DOC023.52.00024

Filter probe sc

Operation Manual

06/2021, Edition 6

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Section 1 Specifications

We reserve the right to make changes without notice.

Table 1 Filtration probe sc specifications (in some cases optional extras)

Components	Filter module with pump
Dimensions	(W × H × D) 330 × 384 × 243 mm (13 × 15.12 × 9.57 inches)
Supply tubing	5 m or 10 m, depending on version
Enclosure	Plastic enclosure, PPE, flammability class in accordance with UL 94
Mass	Approx. 9.5 kg filter enclosure, approx. 8 kg tubing
Material that touchs with sample	Enclosure: TSG, 1.4571, 1.4401/1.4578 Sealing: NBR Heated tube: FEP Sample tube: PTFE Filter module: ABS, 1.4401/1.4578
Power supply	Via analysis instrument
Electrical connection	Via analysis instrument
Mean power consumption	400 VA (brief peak power consumption: 1000 VA), (with 10 m heated filtration probe tubing)
Electrical fuse protection	Via analysis instrument, via controller
Operating temperature	4 °C...40 °C (39 °F...104 °F), in water
Operating temperature sample tubing	–20 °C...45 °C (–4 °F...113 °F); 95 % relative humidity, non-condensing
Storage temperature	–20 °C...60 °C (–4 °F...140 °F); 95 % relative humidity, non-condensing Once the filter modules have become wet, they must be stored wet.
Sample temperature	4 °C...40 °C (39 °F...104 °F), water temperature
Permissible sample flow speed	max. 3 m/s, from 1 m/s: install only with protection against flow
Permissible pH value of the sample	5–9
Maximum immersion depth	3 m (120 inch)
Fastening to the extension pipe	6 screws M5 × 10 mm
Filtrate flow rate	≥ 5 ml/minute, 4 out of 5 minutes
Cables and tubing on the probe pipe	Outer sheath of the cables and tubing: UV and weather resistant Total external diameter of the outer tubing: 32 mm (1.2 inch) External diameter of the sample tubing 3.2 mm (0.12 inch) External diameter of the return tubing: 6 mm (0.23 inch) External diameter of the air tubing: 6 mm (0.23 inch) External diameter of the data cable: 7.1 mm (0.28 inch) External diameter of the power cable: 6.1 mm (0.23 inch)
Warranty	1 year (EU: 2 years)
Altitude	2000 m
Pollution Degree	2

Section 2 General information

2.1 Safety instructions

Prior to unpacking, commissioning or operating the instrument, read this manual in its entirety.

Please pay particular attention to all instructions on hazards and safety. Otherwise there is a risk of serious injury to the operator or damage to the instrument, or pollution.

The instrument is only allowed to be installed and used as per the instructions in this manual.

2.1.1 Instructions on hazards in this manual

DANGER
Indicates a potentially hazardous situation or hazardous situation that, if not avoided, could result in serious injuries or fatality.

CAUTION
Indicates a possibly hazardous situation that could result in light to moderate injuries.

Important note: *Information that is to be specifically highlighted.*

Note: *Information with additional aspects on the main text.*

2.1.2 Safety symbols used

Observe all stickers and markings on the instrument. Otherwise injuries, pollution or damage to the instrument may occur.

	This symbol, if present on the instrument, refers to information in the operating instructions on safe operation and / or instructions that provide safety information.
	This symbol, if present on a enclosure or a protective cover for the instrument, identifies the risk of an electric shock (which may under certain circumstances be fatal). Only personnel qualified for working on hazardous voltages are allowed to open the enclosure or remove the protective cover.
	This symbol, if present on the instrument, identifies the location of a fuse or current limit.
	This symbol, if present on the instrument, identifies a part that may become hot and must not be touched without taking precautions.
	This symbol, if present on the instrument, indicates the presence of components that could be damaged by electrostatic discharge. Appropriate precautions are to be taken.
	This symbol, if present on the instrument, indicates the presence of dangerous chemical substances. Chemicals are only allowed to be handled and maintenance on devices for supplying chemicals to the instrument is only allowed to be performed by personnel qualified and trained for working with chemicals.

	This symbol, if noted on the product, indicates a crush hazard. Keep hands and fingers clear.
	This symbol, if present on the instrument, identifies the location of the connection for the protective earth (ground).
	As of 12 August 2005, electrical appliances marked with this symbol are no longer allowed to be disposed of in Europe in unsorted household or industrial waste. As per the applicable regulations, from this date on consumers in the EU must return old appliances to the manufacturer for disposal. This disposal is free of charge for the consumer. ***Note:*** *You can obtain instructions on the correct disposal of all (marked and unmarked) electrical products that have been supplied or manufactured by Hach-Lange from your local Hach-Lange sales office.*
	When carrying or transporting the instrument/instrument components and if the total weight is more than 18 kg, make sure that suitable lifting equipment is used and/or that the instrument/instrument components are carried by 2 people.

2.1.3 General safety instructions

DANGER
Risk of electric shock!
Work on the electrical installation is only allowed to be performed by an experienced electrician!
Always isolate the instrument from the mains during installation work!

CAUTION
Observe applicable health and safety regulations!
Flows of sample of unknown composition can produce hazards due to traces of chemicals, radiation or biological effects.
Avoid unnecessary contact with the flows of sample of unknown composition and take appropriate safety measures.

DANGER
Potential danger in the event of contact with chemical/biological materials. Handling chemical samples, standards and reagents can be dangerous. Familiarize yourself with the necessary safety procedures and the correct handling of the chemicals before the work and read and follow all relevant safety data sheets.

Normal operation of this instrument may involve the use of hazardous chemicals or biologically harmful samples.

- Observe all cautionary information printed on the original solution containers and safety data sheet prior to their use.
- Dispose of all consumed solutions in accordance with national regulations and laws.

- Select the type of protective equipment suitable to the concentration and quantity of the dangerous material at the respective work place.

2.2 General

In this section you will find information on:

- Instrument identification
- Items supplied
- Operating instructions
- Tasks and obligations of the operating organisation
- The manufacturer
- The declaration of conformity

2.3 Product description

The filtration probe sc is controller-operated filtration system that is immersed. It supplies an AMTAX sc or PHOSPHAX sc connected in series with a filtered sample flow. The filtration probe sc features automatic cleaning and is largely maintenance-free.

2.3.1 Identification

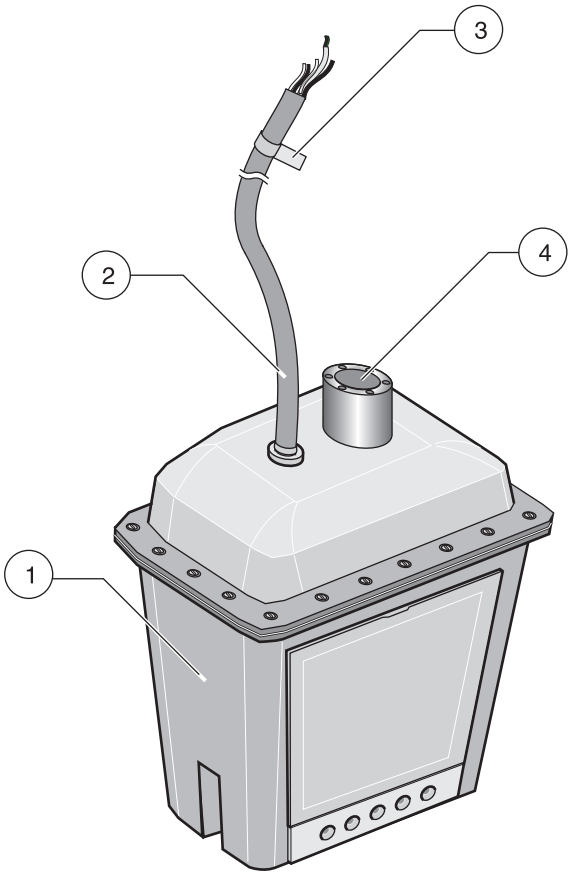


Figure 1 Filtration probe sc

1	Filtration probe sc	**3**	Rating plate
2	Supply cable	**4**	Connection fastening system

2.3.1.1 Rating plate for the filtration probe sc

You will find the rating plate at the top end of the supply cable. On the rating plate you will find

- The model number and the serial number,
- Information on the voltage and frequency for the electrical connection and
- Information on the brief peak power consumption.

2.3.2 Principle of operation

The filtration probe sc draws in liquid through a filter system and then pumps this sample flow to an analysis instrument connected in series. After the analysis of the sample, the analysis instrument pumps the sample (possibly mixed with chemicals) back to the tank sampled or to a drain.

A cleaning device ensures the filter modules remain porous. The filtration probe sc has a compressed air tube that terminates underneath the filter modules. When compressed air flows out of the air openings underneath the filter modules, the rising air bubbles remove soiling from the filter modules. In this way the filter modules remain porous and manual cleaning is largely unnecessary.

2.4 Items supplied

Standard items supplied:

- Filtration probe sc
- These operating instructions
- 2 filter modules
- Small parts, cable, tubing and connector set and
- One cleaning sponge

2.4.1 Identification of the operating instructions

You will find a DOC number on the cover sheet so that you can re-order these operating instructions. You can identify the issue of the operating instructions using the date in the DOC number.

2.5 Target group for these operating instructions

These operating instructions are directed at sewage treatment plant operating organisations and trained and experienced staff sewage treatment plant supervisors. It is assumed that these persons are familiar with the operation of personal computers and have a sound knowledge of

- Measurement and control systems,
- Electrical engineering,
- Water analysis and
- Chemistry

and have been adequately instructed on safety regulations.

Requirements and activities that go beyond the knowledge and skills held by a sewage treatment plant supervisor must be entrusted by this person to trained (e. g. electrical) specialists. Such work is to be planned and co-ordinated in agreement with the organisation or plant management.

2.6 Tasks and obligations of the operating organisation

The organisation operating the plant must ensure only qualified and trained personnel install, operate or otherwise use this probe. The operating organisation must ensure the locally applicable regulations are observed and that these operating instructions are always available to the plant operators.

2.6.1 Correct use

Incorrect use of the filtration probe sc or its components and / or its accessories can cause injury, damage or pollution. Ensure the filtration probe sc and / or its components and / or its accessories are only used correctly.

The filtration probe sc was developed for the filtration, supply and disposal of liquid samples and for connection to an analysis instrument. The primary area of application is water and waste water analysis.

2.6.1.1 Incorrect use

Any other use or use beyond that defined above is considered incorrect use and will also render void all claims under the guarantee and warranty.

2.6.2 Standards and declaration of conformity

The filtration probe sc and its components comply with the applicable standards and stipulations.

For the filtration probe sc we confirm CE compliance.

HACH LANGE GmbH is certified to DIN EN ISO9001.

You can obtain further information on certificates, the declaration of conformity and standards on request.

2.6.3 Copyright

Section 3 Installation

In this section you will find information on the following for the filtration probe sc

- Installing,
- Connecting,
- Connecting to the mains and
- Connecting to the data network.

3.1 Safety instructions

DANGER
Prior to unpacking, commissioning or operating the instrument, read all of this manual!

Pay particular attention to all instructions on hazards and safety. Otherwise there is a risk of serious injury to the operator or damage to the instrument, or pollution!

The analysis instrument and its peripherals are only allowed to be installed and connected by qualified personnel. Only use appropriate (e. g. insulated) tools and observe the applicable rules and regulations!

Incorrect connection to the data network or incorrect configuration can result in damage to the modules and the customer's network!

3.1.1 Safety measures prior to unpacking, connecting and operating

Ensure only trained and instructed personnel unpack, install, connect or operate the filtration probe sc.

3.1.2 Disposing of the packaging

Protect the environment when disposing of the packaging and observe locally applicable regulations

3.1.3 Preparing the installation

DANGER
Risk of electric shock!

Make sure to select a safe installation location for operation and service. Installation must be carried out by a qualified expert in accordance with all local safety regulations. Plan the mechanical fastening before you position posts or drill holes. Choose a suitable place to install the instrument.

Take care to follow the installation instructions when mounting the product. Make sure that a HACH service technician can remove the product without health risk. Make sure that support from the operator is possible.

The object is heavy (18 kg [40 lb]). Make sure that the wall mounting is able to hold 4 times the weight of the equipment. In case of repair or error, the instrument gets 2-4 kg [4.4-8.8 lb] more weight due to contained water. Be sure to use only one extension tube (LZY14.99.00040) to increase the length of the holding tube to a maximum of 3.8 m [12.5 ft].

When carrying or transporting the instrument/instrument components and if the total weight is more than 18 kg, make sure that suitable lifting equipment is used and/or that the instrument/instrument components are carried by 2 people.

Plan how the cables and tubing will be laid and their routes. Note that the cables will need to be removed regularly.

Lay cables and tubing so they will not cause tripping and without sharp bends. Note that the cables will need to be removed regularly.

Do not connect the electrical power supply to the mains until the instrument has been fully wired and fused.

Provide adequate fuse protection for the electrical power supply.

Always connect a residual current circuit breaker (trigger current max.: 30 mA) between the mains and the system!

If you install the instrument outside, provide overvoltage protection between the mains and the system!

Risk of falling. Make sure that additional safety measures against falling are taken.

Pinch hazard. When inserting the mounting tabs into the holder can pinch and cause injury to the fingers.

3.2 Drawing with dimensions

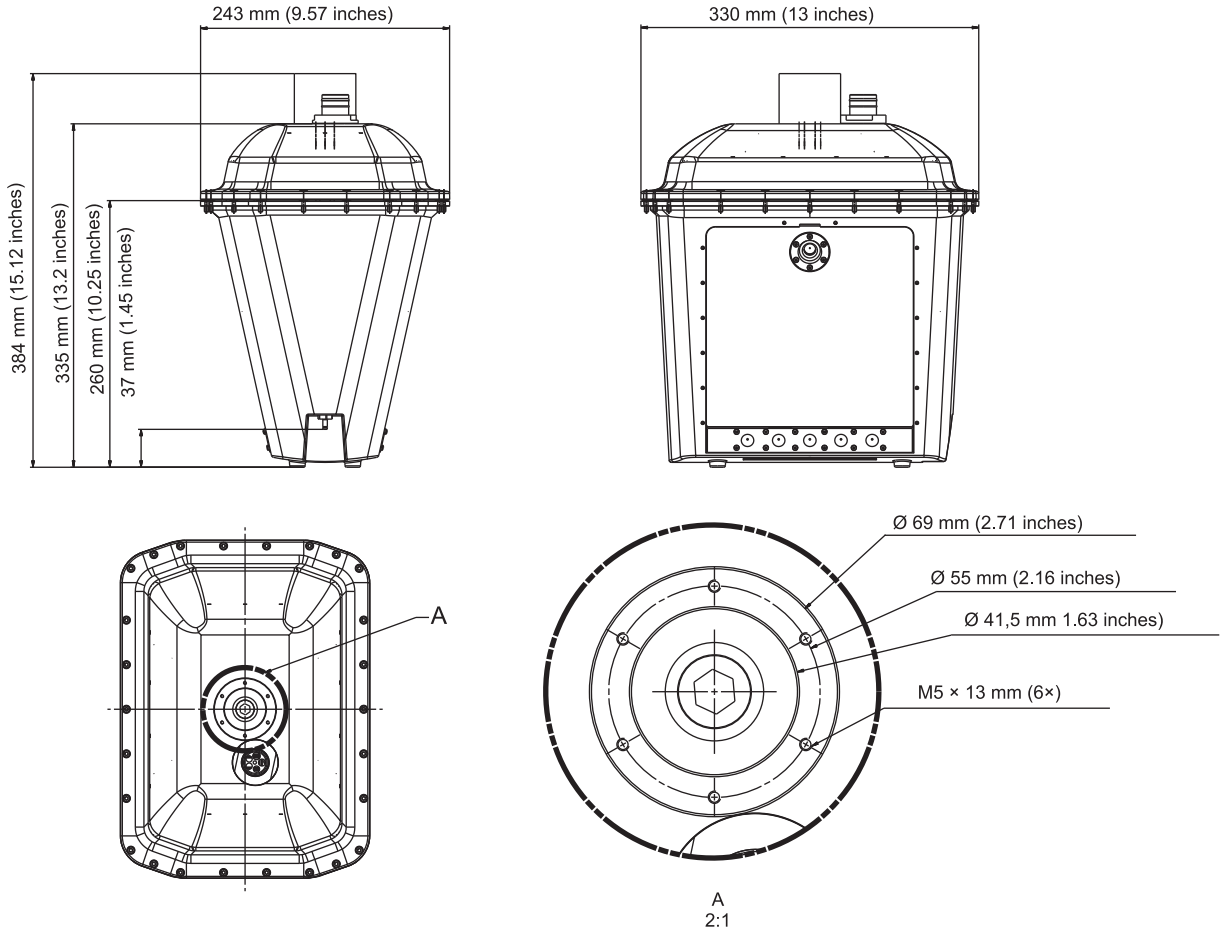


Figure 2 Drawing with dimensions

3.3 Installing the filtration probe sc

Important note: *Improper assembly or installation of the filtration probe sc or its components can result in injury or damage.*
The filtration probe sc and its components are only allowed to be installed by qualified and trained personnel.

Install the filtration probe sc prior to commissioning the analysis instrument.

3.3.1 Sealing exhaust

If you do *not* dispose of the used sample via the filtration probe sc, seal the exhaust.

1. Seal the exhaust using the sealing cap supplied.

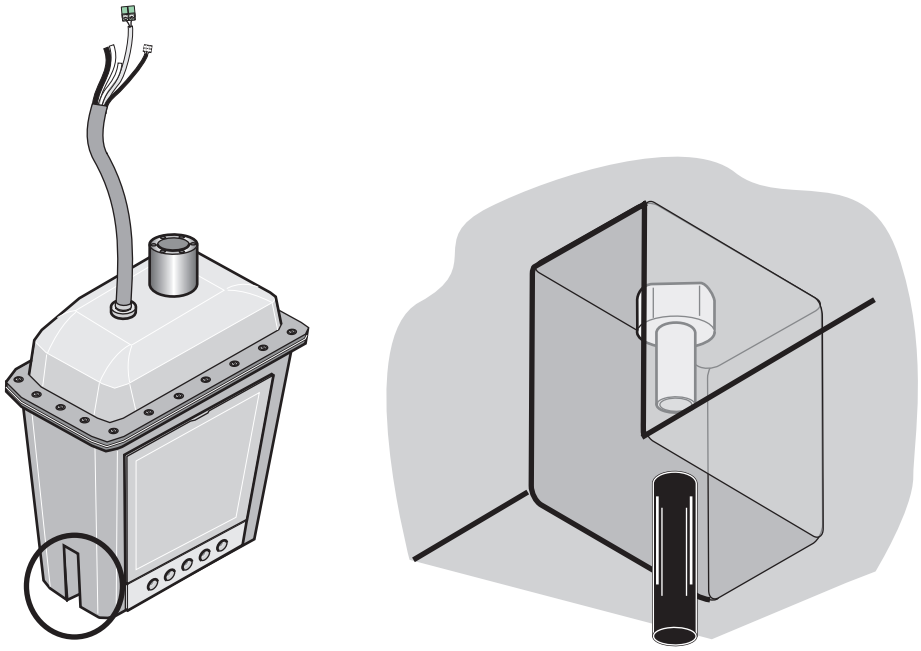


Figure 3 Sealing exhaust

3.3.2 Installing filter module

Important note: *Do not let the filter modules dry out, as dry filter modules will become unusable immediately and cannot be repaired.*
Never touch the filter surface, as the filter surface will be destroyed by the grease from the skin.
Never immerse the filtration probe in water without filter modules, as unfiltered water could block the filtration probe.

1. Insert the filter module in the bottom.

2. Pivot the filter module towards the inside and press onto the frame until it engages.

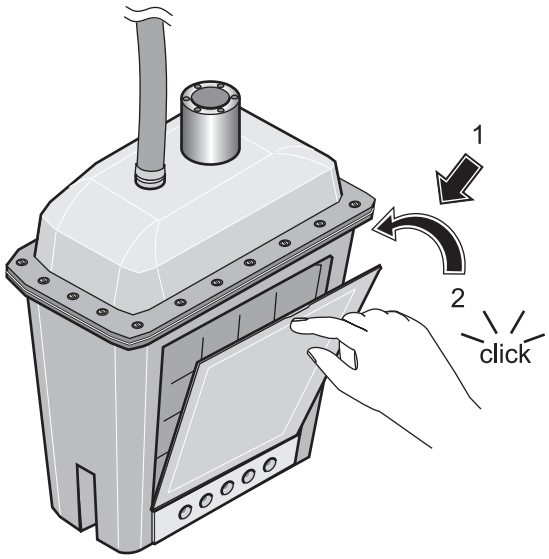


Figure 4 Installation of the filter modules

3. Proceed with the second filter module on the other side in the same way.

3.3.3 Installing filtration probe sc

Important note: *Only install the filtration probe sc using the rim mounting system.*

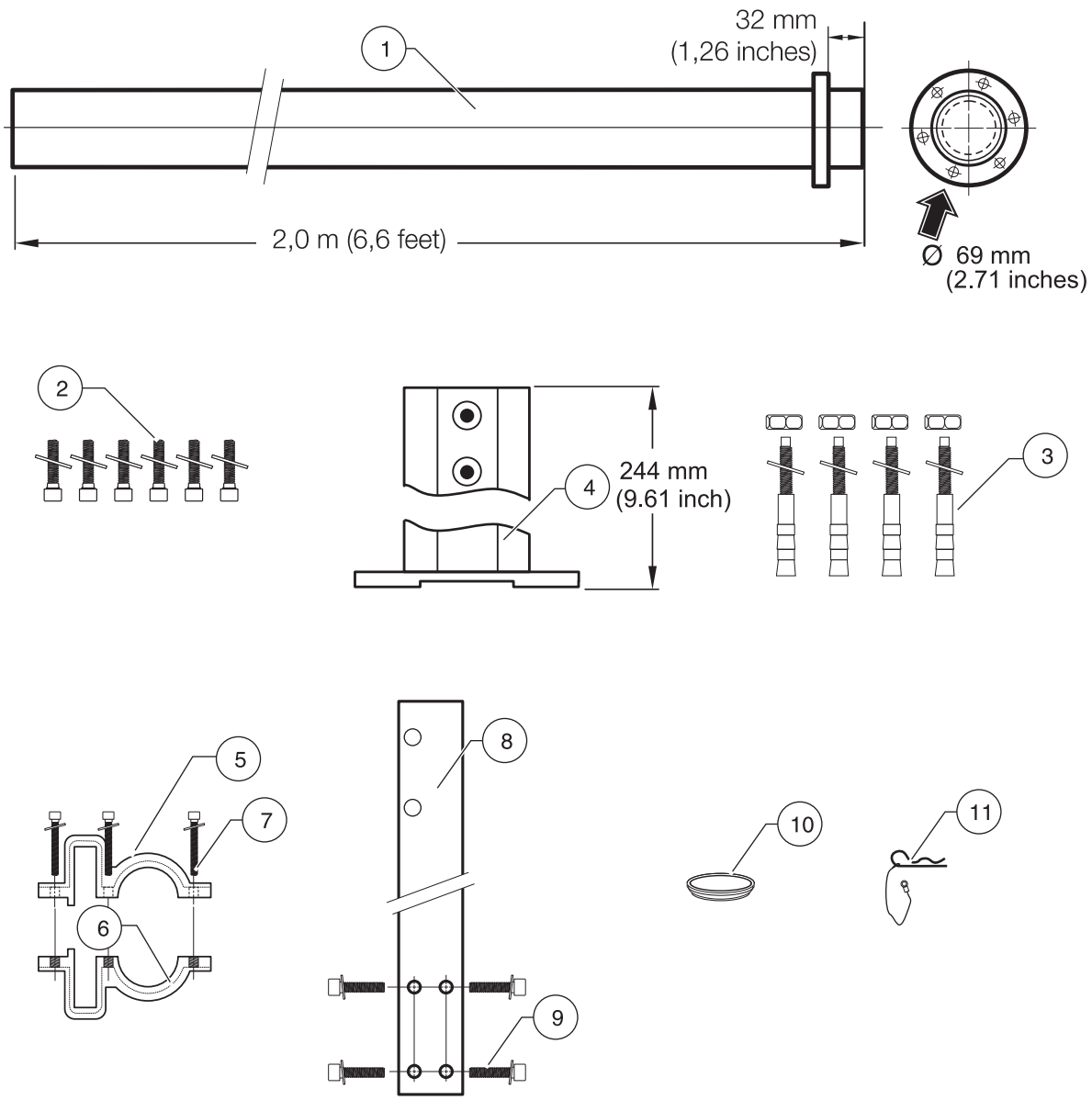


Figure 5 Installation parts rim mounting LZX414.00.50000

1	Mounting pipe	**7**	Cheese head screws M5 × 20 mm (6×)
2	Screws M5 × 16 mm (6×)	**8**	Flat bar
3	Quick-fit anchors (4)	**9**	Cheese head screws M8 × 40 mm (4×)
4	Base	**10**	Plug
5	Clamp half	**11**	Spring cotter
6	Clamp half with thread		

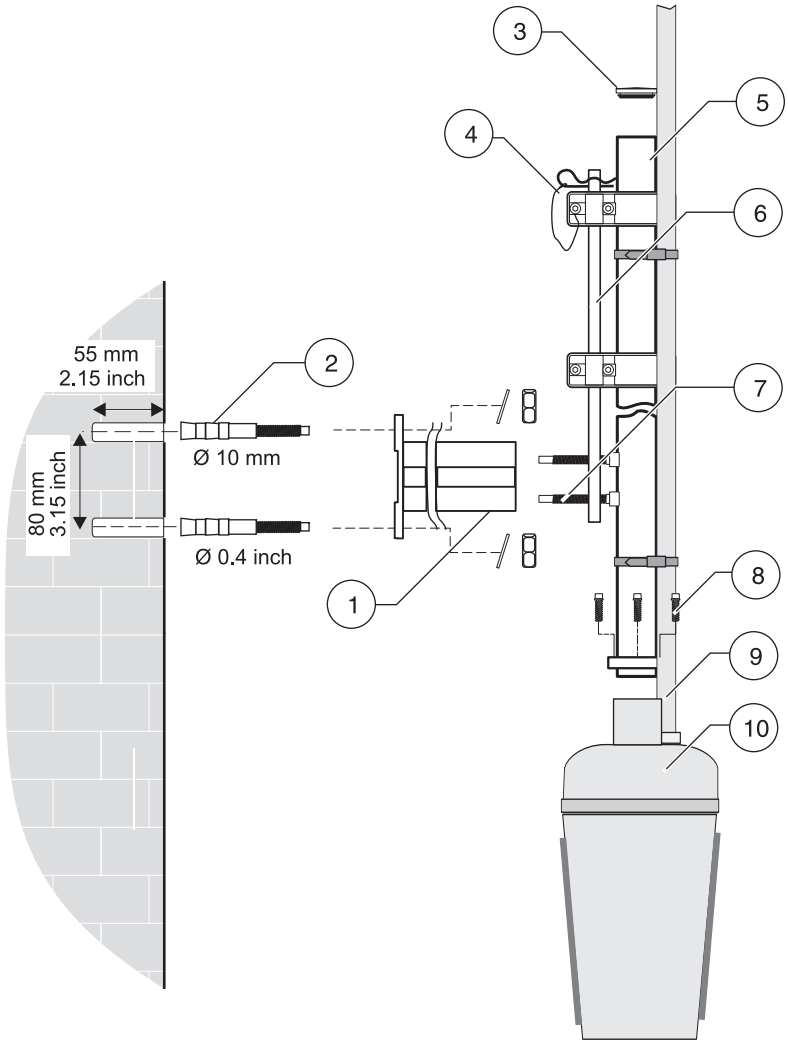


Figure 6 Installation of the rim mounting LZX414.00.5000

1	Base	**6**	Flat bar
2	Quick-fit anchors (4)	**7**	Screws
3	Plug	**8**	Screws M5 × 16 mm (6×)
4	Spring cotter	**9**	Filtration probe tubing
5	Mounting pipe	**10**	Filtration probe sc

Important note: *Only install the filtration probe sc in flowing water with protection against flow.*

Install the filtration probe sc so that is it held min. 0.1 m and max. 3 m below the surface of the water.

In case of frost, insulate the first 10 cm of the tubing if the top edge of the filtration probe sc is not at least 20 cm below the surface of the water.

Important note: *Ensure the filtration probe sc is not in contact with the base of the tank and cannot bang against the side walls.*

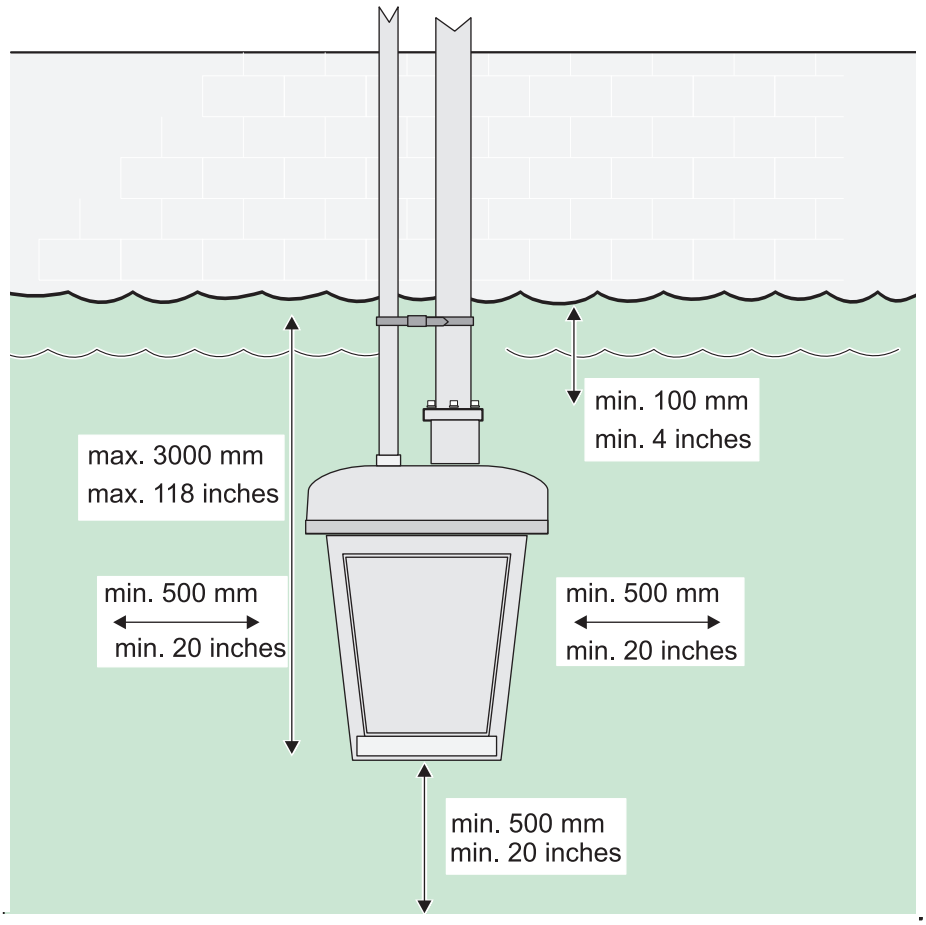


Figure 7 Installation position for the filtration probe sc

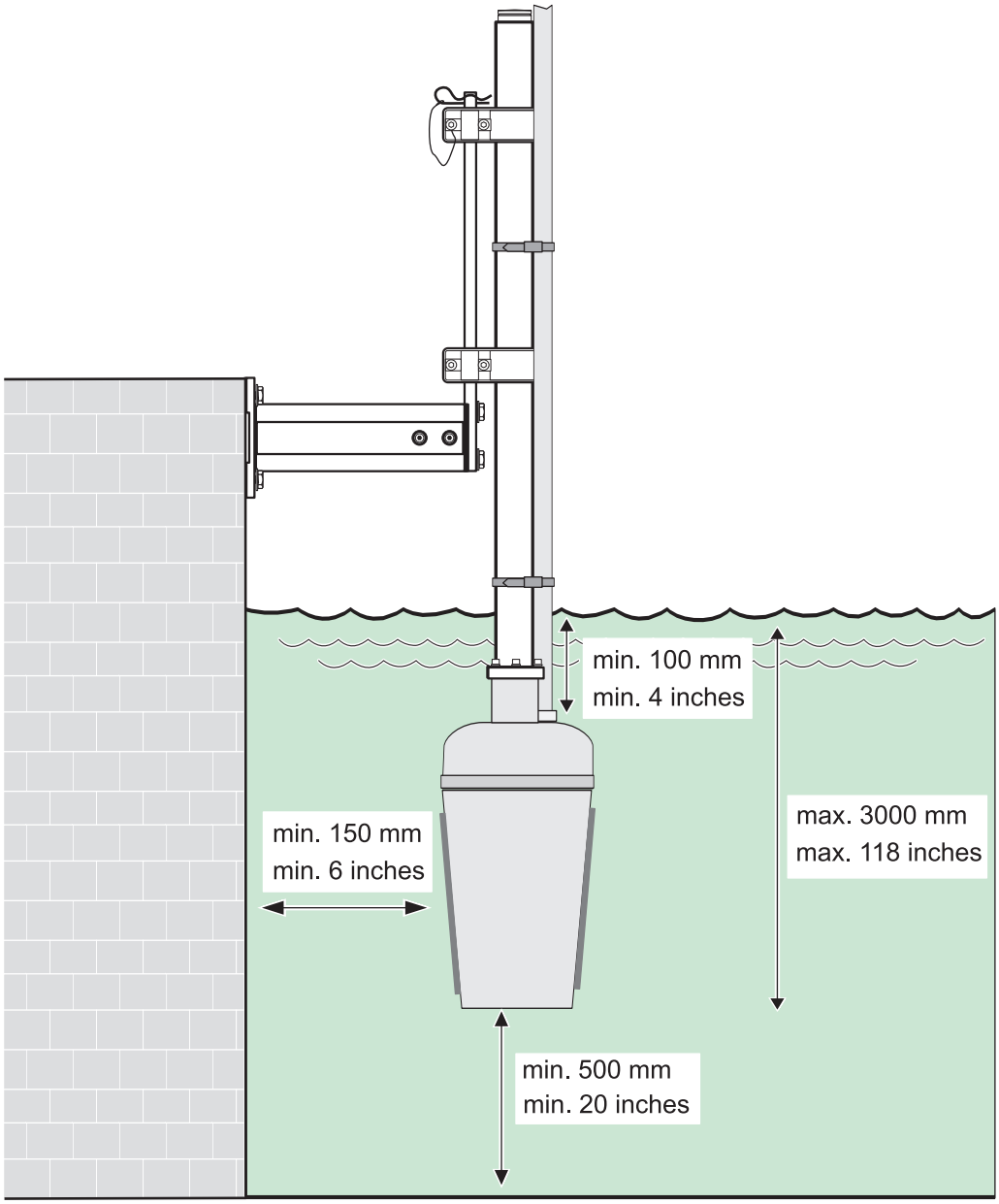


Figure 8 Installing with rim mounting

3.4 Supply of power

DANGER
Risk of electric shock!
Work on the electrical system is only allowed to be performed by trained and experienced electricians.

3.4.1 Connecting power cable

1. Open the analysis instrument to which the filtration probe sc is to be connected.
2. Connect the earth wire (Figure 9-3) (see also the operating instructions for the analysis instrument).
3. Connect the power cable to the filtration probe sc (Figure 9-2). (see also the operating instructions for the analysis instrument)
4. Connect the power cable for the drain heating (optional accessory) (Figure 9-1). (see also the operating instructions for the analysis instrument)

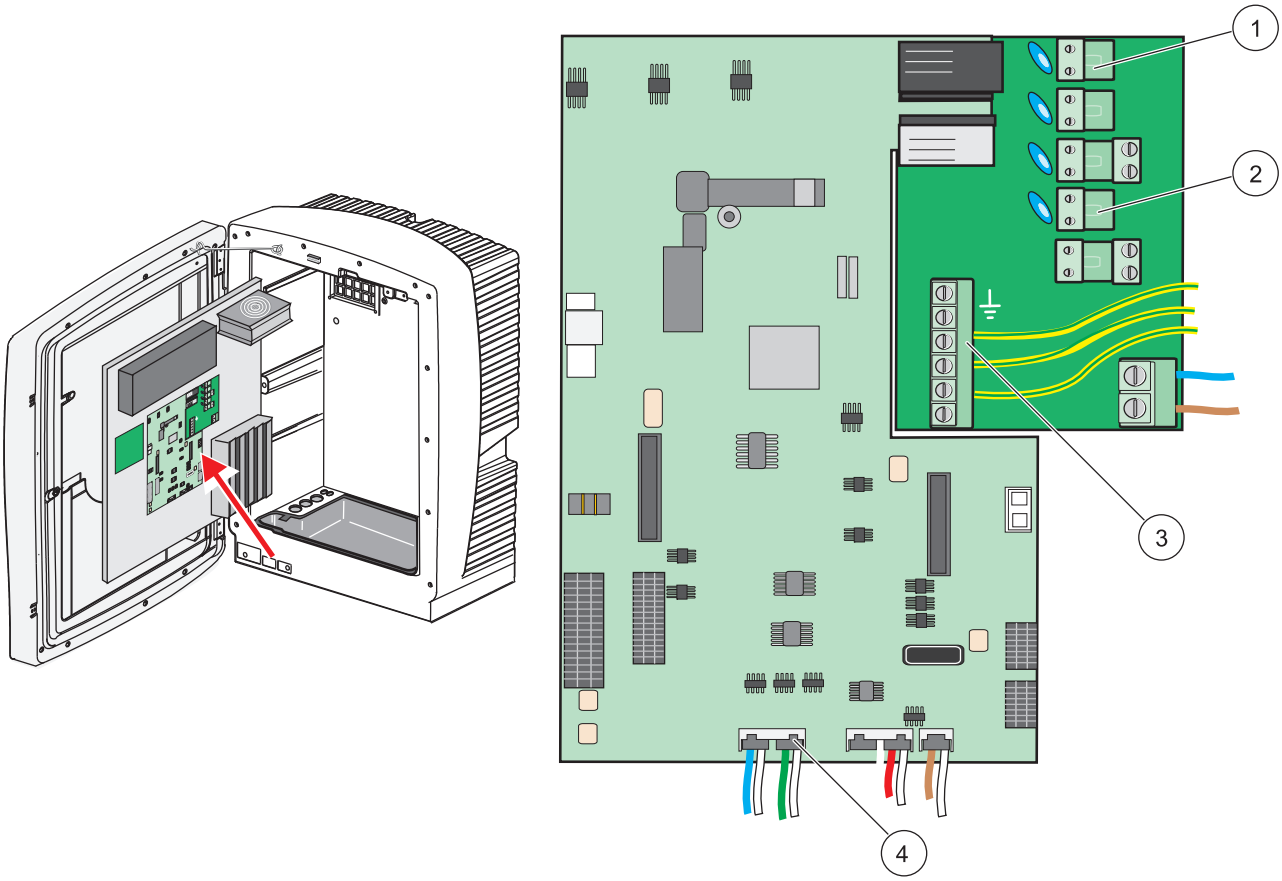


Figure 9 Connecting power supply and heating to the filtration probe sc

1	Connection drain heating (optional)	**2**	Filtration probe sc power cable connection	**3**	Earth wire terminal strip	**4**	Filtration probe sc data cable connection

3.5 Connecting filtration probe sc to the data network

To ensure correct operation, the filtration probe sc must be connected to the analysis instrument's data network. The analysis instrument's data network sends the commands for self-cleaning and transmits the module pressure value to the analysis instrument.

1. Connect the data cable connector to the socket on the analysis instrument (Figure 9-4)
(see also the operating instructions for the analysis instrument).

3.6 Connecting sample tubing

Note: *Pay attention to the markings on the tubing.*

1. Connect the black sample return tubing (Figure 10-1) to the sample outlet on the analysis instrument (see operating instructions for the analysis instrument).

2. Connect the transparent sample feed tubing (Figure 10-2) to the sample inlet on the analysis instrument (see operating instructions for the analysis instrument).

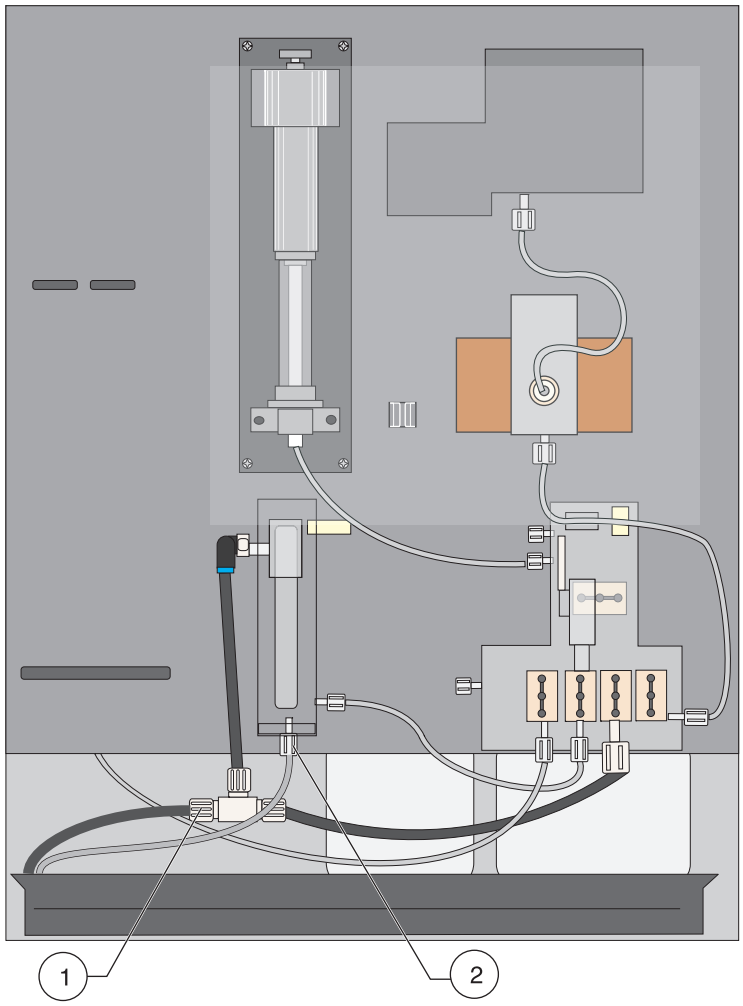


Figure 10 Connecting sample tubing

1	Sample return	**2**	Sample feed

3.7 Connecting air tubing

Note: *Pay attention to the markings on the tubing.*

1. Connect the white air tubing to the analysis instrument (see operating instructions for the analysis instrument).

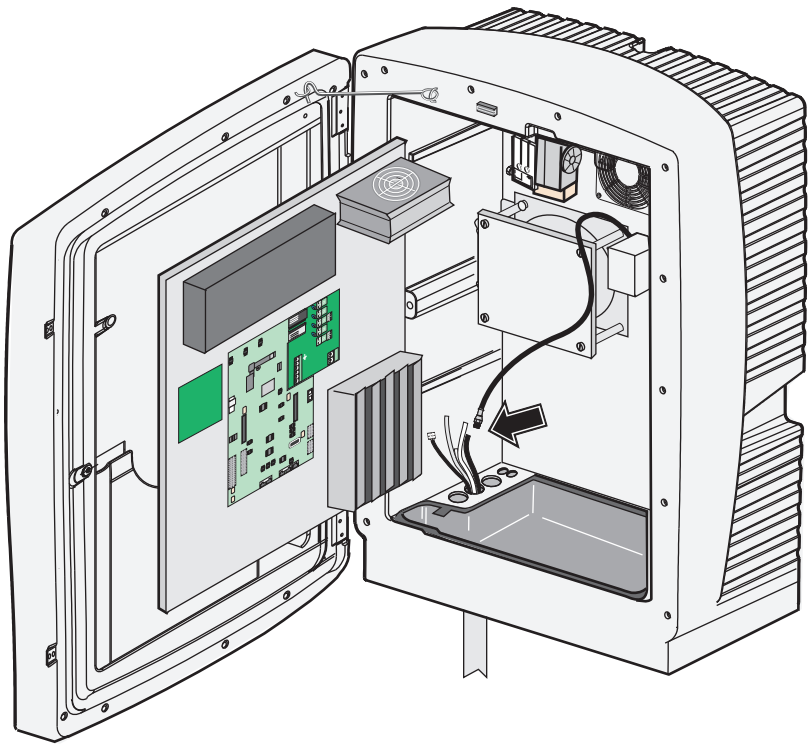


Figure 11 Connecting air tubing

Section 4 System startup

Important note: *Correct installation of the system is necessary to ensure malfunction-free operation. Prior to initial commissioning, ensure the system has been correctly installed and only authorised persons have access to the system.*

On initial commissioning, ensure all internal and external expansions are correctly registered in the controller system.

4.1 Initial commissioning

1. Ensure the filtration probe sc is completely and correctly installed.

2. Switch on the analysis instrument and check whether the filtration probe sc is correctly registered in the system.

3. Follow the instructions in the operating instructions for the analysis instrument.

The filtration probe sc is then ready for use.

Section 5 Operation

5.1 The operation concept

No actions are intended to be performed by the operator on the filtration probe sc (except cleaning and replacement of the filter modules). All commands and control instructions are sent automatically by the analysis instrument connected or are made via the controller. Read the operating instructions for the analysis instrument and the controller thoroughly to ensure you can operate the system safely, without errors and correctly.

5.1.1 Rectifying problems in normal operation

In normal operation only feasible, sensible entry options are displayed. If you then enter incorrect values, these will be rejected.

If you have made incorrect entries, repeat the entry with the correct values.

Note: *If your entry was outside a logical working range, a correction is made automatically. Note that the value is then still incorrect and must be corrected.*

5.2 Normal operation

In normal operation the filtration probe sc does not require supervision, operation or maintenance.

5.2.1 Rectifying problems in operation

5.2.1.1 Problems with the sensors or the analysis instruments

If a sensor or analysis instrument is reporting errors or warnings, a corresponding error will be displayed on the controller (see operating instructions for the controller).

5.2.1.2 Module pressure value too low

If the filter modules block, the module pressure value in the filtration probe sc drops.

Pressure value	State	Action
< 0.25 bar	Blocked	Replace filter modules
0.25 bar...0.45 bar	Soiled	Clean filter modules
> 0.45 bar	ok	No action

1. Clean or replace the filter modules (see Cleaning / replacing filter modules" on page 28).
2. Check all relevant settings.

If the problems have not been rectified, please contact customer service.

CAUTION
When carrying or transporting the instrument/instrument components and if the total weight is more than 18 kg, make sure that suitable lifting equipment is used and/or that the instrument/instrument components are carried by 2 people.

6.1 Maintenance and cleaning by the operator

- Regularly check the filtration probe sc for mechanical damage.
- Regularly check the filter modules for mechanical damage.
- Regularly check all connections for leaks and corrosion.
- Regularly check all cables and tubing for mechanical damage.
- Clean the filter modules using the **damp** sponge from the accessories.
- Clean the filtration probe sc (**not the filter modules**) with a cloth. You can use a brush for stubborn soiling.

6.1.1 Troubleshooting, error state diagnostics and repair

6.1.1.1 Module pressure value too low

If the filter modules block, the module pressure value in the filtration probe sc drops.

Pressure value	State	Action
< 0.25 bar	Blocked	Replace filter modules
0.25 bar...0.45 bar	Soiled	Clean filter modules
> 0.45 bar	ok	No action

Clean the filter modules or replace the filter modules (see Cleaning / replacing filter modules on page 28).

6.1.2 Cleaning / replacing filter modules

Note:
The filter modules are very delicate.
Only clean the filter modules very carefully using the ***damp*** *sponge supplied.*

Clean the filter modules

- Regularly (min. every 3 months) or
- When the pressure values drop below 0.45 bar.

DANGER
Potential danger in the event of contact with chemical/biological materials. Handling chemical samples, standards and reagents can be dangerous. Familiarize yourself with the necessary safety procedures and the correct handling of the chemicals before the work and read and follow all relevant safety data sheets.

Normal operation of this instrument may involve the use of hazardous chemicals or biologically harmful samples.

- Observe all cautionary information printed on the original solution containers and safety data sheet prior to their use.
- Dispose of all consumed solutions in accordance with national regulations and laws.
- Select the type of protective equipment suitable to the concentration and quantity of the dangerous material at the respective work place.

NEVER use chlorine bleach together with hydrochloric acid (Risk of the formation of chlorine gas).

For cleaning use chlorine bleach (5 %–10 %) OR hydrochloric acid (5 %).
Avoid the contact of cleaning agents and soaps with filter modules as these may render the filter modules unusable.

1. On the SENSOR SETUP menu on the analysis instrument, choose the TEST/MAINT, SERVICE MODE command and accept.
2. Take the filtration probe sc out of the tank.
3. Clean the filter modules **carefully** using the **damp** sponge supplied.
4. Carefully lever the filter modules out of the holder using a screwdriver.
5. Clean or replace the filter modules.
6. Fit the new or cleaned filter modules in the bottom.

7. Press up the filter modules against the enclosure until they engage.

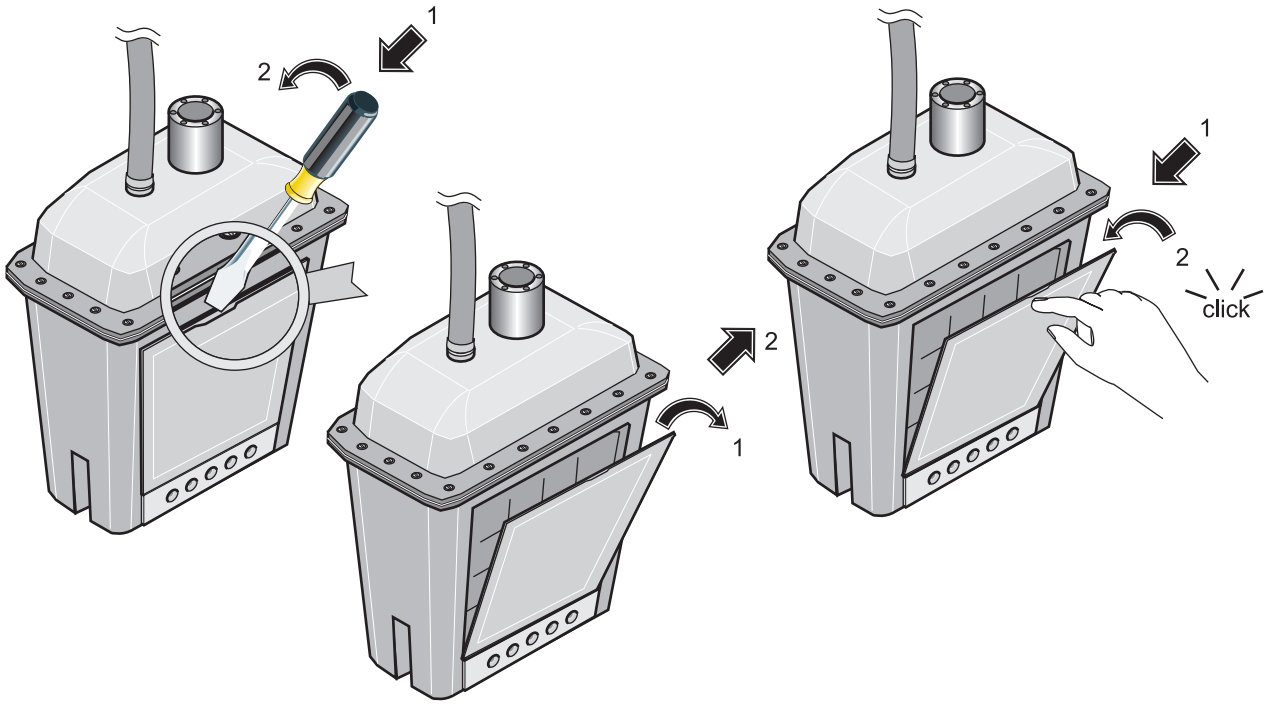


Figure 12 Changing filter module

8. Hang the filtration probe sc back in the tank.
9. On the SENSOR SETUP menu on the analysis instrument, choose the TEST/MAINT and PREPUMPING PROBE commands and accept.
10. Wait until the pumping operation is complete.
11. Leave the service state using the "Back" arrow.
12. Answer the SERV. HOLD MODE? prompt with NO/MEASURE START.
13. On the SENSOR SETUP menu choose the MEASURING and ON commands and accept.

Table 2 List of consumables and warranty periods

Designation	Replace after	Spare part No.
Filter module for filtration probe	1 year	LZY140

6.2 Maintenance and cleaning by qualified personnel

The filtration probe sc is only allowed to be opened by qualified and authorised service personnel.

The following consumables in the filtration probe sc should be changed at regular intervals by the service personnel:

Table 3 List of consumables and warranty periods

Designation	Replace after	Warranty	Spare part No.
Set of wear parts for sample pump (Pump membrane + valves)	1 year, with 5 min. analysis interval Otherwise 2 years	1 year	LZY130
Exhaust (copper)	1 year	1 year	LZY139
Exhaust (2 pcs.) for air cleaning (Air exhaust set, incl. sealing and screws)	1 year	1 year	LZY138

6.2.1 Changing exhaust

If you dispose of the used sample via the filtration probe sc, renew the exhaust after 1 year.

1. Unscrew the exhaust from the enclosure.

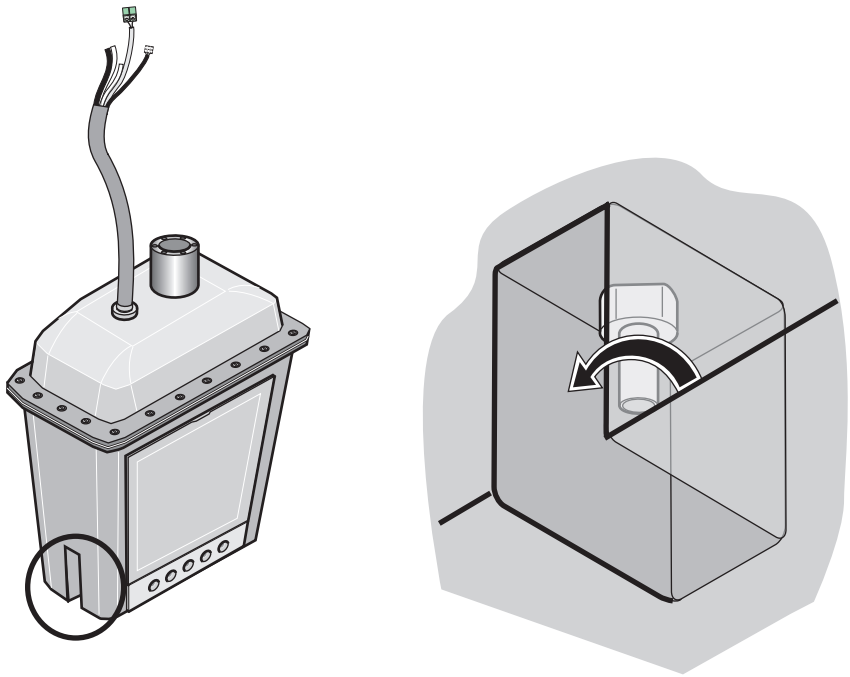


Figure 13 Changing exhaust

2. Screw the new exhaust into the enclosure and tighten it hand-tight.

6.2.2 Changing air exhaust

1. Undo the 12 screws for the outlet.
2. Replace the exhaust and the sealing.
3. Tighten the 12 screws hand-tight.
4. Change the exhaust on the other side of the filtration probe sc.

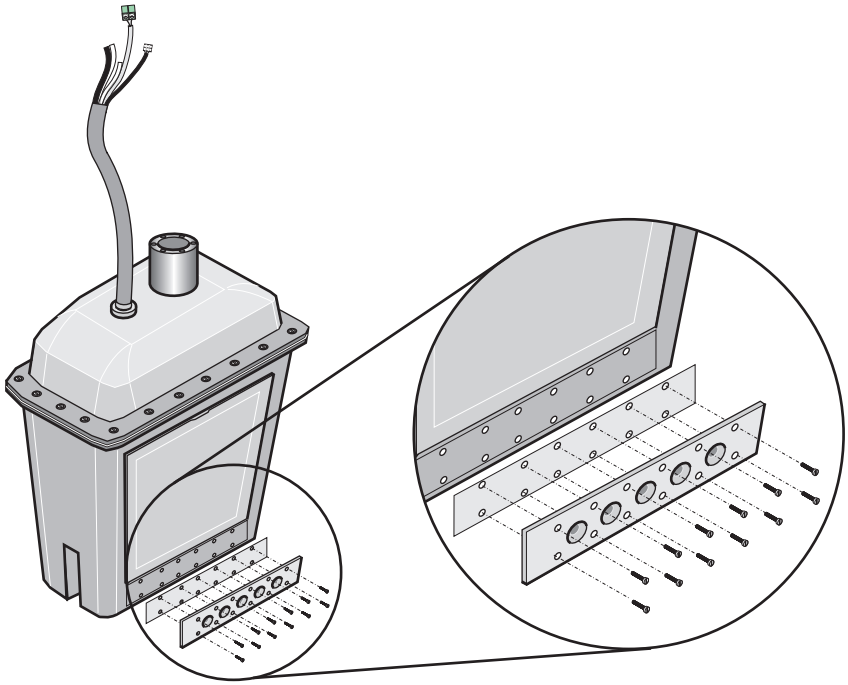


Figure 14 Changing air exhaust

Section 7 Taking out of operation

7.1 Taking out of operation for a short period

No special measures are necessary for taking out of operation for a short period (up to a week in frost-free ambient conditions).

Important note: *If the supply of power to the controller is interrupted, frost damage may occur.*
Ensure the instrument and tubing cannot freeze.

1. Interrupt the measurement and switch the analysis instrument to the service state.

7.2 Taking out of operation for an extended period

If the filter modules may dry out (e.g. on cleaning the tank), in case of risk of frost or if the filtration probe sc is to be taken out of operation for an extended period, please work through the following list:

1. Take the analysis instrument out of operation in accordance with the operating instructions for the analysis instrument.

2. Isolate the filtration probe sc from the mains.

3. Take the filtration probe sc out of the tank.

Important note: *Do not let the filter modules dry out, as dry filter modules will become unusable immediately and cannot be repaired.*

4. Dismantle the filter modules.

5. Store the filter modules in clean water.

6. Wrap the filtration probe sc in protective film or a dry cloth.

7. Store the filtration probe sc dry.

7.3 Finally taking out of operation

When you want to finally take the filtration probe sc out of operation, proceed as described for intermediate storage.

7.4 Intermediate storage or storage

Proceed as for taking out of operation for an extended period.

Section 8 Replacement Parts, consumables, accessories

8.1 Replacement parts and their order numbers

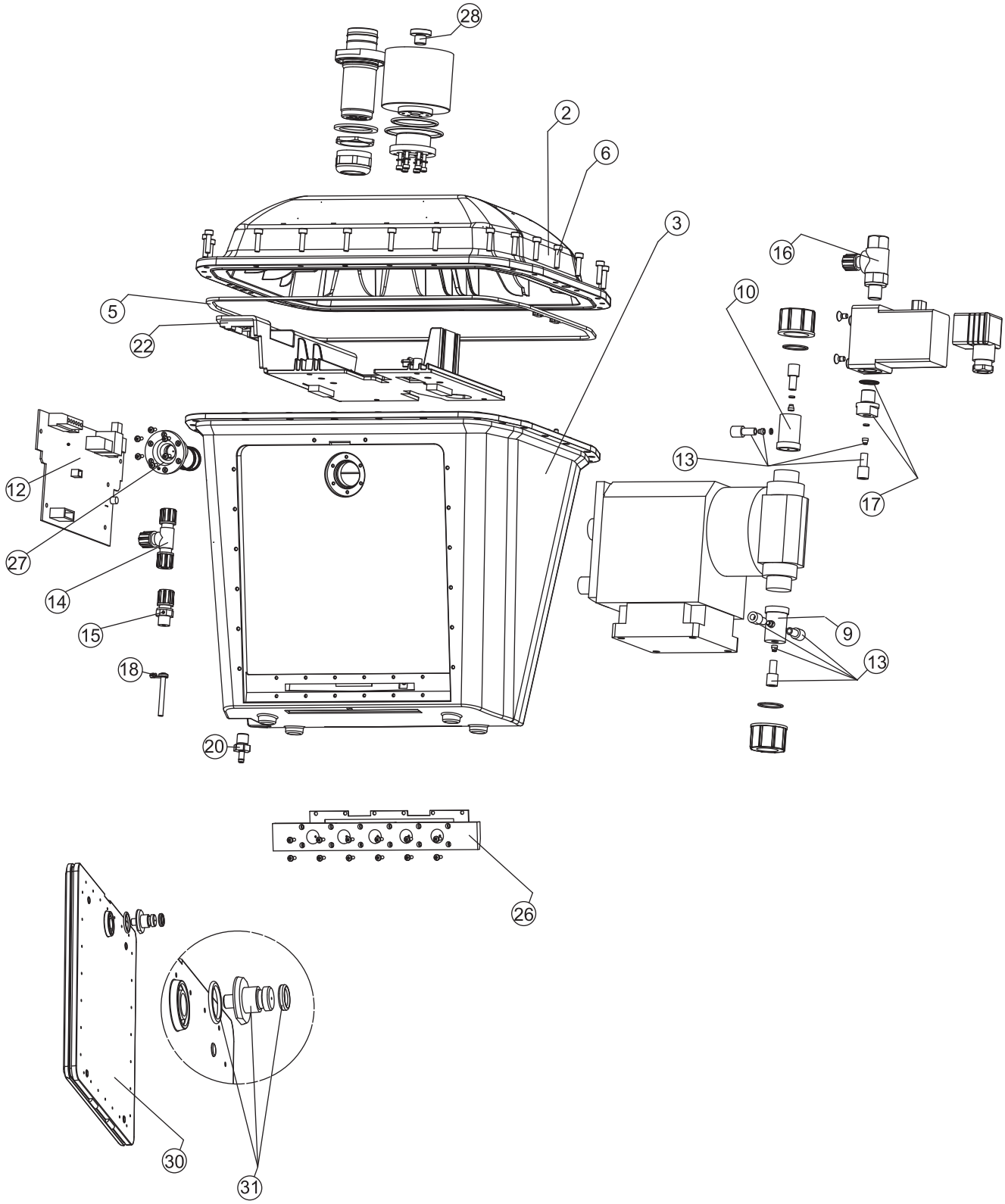
Item	Description 1	Description 2	Order No.
	Set of seals for filtration probe	incl. O-ring, connector press. sensor	LZY121
--	Set of wear parts for sample pump	incl. membrane, valves, screws	LZY130
--	Tubing for filtration probe	FEP tubing 1 × 3.1 mm, 1.00 m	LZY131
--	Air tubing for filtration probe	4/6 mm, PUR-H	LZY132
1	Sample tubing 230 V, 5 m	incl. top cover and adaptor	LZY112
1	Sample tubing 115 V, 5 m	incl. top cover and adaptor	LZY113
1	Sample tubing 230 V, 10 m	incl. top cover and adaptor	LZY114
1	Sample tubing 115 V, 10 m	incl. top cover and adaptor	LZY115
2	Top cover filtration probe (plastic part)		LZY116
3	Enclose filtration probe (plastic part)	without top cover	LZY117
5	Sealing top cover	for filtration probe	LZY119
6	Set of screws for filtration probe	(28 pieces)	LZY120
9	Adaptor suction side		LZY128
--	Set of screws	(4 of each type used)	LZY314
10	Adaptor physical page		LZY129
12	Card filtration probe with press. sensor	ZBA804	YAB042
13	Set of fittings 3.2 mm	(4 pieces)	LZY111
14	T-fitting 4/6 mm		LZY133
15	Fitting for tubing DN 4/6		LZY134
16	Elbow fitting 4/6 mm		LZY135
17	Fitting for exhaust valve	incl. O-ring	LZY136
18	Humidity sensor incl. connector		LZY137
20	Exhaust (copper)		LZY139
21	Adaptor for filtration probe	with flange + screws	LZY118
22	Safety cover filtration probe	incl. pads and screws	LZY122
23	Exhaust valve 230 V	incl. cable, connector, fittings, screws	LZY123
23	Exhaust valve 115 V	incl. cable, connector, fittings, screws	LZY124
24	Sample pump 230 V	incl. sleeve cable and connector	LZY125
24	Sample pump 115 V	incl. sleeve cable and connector	LZY126
25	Sleeve nut with sealing		LZY127
26	Exhaust (2 pcs.) for air cleaning	incl. sealing/screws	LZY138
27	Coupling piece incl. screws		LZY265
28	Locking screw probe adaptor		LZY213
29	Seal for filter module	O-ring 7,50 × 2,50 (4 pieces)	LZY142
30	Filter module for filtration probe		LZY140
31	Adaptor for filtration module	including sealing	LZY141
32	Connection tubing for filtr. probe	4/6 mm, PTFE 25 cm	LZY253

8.2 Accessories

Description 1	Description 2	Order No.
Sponge		EZZ062
Set of small parts	2 spring cotter with chains + 6 screws	LZY245

8.3 Optional accessories

Description	Description 2	Order No.
Rim mounting for filtration probe sc		LZX414.00.50000
Rail mounting for filtration probe sc		LZX414.00.60000
Protection against flow		LZY317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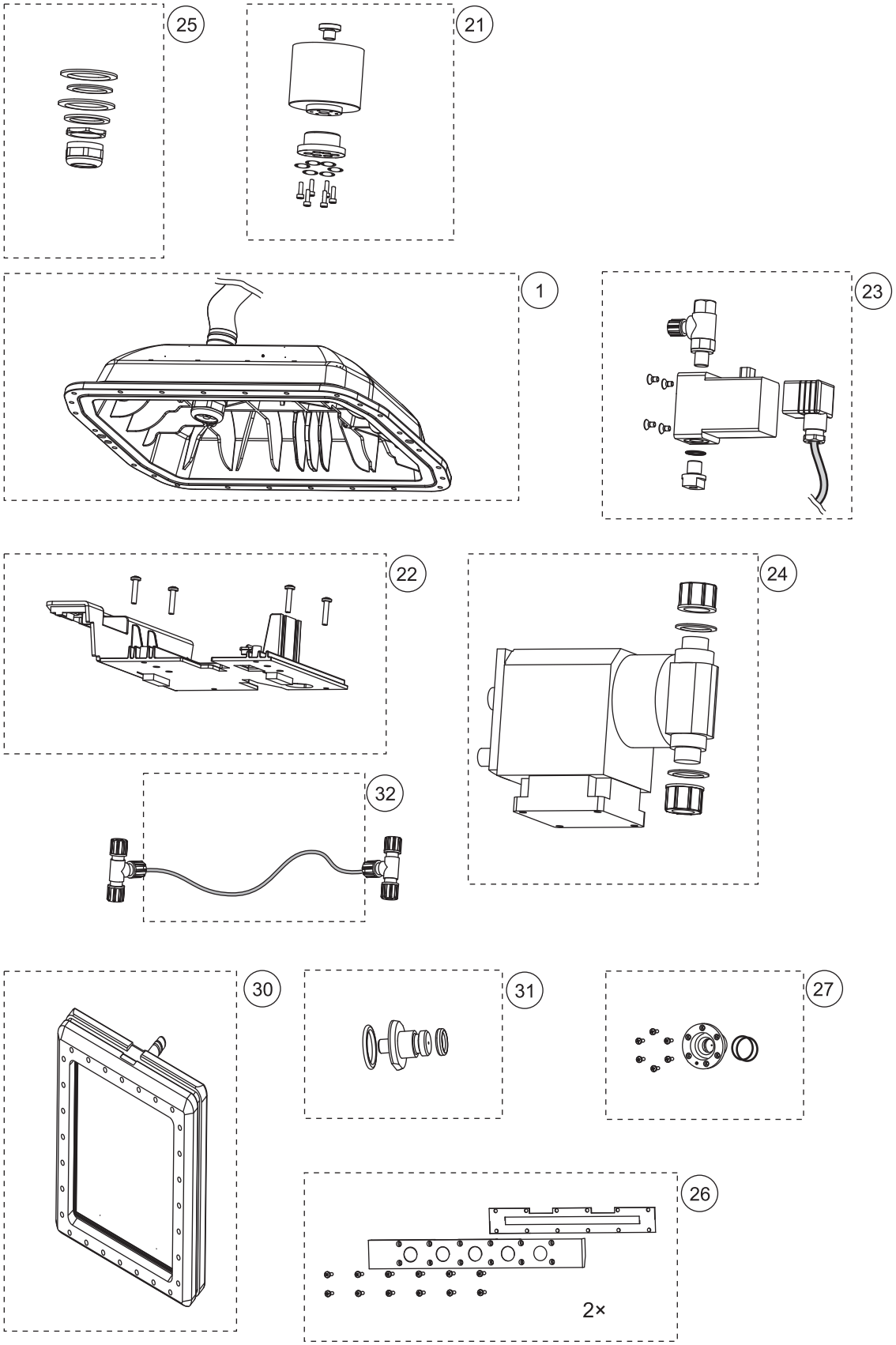
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HACH COMPANY World Headquarters
P.O. Box 389, Loveland, CO 80539-0389 U.S.A.
Tel. (970) 669-3050
(800) 227-4224 (U.S.A. only)
Fax (970) 669-2932
orders@hach.com
www.hach.com

HACH LANGE GMBH
Willstätterstraße 11
D-40549 Düsseldorf, Germany
Tel. +49 (0) 2 11 52 88-320
Fax +49 (0) 2 11 52 88-210
info-de@hach.com
www.de.hach.com

HACH LANGE Sàrl
6, route de Compois
1222 Vésenaz
SWITZERLAND
Tel. +41 22 594 6400
Fax +41 22 594 6499

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