



In situ chlorine generator



LINKABLE



The **blueplus** PURE device is a complete water treatment system that keeps water quality perfectly balanced under all circumstances. It operates autonomously, producing a chlorine solution as required by the pool, from water, salt, and electricity.

#### WHY CHOOSE BLUEPLUS PURE?

- The pH and Redox (ORP) parameters are continuously monitored and maintained at the desired level. This guarantees perfect water disinfection. Blueplus PURE is delivered fully pre-assembled and only requires connection to water and electricity.
- The water treatment system produces more than 50 grams of PURE chlorine per hour, equivalent to approximately 0.5 liters of sodium hypochlorite (liquid chlorine). The produced chlorine solution has a low concentration, allowing for more even dosing. The adjustable Redox control maintains the desired chlorine concentration in the pool, virtually eliminating the risk of overdosing. Even in case of physical contact with the solution or potential leakage, the 'mild' chlorine solution is less aggressive. During the production process, no dangerous chlorine gas is released. There are no by-products (such as sodium hydroxide) that need to be discharged into the sewage system. Only the released hydrogen is vented outside. This water treatment reduces chlorine and acid consumption and prevents the formation of harmful, carcinogenic chlorate in high concentrations. This technology thus guarantees a safe chlorine production process.

#### NO CORROSION:

Corrosion is also prevented as no salt (high chloride content) is added directly to the pool water, and acid correction is minimized due to the nearly pH-neutral chlorine solution.

#### DIGITALISATION:

Blueplus PURE is equipped with a graphical touchscreen that allows users to read, set, and display all parameters. The screen also shows data logging and alarms, providing a comprehensive overview of the entire installation. Connectivity (ModBus) facilitates control, monitoring, and preventive maintenance.

#### BLUEPLUS PURE - NO ROOM FOR DISADVANTAGES:

Blueplus PURE eliminates almost all the disadvantages of other disinfection systems and offers benefits that enhance user-friendliness and safety.

Did you know?

The device includes durable components derived from industrial systems used in public swimming pools

In summary, we guarantee that Blueplus PURE functions flawlessly and has a long lifespan.



### COMPLETE WATER TREATMENT SYSTEM

operates autonomously, measuring and regulating chlorine and pH while producing in-situ chlorine



### RELIABLE

thanks to its industrial components derived from large-scale installations



### SAFE

the mild chlorine solution is less aggressive and does not produce chlorine gas or residues



### NO CHLORATE FORMATION

liquid chlorine naturally degrades over time



### LOW MAINTENANCE COSTS

requiring servicing only once a year



### NO NEED FOR TRANSPORTATION OR STORAGE

no dangerous liquid chlorine, as only water, salt, and electricity are required



### REDUCED CHLORINE AND ACID CONSUMPTION

acid correction is minimal due to the nearly pH-neutral chlorine solution, ensuring a more stable pH in the pool



### STABLE PH IN THE POOL

the absence of directly added salt prevents corrosion, and the system is user-friendly, requiring only salt to be added to the reservoir



### NO CORROSION

no salt is added directly to the pool water: low chloride content in the pool

### POOL USER FRIENDLY

just add salt to the reservoir



### PLUG & PLAY

is delivered pre-assembled



### ENVIRONMENTALLY FRIENDLY

has a low impact on the environment

Liquid chlorine produced by salt electrolysis via PURE, with a concentration of 5% (or 0.5 g/L), contains a salt content of 10 g/L of dosed liquid chlorine.

As a result, the chloride content in the pool remains between 250–300 mg or 0.25 g/L, well below the standard of 800 mg or 500 mg for stainless steel pools. Even the maximum limit of 400 mg specified by stainless steel pool manufacturers is not exceeded. A salt quantity of 25 kg (full filling of the PURE brine tank) roughly corresponds to 160 L of sodium hypochlorite. Approximately 8 kg of pure chlorine per 25 kg of salt at a concentration of 5% results in 160 L of product.

The only byproduct produced by salt electrolysis via PURE is hydrogen, which is discharged through a vertical vent.

The prices of the replacement parts (excluding the pH and redox probe) are around 300 EUR per year for the end customer.



DIMENSIONS DXWXH	240 x 740 x 1500 mm
POOL VOLUME	<120 m³ (outdoor) <200 m³ (indoor)
GRAPHIC TOUCHSCREEN	all functions
LOGGING	all parameters
WEIGHT EMPTY	30 kg
WEIGHT IN OPERATION	70 kg
CHLORINE TANK VOLUME	6 liter
RO TANK VOLUME	1,5 liter
BRINE TANK VOLUME	40 liter
FILL CAPACITY NACL (SALT)	25 kg
ELECTRICAL CONNECTION	230V/10A
MAX. POWER CONSUMPTION	0,30 kW/h
PRODUCTION CAPACITY	+50 g/Cl <sub>2</sub> /h (+7,5 L/h)
CONCENTRATION OF CHLORINE SOLUTION	0,5 -0,7 %
WATER CONSUMPTION FOR CHLORINE PRODUCTION	<20 Liter/h
SALT CONSUMPTION	<165 gram/h
CONNECTIVITY	ModBus
OPERATION MODE	autonomous
OPTION	salt tablet level detection with refill alarm
WARRANTY	2 years on electronic components

REF	TYPE	PRICE
04118001	Blueplus pure	€ 8.550,00

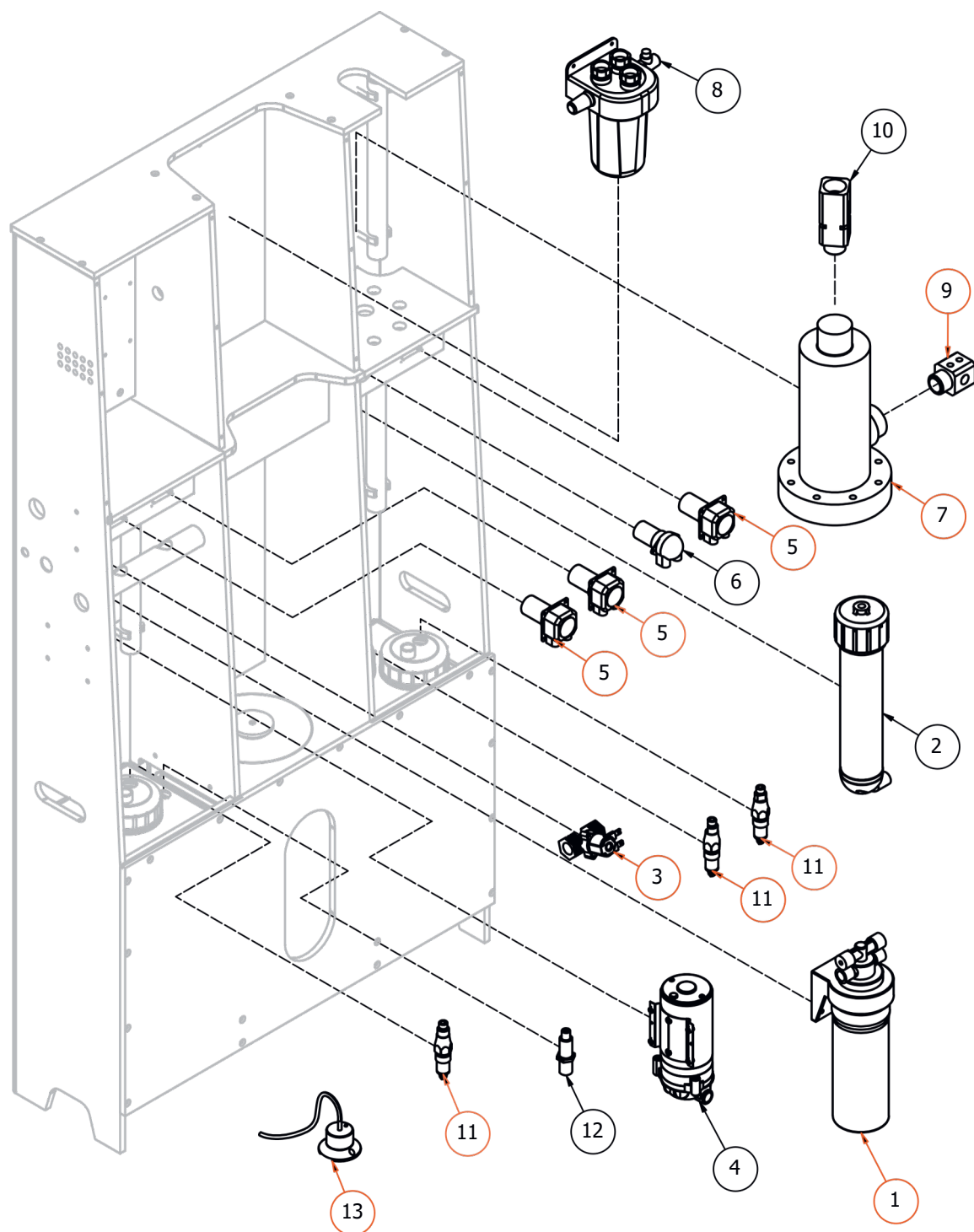


Image	Description	Article number	Net purchase
1	Water filter	17654	22,45 €
2	reverse osmosis membrane	25759	27,70 €
3	solenoid valve	25804	18,60 €
4	Booster pump	26250	41,50 €
5	12l/h dosing pump (large) pH/Cl/osmosis water	26644	40,00 €
6	Dosing pump 2l/h (small) brine	26252	32,00 €
7	Production cell	26151	466,00 €

Image	Description	Article number	Net purchase
8	pH/Rx Water Measuring Chamber	bluedrops	bluedrops
9	Injection block RO brine	26809	199,00 €
10	Hydrogen sensor	26719	119,50 €
	Temperature sensor	26109	15,70 €
11	Level sensor	26718	46,20 €
12	Salt sensor Photocell	25138	227,00 €
13	Leak detection sensor	21150	83,20 €



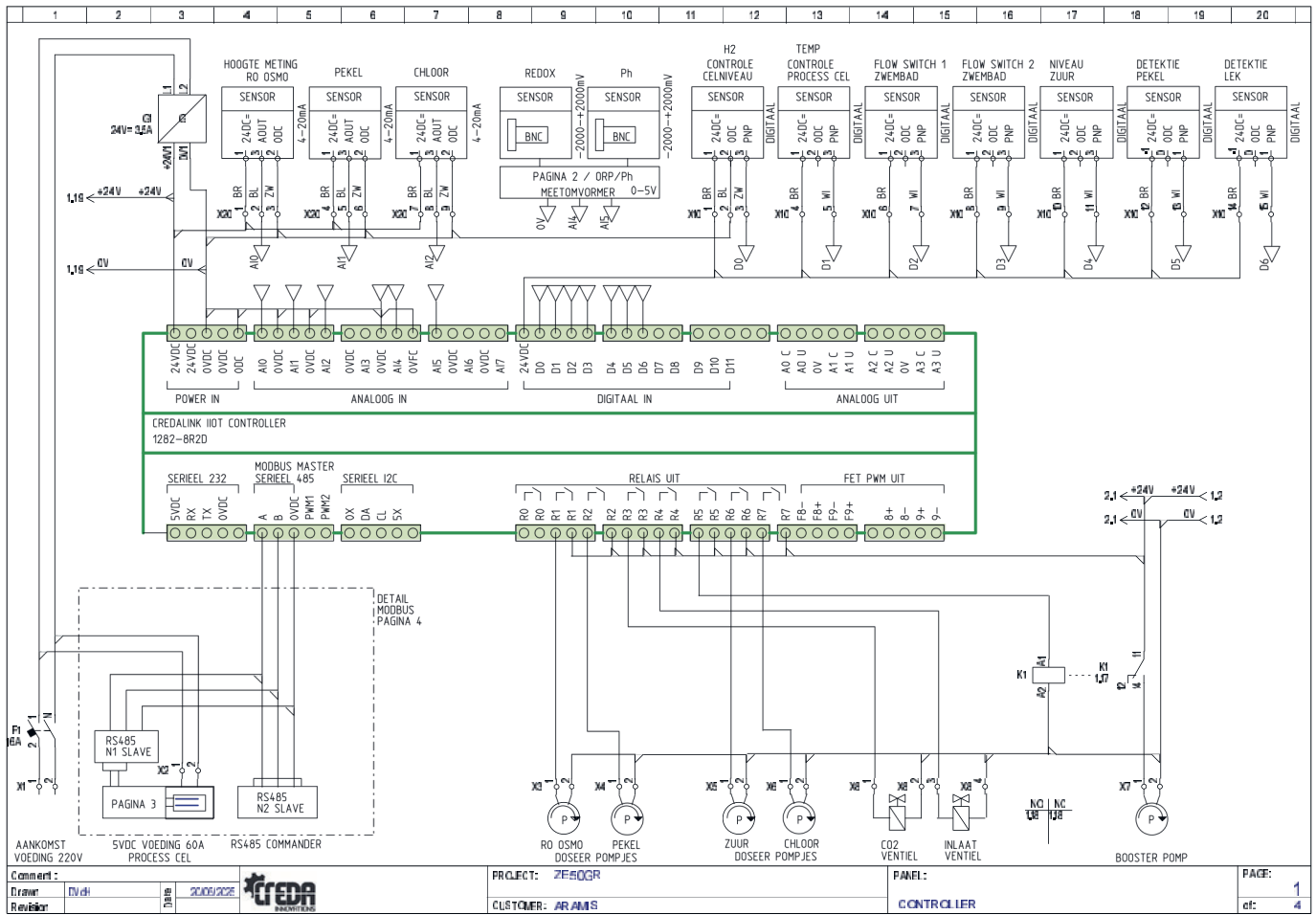
# MAINTENANCE PACKAGE

Description	Item number	Name	Net purchase
Water filter	17654	1	22,45 €
reverse osmosis membrane	25759	1	27,70 €
solenoid valve	21136	1	18,60 €
Dosing pump with 2x4 mm hose	10902/A	1	8,00 €
Dosing pump with 3x5 mm	10902/B	3	30,00 €
Total	Composite item number 50957	1	106,75 €

# CONNECTION DIAGRAMS

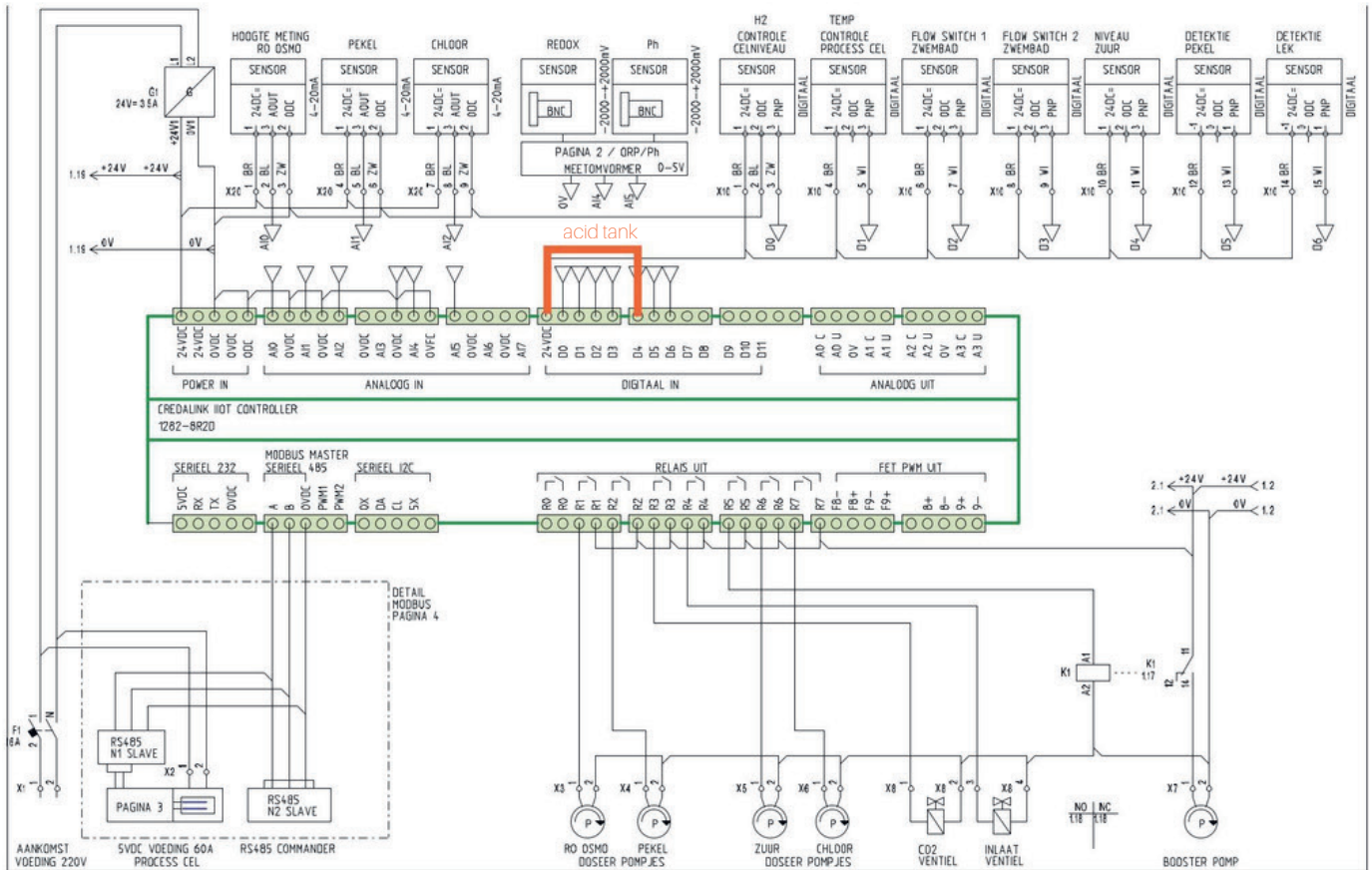
1. GENERAL DIAGRAM
2. EMPTY ACID TANK INDICATOR DIAGRAM
3. FLOW SWITCH CONNECTION DIAGRAM
4. LEAK DETECTION DIAGRAM
5. SALT SENSOR CONNECTION DIAGRAM

## 1. GENERAL DIAGRAM



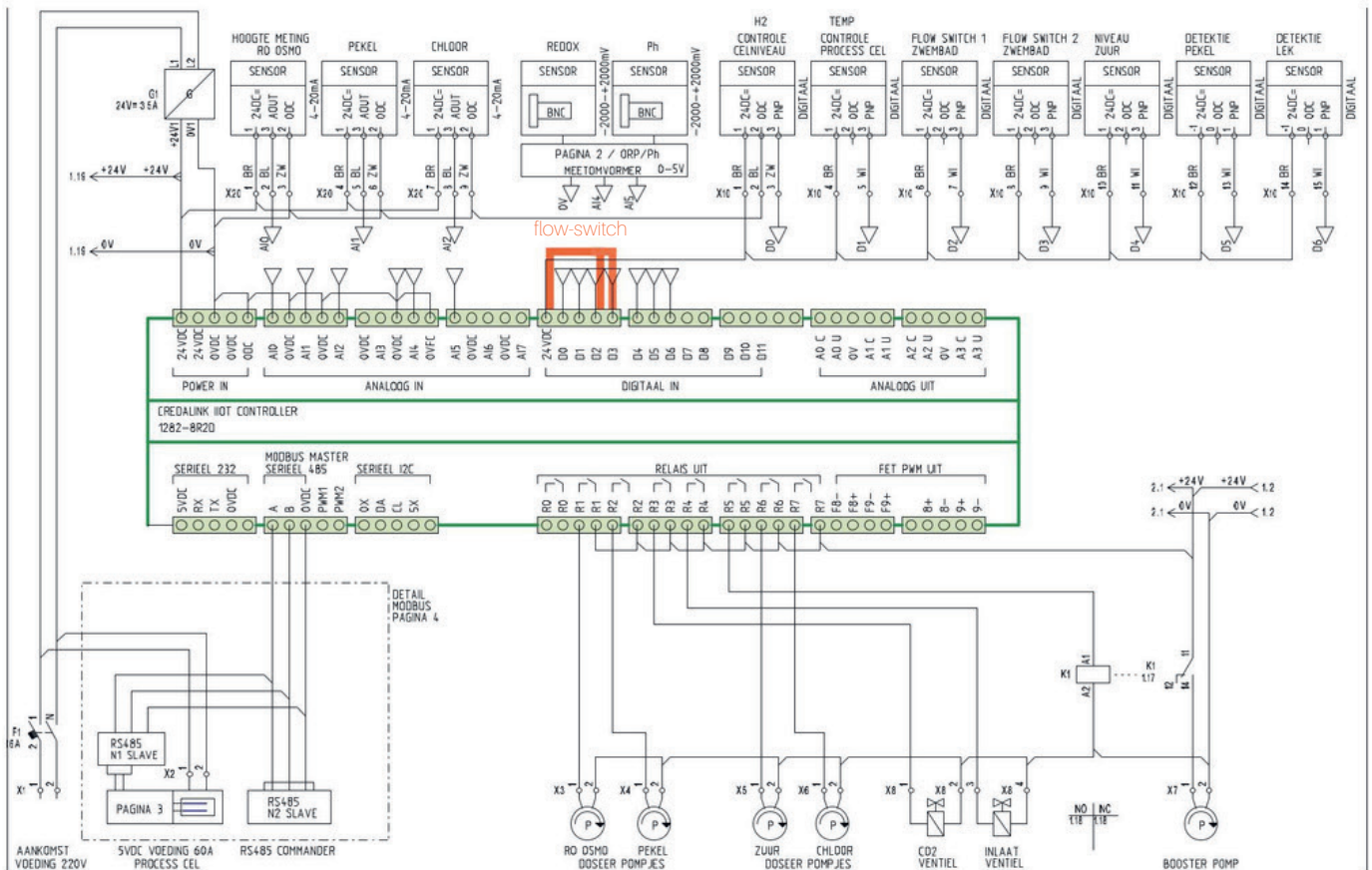
## 2. EMPTY ACID TANK INDICATOR SCHEMATIC

If the vacuum signal is not connected, a bridge must be placed on DI 4.

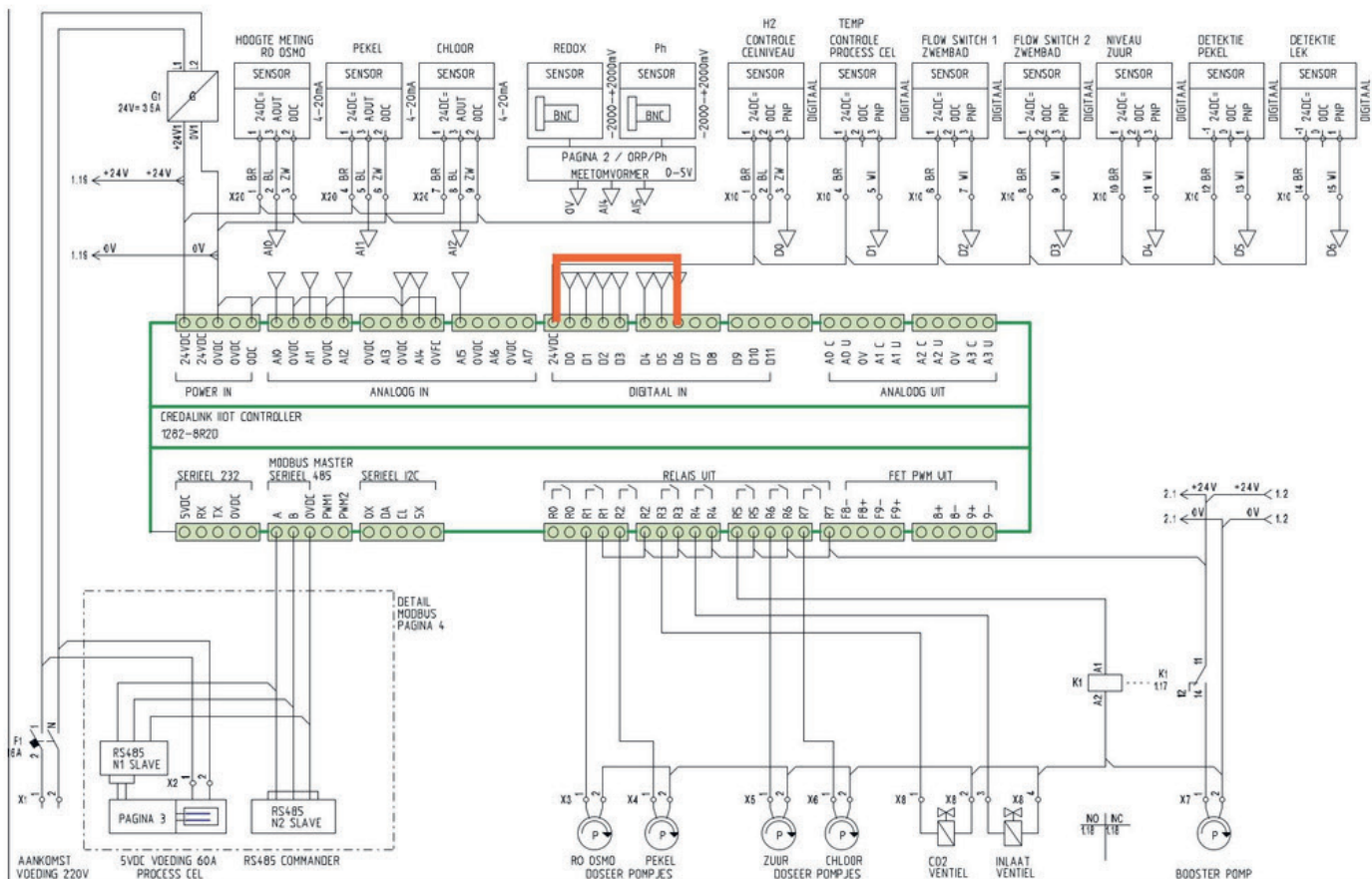


## 3. CONNECTION DIAGRAM FOR FLOW-SWITCH 1&2

! The device is equipped with 2 connections for flow sensors; both must be active!  
If 1 flow sensor is not connected, a bridge must be placed on DI 2 or DI 3 respectively.



#### 4. LEAK DETECTION SYSTEM CONNECTION DIAGRAM





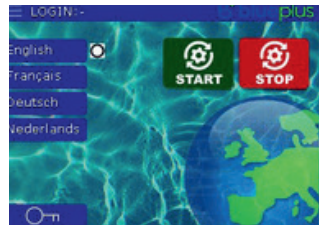
# INSTALLATION INSTRUCTIONS, COMMISSIONING AND MANUAL



# INSTALLATION INSTRUCTIONS, COMMISSIONING AND MANUAL

*Important! Read the installation instructions, commissioning procedure and user manual carefully.*

## 1. IN OPERATION

Stage	Description	Specifically	Detail
1	Technical room	moisture-free and sufficiently ventilated	Room temperature >5°C/<40°C
2	Transport and packaging	Transport only in the packaging: - Vertical - Horizontal	When transporting the device vertically, ensure that it does not tip over. When transporting horizontally, do not place any objects on the packaging. When transporting and repositioning the device, ensure that all tanks are completely empty and dry!
3	Positioning	Place the device in an easily accessible location.	The device must be easily accessible, especially at the front. Consider the connection points (water, electricity, drain, dosing lines), the measuring chamber (pH/Rx), salt filling, and touch controls.
4	Connections	Water supply	3/4 inch PVC external thread - Preferably use potable quality tap water - (minimum supply pressure 1.5 bar) - Especially NO well water and NO rainwater
		Power supply	230 V European socket - Provide an earthed socket with fuse
		Drainage (RO)	PE pipe diameter 6/4 mm (free flow) -In the sewer -At the rainwater well -To the buffer tank - To the swimming pool (connect after the filtration pump to the pressure pipe with return
		Hydrogen evacuation	PVC valve diameter 32 mm (towards outside air, as high as possible) - still in a "slightly" upward trend - use only 45° elbows
5	Starting system	- Fill the salt tank (max. 25 kg) - Open the water supply - Switch on the power	Press "START" (green button held down for 5 seconds) on the home screen and select your language. The system will automatically refill all levels (approximately 1 hour later), ready to produce chlorine. 
6	pH/Rx measuring chamber	- Connect the water supply and drain - Place the measuring probes (pH/Rx) - Ensure water circulation	Test the water supply after the pump Test the water return before the pump - allow the measuring probes to acclimate for at least 1 hour before calibrating
7	Start production	Occurs automatically (see point 4.) System startup	Chlorine production starts and the chlorine tank is filled (approximately 1 hour). The system is ready for use.
8	System ready	See the manual	Follow the instructions in the user manual carefully

2. END USER/INSTALLER MANUAL

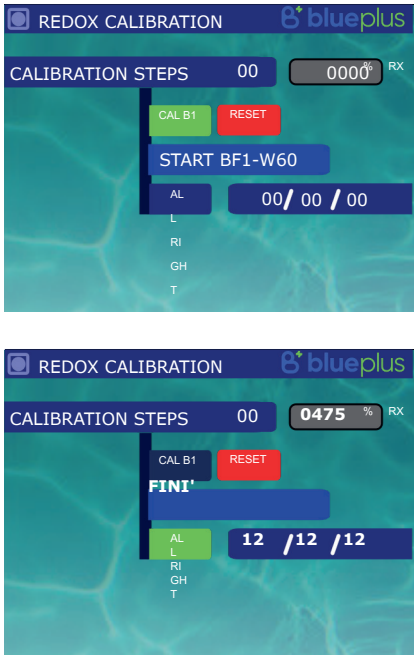
Factory Settings: Default Settings  
pH 7.2 - P Range; 0.2 pH - Rx 650 mV - P Range: 50 mV

home screen	main screen	menu screen visible via service code "1234"
		
<ul style="list-style-type: none"><li>- Language selection START/STOP function Enter the service code via the blue</li><li>- "key" button (bottom left)</li><li>-</li></ul>	<ul style="list-style-type: none"><li>- Alarms and warnings</li><li>- pH zone</li><li>- Redox zone</li><li>- Chlorine zone</li></ul>	<ul style="list-style-type: none"><li>- Chlorine production process</li><li>- pH calibration</li><li>- Redox calibration</li><li>- Alarm lines</li><li>- Fault</li><li>- Manual functions</li></ul>





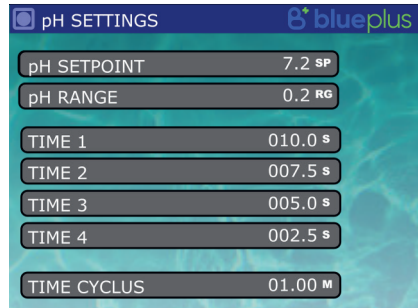
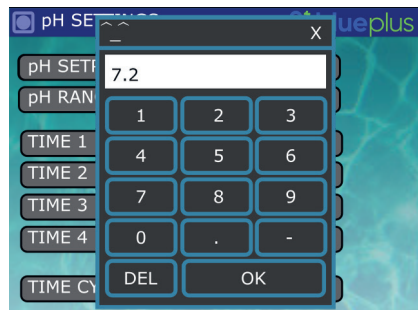
Assignment	description	photo screen
<p>Calibration pH probe</p> <p><b>IMPORTANT!</b> Calibrate monthly</p> <ul style="list-style-type: none"> <li>Combine pH 4 and pH 7 or pH 7 and pH 10 buffer solutions</li> <li>NEVER combine buffer 4 with 10</li> <li>Replace buffer solutions every 6 months to avoid deviations</li> <li>Clean and dry the measuring probe thoroughly before and after using each buffer</li> <li>Calibrate at the pool's operating temperature (+/- 3°C) if the calibration procedure is interrupted</li> <li>Use the red 'RESET' button and start again</li> <li>Calibration error (indicated by 'ALARM')</li> <li>Use the red 'RESET' button and start again</li> </ul>	<p>Pressure in the pH zone (dark blue bar)</p> <ul style="list-style-type: none"> <li>The calibration screen appears</li> <li>Close the water inlet and outlet of the measuring chamber</li> <li>Clean and dry the pH probe</li> <li>Place the probe in the first buffer solution pH 4 or pH 7 (the buffer used is automatically recognized) Press the blue button "CAL B1" (the button turns GREEN) and the calibration starts (approximately 1 minute)</li> <li>The gray diode turns white and indicates "READY"</li> <li>Remove the probe from the buffer solution and clean it dry</li> <li>Then place the probe in the buffer solution pH 7 or pH 10</li> <li>Press the blue button "CAL B2" (the button turns GREEN) and the calibration starts (approximately 1 minute)</li> <li>The gray diode turns white and indicates "READY"</li> <li>Remove the probe from the buffer solution and clean it dry</li> <li>Put the probe back in the measuring chamber</li> <li>Open the measuring water supply</li> <li>The OK button appears and turns GREEN after approximately 1 minute, the dosage starts.</li> <li>The execution date appears</li> <li>Exit the calibration screen via the blue BUTTON (top left)</li> </ul>	   


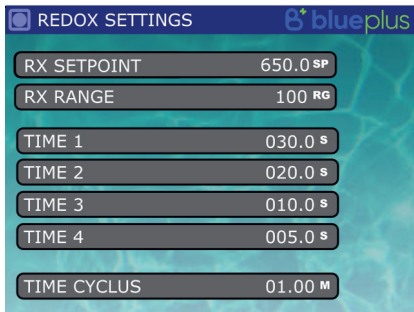


Assignment	description	photo screen
<p>Calibration of the redox (ORP) probe</p> <p><b>IMPORTANT!</b></p> <ul style="list-style-type: none"> <li>• Use 475 mV buffer solution</li> <li>• Replace the buffer solution every 6 months to avoid deviations</li> <li>• Clean and dry the measuring probe thoroughly before using the buffer solution If the calibration procedure is interrupted</li> <li>• Use the red "RESET" button and start again</li> <li>• Calibration error (indicated by "ALARM")</li> <li>• Use the red "RESET" button and start again</li> </ul>	<p>Pressure in the ORP zone (dark blue bar)</p> <ul style="list-style-type: none"> <li>• The calibration screen appears</li> <li>• Close the water inlet and outlet of the measuring chamber</li> <li>• Clean and dry the Rx probe</li> <li>• Place the probe in the 475 mV buffer solution (the buffer used is automatically recognized)</li> <li>• Press the blue button "CAL 01" (the button turns GREEN) and the calibration starts (approximately 1 minute)</li> <li>• The gray diode turns white and indicates "READY" Remove the probe from the buffer solution and clean it dry</li> <li>• Put the probe back in the measuring chamber</li> <li>• Open the measuring water supply</li> <li>• The OK button appears and turns GREEN after approximately 1 minute, the dosage starts.</li> <li>• The execution date appears.</li> </ul>	






Assignment	description	photo screen
Execution via service code	<p>CODE : 1-2-3-4</p> <ul style="list-style-type: none"> <li>Go to the "START" screen</li> <li>Press the blue button (key icon) at the bottom left</li> <li>A digital screen appears</li> <li>Enter the service code (1234)</li> <li>Confirm with the "V" key § at the bottom left)</li> <li></li> <li>You now have access to the "set set point" and "set P-range" functions.</li> <li>Attention!</li> <li>The code expires 5 minutes after the last contact and the main screen appears</li> </ul>	 

Assignment	description	photo screen
Set pH Setpoint Set pH Range P	<ul style="list-style-type: none"> <li>Access the pH settings</li> <li>The calibration screen appears</li> <li>Press the blue gear icon in the bottom left corner</li> <li>The bars with the setpoint and P range appear</li> <li>Press directly the numeric code of the parameter you want to change (setpoint or P range)</li> <li>A numeric screen appears</li> <li>Delete the current value with the "DEL" key</li> <li>Enter the desired value and confirm with OK</li> <li>Exit the screen using the blue key in the top left corner</li> </ul>	  

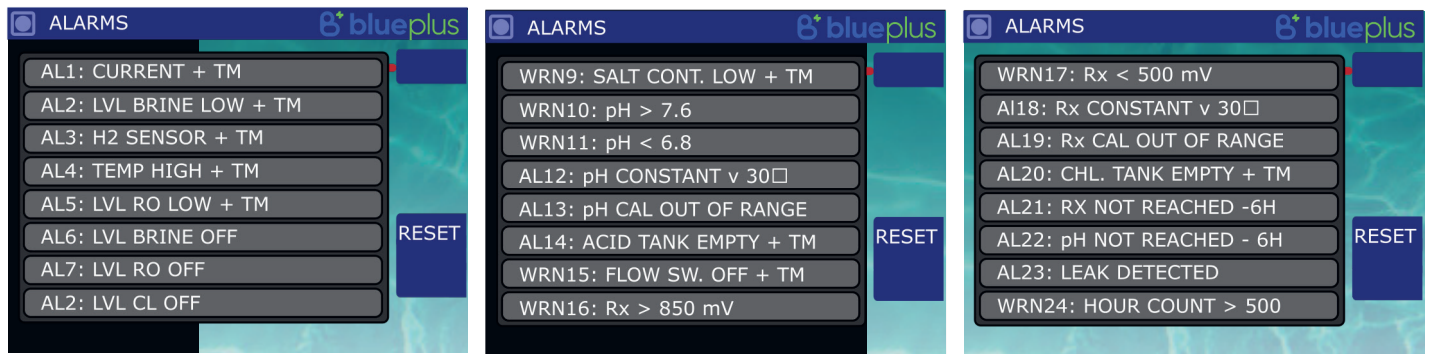
Assignment	description	photo screen
Set the Redox (ORP) Set the Redox (ORP) P Range	<ul style="list-style-type: none"> <li>Access Rx settings.</li> <li>The calibration screen appears.</li> <li>Tap the blue circle icon in the bottom left corner.</li> <li>Bars with setpoint and P range are displayed.</li> <li>Directly press the numeric code of the parameter you want to change (set point or P range).</li> <li>A digital screen appears.</li> <li>Delete the current value using the "DEL" key.</li> <li>Enter the desired value and confirm with OK.</li> <li>Exit the screen using the blue button in the top left corner.</li> <li>The OK button will appear and turn GREEN.</li> <li>After about 2 minutes, the dosage starts.</li> </ul>	 
Maintenance - code « 5130 »	Factory settings are only accessible after manufacturer/supplier approval?	

Assignment	description	
<p>Alarms and resets.</p> <p>TROUBLESHOOTING !</p> <p>Meaning of alarms and possible causes.</p> <p>Intervention instructions and possible solutions.</p>	<p>Tap in the ALARM area (dark blue bar)</p> <ul style="list-style-type: none"> <li>The list of possible alarms is displayed</li> <li>Check the indicated alarm</li> <li>Identify the cause of the problem</li> <li>Consult the intervention instructions with possible solutions</li> <li>Reset the alarm (using the blue "RESET" button)</li> <li>In case of repeated reappearance of the same critical alarm (contact the installer)</li> </ul>	

Assignment	description	photo screen
RESETTING THE OPERATING HOUR METER (chlorine production)	<p>Via maintenance code 5130 Access the main menu</p> <p>Press the clock</p> <p>The hour meter appears</p>	  



### 3. ALARMS AND WARNINGS (TROUBLESHOOTING)



N°	alarm indication (notification or warning)	implications	solutions	reset required
1	Current ALARM + timer	Chlorine production stops	If this happens again, please contact a technician.	YES
2	Brine tank level too low ALARM + timer	Chlorine production stops	Check the water supply, booster pump, solenoid valve and pipes.	YES
3	Hydrogen (H2) ALARM + timer	Chlorine production stops	Check and repair hydrogen venting	YES
4	ALARM production cell temperature too high	Chlorine production stops	If this happens again, please contact a technician.	YES
5	RO tank low level ALARM	Chlorine production stops	Check the water supply, booster pump, solenoid valve and piping.	YES
6	WRN (warning) pH too high	Pool pH too high	Check the tightness and operation of the dosing pump and piping.	NO
7	WRN (warning) pH too low	Pool pH too low	Adjust (increase) the P range	NO
8	ALARM pH unchanged for more than 30 min.	Stopping the acid dosage	Check that the dosing pump and lines are not leaking and are functioning properly.	YES
9	pH calibration out of range alarm	Stopping the acid dosage	Resume the calibration procedure	YES
10	ALARM acid tank (pH-) empty	Stopping the acid dosage	Fill the acid tank (replace the water bottle)	YES
11	WRN (warning) traffic detection disabled	Stopping the dosing of chlorine and acid	Check and restore circulation of the filtration pump and flow controller	NO
12	WRN (warning) Redox too high	Chlorine content in the pool too high	Adjust (increase) the P range	NO
13	WRN (warning) Redox too low	Insufficient pool disinfection	Check the metering pump and lines for leaks and proper operation. Adjust the P range (reduce)	NO
14	ALARM Redox unchanged for more than 30 min.	Stopping chlorine dosing	Check the metering pump and lines for leaks and proper operation.	YES
15	ALARM Rx calibration out of range	Chlorine dosing does not start	Resume the calibration procedure	YES
16	ALARM Empty chlorine tank + timer	Chlorine dosing stops	Check the tightness of the dosing pump and the pipes	YES
17	ALARM Redox set point not reached after 6 hours	Chlorine dosing stops	Check the metering pump and lines for leaks and proper operation. Adjust the P range (reduce)	YES
18	ALARM pH set point not reached after 6 hours	Stopping the acid dosage	Check the metering pump and lines for leaks and proper operation. Adjust the P range (reduce)	YES
19	(optional) Leak detection	All functions stop	Repair the leak and dry the sensor	YES
20	Chlorine production hour meter > 500h	All functions continue to work	Replace the water and reverse osmosis filter	YES/NO

