PoolmatiX

Version 1.3

SACD002-11
SACD002-21

Installation and operation instructions

Dosing module SACD002 with pH and ORP measurement for the Poolmatix system

Important information for users

Thank you for choosing to purchase the SACD002 dosing module with pH and ORP measurement for your Poolmatix system. To ensure that the product works well, lasts a long time, and that it does not cause any issues, we ask you to carefully read the following installation and operating instructions.
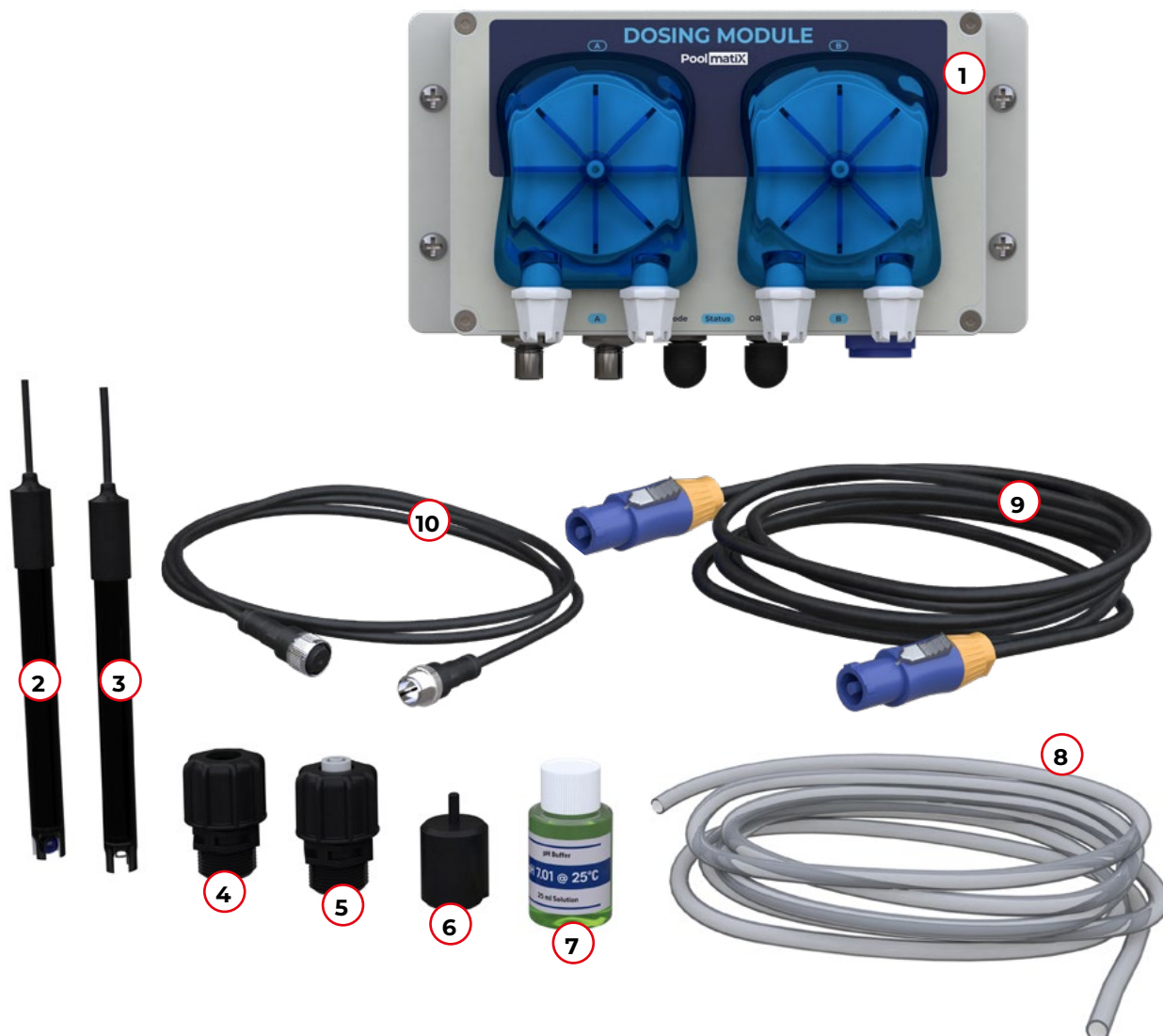
Please strictly follow the instructions in this manual. Use of the product not according to this manual may cause damage to the product, damage to your property or personal injury. Use of the product not according to this manual will void the product warranty.

1. Product characteristics

Set **SACD002-11** and **SACD002-21** are peristaltic dosing modules with pH and ORP measurement of pool water. The product is intended exclusively for use with the Poolmatix intelligent switchgear and the Poolmatix system. The product itself without the switchgear is not functional.

1.1 Package content

1. Main unit

2. Electrode for pH measurement
(depending on product version)

3. Electrode for ORP measurement
(depending on product version)

4. Fittings for mounting electrodes
in the pipes, thread 1/2"
(depending on product version)

5. Injection valves (depending on product version)

6. Barrel weights
(depending on product version)

7. pH calibration solution
(depending on product version)

8. Tube (depending on product version)

9. Power cable

10. Data cable

1.2 Product description and position of the main components

1. Peristaltic pump A

2. Persitaltic pump A input port

3. Persitaltic pump A output port

4. Persitaltic pump B

5. Persitaltic pump B input port

6. Persitaltic pump B output port

7. Data cable for connection to the Poolmatix switchgear

8. BNC connector for connecting the pH electrode

9. BNC connector for connecting the ORP electrode

10. Power cable

1.3 Technical parameters and operating conditions

Poser supply voltage	AC 230 V + 10% / -15% 50 ÷ 60 Hz
Supply power	18 W
Power and status display	Multifunction color LED
Protection degree	IP55
Operating temperature	-15 - + 40° C
Storage temperature	-20 - +40° C
Relative humidity	20 ÷ 90%
Operating potition	Vertical
Dosing flow rate	100 ml / min (immediate) 2000 ml / h (safety limit)
Mounting method	Vertical by screwing to the wall
Main unit dimensions	242 x 160 x 110 mm
Main unit weight	785 g
Related norms	IEC 608950-1

pH electrode

Service life	1 year under the specified operating and storage conditions
Operating temperature	-5 ÷ +40° C
Storage temperature	-5 ÷ +40° C
Maximum water salinity	0.5%
Recommended calibration interval	4 months
Replacement interval	1 year

ORP Electrode

Service life	1 year under the specified operating and storage conditions
Operating temperature	-5 ÷ +40° C
Storage temperature	-5 ÷ +40° C
Maximum water salinity	0.5%
Recommended calibration interval	4 month
Replacement interval	1 years

1.4 Notice

The device must be installed in accordance with the standards and regulations applicable in the country and in accordance with the specific technical conditions and requirements.

The device may only be installed by a adequately qualified person who is familiar with these installation and operating instructions.
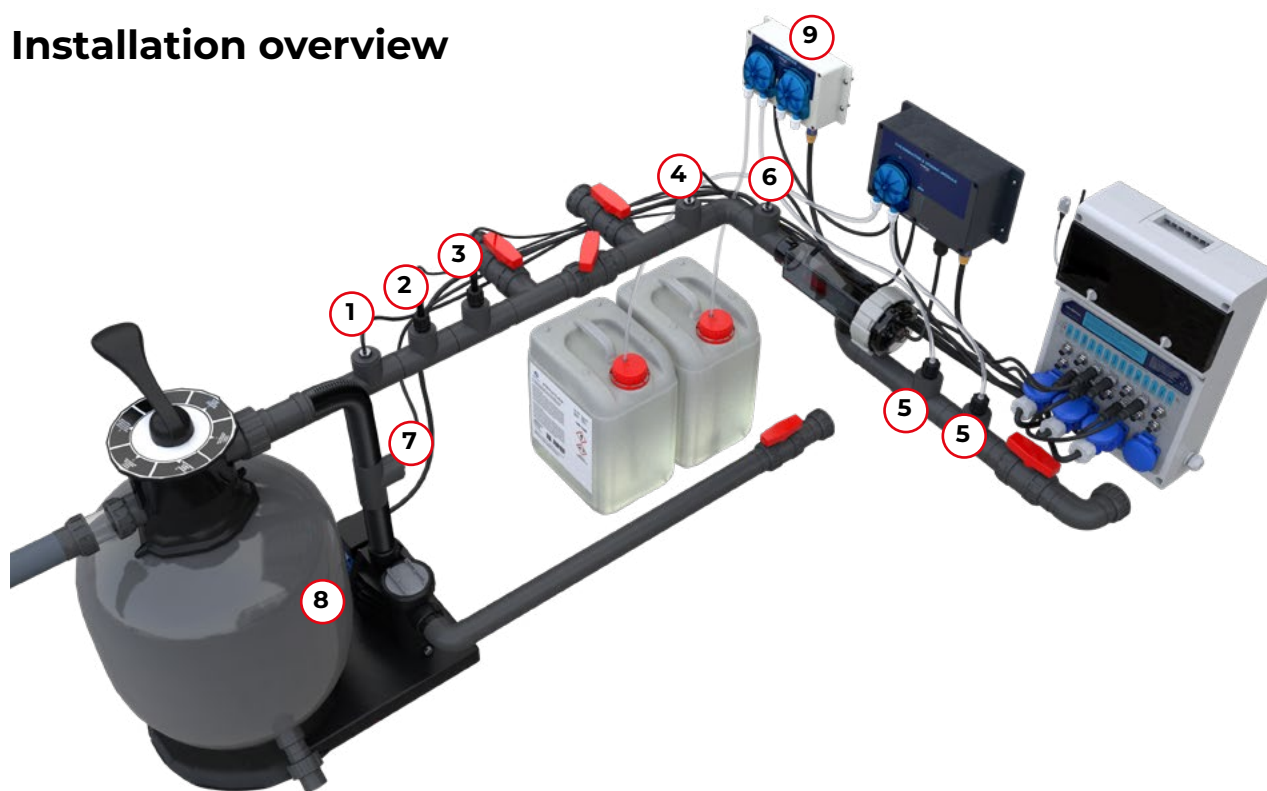
The power connection to the device must be protected by a 30 mA RCD.

Do not install the device near places with excessive pollution and electromagnetic interference.

When installing the device correctly, make sure that the maximum allowable operating temperature of the device is not exceeded.

Do not install or operate the device if it shows signs of damage. In such a case, return the product to the dealer.

Installation overview

1. Water temperature sensor - from pool

2. pH electrode

3. ORP electrode

4. Water temperature sensor - into pool

5. Injection valves

6. Flow sensor

7. Pressure sensor in before filter (optional)

8. Main pump with filter

9. Dosing module

2. Installation and commissioning

2.1 Installation process

1. Mount the electrode fittings in the piping. Mount the electrodes and the injection valves onto the piping according to the diagram below.

    a. We recommend installing the electrodes in the bypass of the main pipe. This reduces the risk of mechanical damage to the electrode by solid particles carried by the water stream. Mechanical damage to the electrodes is not covered by product warranty.

    b. Position the bypass so that it is at or below the level of the main pipe.

    c. Install the injection valves so that there is at least 50 cm length of the pipeline between it and the next electrode. The injection valve is always installed as the last element before the valve for the water outlet to the pool.

    d. If it is not possible to install the electrodes in the bypass, install them directly in the main pipe. However, make sure that the electrodes are inserted as deep as possible into the pipe so that their measuring ends are not in the pipe center axis where the water flow is highest.

Incorrect position of the electrode   **Correct position of the electrode**

2. Store the electrode transport solutions when not in use.

3. Screw the main unit onto the wall of the room or shaft so that the electrode cables can reach it.

4. Connect the injection valves on the pipe with tubes to the outputs of the dosing pumps.

5. Place one or more agent barrels in a suitable and safe location.

6. Use the second part of the hose for the inlet of the dosing pump with the agent barrel. Attach the weight to the end that will be inserted into the barrel.

7. Connect the measuring electrodes to the main unit by the BNC connector.

8. Connect the mains cable of the device to the dosing socket and the other end to the mains socket of the intelligent switchgear labeled „Poolmatix".

9. Connect the device with a data cable to the M12 connector the intelligent switcher labeled „Poolmatix". Cover the unused signal cover the unused signal connector on the device with the waterproof caps.

10. We recommend leaving the calibration solution for the pH electrode, which is part of the packaging, at t he site for later calibration.

2.2 Commissioning

1. The calibration information can be found in the package insert in the electrode package. Enter these calibration details in the iXfield service application.

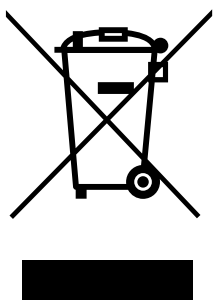**2.** Follow the instructions for the intelligent switchgear when commissioning the system.

3. pH electrode calibration

The pH electrode should be calibrated every 4 months of operation. Follow the instructions in the iXfield service application to calibrate the electrode.
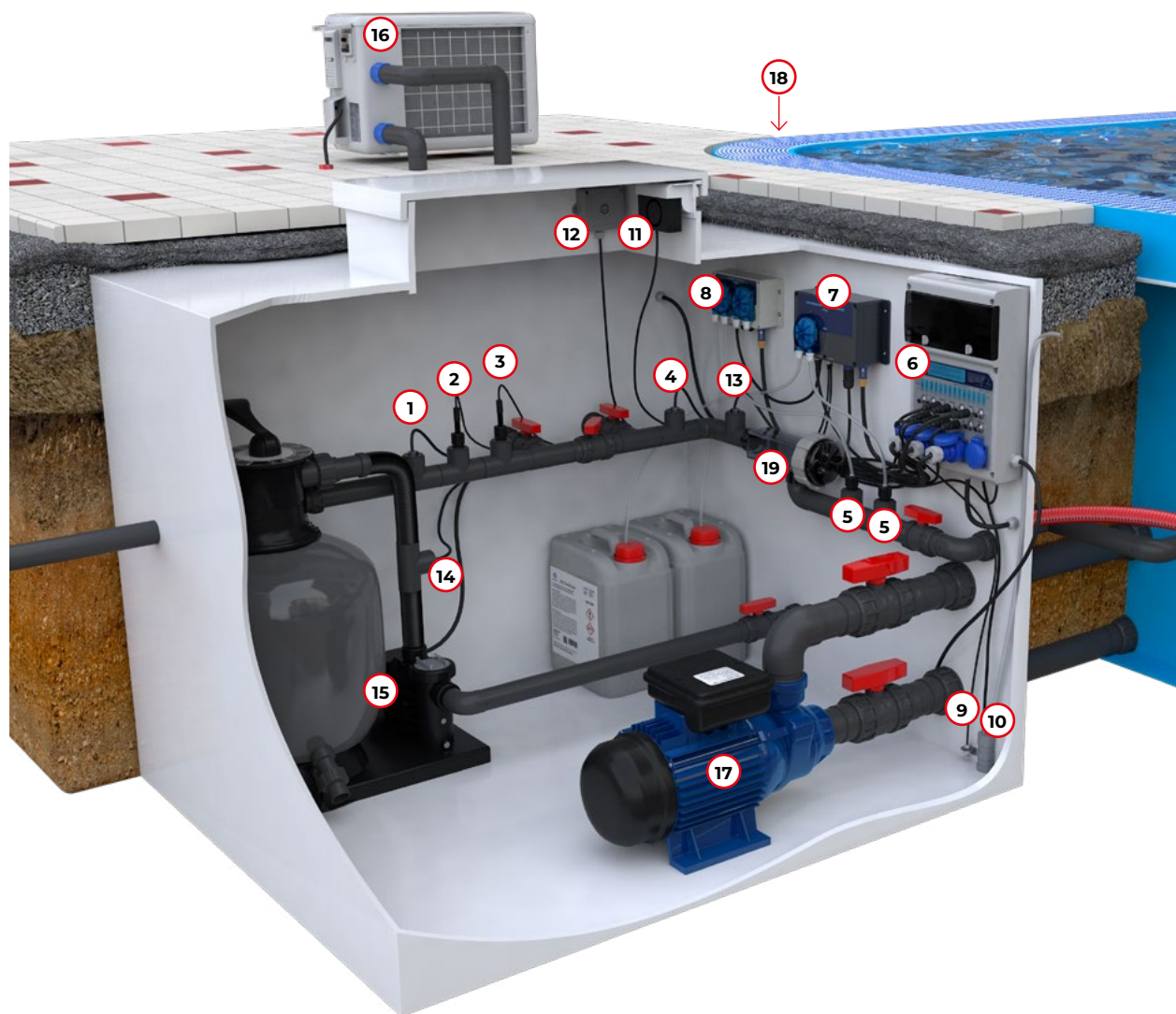
4. Disposal of the used product

Used products cannot be disposed of as normal household waste. When disposing of the used product, please follow the European environmental standards, which define the correct disposal of electronics waste.

The crossed-out symbol of the trash can on the product indicates that waste separation is required and the product must be disposed of in an appropriate place.

Typical Poolmatix installation

1. Poolmatix water temperature sensor - from pool
2. Poolmatix pH electrode
3. Poolmatix ORP electrode
4. Poolmatix water temperature sensor - into pool
5. Injection valves
6. Poolmatix intelligent switchgear
7. Poolmatix intelligent chlorinator and dosing unit
8. Poolmatix dosing module
9. Poolmatix flood sensor
10. Flood pump
11. Active vault ventilation
12. Poolmatix RF receiver
13. Poolmatix pipe water flow sensor
14. Poolmatix pipe water pressure sensor
15. Main pump with filter
16. Heat pump
17. Counterflow
18. Poolmatix balancing tank or skimmer level sensor
19. Chlorinator cell

Product images are for illustrative purposes only and may differ from the actual product.

office@poolmatix.com, +49 1514 2211161