PoolmatiX

# CPC1 / CPC1C-10 Intelligent Pool Central Control Unit

## Manual for Installation and Commissioning

Version 2.0


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

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# Introduction

Thank you for choosing the Poolmatix CPC1 / Poolmatix CPC1C-10 pool automation system. The system and its components are designed to be as easy as possible to install and operate as long as you follow the following instructions. This manual will give you a complete overview of the correct installation and maintenance of the Poolmatix system.

In addition, this guide will take you through the installation and commissioning process of the Poolmatix system. This document serves as a complete guide for installation preparation, installation, and commissioning and gives you some useful tips, especially on the following topics:

- How to prepare the pool technology and pipe system
- How to connect and control your pool heater
- How to connect Poolmatix devices
- How to install the Poolmatix CPC1 / Poolmatix CPC1C-10 main control unit
- How to connect pool technology and Poolmatix accessories
- How to connect the Poolmatix system to the Internet
- How to configure the Poolmatix system

**Important Note**

Please read the documentation carefully and follow the instructions in this document. Incorrect installation or improper use of the system components can lead to material damage or health hazards. Incorrect handling of the system will void the warranty.

**Note**

Please note that the installation should be carried out by a person with sufficient experience and who is well familiarized with this manual. The installation of the required electrical parts and connections should be carried out by a qualified electrician.

# 1 Installation of Pool Technology Components

## 1.1. Overview of Components

We recommend that you plan and prepare the entire pool technology and piping system in advance, depending on the configuration of your pool.

The following diagrams show typical components of your pool technology, Poolmatix components, and their locations.

Please follow these diagrams carefully when preparing the pool technology for the installation of the Poolmatix system.

Fig. 1 Saltwater Pool Installation

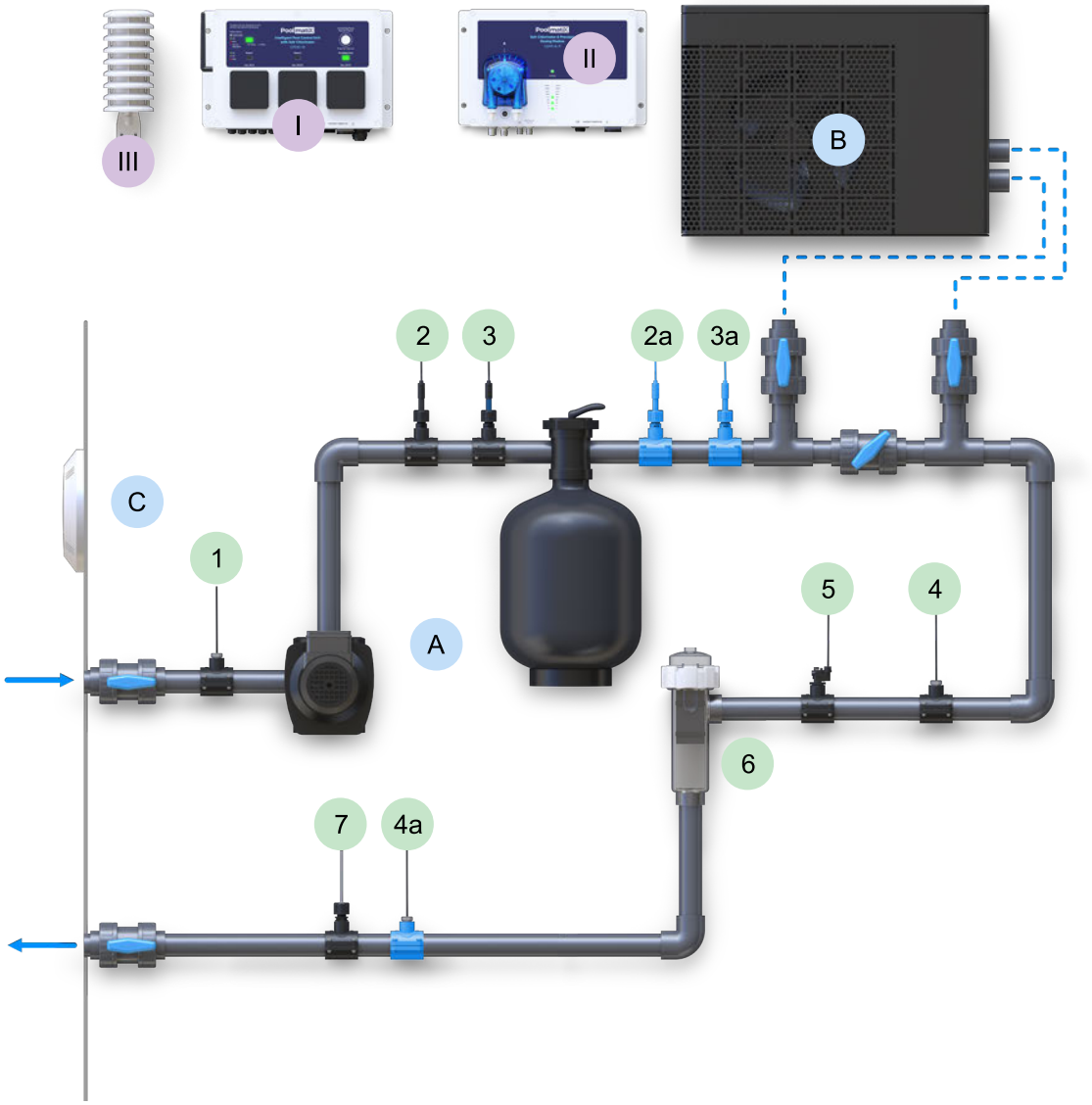


Fig. 2 Saltwater Pool Installation with Bypass for the Electrolytic Cell. The Water Flow Sensor Must be Installed in the Bypass.

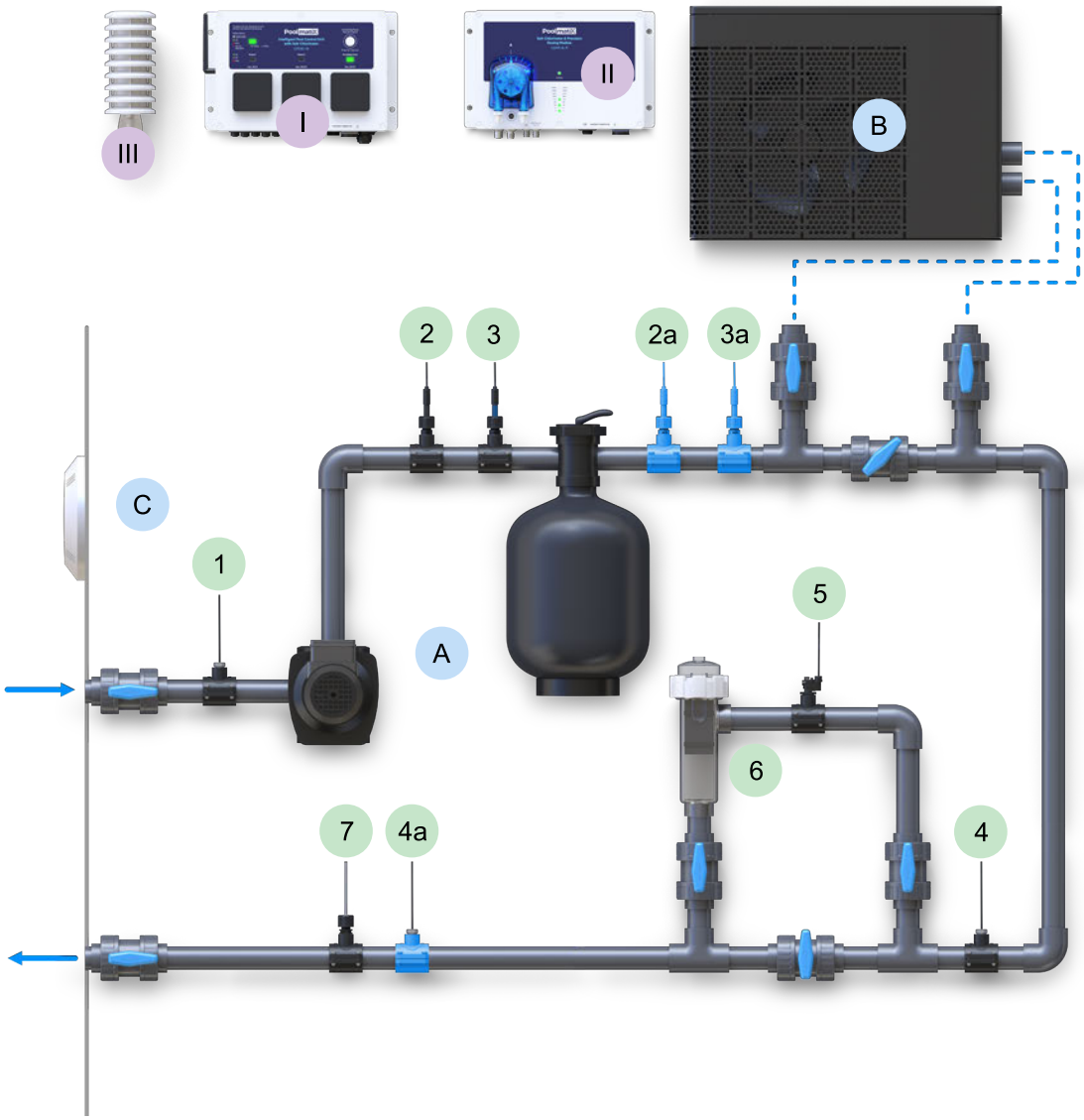



Fig. 3 Alternative Mounting Position of the Electrolytic Cell

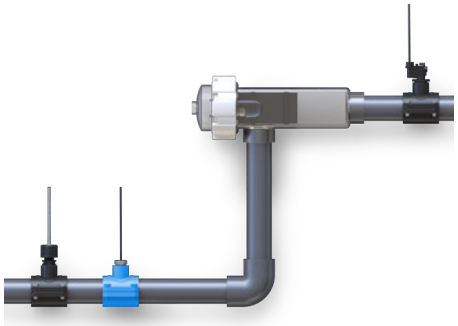
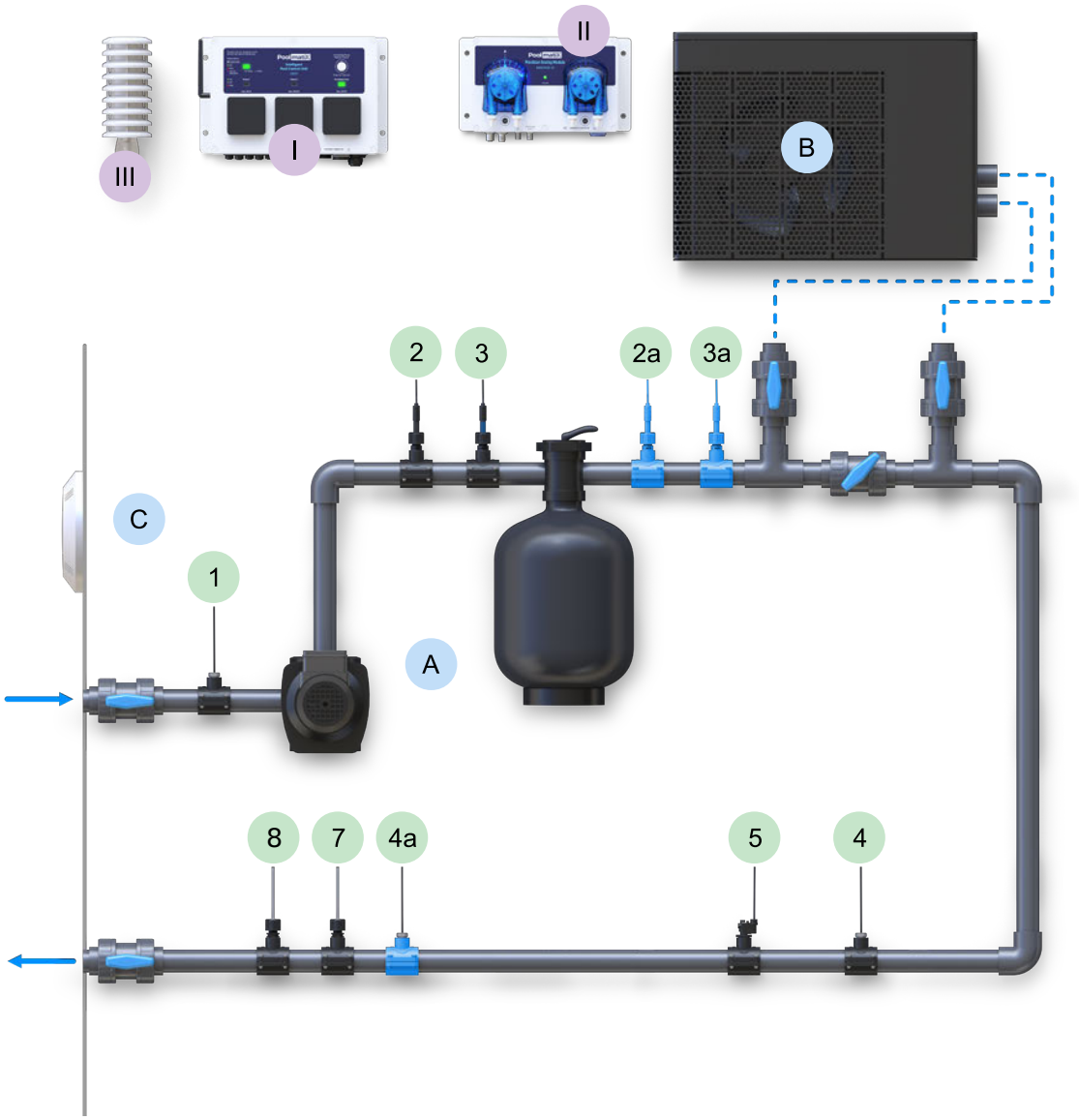


Fig. 4 Freshwater Pool Installation




## Poolmatix Components:

- A Circulation Pump and Filter
- B Heat Pump (or other type of heating)
- C Pool Lighting
- 1 Water Temperature Sensor (from Pool)
- 2 pH Electrode
- 2a Alternative Mounting Position of the pH Electrode
- I Poolmatix CPC1 Intelligent Control Unit
- II Poolmatix Salt Chlorinator
- III Poolmatix Outside Temperature Sensor
- 4a Alternative Mounting Position of the Water Temperature Sensor (into Pool)
- 5 Water Flow Sensor
- 6 Electrolytic Cell (Saltwater Pool)

3 ORP or Free Cl Electrode

3a Alternative Mounting Position of the ORP Electrode

4 Water Temperature Sensor (into Pool)

7 pH Agent Injection Dosing Valve

8 Chlorine Agent Injection Dosing valve (Freshwater Pool)

**Note**

Installing the electrodes in the alternative mounting positions (as indicated above) can slightly influence the measured values. Contamination of the pool filter can affect the pH value and reduce the ORP measured downstream of the filter.

## 1.2. Water Flow Sensor

The PFS-R1D paddle water flow sensor provides an essential protective function of the pool. It sends a signal to the system in the event of a water circulation malfunction, thus protecting both the water quality and the pool technology.

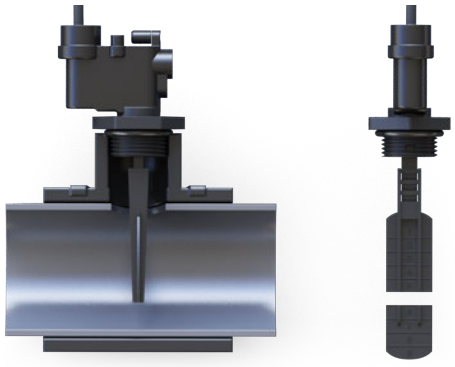
The sensor monitors the proper functioning of the water circulation. It detects when the water flow rate in the pipe falls below the minimum level. This allows the Poolmatix system to react immediately to a fault in the water circulation, stop the water treatment and circulation pump, and notify the user.

### Installation

The sensor should be installed in a saddle clamp with a 1/2" internal thread size. If you are not using the saddle clamp supplied with the flow sensor, please ensure that the height of the clamp's entry opening above the pipe surface is approximately 25 mm.

Please refer to the detailed installation instructions in the flow sensor installation manual.

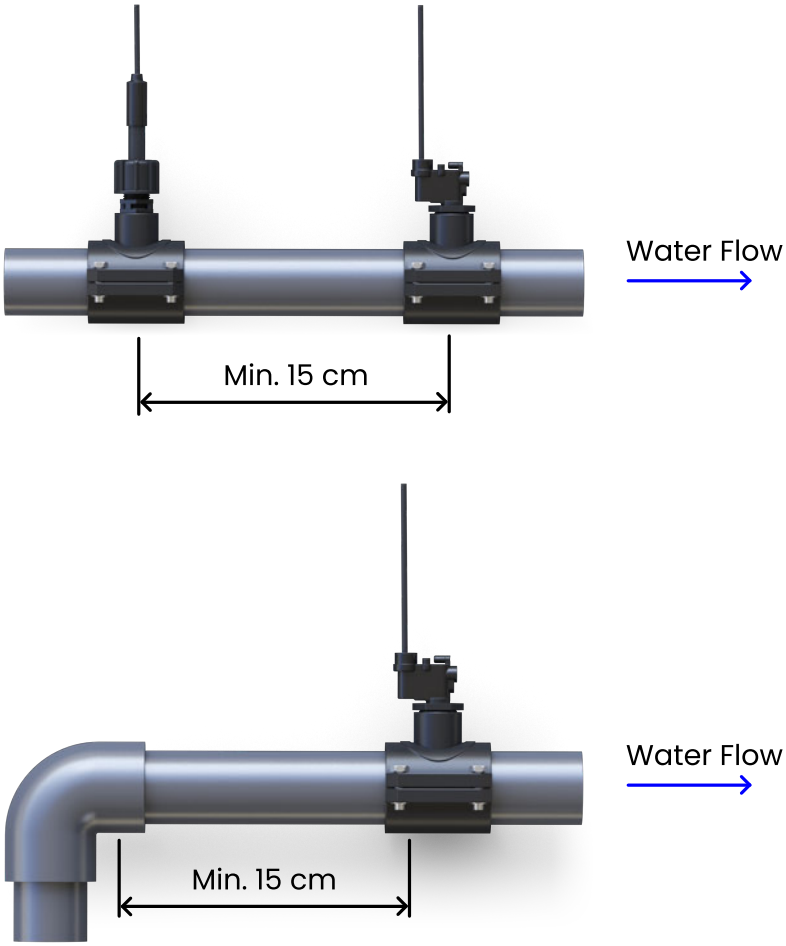
Fig. 5 Installation of the Water Flow Sensor



When installing the sensor, you must ensure that the water flow in the pipe in front of the sensor is not obstacled by any other objects.

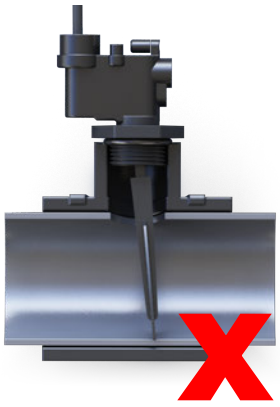
Make sure that the flow sensor is installed at least 15 cm behind other sensors or obstacles in the pool pipe that could cause turbulence of the water flow.

Fig. 6 Distance of the Flow Sensor from Obstacles in the Piping




Please ensure that the sensor paddle is the correct length.

Fig. 7 Sensor Paddle Too Long



**Note**

Please ensure that the hole in the pool pipe for the flow sensor is large enough to prevent the sensor paddle from becoming blocked. We recommend drilling a hole with a minimum diameter of 20 mm.

## 1.3. Water Temperature Sensors

The DTSP01 water temperature sensor is a recommended accessory for every Poolmatix CPC1 installation. Two temperature sensors are required for saltwater pools.

The sensors monitor the temperature of the water flowing from the pool into the pool technology and the water flowing back into the pool.

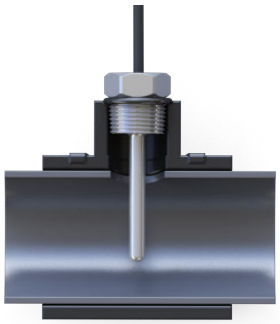
The water temperature sensor from the pool is required to measure and display the current temperature of the pool water and to control the pool heating.

The temperature sensor for the water flowing back into the pool is required to measure the water temperature in the pool after the heater. This allows the pool water salinity to be calculated accurately.

The sensor is installed in a saddle clamp or in a T-piece with a ½" female thread.

Please refer to the detailed installation instructions in the temperature sensor installation manual.

Fig. 8 Installation of Temperature Sensor



## 1.4. Water Quality Electrodes

Depending on the configuration of the pool, you may need to install pH, ORP, and/or free chlorine electrodes. The electrodes are installed in the pool piping between the circulation pump and the filter tank. If you cannot install the electrodes between the circulation pump and the filter tank, you can install the pH and ORP electrodes after the filter tank. However, never install the free chlorine electrode after the filter tank, as this would prevent the correct calibration of the electrode.

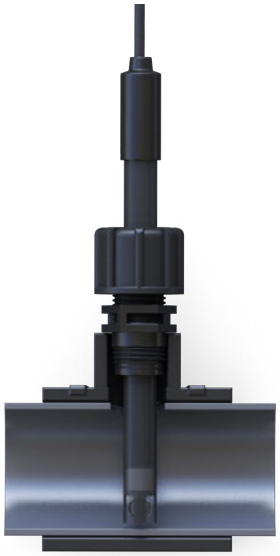
The electrodes are installed in a 12 mm inline electrode holder, which is mounted in a saddle clamp or a T-piece with a ½" internal thread.

## Installation

The electrodes must be installed in a vertical position with the tips pointing downwards. The maximum permissible deviation from a vertical position is 30°.

Please refer to the detailed installation instructions in the electrode installation manual.

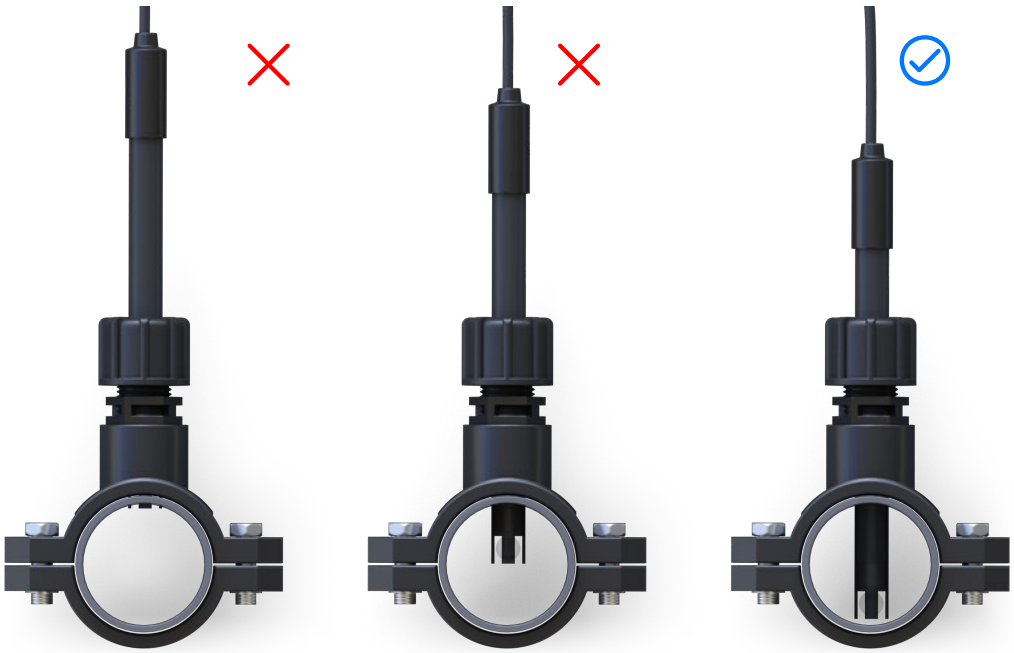
Fig. 9 Installation of the Water Quality Electrodes



To reduce the risk of damage to the electrodes from solid particles in the water flow, we recommend installing the electrode tip outside the main water flow, approximately 5-10 mm from the bottom of the pipe.

Please follow these instructions:

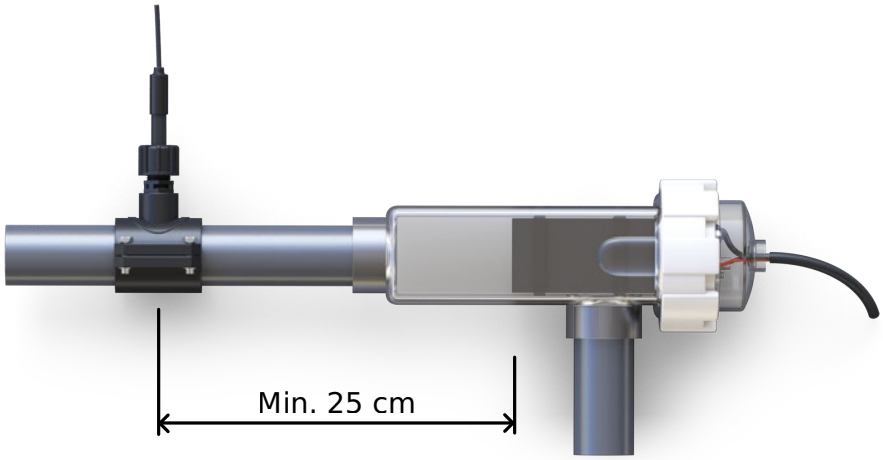
Fig. 10 Recommended Electrode Installation



### Distance Between the Electrodes and the Electrolytic Cell

The electrodes of the electrolytic cell generate stray voltages in the water that can affect the accuracy of the water quality electrode measurement. The water quality electrodes must therefore be at least 25 cm (but preferably further) away from the electrolytic electrodes of the salt chlorinator.

Fig. 11 Distance Between the Electrodes and the Electrolytic Cell




## 1.5. Injection Dosing Valves

The injection dosing valves are installed in a saddle clamp or a T-piece, with a ½" internal thread. Please refer to the component diagrams in this manual for the correct installation position of the valves.

# 2 Connecting the Pool Heating

Poolmatix CPC1 can control the water temperature of your pool. It can control a heat pump, a heat exchanger or another type of heater. To connect and control the heating, it is necessary to prepare the wiring in advance. Poolmatix CPC1 offers several options for controlling the pool heating (or cooling).

**Important Note:**

If you use the Poolmatix system, the heating is always controlled by the Poolmatix CPC1 control logic, not the other way round.

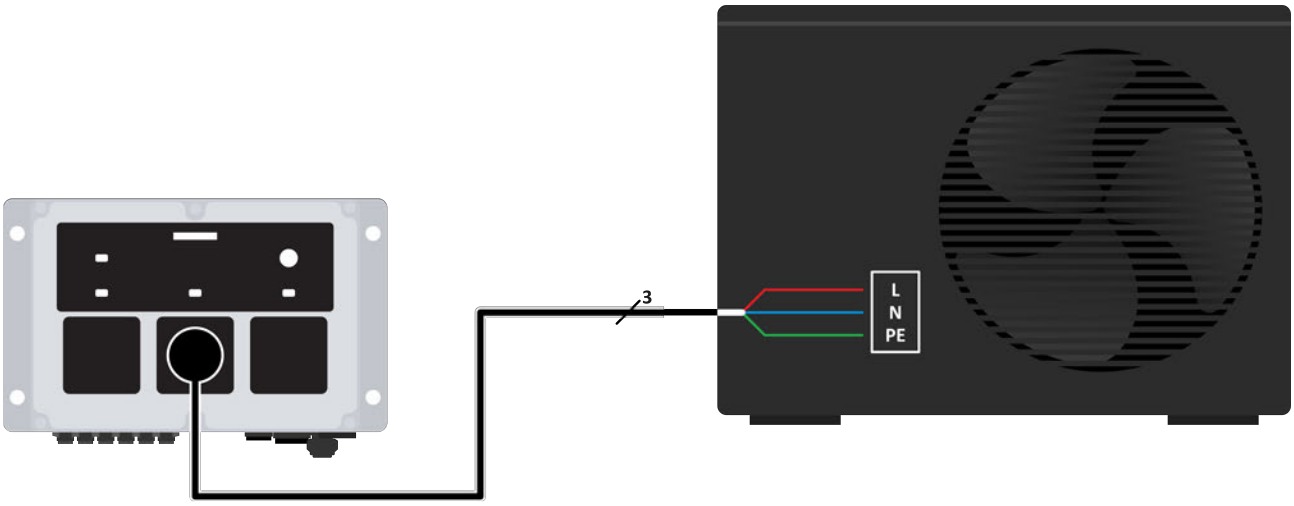
## 2.1. Control via a Power Output (230V)

This is the simplest way to control the heater. In this configuration, the power supply to the heater (e.g. the heat pump) is switched on depending on whether heating is required. The power output is also used to control solar systems or heat exchangers. Please note that the cooling function is not supported in this configuration.

**Note**

If the heater is equipped with its own thermostat (usually accessible via the display control panel), this thermostat needs to be always set to a higher temperature than the maximum temperature you wish to achieve for your pool.

Fig. 12 Control via a Power Output (230V)



## 2.2. Control via RS-485 Communication Interface (Including Cooling Control)

Many heat pump modes are equipped with an RS-485 / Modbus interface for external control. The RS-485 connection is usually accessible after removing the cover of the heat pump on the control circuit board. Depending on the type of heat pump, this interface can be shared with the connection of the heating display panel and/or the Wi-Fi module. In this configuration, the power supply to the heater remains permanently switched on. The heater is controlled by commands that are sent via the RS-485 interface from the Poolmatix CPC1 main control unit.

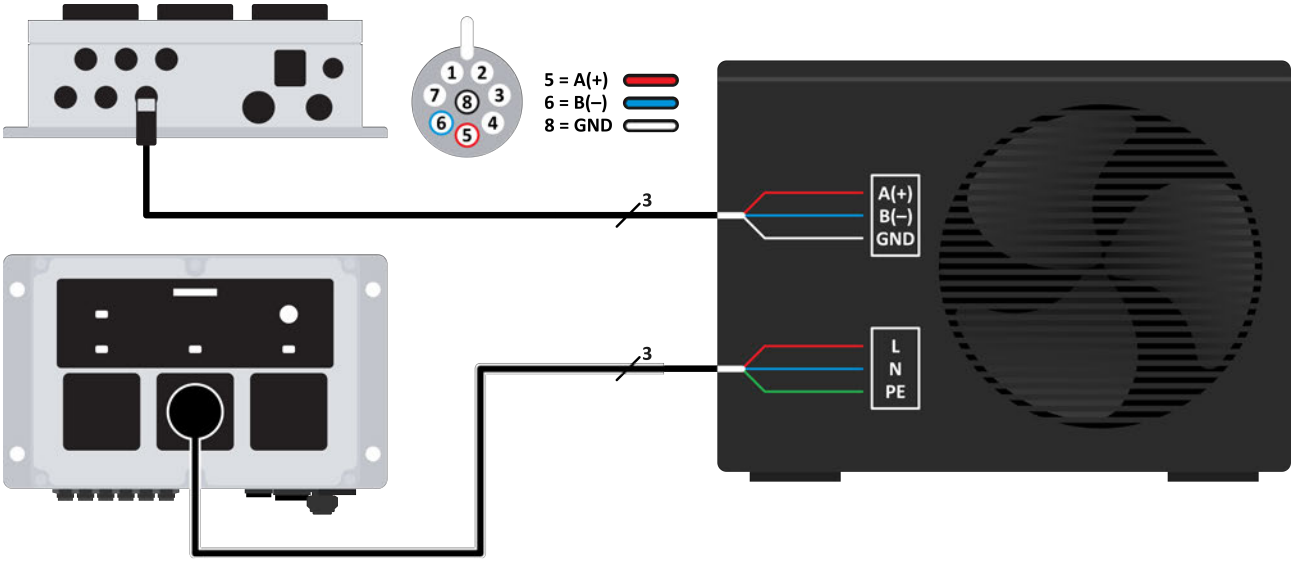
If your heat pump is equipped with a cooling function, the Poolmatix CPC1 system can also control the pool cooling via the RS-485 connection.

**Note**

If you intend to use this type of heat pump control, please consult your dealer in advance about the compatible heat pump models.

Ask your dealer whether a connection kit is available for your heat pump model.

Fig. 13 Heating Control via RS-485 Communication Interface




The control cable between the main control unit and the heat pump must be laid separately from any power cable in a separate cable conduit or cable tray.

You can use any commercially available cable to extend the length, however please do not exceed a total length of 25 meters.

# 3 Connection of Poolmatix Intelligent Devices

The Poolmatix CPC1 main control unit constantly communicates with other Poolmatix intelligent devices. These intelligent devices include:

- Poolmatix Intelligent Salt Chlorinator
- Poolmatix Dosing Units
- Other Poolmatix Intelligent Peripheral Devices

## 3.1. Poolmatix Dedicated Control Data Bus

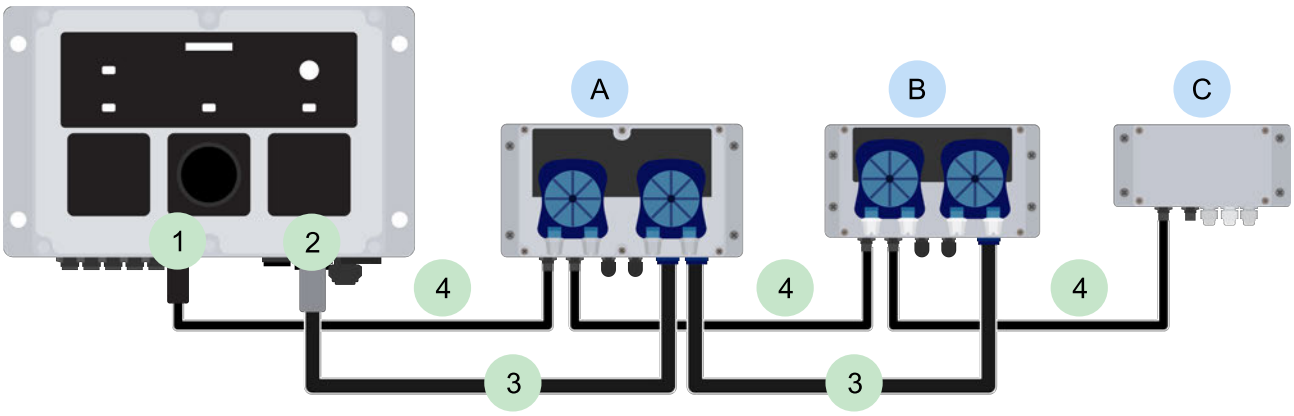
The Poolmatix intelligent devices utilize a specialized RS-485 data bus for connection to the Poolmatix CPC1 main control unit. The data bus connections, which are 8-pin M12 connectors, are labeled “Poolmatix Water Treatment” on all devices.

The data connections of the Poolmatix devices are “daisy-chained”, meaning they are connected to each other in a series. The order of the devices does not matter.

## 3.2. Connection of the Supply Voltage

Some of the Poolmatix intelligent devices require a 230 V power supply. These devices are equipped with a 230 V input. This power input needs to be connected to the power output of the main control unit labeled “Poolmatix” 230 V Water Treatment. The remaining devices are connected to the same power supply using a “daisy chain” method, whereby the power inputs and outputs of all devices are connected together.

Fig. 14 Diagram 9: “Daisy-Chaining” of Poolmatix Intelligent Devices




| | |
|---|---|
| A | Poolmatix Device A |
| B | Poolmatix Device B |
| C | Poolmatix Device C |

| | | | |
|---|---|---|---|
| 1 | Poolmatix Control Data Bus | 3 | Poolmatix Power Cable (230 V) |
| 2 | Poolmatix Power Output (230 V) | 4 | Poolmatix Control Data Bus |

# 4 Connection of the Poolmatix Sensors

The Poolmatix sensors provide the Poolmatix CPC1 control system with information about the status and values of various components of the pool system:

- Water Temperature Sensor (into Pool)
- Outside Temperature Sensor
- Water Flow Sensor
- Pushbutton Interface
- Water Level Sensor
- Water Pressure Sensor

All these sensors have their dedicated connection points on the Poolmatix CPC1 main control unit.

## 4.1. Water Flow Sensor

This sensor offers a simple contact output and is connected to the corresponding M12 sensor connector of the Poolmatix CPC1 control unit.

## 4.2. Water Temperature Sensors and Outdoor Temperature Sensor

The Poolmatix water temperature sensors and the outdoor temperature sensor use a digital one-wire connection. These sensors are connected to the corresponding M12 sensor connections on the Poolmatix CPC1 main control unit.

# 5 Internet Connection Type

Poolmatix CPC1 is an online system, although it can also control your pool without an Internet connection. However, a reliable internet connection is required to set up the system to benefit from all its advantages and to access the pool via the user applications.

## 5.1. Mobile Connection

If you have a stable mobile signal, the mobile connection is the easiest way to connect your Poolmatix CPC1 to the Internet.

Mobile connection is generally the easiest option for setting up an Internet connection and is usually also the most reliable.

If you order the Poolmatix CPC1 control unit with a mobile connection, you will receive an M2M SIM card for various operators, which always searches for the best available mobile phone signal in your area.

However, we strongly recommend that you check the mobile network signal at the location of the Poolmatix CPC1 control unit in advance.

### Checking Mobile Network Signal in Advance

There are several ways to check the quality of the mobile signal in advance:

Check the signal bar on your cell phone: Look at the bars indicating the signal or icons displayed on your mobile device. Normally, more bars indicate a stronger signal. Two out of four or five bars usually indicate a sufficient signal. Make sure you check the 4G signal.

Check your phone's data rate: Use your mobile internet and monitor the speed and responsiveness of your data connection. Slow loading times, buffering, or the inability to load web pages can be signs of a weak signal.

Use signal strength apps: There are various apps for smartphones that can provide more detailed information about signal strength, e.g. signal strength measurements in decibels (dBm) or signal quality metrics. You can search for signal-strength apps in your device's app store.

### Underground Poolmatix CPC1 Installation

There is rarely good mobile phone coverage in an underground shaft.

If you install the Poolmatix CPC1 main control unit underground, ensure that the antenna is placed outside the main area of the underground room.

If there is a strong signal at the entrance to the manhole, you can locate the standard LTE antenna directly under the manhole cover.

Fig. 15 Antenna Holder and Extension Cable for Installation Under a Manhole Cover

If the cellular signal at the manhole entry is not strong enough, you must use an external antenna placed in a location with a good mobile signal and connect an antenna extension cable.

Fig. 16 External Antenna with an Extension Cable

**⚠ Important Note:**

Soil is a very effective absorber of electromagnetic waves! If you wish to complete your landscaping work after installing the Poolmatix CPC1 underground, please note that the mobile phone signal in the underground shaft may deteriorate as soon as more soil is brought in around the shaft.

**Note**

After switching on the Poolmatix system at a new location, it can take up to 20 minutes for the LTE connection to be established. The system searches for all available mobile networks and selects the connection with the best quality.

## 5.2. Ethernet Connection

All versions of the intelligent Poolmatix CPC1 control unit support an Ethernet connection. The RJ-45 Ethernet connector is located on the side of the intelligent Poolmatix CPC1 control unit. Simply plug the Ethernet cable into this RJ-45 Ethernet port.

**Important Note:**

Check the firewall of your home network. Some home routers use a network firewall that can partially or completely block communication with the Poolmatix CPC1 . Before installation, make sure that neither your router nor your ISP is restricting communication on any network ports.

## 5.3. Wi-Fi Connection

All versions of the Poolmatix CPC1 control unit intelligent support a 2.4 GHz Wi-Fi connection.

If you decide to use the Wi-Fi connection, make sure that there is sufficient signal at the location where the control unit or its Wi-Fi antenna is to be placed.

The best way to determine this is with the help of a smartphone.

When installing the Poolmatix system in an underground shaft, please follow the same recommendations as for a mobile connection.

For detailed instructions on connecting the Poolmatix CPC1 main control unit to your Wi-Fi network, please refer to Chapter 9 of this document.

Detailed instructions on setting up the Wi-Fi connection can be found in Chapter 9.

**Important Note:**

Watch out for moving obstacles. If you are connecting from an outdoor location to a wireless Wi-Fi access point located inside a building, be aware that moving obstacles such as lids, metallic glazing, blinds, shutters, garage doors, or the pool cover can significantly impair the wireless signal connection. We, therefore, recommend placing a dedicated Wi-Fi access point for Poolmatix CPC1 in a location where the signal reception cannot be obstructed by such moving obstacles.

If the password of your Wi-Fi access is changed, you will lose the connection to your Poolmatix CPC1. It is therefore recommended that you use a dedicated Wi-Fi access point.

Check the firewall of your home network. Some home routers use a network firewall that can partially or completely block communication with the Poolmatix CPC1 . Before installation, make sure that neither your router nor your ISP is restricting communication on any network ports.

# 6 Installing the Poolmatix CPC1 / Poolmatix CPC1C-10 central control unit

## 6.1. Product Characteristics

Poolmatix CPC1 is an integrated intelligent control unit designed specifically for the control of leisure pools. It comprises a Linux-based control unit, a range of power outputs to control the pool technology and a range of communication interfaces for sensors, controllers and expansion devices.

The Poolmatix CPC1C-10 version includes an in-built 10 g / h salt chlorinator.

The Poolmatix CPC1 control unit is supplied together with basic required installation accessories.

Settings and controls for the intelligent control unit are made via the iXmanager mobile app and the iXfield web application.

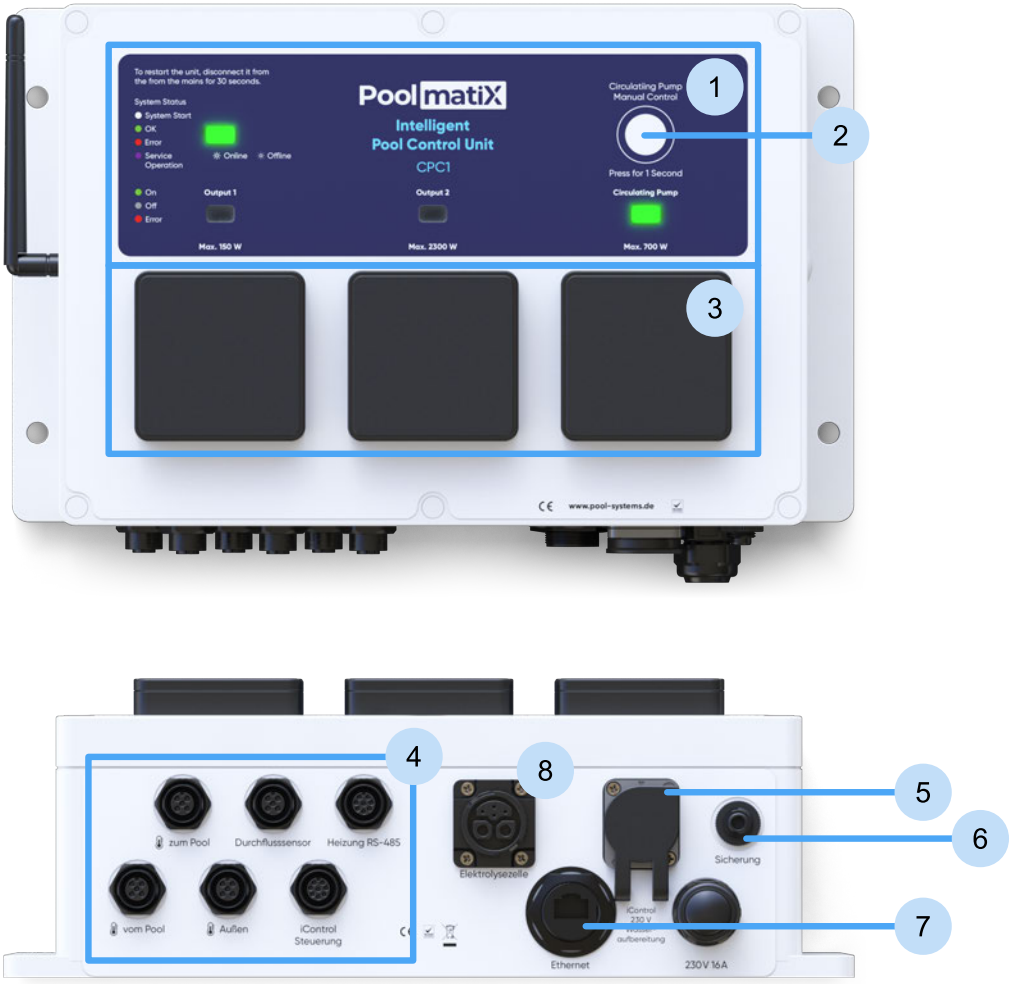
## 6.2. Product Features

The intelligent control unit Poolmatix CPC1 has been designed as an integrated and versatile pool control centre that replaces many conventional electrical installation components.

- Compact Design
- Super Easy Installation
- Selection of Outputs and Interfaces
- Flexible, Remotely Set up Functionalities
- Control of the Entire Pool Water Treatment System
- Integrated Connectivity

## 6.3. Functional Parts - Front View

Fig. 17 Functional Parts of the Control Unit Poolmatix CPC1




1. LED Display Panel
2. Manual Control Button
3. 230 V Sockets
4. Connections for Sensors and Peripheral Devices
5. 230 V Socket Outlet for Poolmatix Devices
6. Resettable Fuse
7. RJ-45 Ethernet Connection
8. Salt Chlorinator Cell Connection

## 6.4. Technical Data

### Basic Data

| | |
|---|---|
| Design | Low-Voltage Device with Power Cord |
| Nominal Voltage | 230 VAC |
| Rated Current | 16 A |
| SELV Isolation Voltage | 4 kV |
| Own Input Power | 10 W<br>(chlorination off / CPC1C-10) |
| Main Fuse | 16 A |
| Indicators | RGB LED |
| IP Protection Class | IP 52 |
| Operating Temperature | -15 ÷ +45 °C |
| Storage Temperature | -20 ÷ +55 °C |
| Operating Humidity | 20 ÷ 90%, No Condensation |
| Operating Position | Vertical |
| Mounting Method | Wall Mounting, Screws |
| Dimensions - Main Unit | 300 x 182 x 125 mm (W x H x D) |
| Dimensions - Electrolytic Cell | 335 x 470 x 130 mm (W x H x D) |
| Net Weight - Main Unit | CPC1 - 1.30 kg<br>CPC1C-10 - 1.45 kg |
| Net Weight - Electrolytic Cell incl. Cable | 1.30 kg |
| Chlorine Output | 2 - 10 g / hour |
| Permissible Water Salinity | 0.35 % - 0.60 % |
| Recommended Water Salinity | 0.40 - 0.50% |
| Applicable Standards | EN 61439-1 ed. 3, EN 61439-3, EN 62368-1, EN 301489-1, EN 301489-17, RoHS |

### Output Load Capacity

| Output | Maximum Switching Load | Connection Point |
|---|---|---|
| Circulation Pump | Single-phase asynchronous motor 0.7 kW | Front panel, 230 V Schuko socket outlet |

| Output | Maximum Switching Load | Connection Point |
|---|---|---|
| Poolmatix Water Treatment | 1,5 A | Bottom panel, 230 V bayonet socket |
| Output 1<br>230 V Output | 150 W | Front panel, 230 V Schuko socket outlet |
| Output 2<br>230 V Output | 230 V | Front panel, 230 V Schuko socket outlet |

## 6.5. Installation and Commissioning

This chapter will guide you through the installation of the Poolmatix CPC1 intelligent control unit.

**⚠ Important Note:**

The unit must be installed in accordance with the standards and regulations of the respective country and in compliance with the specific local technical conditions and requirements.

The unit may only be installed by a person who has sufficient qualifications to work on electrical devices and who has properly familiarized themselves with these installation and operating instructions.

The control electronics of the unit includes protective measures against voltage peaks and interference pulses in the distribution network. However, it is necessary to reduce disturbances from external sources of electromagnetic interference, such as switching power supplies, power contactors, motors, and inductive loads, by adhering to relevant technical standards.

The main power supply of the control unit must be protected by an external 30 mA residual current device (RCD).

Do not install the unit in an environment with excessive pollution and electromagnetic interference.

The operating temperature of the appliance during continuous operation and the maximum ambient temperature must not be exceeded.

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

The unit contains a CR1220 button cell for the real-time clock. This battery may only be replaced with the same type (CR1220), which is suitable for an operating temperature range of at least -15 to +65 °C.

The battery replacement requires the removal of the front cover of the unit and should only be carried out by a qualified person.

It is necessary to establish an earthing connection between all conductive external parts of the technology, including water, and the PE protective conductor.

### Installation Process

1. If you are using a Wi-Fi connection, we recommend that you set up the connection before installing the control unit.
2. Find a suitable location for the unit.
3. Fasten the unit onto a vertical surface with screws.

4. Connect the electrolytic chlorinator cell to the Poolmatix CPC1 main unit using the special cable and connector (Poolmatix CPC1C-10 version only).
5. Connect all devices to the sockets on the front panel.
6. Connect all sensors and peripheral devices to the connection points on the bottom panel of the unit.

### Possible use of Front Panel Sockets

| | |
|---|---|
| Output 1 | Lighting<br>RGB lighting<br>Generic salt chlorinator<br>UV lamp |
| Output 2 | Heating<br>Lighting<br>Generic salt chlorinator<br>UV lamp |
| Circulation pump | Circulation pump only |

The functions of Output 1 and Output 2 are configured in the iXfield web application.

1. If you are using a Wi-Fi connection, we recommend that you set up the connection before installing the control unit.
2. Find a suitable location for the unit.
3. Fasten the unit onto a vertical surface with screws.
4. Connect all devices to the sockets on the front panel.
5. Connect all sensors and peripheral devices to the connection points on the bottom panel of the unit.
6. Please refer to the detailed installation instructions for the peripheral devices in their respective installation manuals.
7. Install the Wi-Fi or LTE antenna, if you are using it.
8. Connect the Ethernet cable to the main control unit, if you are using it.

## Commissioning

1. Connect the control unit to the 230 V mains.
   a. The LEDs on the front panel will light up and a short beep will sound from the main control unit.
   b. Approximately one minute after switching on, the main control unit will beep for the second time to indicate the start of the pool control application.
2. Make sure that the system is connected to the Internet.
   a. Search for the pool in the iXfield web application.
   b. Check whether the system is online and the signal quality is good.
3. To connect the pool to a Wi-Fi network, please follow the instructions in a separate Chapter 9. Detailed instructions on setting up the Wi-Fi connection can be found in Chapter 9.


## 6.6. Pool Configuration

We recommend that you prepare your pool configuration in advance. Please refer to the document titled “Manual Software Configuration and Settings” for detailed instructions.

## 6.7. Testing Individual Pool Functions

**⚠ Important Note:**

Please note that it can take up to 15 minutes after system startup for the iXmanager mobile app and the iXfield web app to display accurate water temperatures, pH values, OPR values, and free chlorine values. This delay occurs because the sensor values need time to stabilize.

The system will only start the ORP and free chlorine adjustment process after 2 hours of running time with the circulation pump in operation.

First make sure that the iXfield application indicates no errors.

To test the counter-current and lighting functions, use the pool buttons and the iXfield web application or the iXmanager mobile app. Make sure that the 3-phase counter-current motor is rotating in the correct direction.

Search for the section with the service sequences in the iXfield web application or the iXmanager mobile app.

Perform the following service sequences:

- Manual Circulation Pump Control

Depending on your pool configuration, please carry out additional service sequences to check that the pool technology is functioning correctly.

Follow the instructions of the individual service sequences to test the respective pool function.

# 7 Commissioning of the system and handover to the customer

We strongly recommend that you follow a few more steps before leaving the pool installation site.

## 7.1. Pool Operating Modes

You can choose between different pool operating modes in the iXfield web application.

| | |
|---|---|
| **Under Construction** | This is the default operating mode. In this mode, pool operation is deactivated, and control of the pool by the iXmanager mobile app is blocked.<br>As soon as you leave this operating mode, you can no longer return to it. |
| **Normal Operation** | This is the normal operating mode. All error notifications are activated and the pool can be controlled via both the iXfield web application and the iXmanager mobile app. |
| **Maintenance** | Select this operating mode during service work on the pool. In this mode, error notifications are suppressed and control of the pool via the iXmanager mobile app is blocked. |
| **Waiting for Service** | Select this operating mode if a service intervention is planned for the pool. This operating mode suppresses email, SMS and app push error notifications.<br>Pool control is blocked for both the iXfield web application and the iXmanager mobile app. |
| **Winterized** | In this operating mode, the system suppresses functions that are not desired in the winter operation. |

## 7.2. Pool Handover to the End Customer

We strongly recommend that you familiarize the user with the operation of the Poolmatix system before leaving the site.

- Help the customer install the iXmanager mobile application.
- Help the customer to create a user account and assign the pool to the application.

> **Use the User Manual to Set Up the iXmanager App**
>
> Please refer to the Poolmatix User Manual for detailed instructions on how to set up the iXmanager mobile app and connect the user's pool to the app.

- Show the customer the basic functions of the application.

- Help the customer to set the basic parameters of the pool - pH, ORP, free chlorine and temperature.
- Help the customer set a basic time schedule for the pool.

# 8 Wi-Fi Setup of the Poolmatix CPC1 Main Control Unit

The connection of the Poolmatix CPC1 main control unit to the Internet via Wi-Fi is set up via the web configuration interface of Poolmatix CPC1 .

To access the web interface, you must first connect your phone, tablet, or computer to the Wi-Fi network of the Poolmatix CPC1 control unit.

The Wi-Fi network of the main control unit becomes visible approximately 30 seconds after switching on the Poolmatix CPC1 main control unit and remains visible unless the system is already connected to another IP network (e.g., via the Ethernet interface or a previously set up Wi-Fi network).

If Poolmatix CPC1 main control unit has already been connected to a Wi-Fi network and you want to connect it to a new Wi-Fi network, you must first deactivate the previous Wi-Fi connection by temporarily switching off the previously connected Wi-Fi access point.

Follow these steps to set up the Wi-Fi connection:

**Step 1**

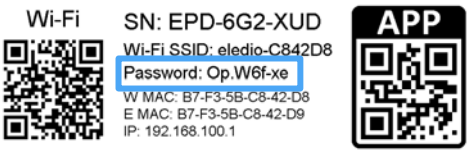
After switching on the Poolmatix CPC1 main control unit, scan its Wi-Fi QR code with your cell phone or tablet to connect to the Wi-Fi access point of the Poolmatix CPC1 . You will find the QR code on the label of the Poolmatix CPC1 control unit.

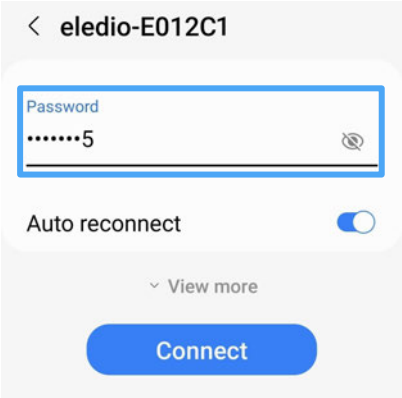

**Step 2**

Alternatively, you can search for available Wi-Fi networks and select the Wi-Fi SSID eledio-xxxxxx.

### Step 3

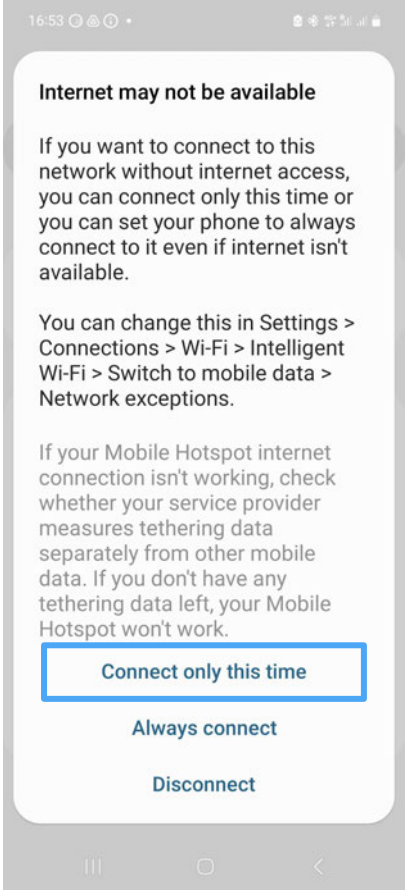
Enter the Wi-Fi password. You can also find it on the label of the Poolmatix CPC1 main control unit.



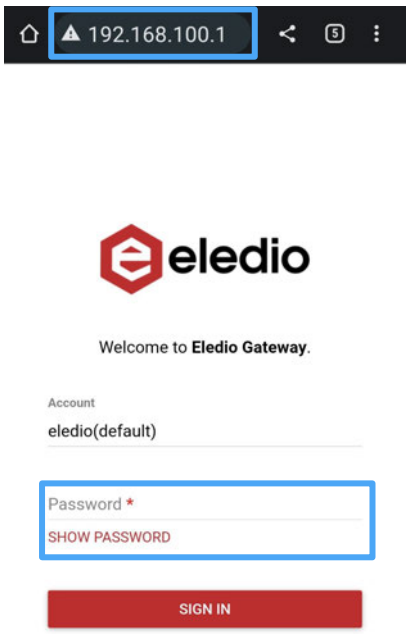

### Step 4

Confirm “Only connect this time” when this window appears.



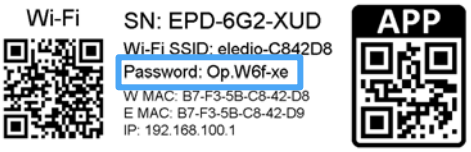
### Step 5

If you are connected to a Wi-Fi network, enter 192.168.100.1 in your web browser and open the web configuration page Poolmatix CPC1 This page should display automatically.



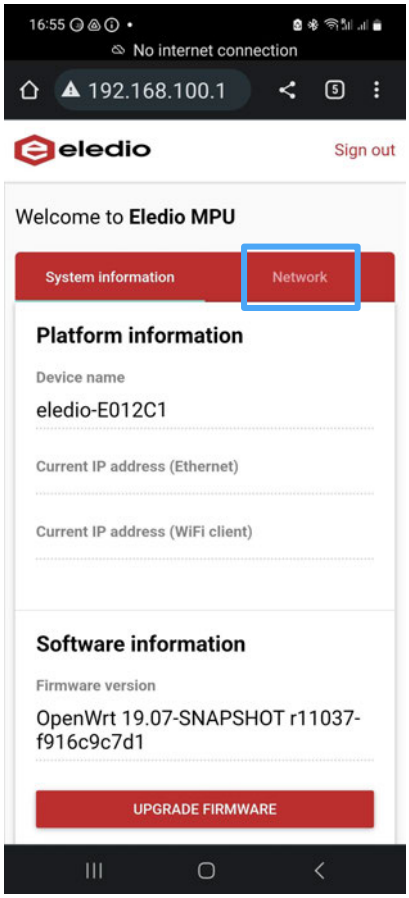

### Step 6

Enter the Wi-Fi password again. You will find it on the label on the main control unit.



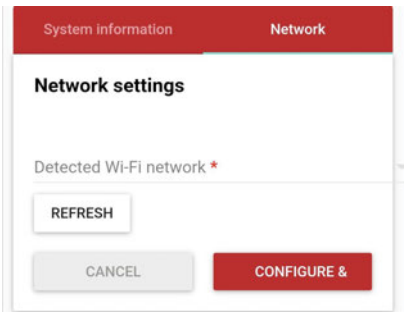

### Step 7

This screen is now displayed. Select the “Network” tab.



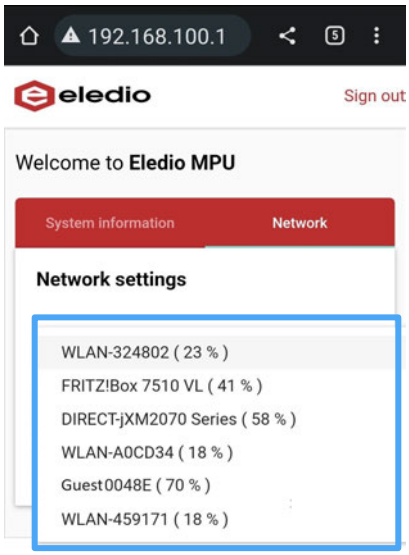
### Step 8

Select “Detected Wi-Fi Network*”.



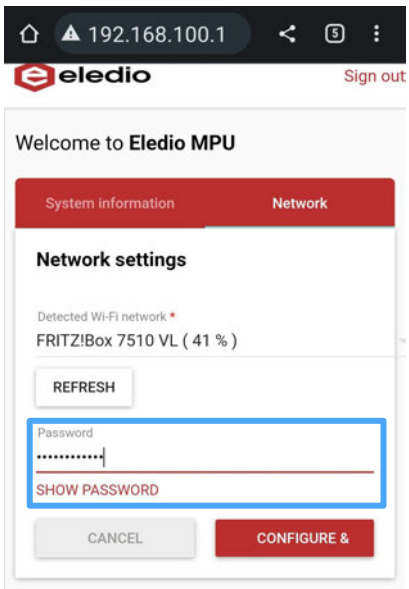

### Step 9

Now select the Wi-Fi network to which you want to connect the Poolmatix CPC1 .




### Step 10

Enter the Wi-Fi password of the selected network and press “CONFIGURE & RESTART”.




### Step 11

The Poolmatix CPC1 is automatically restarted and connected to the new Wi-Fi network. The restart takes about 30 to 60 seconds.

### Step 12

If the Poolmatix CPC1 unit cannot establish a connection to the newly set up Wi-Fi, please repeat the process. Make sure that you enter the correct password for the Wi-Fi network you want to connect to.

# 9 Service Sequences

Poolmatix CPC1 offers several predefined service sequences that automate and simplify most common installation and maintenance tasks.

| Title | Description | Use |
|---|---|---|
| Circulation Pump - Manual Control | This sequence starts only the circulation pump.<br>Dosing, chlorination, and heating functions are blocked.<br>The status of the flow sensor is ignored. | Testing the circulation pump, priming the water piping system, manual filter backwash, connecting the pool vacuum cleaner to the skimmer |
| Flow Sensor Test | This sequence starts only the circulation pump.<br>Dosing, chlorination, and heating functions are blocked.<br>The status of the flow sensor is ignored.<br>Flow Sensor Test. | Flow Sensor Test |
| Salt Chlorinator Test | This sequence only starts the main pump and the salt chlorinator, regardless of the current ORP or FCl values.<br>Dosing, chlorination, and heating functions are blocked. | Visual test of the chlorinator |
| Heating Test | This sequence only starts the circulation pump and activates heating, regardless of the current water temperature.<br>Dosing and chlorination functions are blocked. | Physical test of the heating function |
| Cooling Test | This sequence only starts the circulation pump and activates cooling, regardless of the current water temperature.<br>Dosing and chlorination functions are blocked. | Physical test of the cooling function |
| Manual Dosing<br>(Dosing Pump A / B / C / D) | This sequence enables manual dosing with the selected dosing pump via the user applications, regardless of the current pH, ORP, and FCl values, while blocking dosing with other dosing pumps, chlorination, and heating functions. | Test of the dosing pump control, remote maintenance, priming the dosing pump |
| pH Electrode Calibration - 2-Point | This sequence stops all technologies and guides the user through pH electrode calibration using 2 calibration buffers - pH 7.0 and pH 10.0. | Complete pH electrode calibration |

| Title | Description | Use |
|---|---|---|
| pH Electrode Calibration - 1-Point | This sequence stops all technologies and guides the user through pH electrode calibration using a pH 7.0 calibration buffer. | Simplified pH electrode calibration |
| ORP Electrode Calibration | This sequence stops all technologies and guides the user through the calibration of the redox electrode using the 465 - 475 mV calibration buffer. | ORP Electrode Calibration |
| ORP Electrode Check | This sequence stops all technologies and guides the user through checking the ORP electrode with any ORP calibration buffer. | ORP Electrode Check |
| UV Lamp Test | This sequence stops all technologies and allows the user to visually check the function of the UV lamp. | Visual check of the UV lamp function |

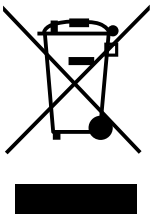
# 10 Operation and Maintenance

## 10.1. Cleaning the Electrolytic Electrodes (Poolmatix CPC1C-10 Version Only)

Depending on the hardness of the water in your pool, we recommend that you clean and decalcify the electrolytic electrodes once or twice a year. Follow the steps below:

1. Stop the circulation pump and close the valves before and after the electrolytic cell.
2. Disconnect the electrolytic cell cable from the Poolmatix CPC1C-10 main unit.
3. Loosen the union nut of the electrolytic cell group and remove the electrode group.
4. Clean the electrodes in warm water with a standard household detergent.
5. Immerse the electrodes in a 10% solution of hydrochloric acid for about 15 minutes. Use a glass or plastic container. Please be aware that upon contact, hydrochloric acid solution may cause burns to human skin and damage objects made of wood, fabric, metals, and other materials.
6. Rinse the electrodes thoroughly with clean water.
7. Reinstall the electrode group into the cell and reconnect the cable. Resume normal operation of the system.

# 11 Disposal of Used Product



Used products cannot be disposed of with normal household waste. When disposing of the used product, please follow the European Environmental Standards that define the proper handling of old electrical appliances.

The crossed-out waste bin symbol on the product indicates that waste must be separated and disposed of in an appropriate facility.