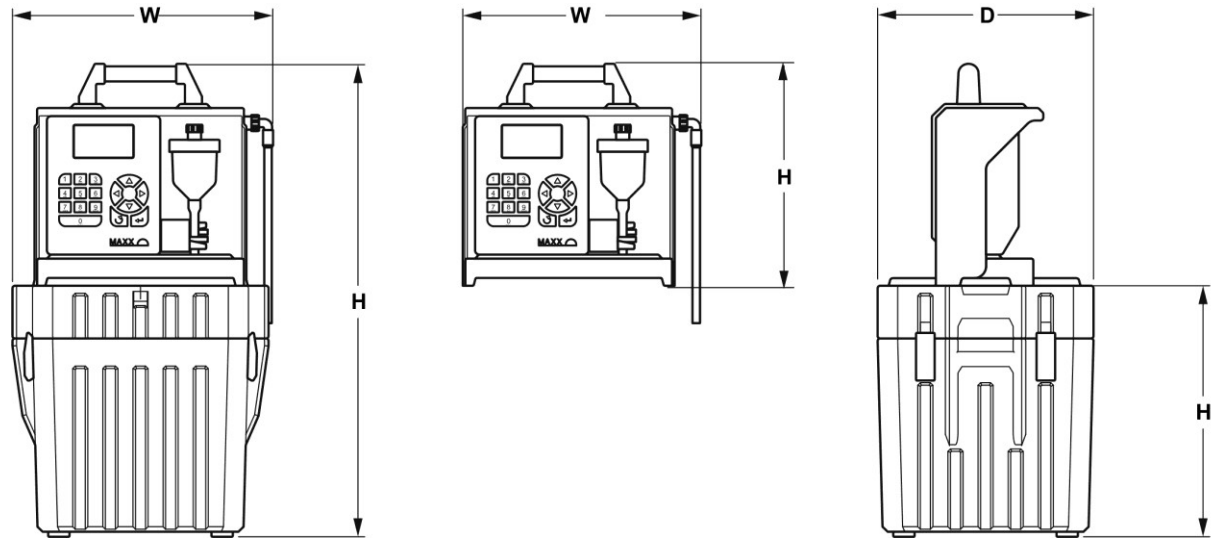
Specifications

1.1. Dimension

TP5 W



TP5 P



TP5 C

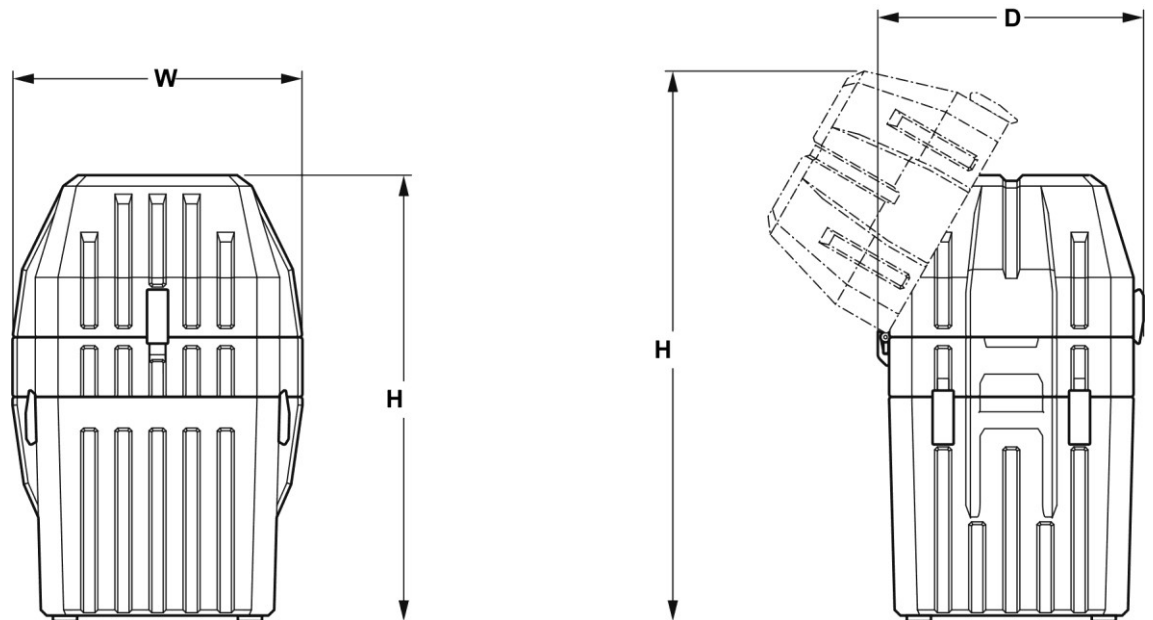


Figure 1 Dimensions

W x H x D: see the specification table

Section 2 General Information

2.1 Safety information

Please read this entire manual before unpacking, setting up, or operating this equipment. Pay attention to all danger and caution statements. Failure to do so may result in personal injury or damage to the instrument.

To ensure that the protection provided by this equipment is not impaired, do not use or install this equipment in any manner other than that specified in this manual.

2.1.1 Use of hazard information



DANGER

Indicates a potentially or imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

Indicates a potentially or imminently hazardous situation that, if not avoided, could result in death or serious injury.



CAUTION

Indicates a potentially or imminently hazardous situation that could result in minor or moderate injury.



Important note: Information that requires special emphasis.

Note: Information that supplements points in the main text.

2.1.2 Precautionary labels

Read all labels and tags attached to the instrument. Failure to do so may result in personal injury or damage to the instrument. A symbol, if noted on the instrument, will be included with a danger or caution statement in the manual.

	This symbol, if noted on the instrument, references the user manual for operation and/or safety information.
	This symbol, when noted on a product enclosure or barrier, indicates that a risk of electrical shock and/or electrocution exists.
	This symbol may appear on the product and indicates the need for protective eye wear.
	This symbol may appear on the product and identifies the connection point for the protective ground.

	<p>When this symbol appears on the product, it identifies the location of a fuse or a current limiter.</p>
	<p>Electrical equipment marked with this symbol may not be disposed of in European domestic or public disposal systems after 12 August 2005. In conformity with European local and national regulations (EU Directive 2002/96/EC), European electrical equipment users must now return old or end-of-life equipment to the manufacturer for disposal at no charge to the user Note: For return for recycling, please contact the equipment manufacturer or supplier for instructions on how to return end-of-life equipment, manufacturer-supplied electrical accessories, and all auxiliary items for proper disposal.</p>

2.2 General Information

2.2.1 Areas of application

The equipment is used for sampling aqueous liquids with a temperature of 0 °C to 50 °C (refer to [Section 1 Specifications, page 5](#)).

2.2.2 Functional description

The equipment provides temporary storage for liquids of a specified volume so that they can be analyzed.

2.3 Product contents

The equipment is supplied with a tube and brief operating instructions. Depending on the model, the equipment is also supplied with a plug (TP5 W/active cooled bottle compartment), tension belt (TP5 P) or an optional charger (TP5 P/TP5 C). If you require further information, you can order the operating instructions (refer to [Section 6 Replacement parts and accessories, page 47](#)) from the manufacturer or you can download them from the Internet.

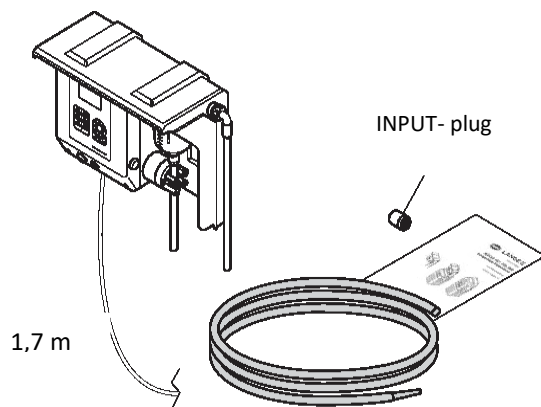


Figure 2 Scope of delivery (TP5 W)

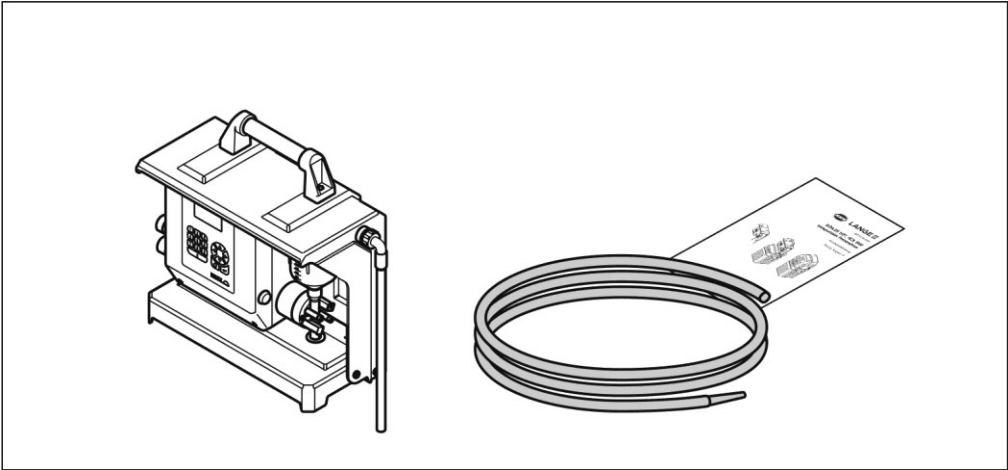


Figure 3 Scope of delivery (TP5 P)

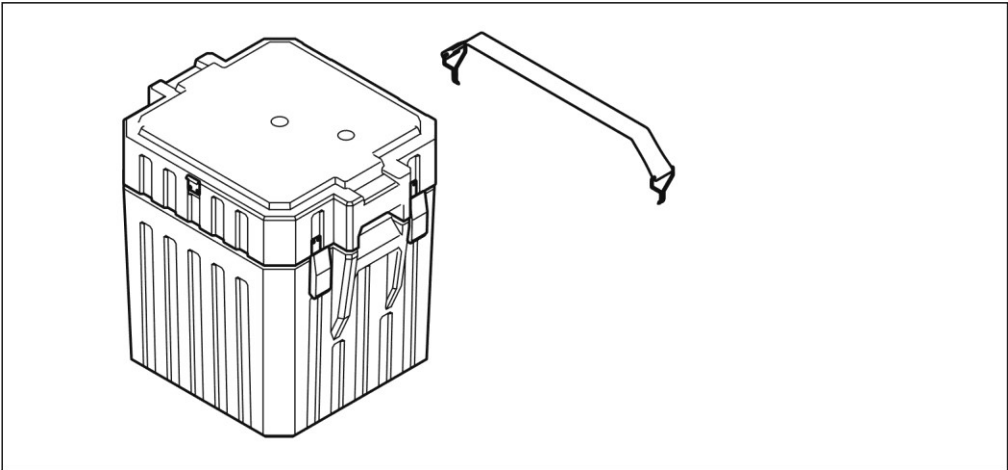


Figure 3a Scope of delivery Option Iso box to TP5 P

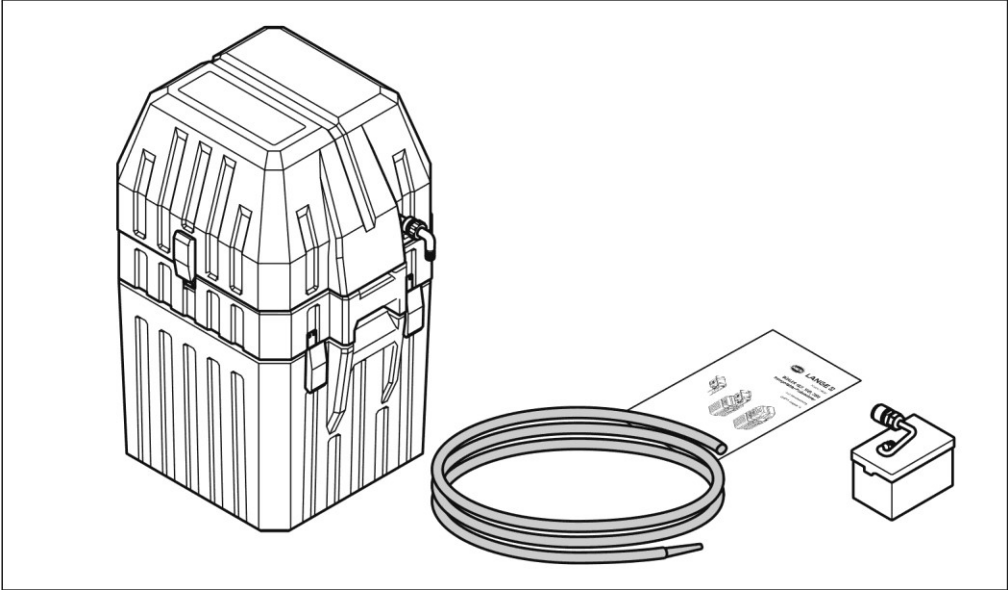


Figure 4 Scope of delivery (TP5 C)

Section 3 Installation



DANGER

Only qualified experts should conduct the tasks described in this section.

**DANGER**

Select an appropriate installation location for the instrument.

Plan out the mechanical mount before positioning poles or drilling holes. Make sure the mount has a sufficient bearing capacity. The dowels must be selected and authorized according to the condition of the wall.

The manufacturer shall accept no liability if the instrument is installed incorrectly.

Plan how to lay cables and tubes and their path in advance. Lay the tubes, data cables and power cables without any bends and so they do not pose a tripping risk.

Do not connect the electrical supply to the mains if the equipment has not been wired and fused correctly.

Sufficiently protect the electrical power supply against short circuits.

For the external power supply, always connect a residual-current circuit breaker (trip current max.: 30 mA) between the mains and the system.

If the equipment is to be installed outdoors, switch the overload protection between mains and system.

Products intended by the manufacturer for outdoor use offer a higher level of protection against the penetration of liquids and dust. If these products are connected to a mains outlet with a cable and plug rather than a permanently connected cable, the plug and outlet are much more susceptible to liquid and dust penetration. The operator must sufficiently protect the plug and outlet against liquid and dust penetration in accordance with local safety regulations. If the instrument is to be used outdoors, it must be connected to a suitable outlet with a protection type of at least IP44 (splash protection).

3.1 Mechanical Installation



DANGER

Select an appropriate installation location for the instrument. Plan out the mechanical mount before positioning poles or drilling holes. Make sure the mount has a sufficient bearing capacity. The dowels must be selected and authorized according to the condition of the wall. The manufacturer shall accept no liability if the instrument is installed incorrectly. Plan how to lay cables and tubes and their path in advance. Lay the tubes, data cables and power cables without any bends and so they do not pose a tripping risk.

Note : For information on installation with optional accessories, refer to the relevant installation instructions.

3.1.1 Required Tools

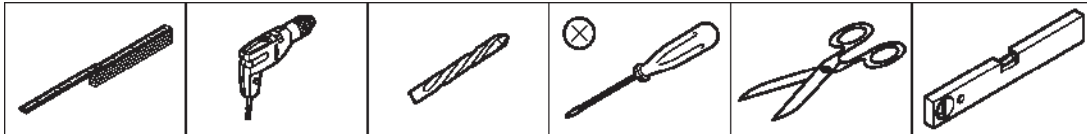


Figure 5 Required tools (TP5 W)

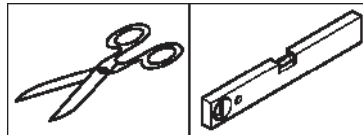


Figure 6 Required tools (TP5 P und TP5 C)

3.1.2 Installation location (TP5 W)

Select suitable fastening materials (e.g. 6 x 40 mm screws and corresponding dowels) and read all the safety information about installation and mechanical assembly.

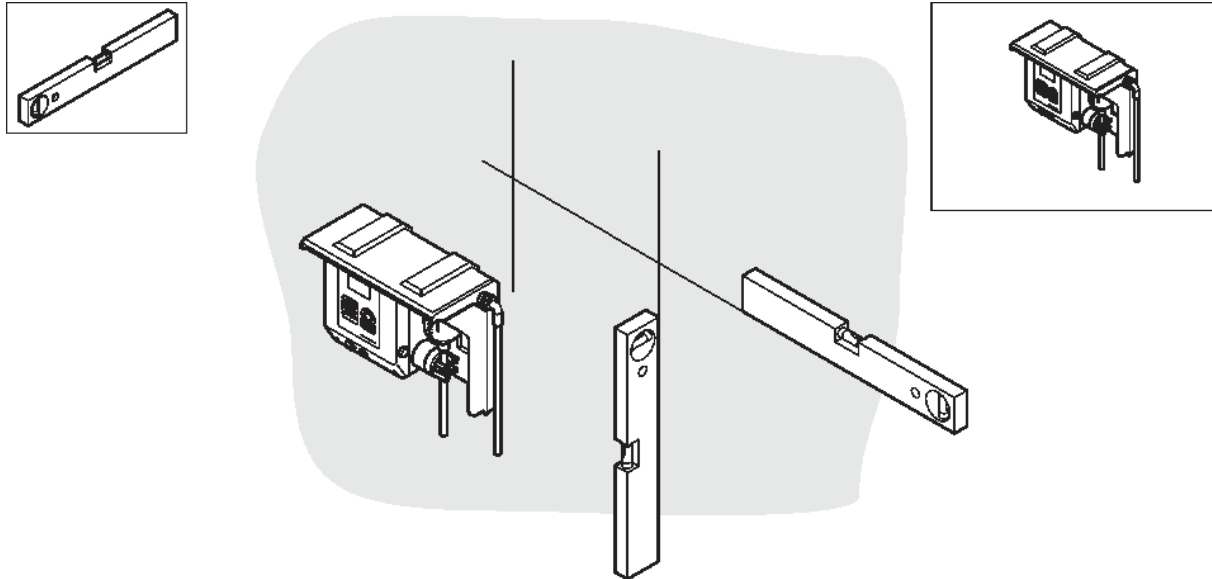


Figure 7 Select installation location (TP5 W)

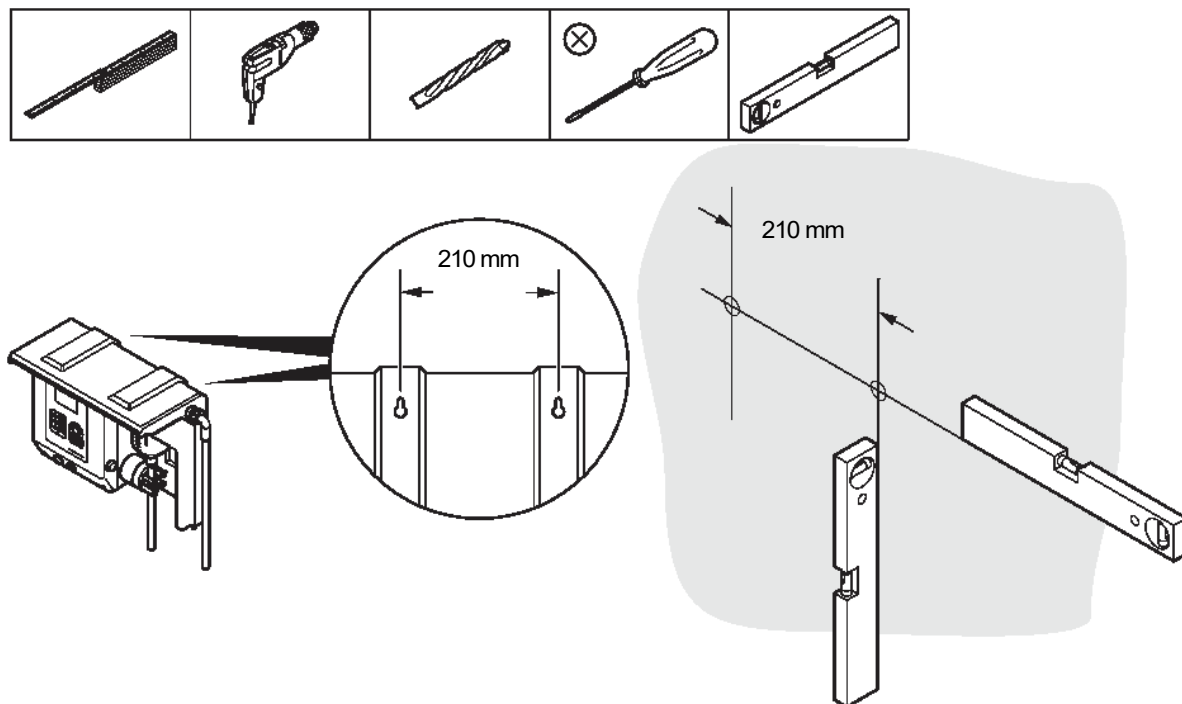


Figure 8 Attach the equipment (TP5 W)

3.1.3 Position (TP5 P und TP5 C)

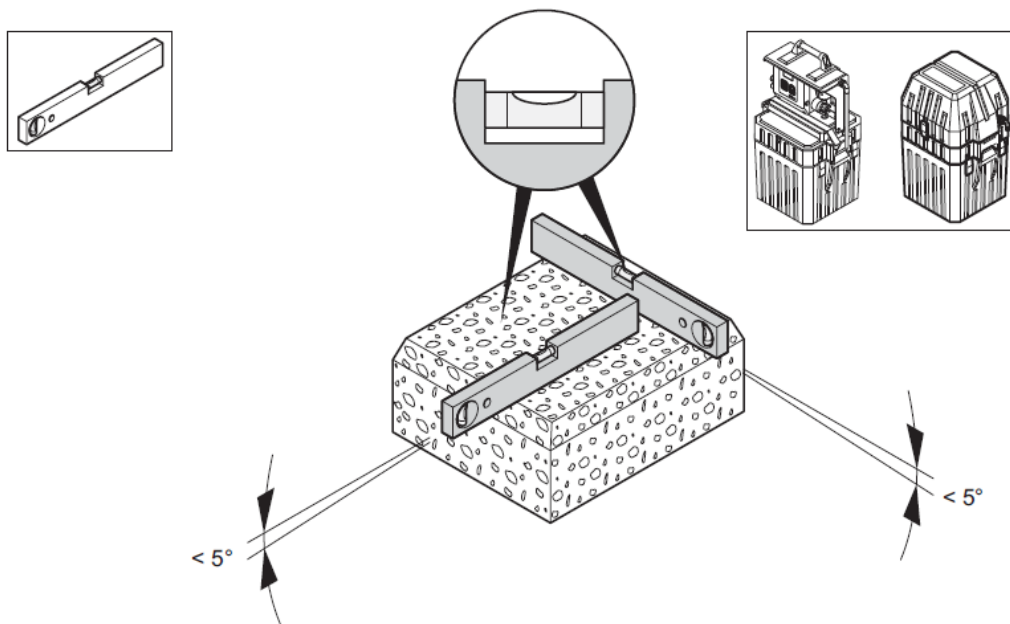


Figure 9 Select the position (TP5 P und TP5 C)

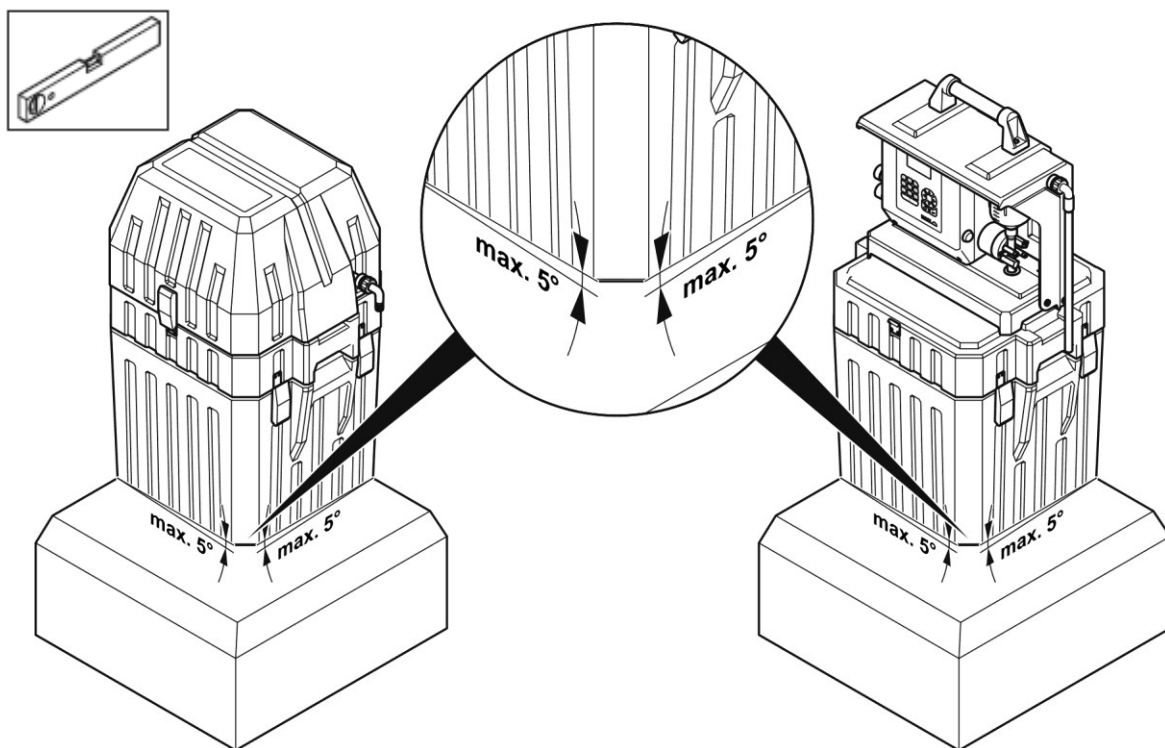


Figure 10 Position the equipment (TP5 P und TP5 C)

3.1.4 Attach the sampler compartment to the bottle compartment (TP5 P)

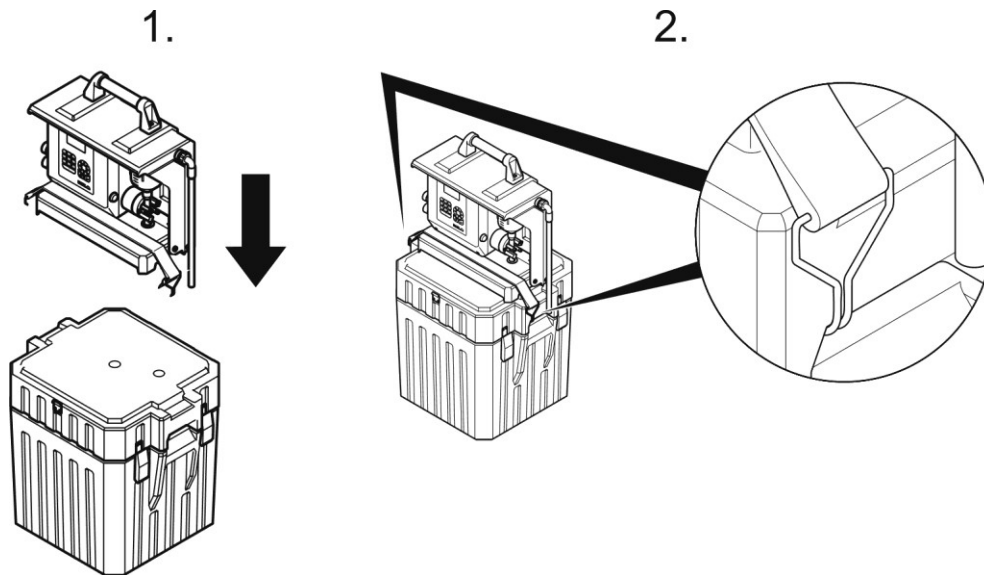


Figure 11 Attach the sampler compartment to the bottle compartment (TP5 P)

3.2 Electrical Connections



DANGER

Only qualified experts should conduct the tasks described in this section.



DANGER

Do not connect the electrical supply to the mains if the equipment has not been wired and fused correctly.

Sufficiently protect the electrical power supply against short circuits.

For the external power supply, always connect a residual-current circuit breaker (trip current max.: 30 mA) between the mains and the system.

If the equipment is to be installed outdoors, switch the overload protection between mains and system.

If the mains plug of the power supply cable is removed, a suitable double-pole one-way switch must be installed immediately next to the display unit with clear labeling for the power supply.

Products intended by the manufacturer for outdoor use offer a higher level of protection against the penetration of liquids and dust. If these products are connected to a mains socket with a cable and plug rather than a permanently

connected cable, the plug and socket are much more susceptible to liquid and dust penetration. The operator must sufficiently protect the plug and outlet against liquid and dust penetration in accordance with local safety regulations. If the instrument is to be used outdoors, it must be connected to a suitable outlet with a protection type of at least IP44 (splash protection)

3.2.1 Electrical installation

3.2.1.1 Prepare the electrical installation

	In battery mode	In mains power mode
TP5 W	–	Keine Vorbereitung notwendig
TP5 P	No preparation required	Connect the optional charger to the charge socket on the left-hand side.
TP5 C	No preparation required	Connect the Y cable as shown in Figure 12 .

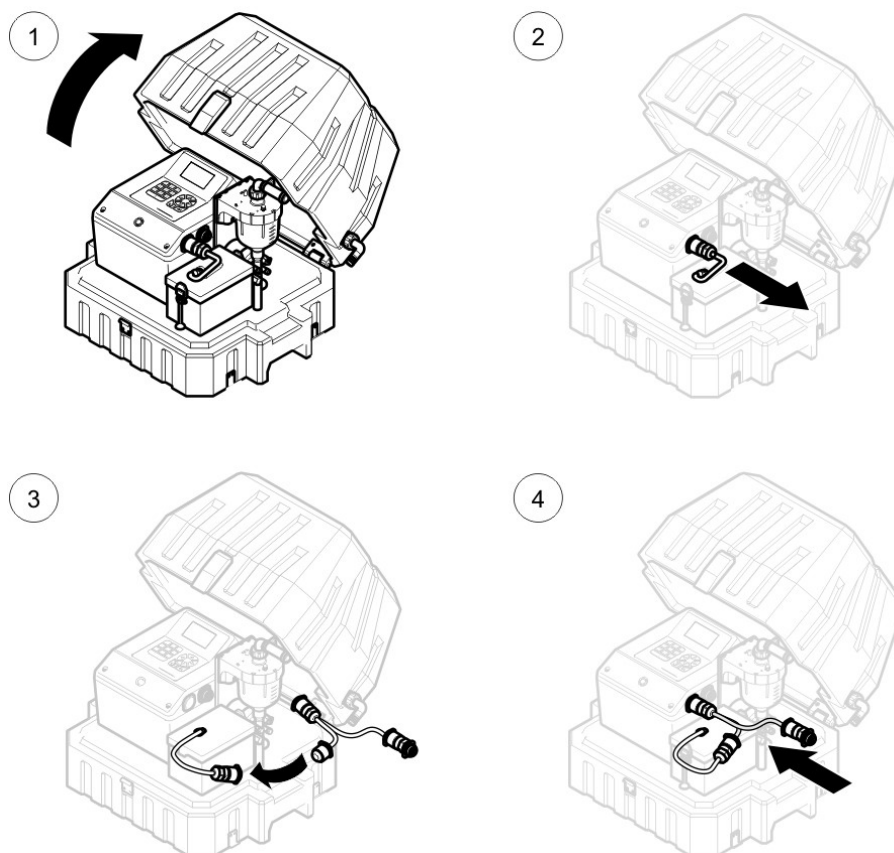


Figure 12 Connect the Y cable (TP5 C)

To connect the equipment to the mains, see [Figure 36 Model TP5 C with Y cable and charger on page 31](#).

3.2.1.2 Wiring diagram

Please note:

- The assignment of the connections in the illustration below
- The cable color of the label on the cable.

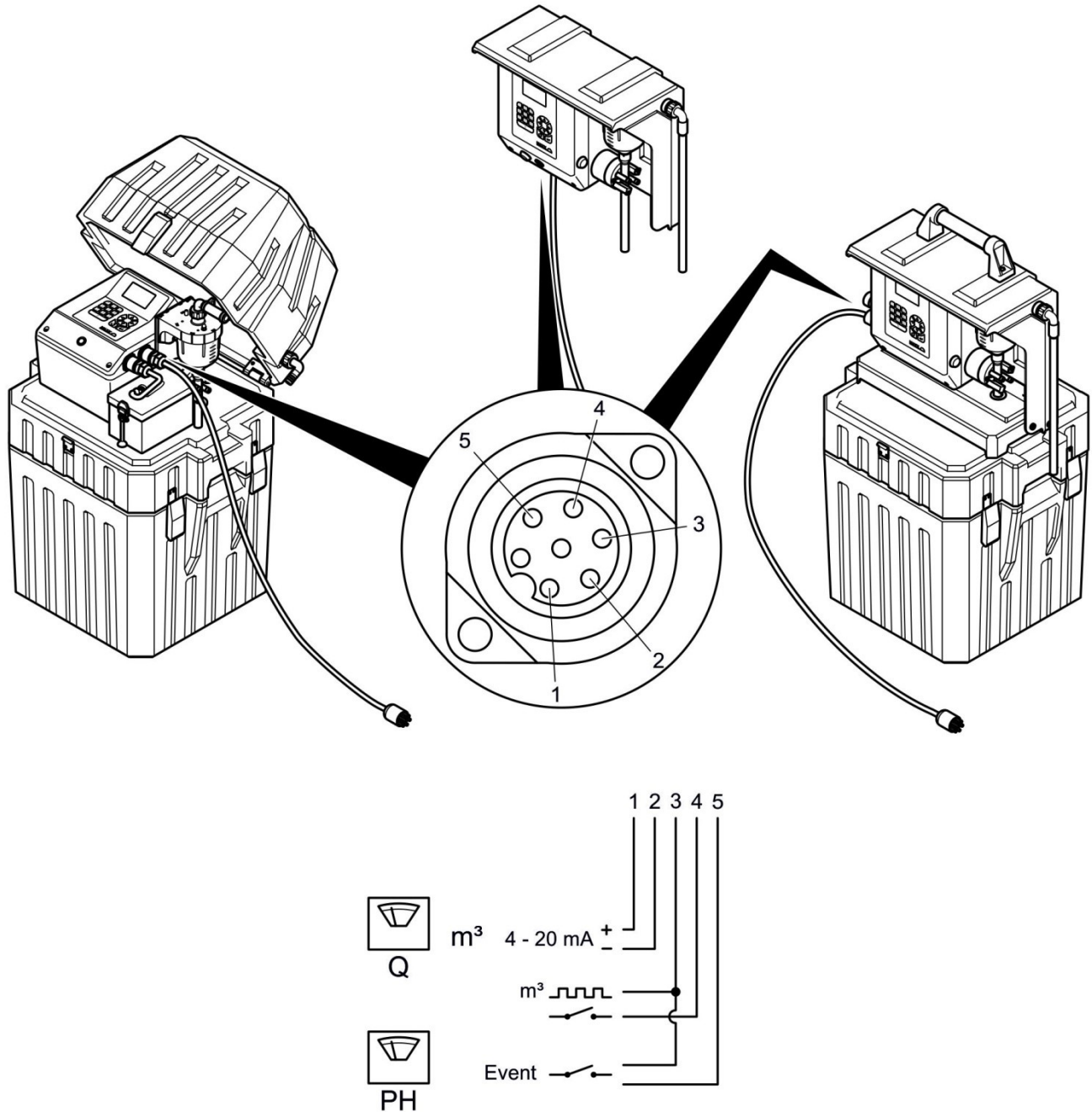


Figure 13 Connection plan for the optional signal cable (0069644)

Installation

3.2.2 Installation of the optional bottle compartment with active cooling (TP5 P / TP5 C)

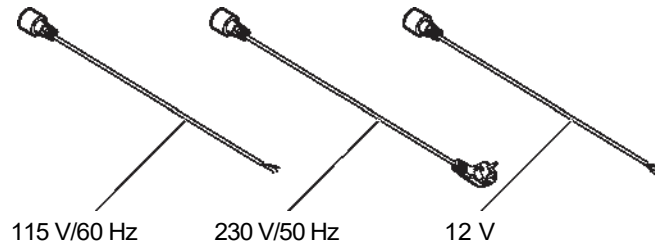


Figure 14 Select the cable for the optional bottle compartment with active cooling (TP5 P/TP5 C)

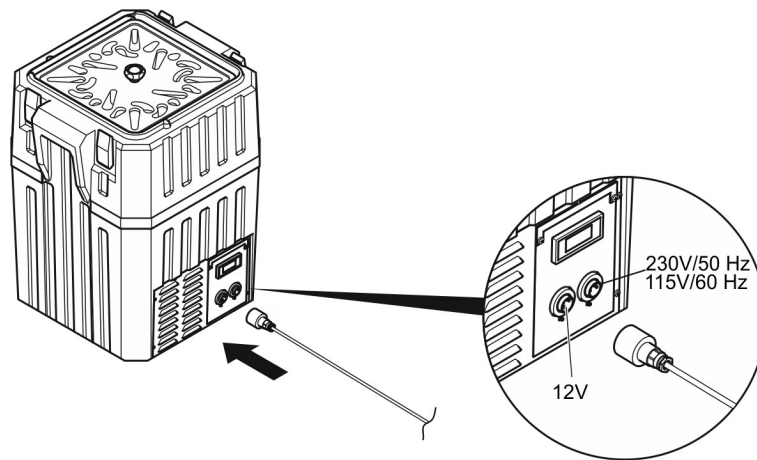


Figure 15 Connect the optional bottle compartment with active cooling

Important note: Blocked air outlets and liquids in the cooling machine or inside the optional bottle compartment with active cooling can damage the equipment.
Make sure that the air outlets are always open and that no liquid is able to enter the air outlets..

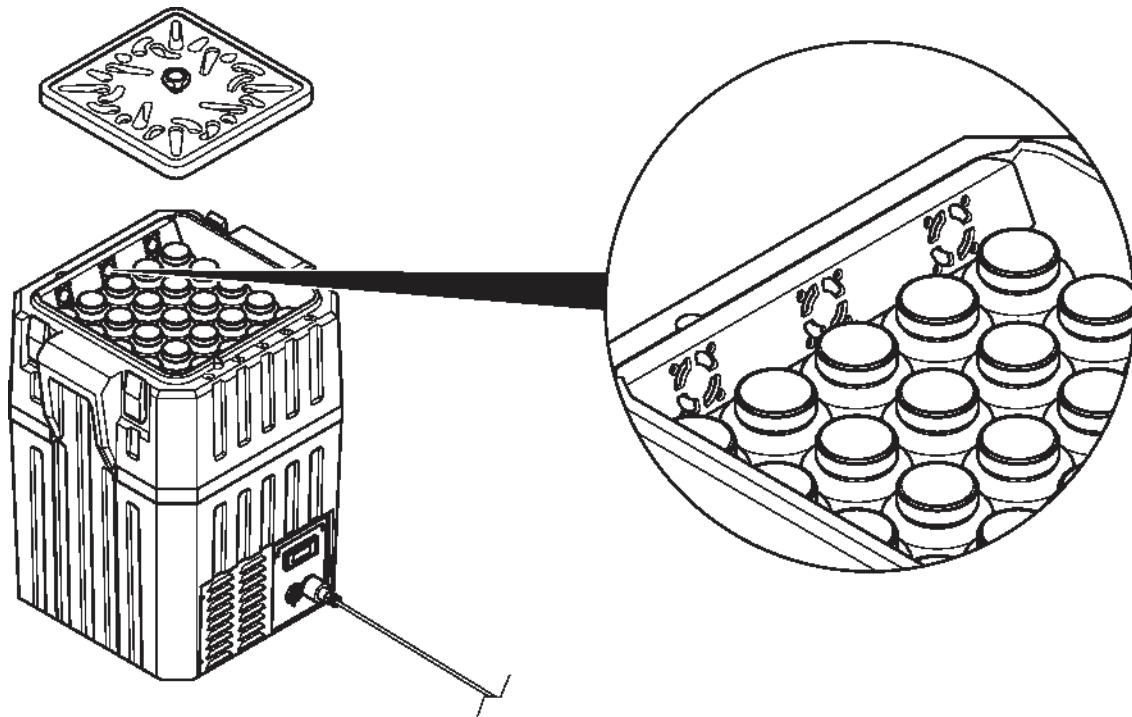


Figure 16 Sample distributor plate and air outlets on the optional bottle compartment with active cooling

Note: The housing base on the bottle compartment features numbers so that the individual bottles can be assigned with a number

3.3 Commission of the equipment

3.3.1 Tube connection

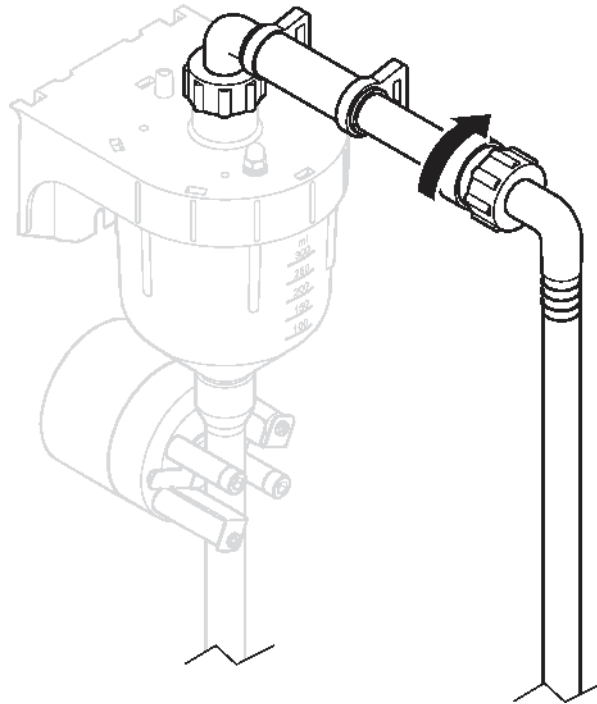


Figure 17 Connect the sample tube connection

Positioning of the tubes according to the following installation diagram.

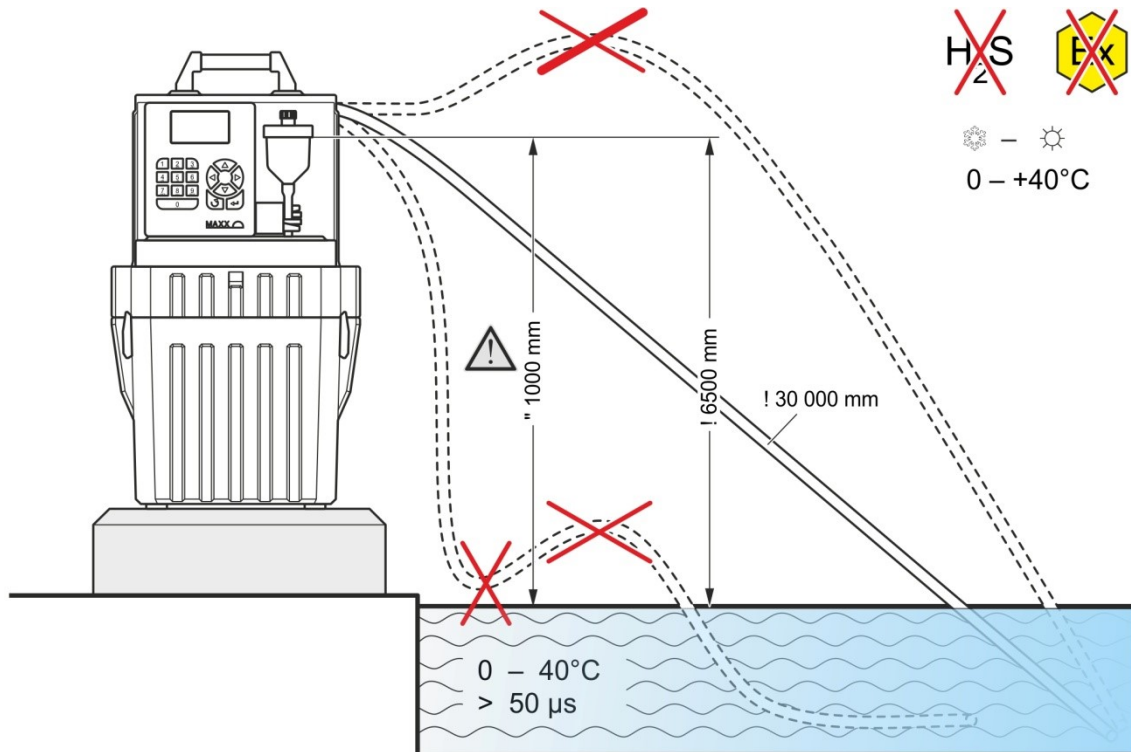


Figure 18 Installation diagram

3.3.2 Set the individual sample volumes

3.3.2.1 Plastic dosing vessel

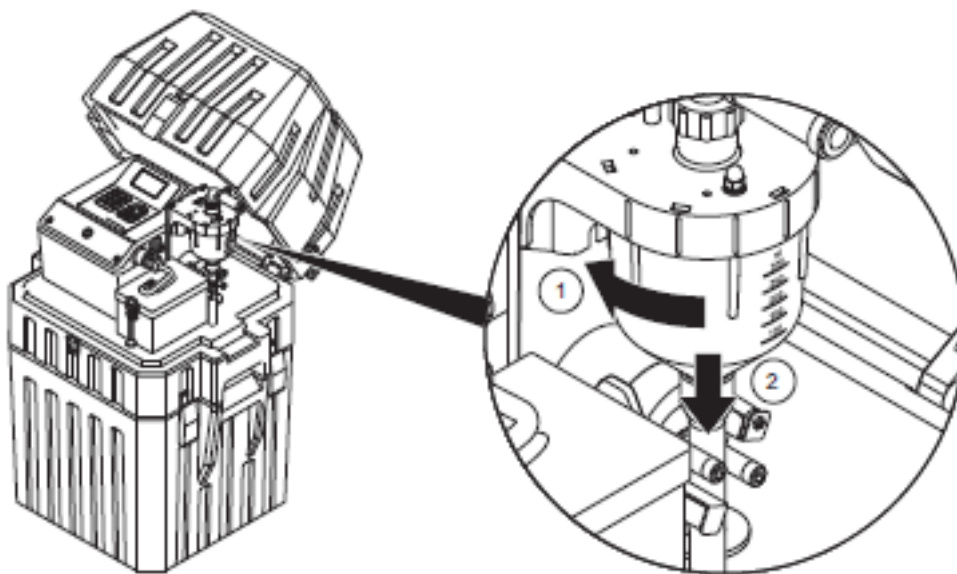


Figure 19 Unlock the bayonet cap on the plastic dosing vessel

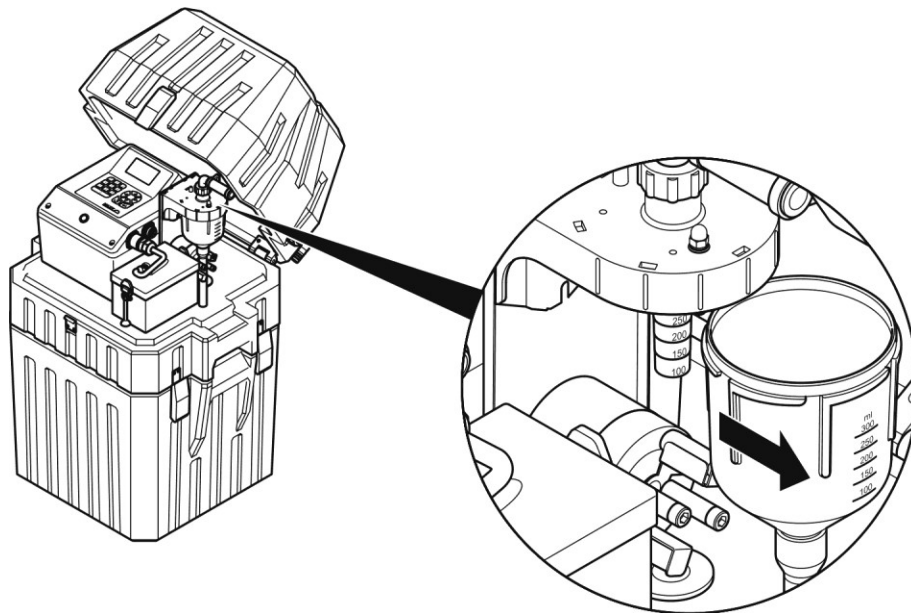


Figure 20 Remove the plastic dosing vessel

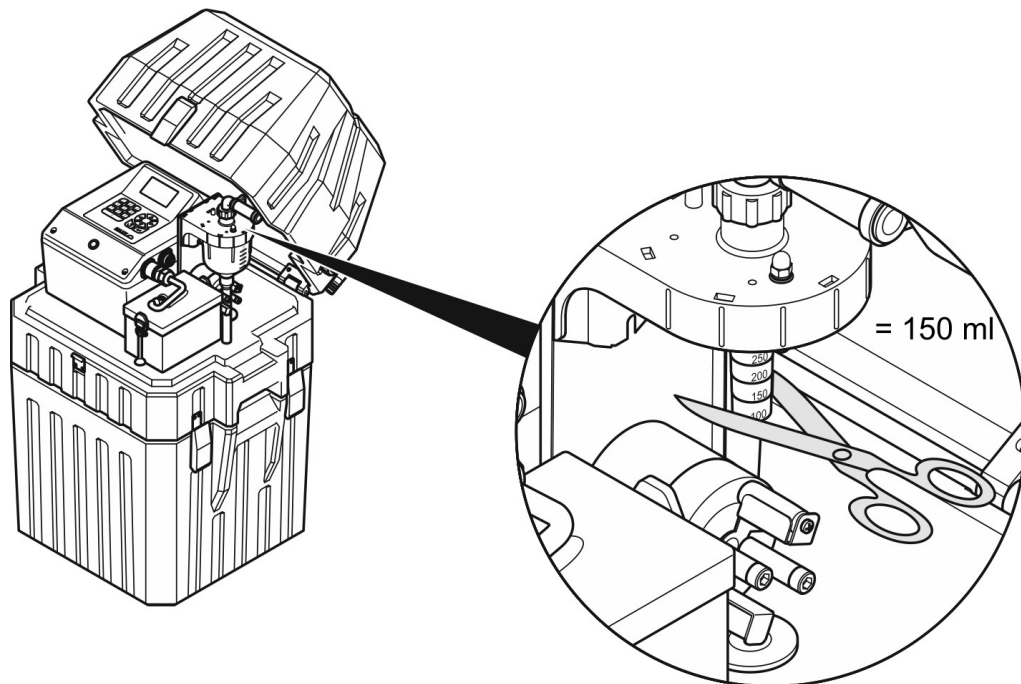
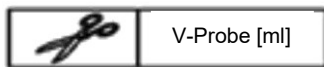


Figure 21 Cut the dosing tube to set the sample volume

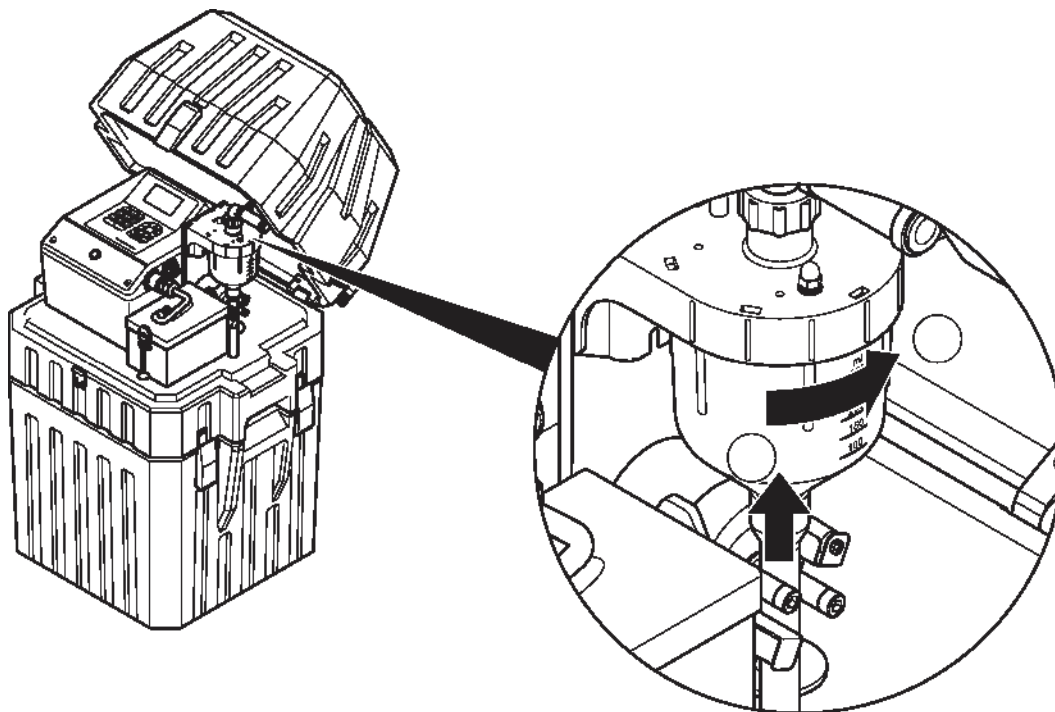


Figure 22 Assemble the plastic dosing vessel

3.3.2.2 Glas-Dosing vessel

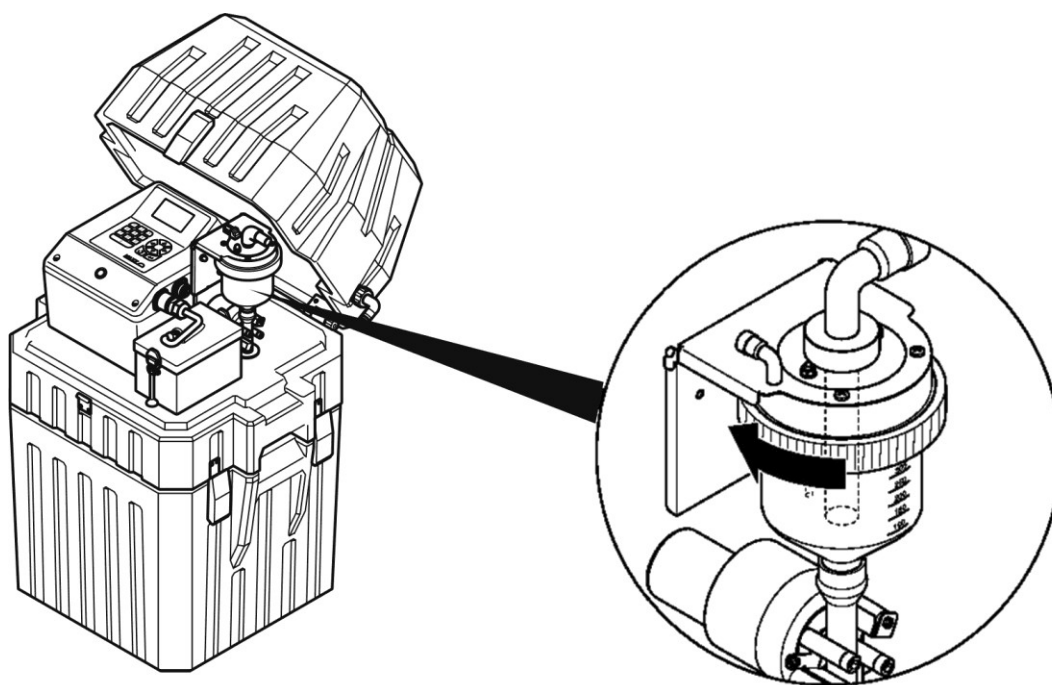


Figure 23 Loosen the union nut on the glass dosing vessel

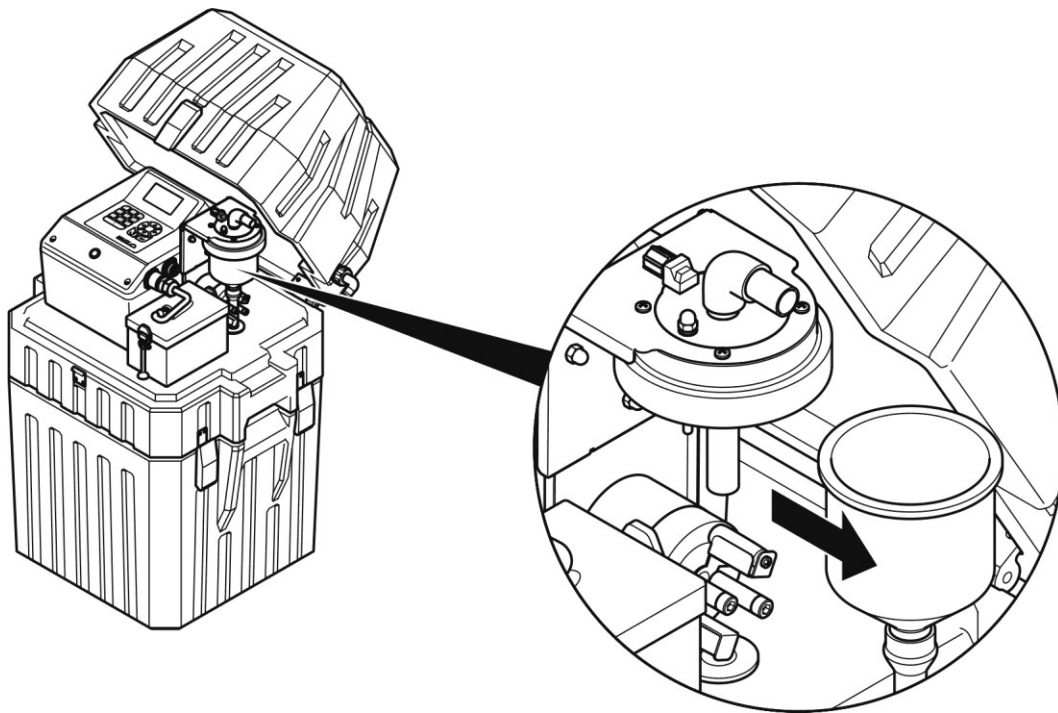


Figure 24 Remove the glass dosing vessel

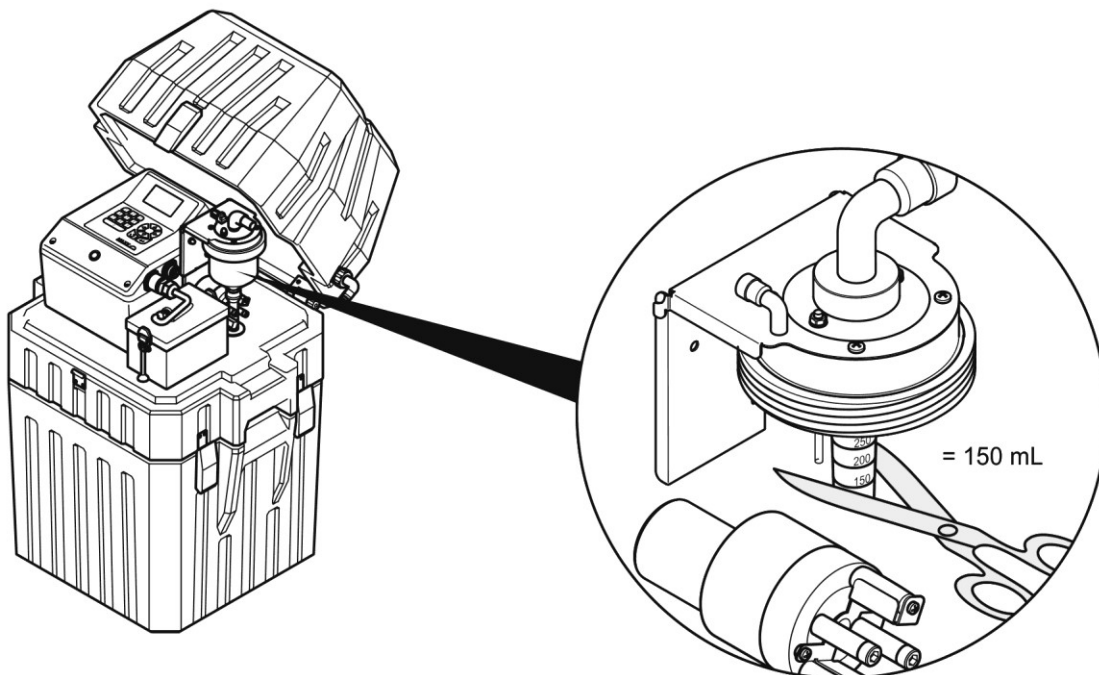
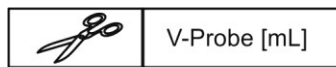


Figure 25 Cut the dosing tube to set the sample volume

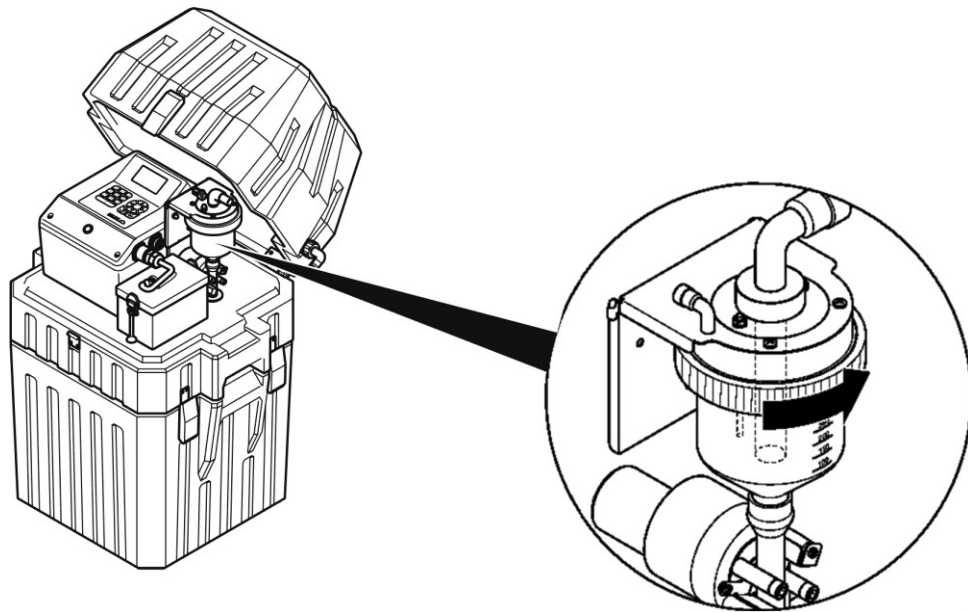


Figure 26 Assemble the glass dosing vessel

3.3.2.3 Dosing vessel for flow-proportional sampling

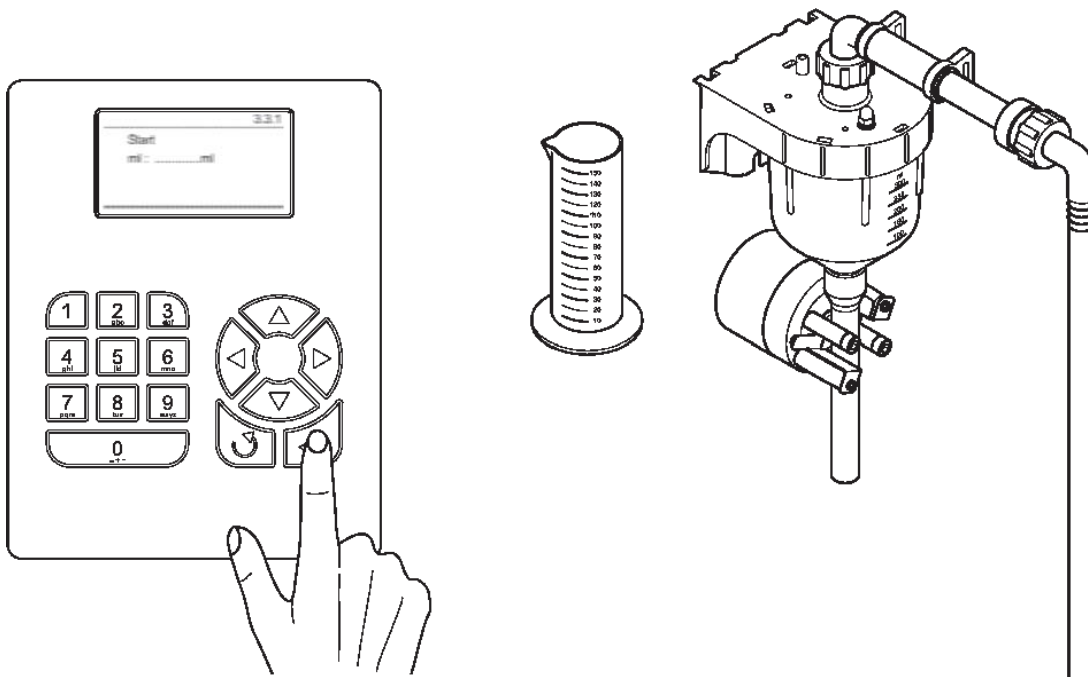
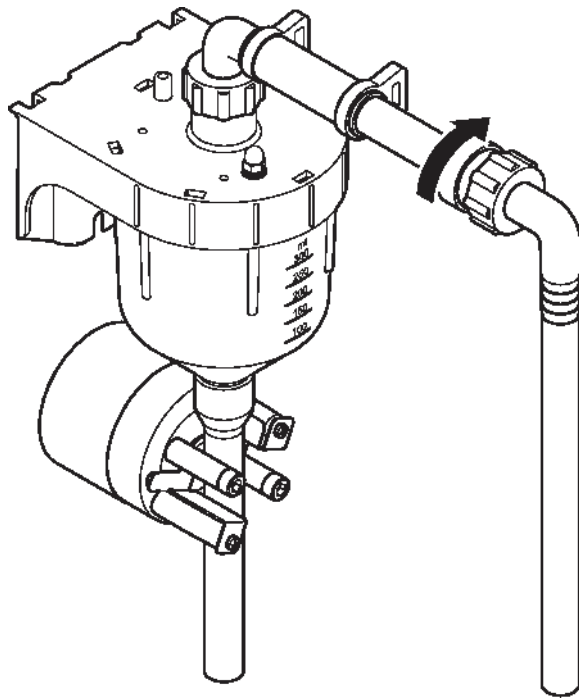


Figure 27 Calibrate the flow-proportional dosing vessel via the service menu



$\Delta P = \text{[hPa, bar]}$

Figure 28 The flow-proportional dosing vessel can only be used, if there is NO counter pressure

Installation

3.3.3 Remove the top part of the housing (TP5 P)

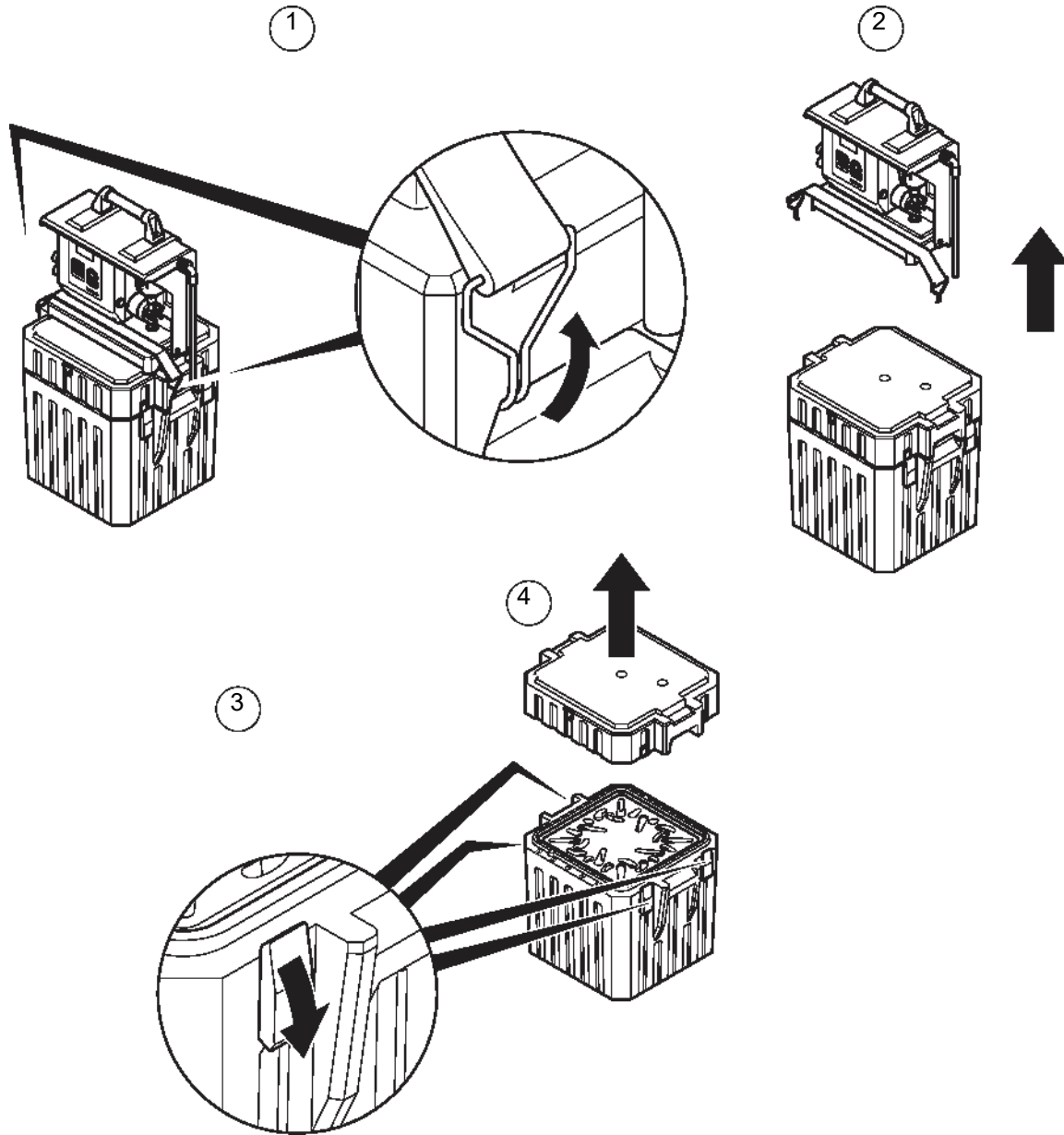


Figure 29 Remove the top part of the housing (TP5 P)

3.3.4 Remove the top part of the housing (TP5 C)

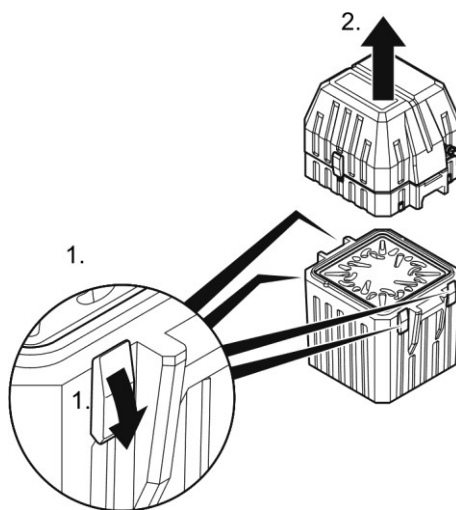


Figure 30 Remove the top part of the housing (TP5 C)

3.3.5 Prepare the bottle compartments

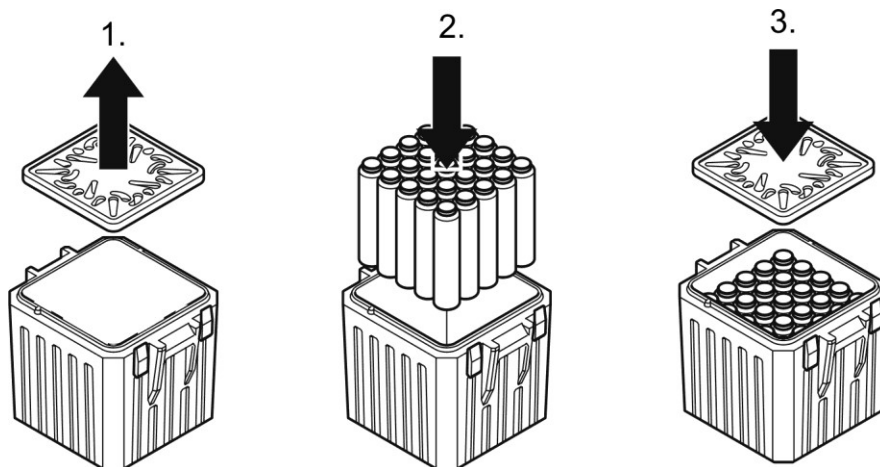


Figure 31 Place the empty bottles into the bottle compartment

Note: The sample distributor plate works correctly in all four of its potential positions..

Note: The housing base of the bottle compartment features numbers so that the individual bottles can be assigned with a number..

3.3.6 Attach the top part of the housing

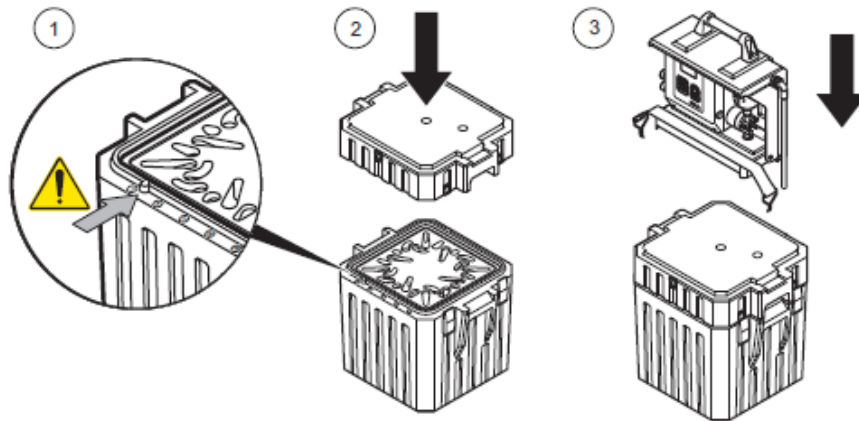


Figure 32 Attach the top part of the housing (TP5 P)

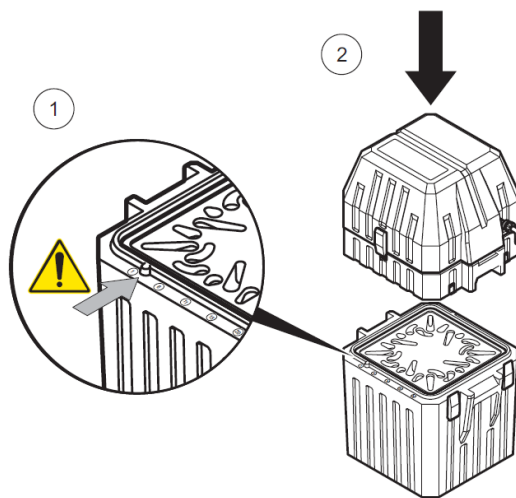


Figure 33 Attach the top part of the housing (TP5 C)

3.3.7 Connect the equipment to the mains

Make sure that:

- The equipment has been fully prepared for commissioning
- The data on the type plate corresponds to the data relating to the mains power supply (this applies to TP5 W as well as to TP5 P and TP5 C in connection with the charger and Y plug BM69742)
- The correct plug has been attached or the direct wire has been implemented correctly
- The equipment can be put into operation without any risks



DANGER

Make sure that the power supply, cable (also refer to [Figure 14, page 18](#)) and equipment are suitable for use with each other..

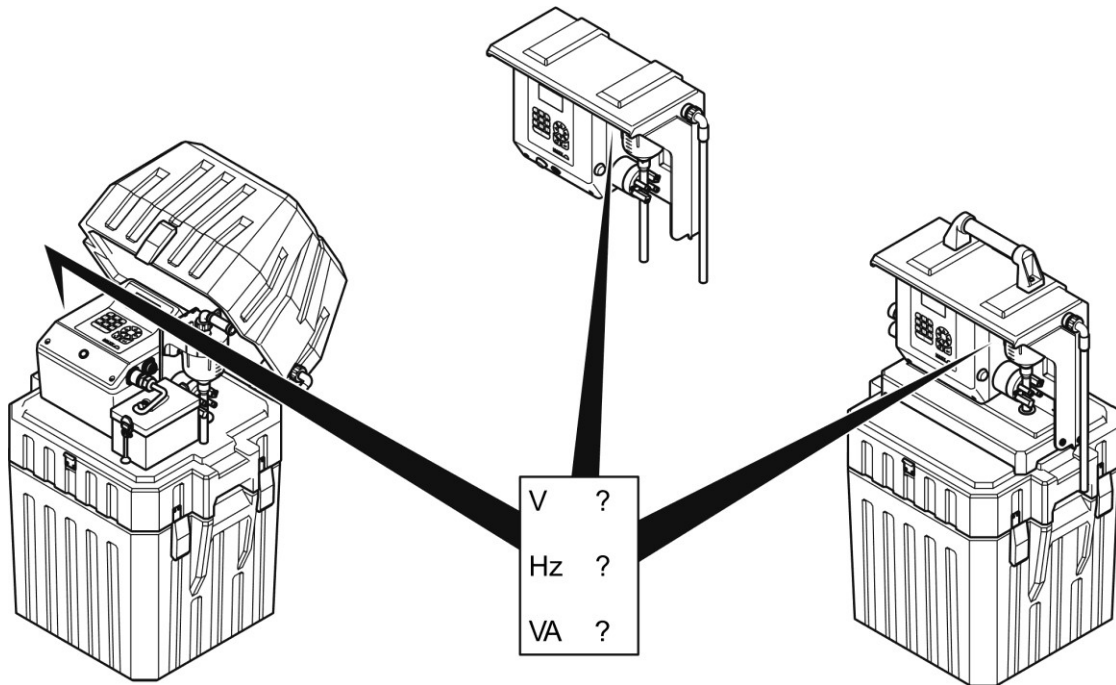


Figure 34 Rating label

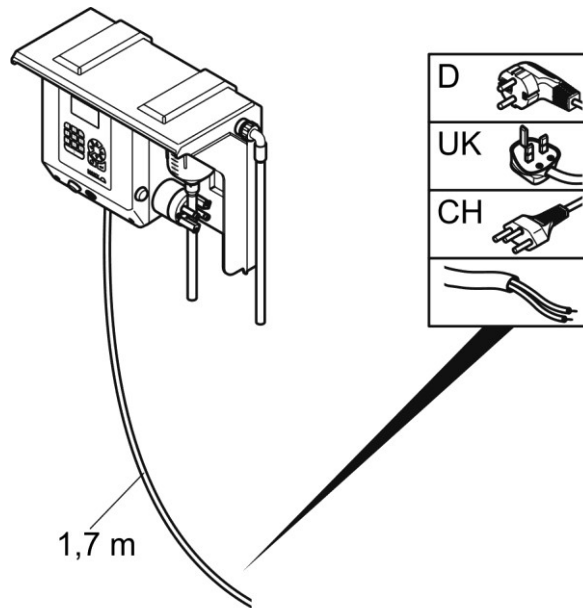


Figure 35 Possible connection configurations (TP5 W)

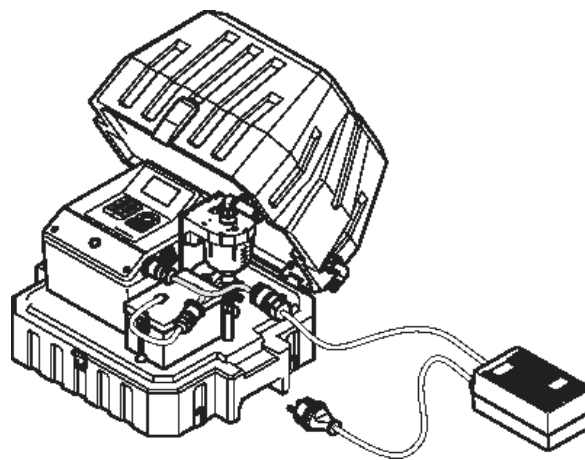


Figure 36 Model TP5 C with Y cable and charger

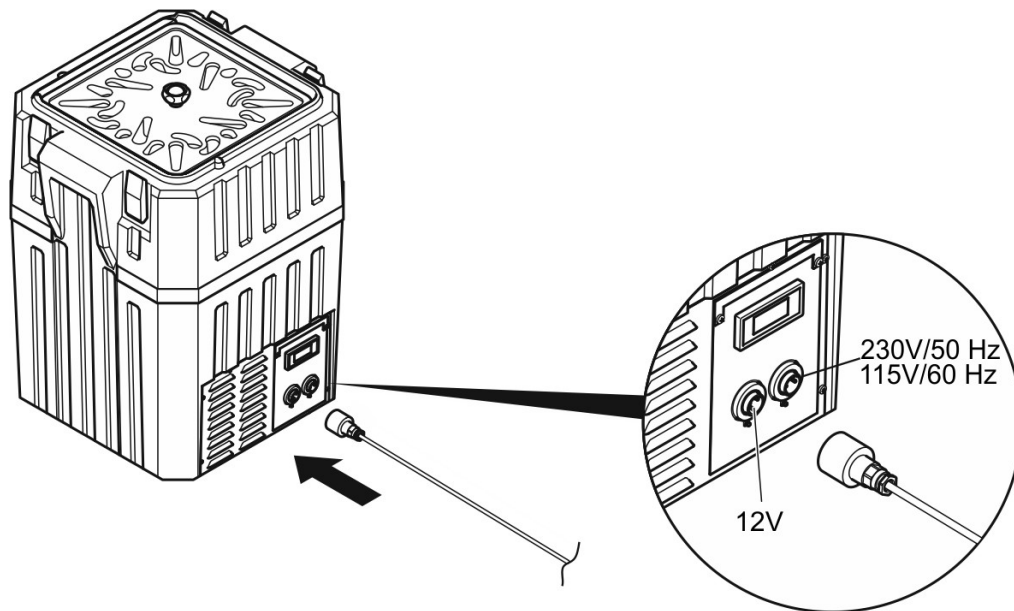


Figure 37 Potential connection variations (optional bottle compartment with active cooling)

3.3.8 Switch on the device

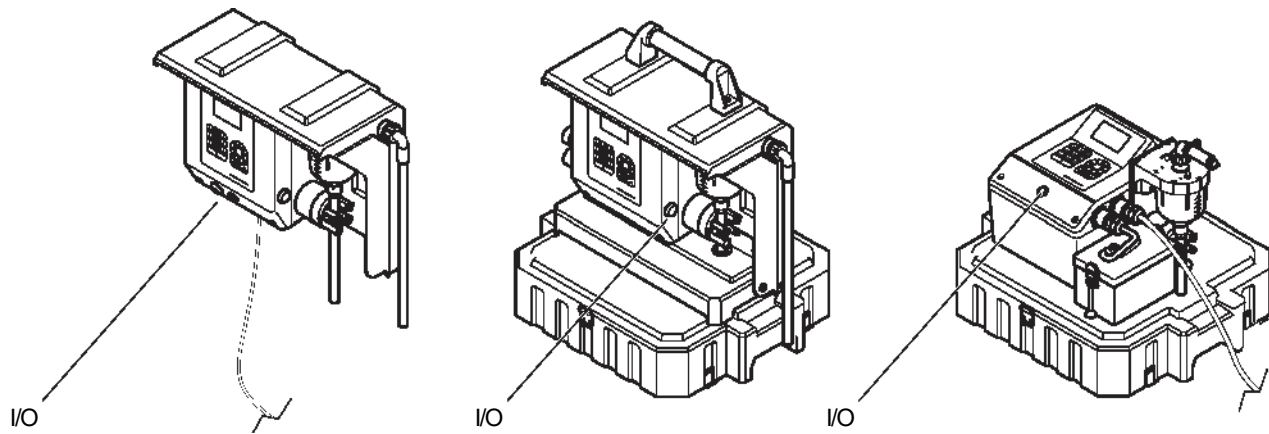


Figure 38 Switch on the device

3.3.9 Adjust the cooling settings for the optional bottle compartment with active cooling (TP5 P / TP5 C)

The manufacturer recommends a settings range of +4 to +15 °C.

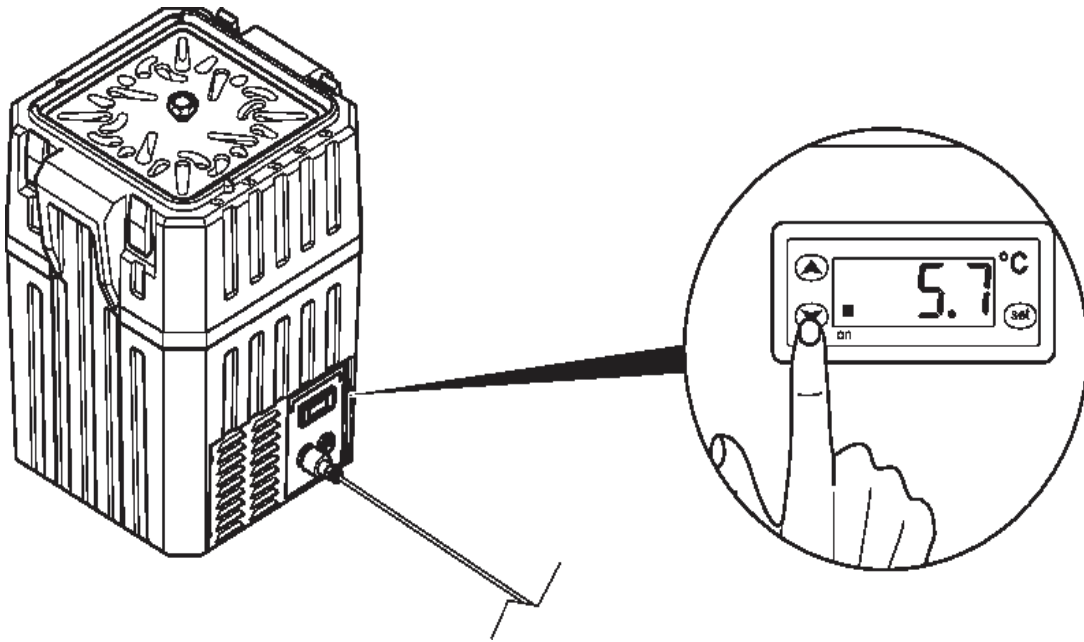


Figure 39 Adjust the cooling settings for the optional bottle compartment with active cooling

4.1 Control unit operation

All the equipment functions are software-controlled

4.1.1 Password

Password to program sampler and to change settings is:

6299

4.1.2 Programming

The menu structure resembles the directory structure of a computer hard drive and is divided into main menus and sub menus

4.1.3 Keyboard layout/function

The equipment can be programmed by the operator

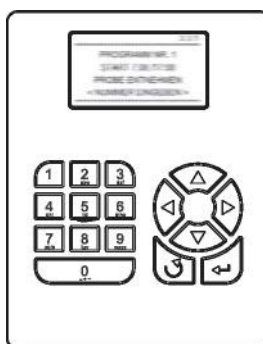











Figure 40 Control panel

The key functions are configured as follows to enable highly intuitive operation:

Tabelle 1 1 Key functions

Display help text (in the case of selection fields, the cursor must be placed on the left-hand side)	Arrow key	
Move from one menu item to the next menu selection	Arrow key	
Select the desired menu	Enter-Taste	
Move within a menu	Arrow key	
Select from within a menu	Arrow key	

Tabelle 1 Tastenfunktion (Fortsetzung)

Confirm the selection (automatically marked with a ✓)	Enter-key	
Enter/change values	Arrow key	
Confirm the entered values	Enter- key	
Return to the next superordinate menu level	Back- key	
Enter values	Numeric keypad	
Initialise (Reset) of Display - Press together	Back-key + Enter	 + 
Wakeup sleepmode (press 5 sec. at least)	Back- key	
Restore factory settings (Display = „load factorysettings“) Hold Back-key until boot process is finished	Back- key	

Example: A setting needs to be changed.

1. Press Enter.
The cursor then flashes.

2. Use the arrow keys to move the cursor until it is in the required position.

3. Press Enter.
The selection is now confirmed and the program can be started.

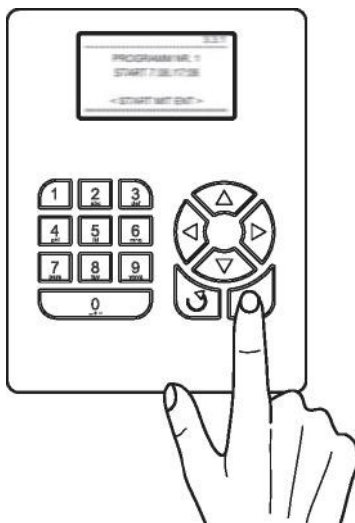


Figure 41 Start the program

- Depending on the program range,
- an activity is started or
 - the next menu item is automatically selected.

Note: The general rule:
 If you press Back,
 – the activity is cancelled or
 – the navigation takes one step back in the menue

4.2 Normal operation

4.2.1 Replace the sample bottles

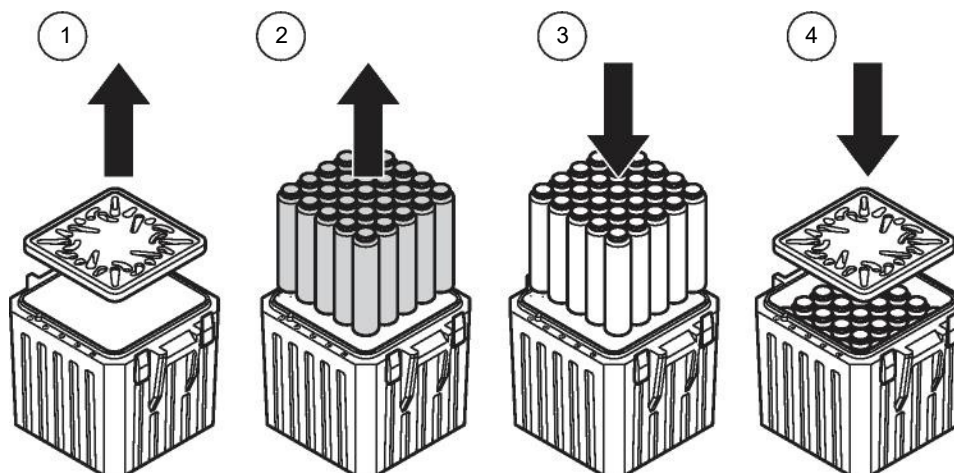


Figure 42 Replace full bottles

Section 5 Maintenance and cleaning



DANGER

Only qualified experts should conduct the tasks described in this section.



WARNING

Please observe the following points for the use of chemicals and/or waste water:

Wear protective clothing:

- Laboratory coat*
 - Protective eyewear*
 - Rubber gloves*
-

5.1 Maintenance work

The sampler is maintenance-free. Thus the operator does not need to carry out any maintenance work.

5.2 Cleaning

5.2.1 Clean the housing and distribution unit (TP5 P–TP5 C)



WARNING!

***Manual rotation of the distribution unit can damage the drive.
Never rotate the distribution unit manually.***

Clean the interior and exterior of the housing with a damp, lint-free cloth. Add commercial household cleaner to the cleaning water as required.

1. Clean the exterior of the housing.
2. Remove the top part as shown in the illustrations [Figure 29, Page 27](#) and [Figure 30, Page 28](#).
3. Loosen the central nut and remove the distribution vat.

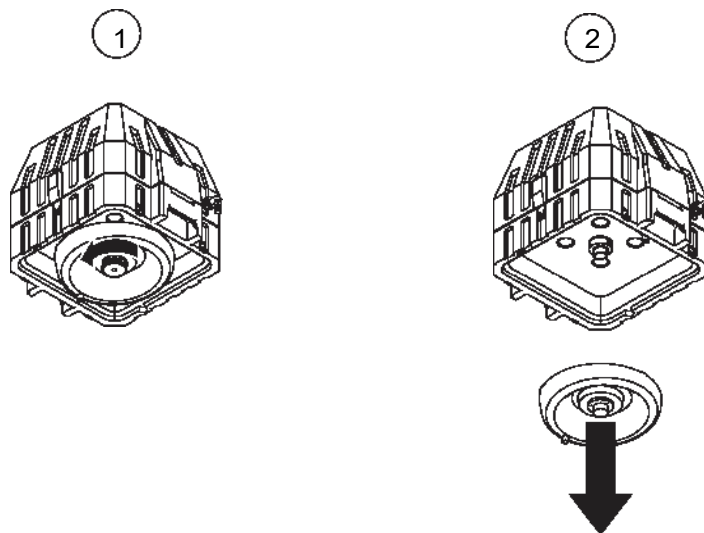


Figure 43 Remove the distribution vat (TP5 P und TP5 C)

4. Clean the distribution vat
5. Attach the distribution vat again and in doing so make sure that the guide pin is positioned in the bore hole.

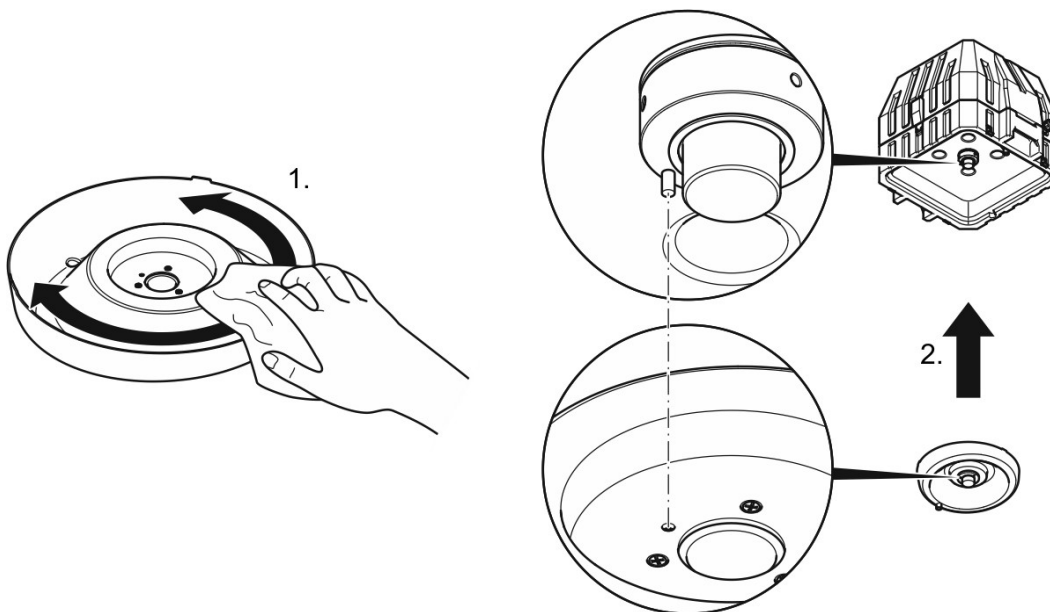


Figure 44 Assemble the distribution vat (TP5 P und TP5 C)

6. Tighten the central nut by hand again

7. Clean the sample distributor plate on the bottle compartment

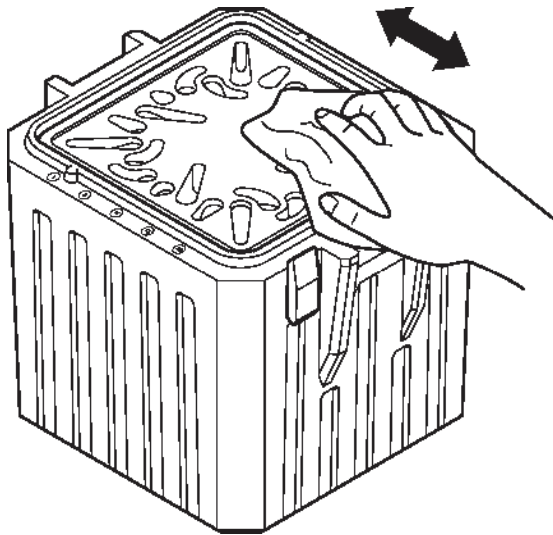


Figure 45 Clean the sample distributor plate on the bottle compartment

8. Position the top part back on the bottle compartment as shown in the illustrations. [Figure 32, Page 29](#) and [Figure 33, Page 29](#)

5.2.2 Clean the dosing vessel

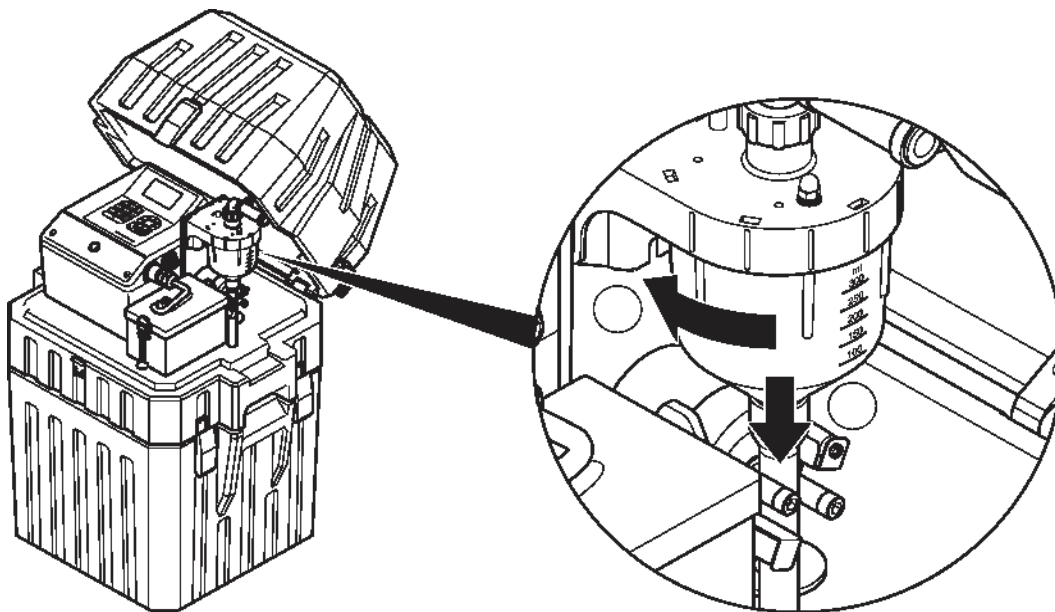


Figure 46 Release the dosing vessel

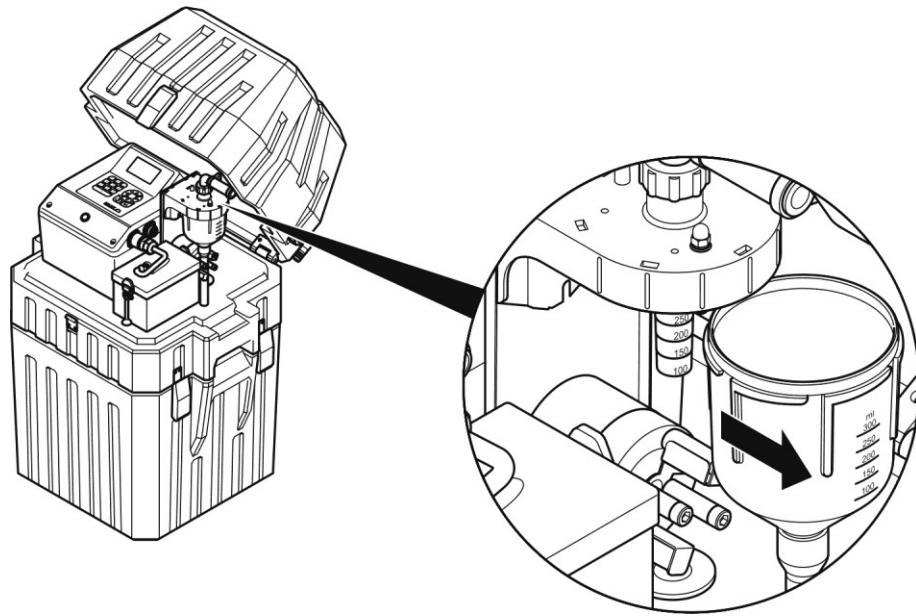


Figure 47 Remove the dosing vessel

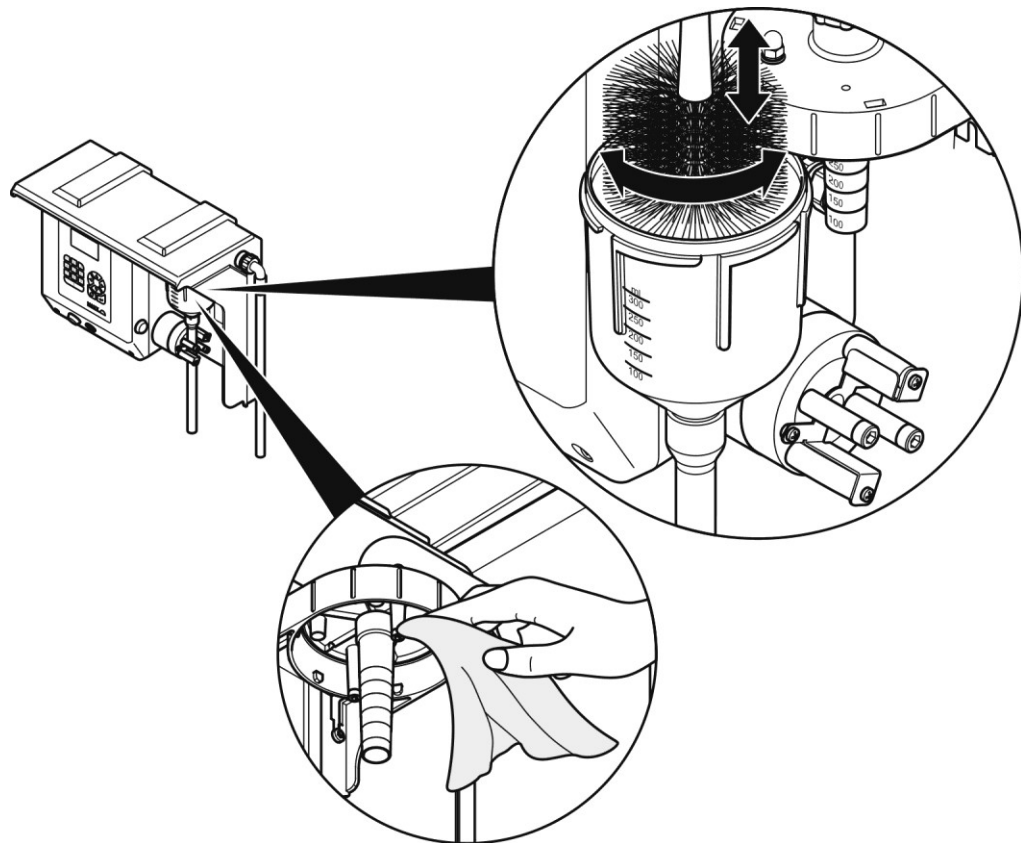


Figure 48 Clean the dosing vessel

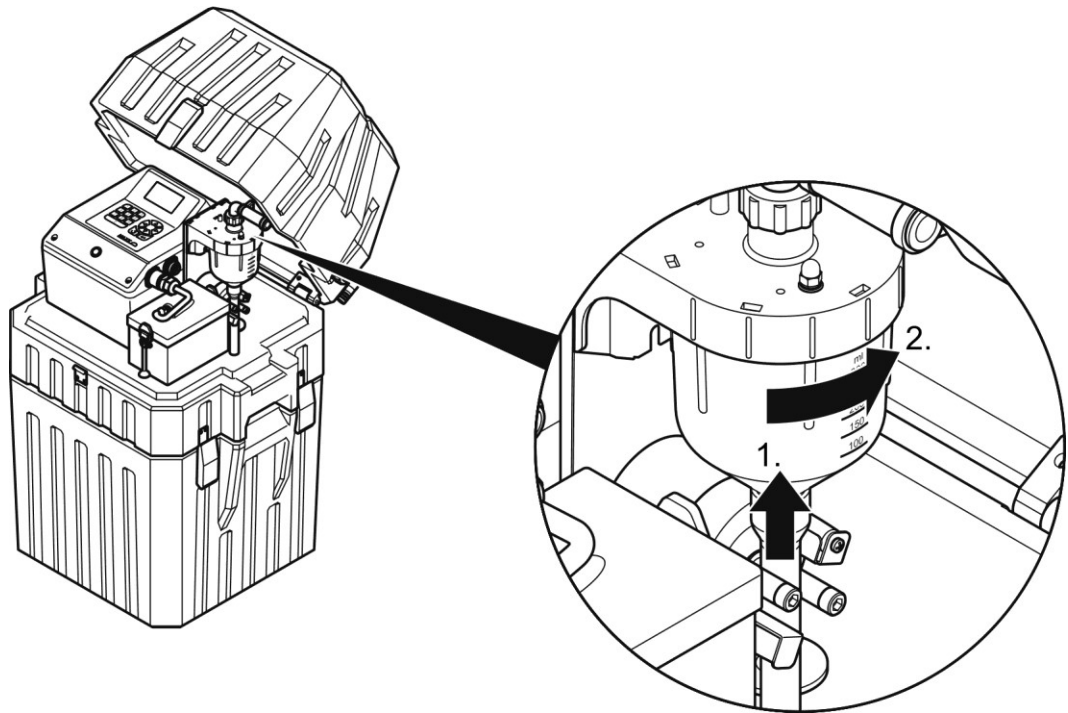


Figure 49 Insert the dosing vessel

5.3 Troubleshooting

If the equipment does not work as required, check the fuse and replace if necessary

5.3.1 Change the fuse

Open the fuse holder as shown in [Figure 50](#) and replace the defective fuse.

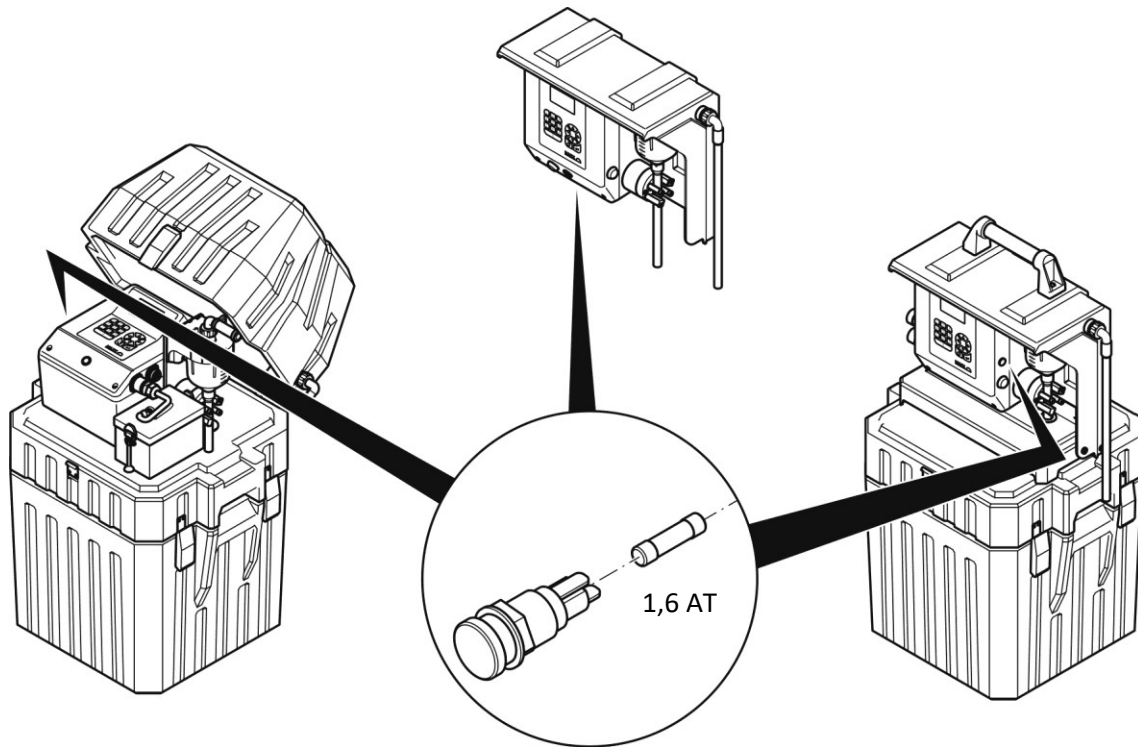


Figure 50 Position of the fuse in the portable sampler

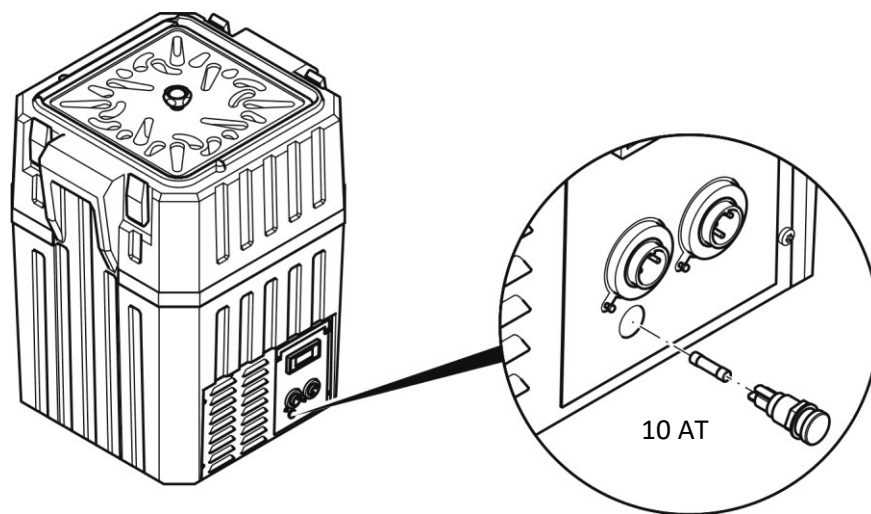


Figure 51 Position of the fuse in the optional bottle compartment with active cooling

If the error is not rectified, please contact the customer service of the manufacturer (refer to Contact information, page 55)

5.4 Instrument decommissioning and storage

1. Remove all liquids and, if necessary, solid matter from the infeed and outfeed lines and bottle compartments and clean as required.
2. Close all active programs.
3. Switch the equipment off.

Section 6 Replacement parts and accessories

6.1 Spare parts

Description	Art.No.
Replacement bottle, glass, 1 L	0030030
Cap for 1 L glass bottle	0060533
Replacement bottle, glass, 20 L	0030045
Replacement bottle, PE, 1 L	0060486
Cap for 1 L PE bottle	0060488
Replacement bottle, PE, 25 L (with cap)	0060046
Replacement bottle, PE, 5 L (with cap)	0060038
Replacement bottle, PE, 13 L (with cap)	0060045
Replacement battery TP5 P	0010012
Replacement battery TP5 C	0900116

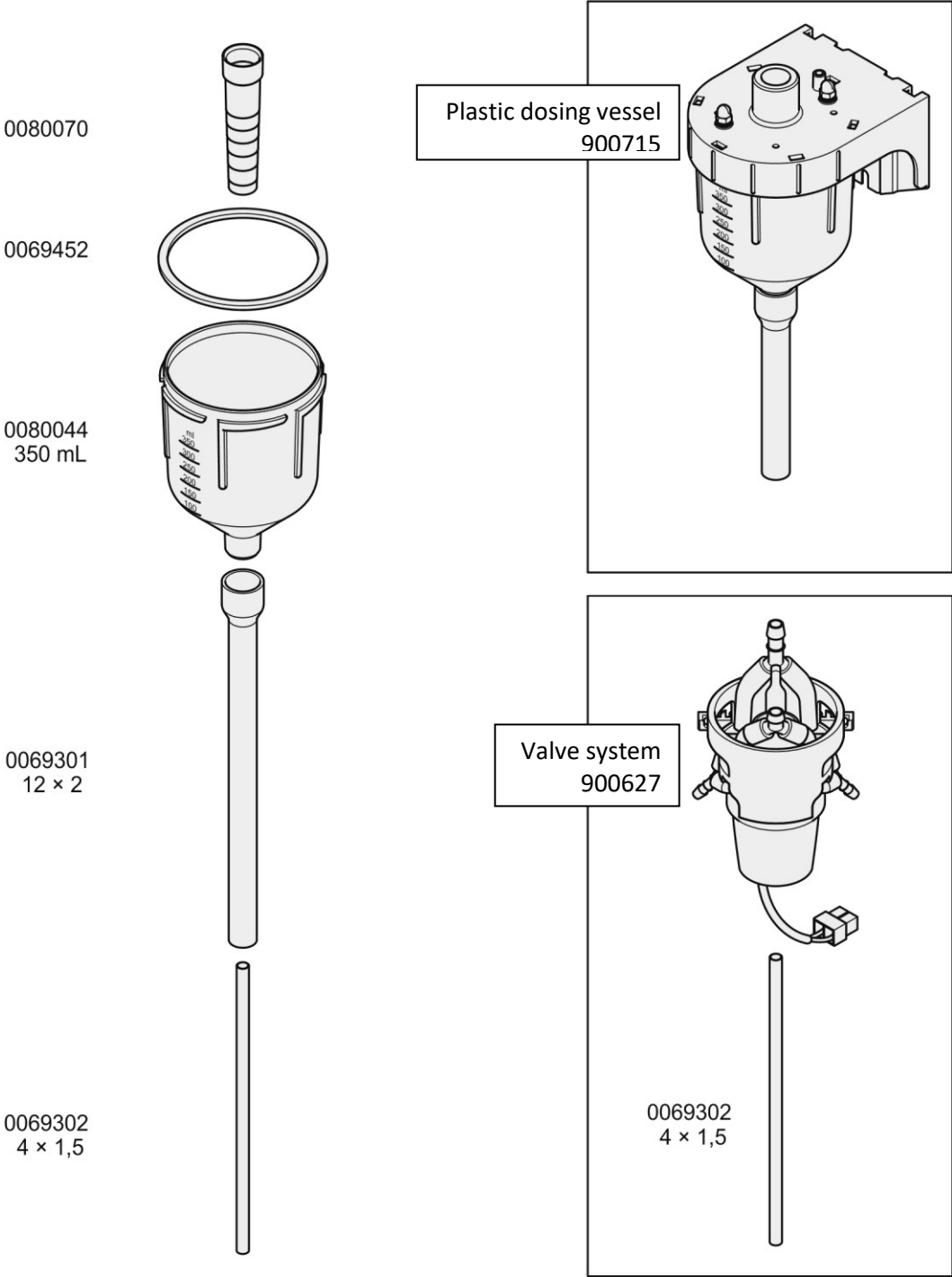


Figure 52 Plastic dosing vessel

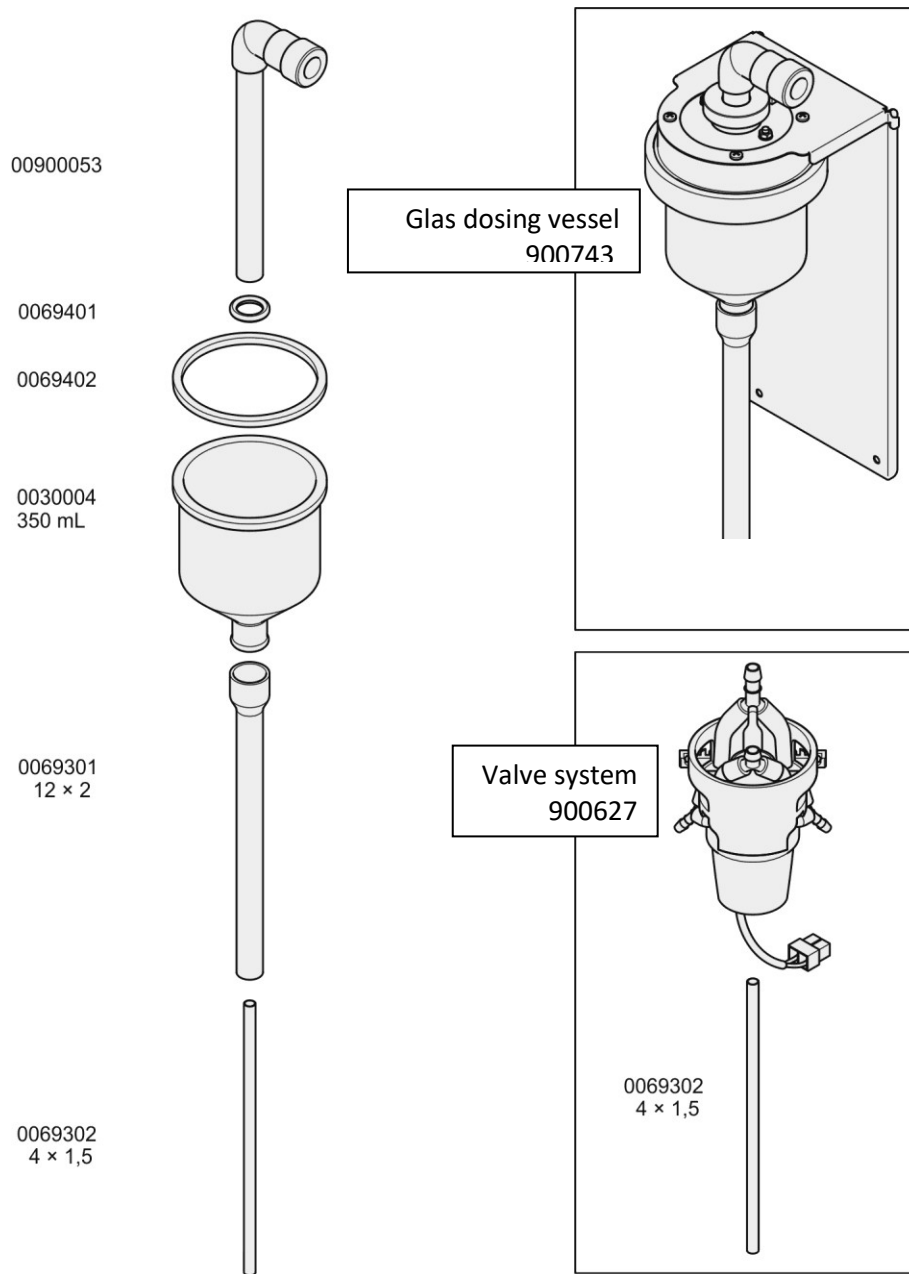


Figure 53 Glass dosing vessel (350 ml)

6.2 Accessories

Description	Art.No.
Y cable, power supply	0069742
Charger IP20 for TP5 P und TP5 C	0900026
Charger IP65 for TP5 P und TP5 C	0900033
Signal cabel 10 m	0069644
RS232 serial data cabel	0900021
PC Software Read Data	0200004
Tube connection with screw connection	0900300
Battery for bottle compartment with active cooling (90 Ah)	0010211
Sample transportation box (without bottles)	0900634
Replacement cooling battery	0060251
Transportation trolley	0900802

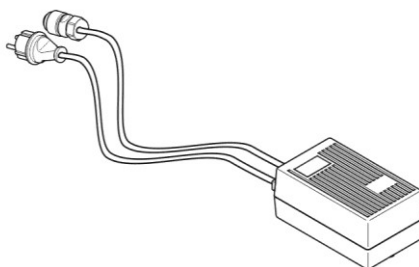


Figure 54 Charger IP20

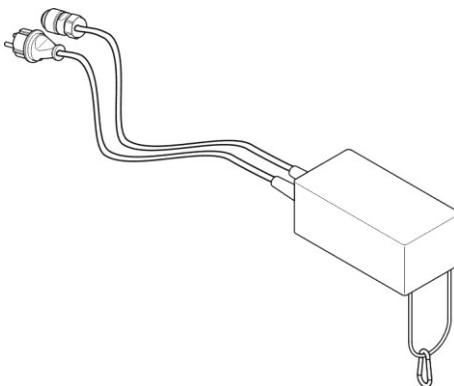


Figure 55 Charger IP65

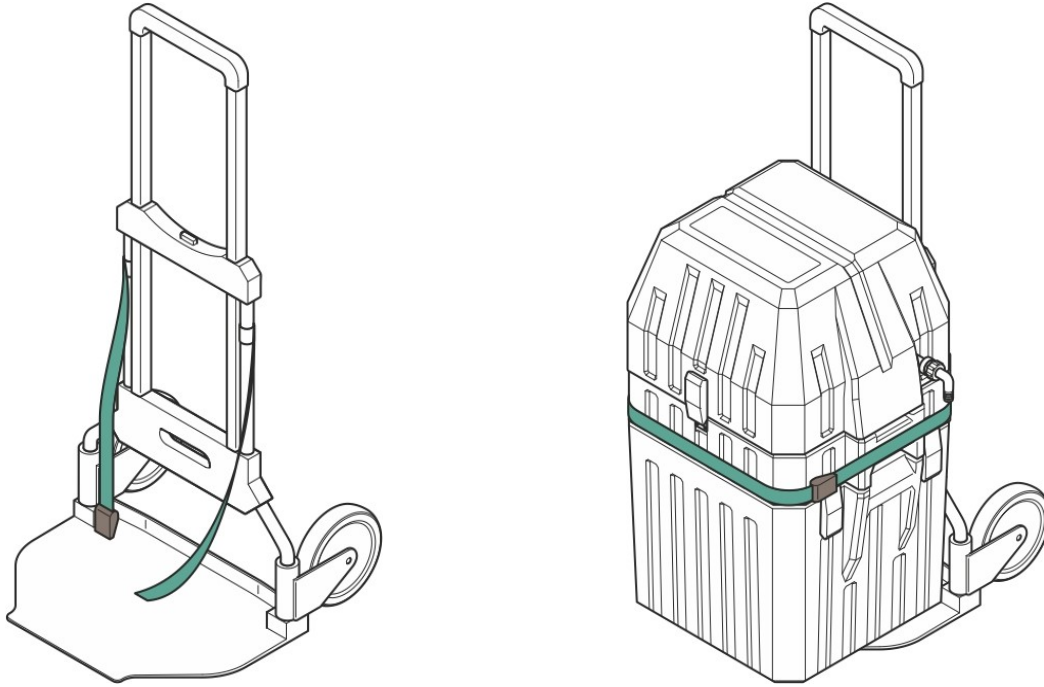


Figure 56 Transportation trolley (TP5 P/TP5 C)

Chapter 7 **Warranty and liability**

The manufacturer warrants that the product supplied is free of material and manufacturing defects and undertakes the obligation to repair or replace any defective parts at zero cost.

The warranty period is **12 months** from delivery resp. invoice date. Consumables and damage caused by improper handling, poor installation or incorrect use are excluded from this clause

With the exclusion of the further claims, the supplier is liable for defects including the lack of assured properties as follows: all those parts that, within the warranty period calculated from the day of the transfer of risk, can be demonstrated to have become unusable or that can only be used with significant limitations due to a situation present prior to the transfer of risk, in particular due to incorrect design, poor materials or inadequate finish will be improved or replaced, at the supplier's discretion. The identification of such defects must be notified to the supplier in writing without delay, however at the latest 7 days after the identification of the fault. If the customer fails to notify the supplier, the product is considered approved despite the defect. Further liability for any direct or indirect damages is not accepted.

If instrument-specific maintenance and servicing work defined by the supplier is to be performed within the warranty period by the customer (maintenance) or by the supplier (servicing) and these requirements are not met, claims for damages due to the failure to comply with the requirements are rendered void.

Any further claims, in particular claims for consequential damages cannot be made.

Consumables and damage caused by improper handling, poor installation or incorrect use are excluded from this clause.

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