

# AEONPUMP

## CONTROL PANEL

### USER MANUAL



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## 1 Safety

This user manual provides information on the correct use of the pump control panel. Contact manufacturer if you have any questions. Manufacturer is not responsible for any accidents or damage to the pump caused by the improper use.

Manufacturer reserves the right to make changes in both technical and software revisions without prior notice.

Pay particular attention to the sentences preceded by any of the following safety symbols and/or words: They are designed for your safety and to prevent damage to the environment and the pump unit.



**DANGER** – When the danger symbol with the text ‘DANGER’ is displayed, it is accompanied by the information that is particularly important for the safety of all those involved. Ignoring the information can result in injury (possibly serious) or even death.



**WARNING** – When the warning symbol with the text ‘WARNING’ is displayed, it is accompanied by information that is particularly important for everyone involved with the pump unit. Failure to observe this information may result in injury or damage to the pump unit (possibly serious).

### 1.1 Automatic Start / Stop System



**DANGER** – The pump is equipped with a means to automatically start the pump with level control devices (float switches or hydrostatic sensor). For this reason, it is essential to switch off the pump with the swicher before any service or maintenance work, as well as in the event of repositioning.

### 1.2 Main Switch



**DANGER** – The pump is equipped with a main switch, that is located near the control panel for an easier use. The main switch completely disconnects the pump from the power supply to the control panel, which prevents the pump from being switched on accidentally.

## 2. Description of the Control Panel



1. Main screen (alterable) with buttons 7 and 8
2. Language selection
3. Manual / automatic control
4. Settings
5. START button
6. ESC – return button to the previous window, or cancellation of an action
7. Home screen change button or menu on the left
8. Home screen change button or menu on the right
9. Pump speed acceleration button
10. Pump speed deceleration button
11. OK – Confirmation button
12. STOP button
13. Current or error history button
14. Light button
15. Information button

## 3. Control Panel Switch-On

To switch-on the control panel, turn the earth switch if present, turn on the main switch to the ON position, the electric pump shall be connected to the mains cable, as this pump is not equipped with a battery.

When the main switch is turned to the ON position, the control panel starts loading the software and the following screen appears on the panel.



If appears window like under, that means the emergency STOP button is pressed, release the emergency STOP button, fault after approximately 10 seconds will disappear.



When the software is loaded, the main screen appears on the control panel.



## 4. Language Selection

-  – Language selection. Press button 2 on the control panel.
- Use the buttons 7, 8, 9, 10 to select the language, confirm with the OK button.



- Use the ESC button on the control panel to return to the main screen

## 5. Automatic / Manual Control



Automatic / manual control – this option allows the user to control the pump in automatic or manual mode.

- Press the button 3 on the control panel and the following screen appears

<i>AUTO/MAN</i>		
Manual	<input type="radio"/>	
Auto	<input checked="" type="radio"/>	
Max speed	50	Hz
Min speed	20	Hz
Max level	152	cm
Start level	60	cm
Min level	40	cm
Pump up mode	<input type="checkbox"/>	

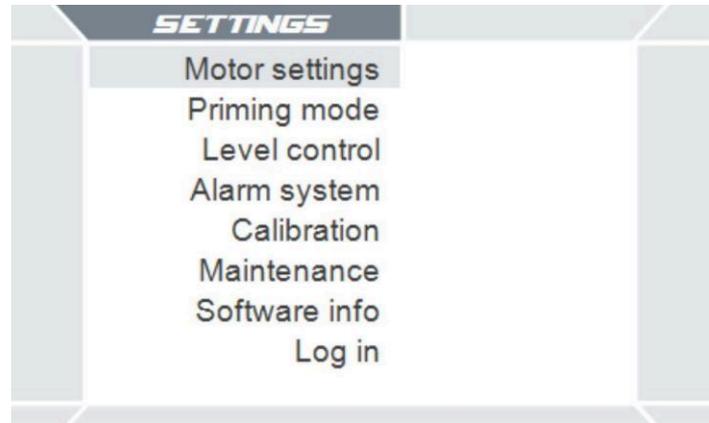
- With buttons 9 and 10 select automatic or manual mode
- Confirm with the OK button on the control panel.
- Use the ESC button on the control panel to return to the main screen.

## 6. Settings



–settings. Below this section, it is possible to change various pump parameters and configurations.

- Press the button 4 on the control panel and the following screen appears:



- With the buttons 9 and 10, one can select the section where the parameters can be changed.
- Confirm with the OK button on the control panel.

### 6.1 Engine Settings



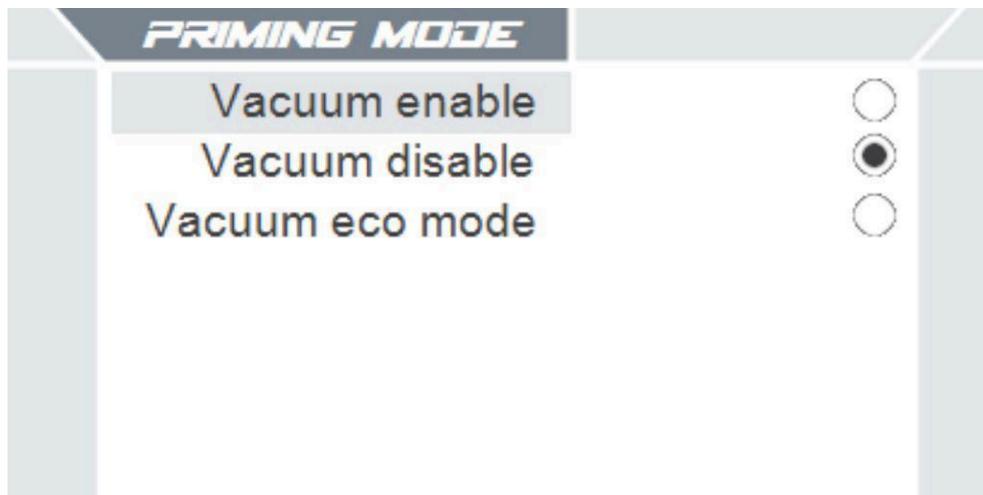
**WARNING** – the motor settings can only be changed by logging in via LOG IN (see section 6.8).



<i>MOTOR</i>		
Ramp up time	10	s
Ramp down time	10	s
Motor nom current	28.3	A
Motor max current	28.3	A
Motor nominal rpm	1475	RPM
Power	15.0	kW
Max speed	50	Hz
Min speed	25	Hz
Dry run power	10.0	kW
Vacuum off delay	10	min

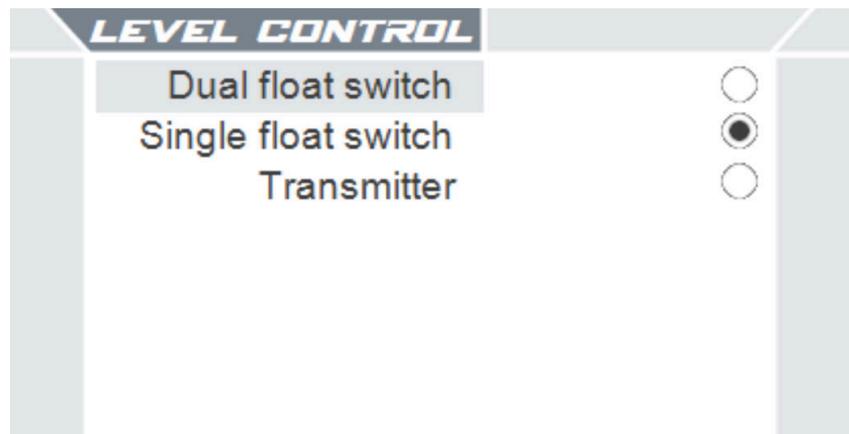
- Ramp up time – the time, at which the motor gradually turns from the minimum to the maximum set speed.
- Ramp down time – the time, at which the motor gradually stops from the maximum to the minimum set speed.
- Motor current limit – Motor protection value in amperes, exceeding this value will cause the motor to stop running, assuming it is accidentally blocked and may overheat.
- Power – Engine power kW
- Max speed – maximum motor frequency Hz
- Min speed – minimum motor frequency Hz
- Dry run power - Vacuum pump *Eco mode* settings
- Vacuum off delay - Vacuum pump delay before stop

## 6.2 Priming Mode



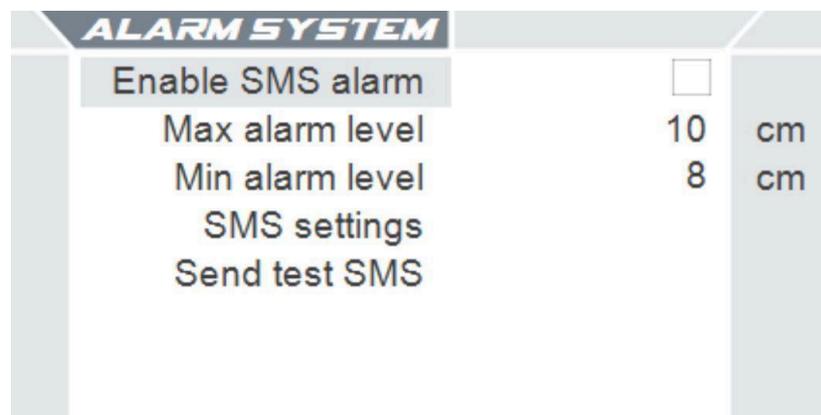
- Vacuum enable – switch on the vacuum pump
- Vacuum disable – switch off the vacuum pump
- Vacuum eco mode – automatic operation mode of the vacuum pump

## 6.3 Level Control



- Dual float switch – two float level control
- One float level control
- Hydrostatic sensor

## 6.4 Alarm System

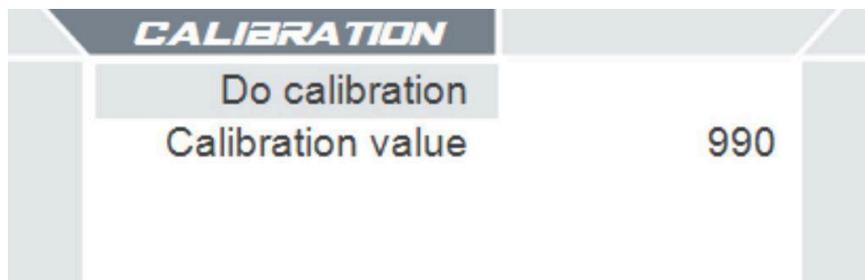


- Enable SMS alarm – turn off the alarm notifications in the form of SMS
- Max alarm level – maximum limit, at which alarm SMS is sent
- Min alarm level – minimum limit, at which alarm SMS is sent
- SMS settings – with the help of buttons 7, 8, 9 and 10 enter the required mobile phone numbers.



- Send test SMS – SMS error test

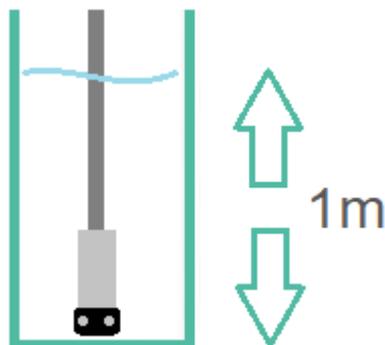
## 6.5 Calibration



- Do calibration – calibration of the hydrostatic sensor



**WARNING** – Before the use of hydrostatic sensor, it shall be calibrated by immersion in 1 m of pumping liquid and by pressing "Do calibration".



- Calibration value

## 6.6 Maintenance

MAINTENANCE			
	Manufacturer's service	364	days
		500	hours
	Operator created service	29	days
		100	hours

- Manufacturer service
- Operator created service

### 6.6.1 Manufacturer Service

MANUF			
	Days left	364	days
	Motor hours left	500	hours
	Reset		

- Days left – the number of days remaining until the maintenance specified by the manufacturer
- Motor hours left – the number of remaining engine hours until the maintenance specified by the manufacturer
- Reset

## 6.6.2 Operator Created Service

MAINT_OPER		
Days left	29	days
Motor hours left	100	hours
Enable	<input checked="" type="checkbox"/>	
Days setting	30	days
Motor hours set	100	hours
Reset		

- Days left – the number of days remaining until the maintenance
- Motor hours left – the number of remaining engine hours until the maintenance
- Enable
- Days setting – number of days
- Motor hours set – number of motor hours
- Reset

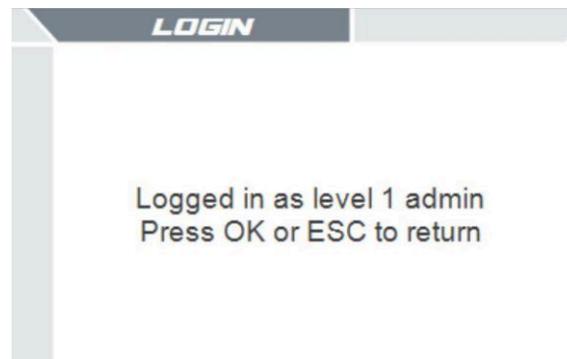
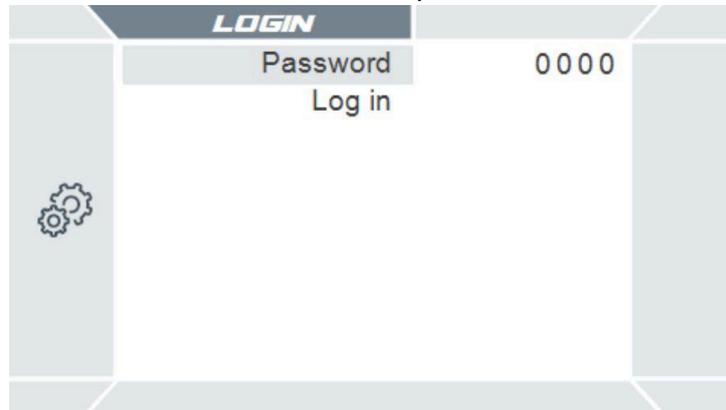
## 6.7 Software Information

INFORMATION		
Device name	AEONPUMP 0001	
SMS module status	: connected to module	
RSSI	0 dB	
GSM conn type	no data	
GSM operator	no data	
GSM conn time	no data	
v1.0		

- Device name
- SMS module status
- RSSI – Received Signal Strength Indication
- GSM conn type – GSM connection type
- GSM operator
- GSM conn time – time for how long the device works in the network
- V0.0.1 – version of the operating system

## 6.8 Log in

To be able to change the settings, one needs to log in to the system as follows:  
In the LOG IN in the section "Pasword", enter the password "1234"



## 7. Information



Information – brief technical information about the pump.

A screenshot of a control panel interface titled "PUMP INFO". The title is in a dark grey header. Below the header, there is a list of technical specifications: "Type: RAPTOR 6E", "Max flow: 400 m3/h", "Max pressure: 25m", "Connection size: 6\"", and "Solids handling: 100mm". To the right of this text is a photograph of a green and black industrial pump. Below the specifications, the text "Total running hours: 0" is displayed. The entire screen is framed by a grey border.

- Type – model of the pump
- Max flow – pump capacity m3/h
- Max pressure – maximum head
- Connection size – the size of the discharge and suction lines
- Solids handling
- Total running hours - all pump life total running hours

## 8. Lighting



Lights – lighting, exterior, interior, and beacon



- Outside lights – outdoor lighting
- Interior lights – interior pump lighting
- Beacon

## 9. Alarm history



Alarm history – History of Errors, in this section one can see current errors as well as clear them.



Full alarm history - shows the all alarm history.



Reset - reset active faults.

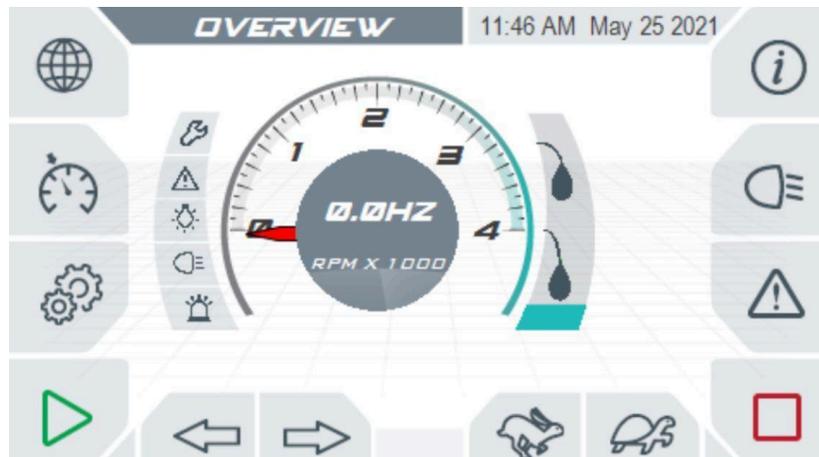
ALARMS			
	ID	name	time
1	61	VFD not ready	02:56 PM jun 28 2021
2	50	ModbusTCP comm lost	02:56 PM jun 28 2021
3	63	E-Stop pressed	02:56 PM jun 28 2021
4	52	GSM comm lost	02:58 PM jun 28 2021

ALARM LOG			
AlmID	Name	Rise time	AckTime
61	VFD not ready	02:56 PM jun 28 2021	00:00 AM jan 01 1970
62	Vacuum manual mode	02:56 PM jun 28 2021	02:56 PM jun 28 2021
50	ModbusTCP comm lost	02:56 PM jun 28 2021	00:00 AM jan 01 1970
63	E-Stop pressed	02:56 PM jun 28 2021	00:00 AM jan 01 1970
52	GSM comm lost	02:58 PM jun 28 2021	00:00 AM jan 01 1970

## 10. Change of the Main Screen

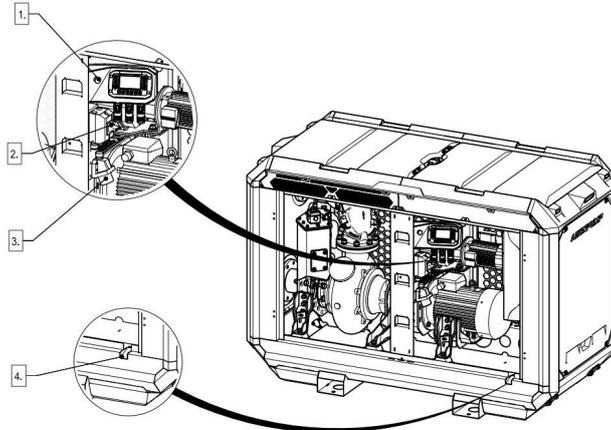


When the control panel has a main screen with buttons 7 and 8, one can change the main screen technical parameters Hz, Volts, Amperes.



## 11. Starting the Pump in Manual Mode

- To switch-on the control panel, turn on earth switch, if present, turn the main switch to the ON position, the electric pump shall be connected to the mains cable, as this pump is not equipped with a battery.



- When the main switch is turned to the ON position, the control panel starts loading the software and the following screen appears on the panel.



- When the software is loaded, the main screen appears on the control panel.



- Press the Auto/manual icon button
- In the Auto / Man window, one can together with the control panel buttons 9 and 10 set the Manual mode.

AUTO/MAN		
Manual	<input type="radio"/>	
Auto	<input checked="" type="radio"/>	
Max speed	50	Hz
Min speed	20	Hz
Max level	152	cm
Start level	60	cm
Min level	40	cm
Pump up mode	<input type="checkbox"/>	

- Confirm with the OK button.
- Use the ESC button on the control panel to return to the main screen.



- Press the button 5  START, the pump will start and will start running at idle speed. Allow the diesel pump to warm up to the operating temperature for about 2 minutes.

- With control panel buttons 9 and 10  adjust the pump speed.

- On the main screen, using control panel buttons 7 and 8  one can look at the Overview parameters of the pump.

## 12. Starting the Pump in the Automatic Mode

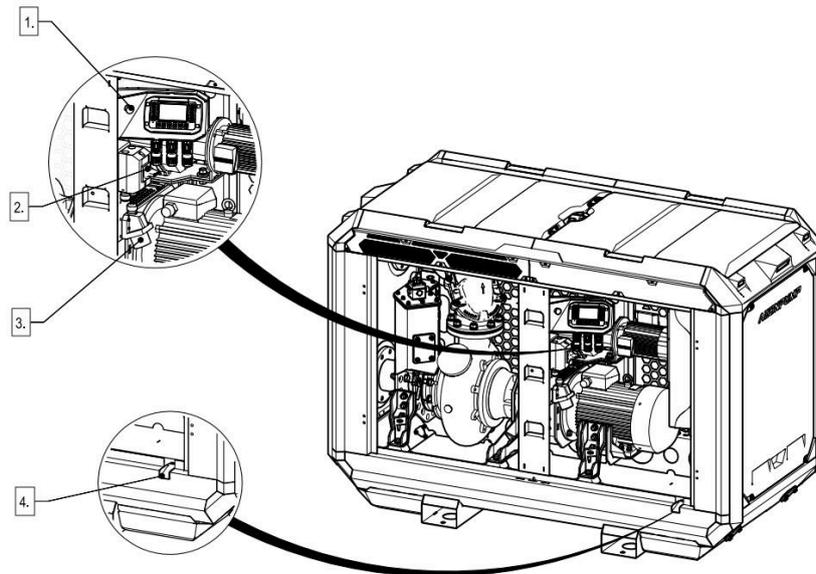


**DANGER** – Never carry out any work on the system or repair work if the pump is switched on in the automatic mode. The pump must be switched off before carrying out any work on the pump system.



**DANGER** – If atypical or unnecessary noises are made when the pump is started, stop the pump, rectify the cause, and try again! If that fails, contact Aeonpump.

- To switch–on the control panel, turn on earth switch, if present, turn the main switch to the ON position, the electric pump shall be connected to the mains cable, as this pump is not equipped with a battery.



- When the main switch is turned to the ON position, the control panel starts loading the software and the following screen appears on the panel.



- When the software is loaded, the main screen appears on the control panel.



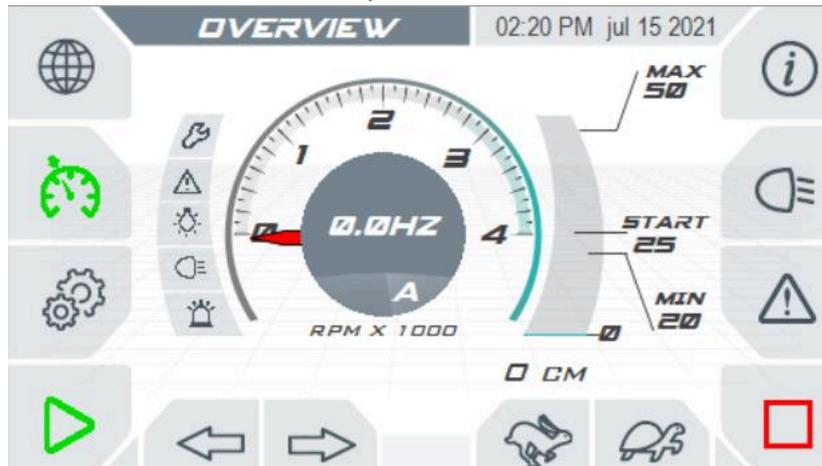
- Press the Auto/manual icon button
- In the Auto/Man window, one can together with the control panel buttons 9 and 10 set the Auto mode.

AUTO/MAN		
Manual	<input type="radio"/>	
Auto	<input checked="" type="radio"/>	
Max speed	50	Hz
Min speed	20	Hz
Max level	152	cm
Start level	60	cm
Min level	40	cm
Pump up mode	<input type="checkbox"/>	



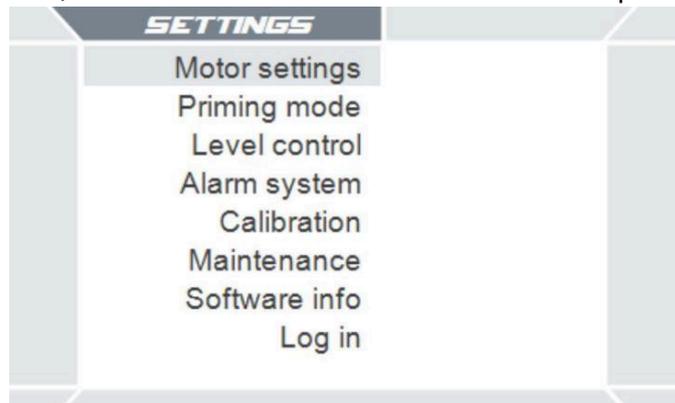
**WARNING** – If you know immediately that the transmitter option or hydrostatic sensor will be used, you shall immediately set its Minimum, Maximum and Start level values.

- Confirm with the OK button.
- Use the ESC button on the control panel to return to the main screen.

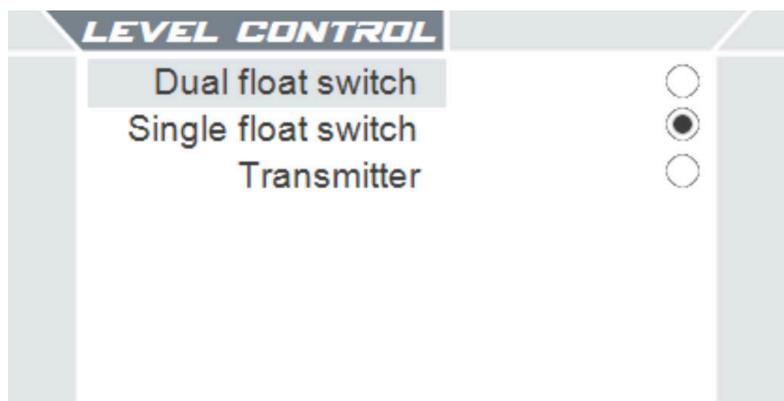


- Connect level control device (floats or hydrostatic sensor) to the pump.
- Place the floats within the required pumping range or immerse and secure the hydrostatic sensor.

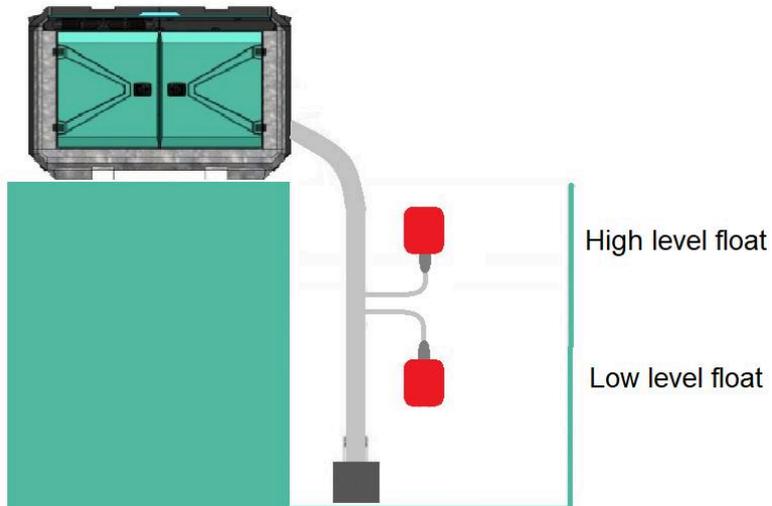
- Press Settings button 4 on the panel  , select the Level control section with the buttons 9 and 10, confirm with the OK button on the control panel.



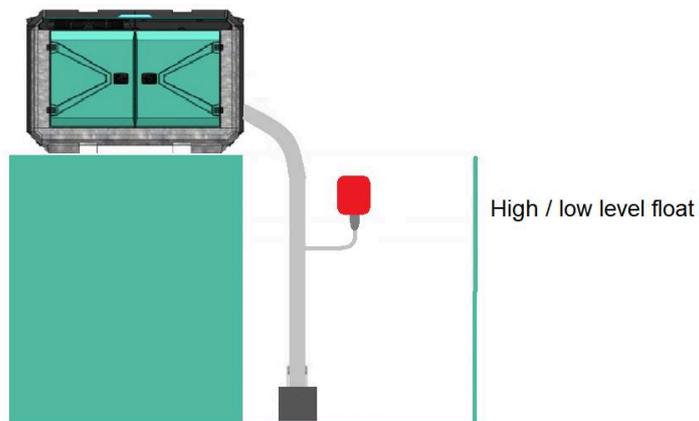
- In the Level control section, with buttons 9 and 10, select the option, with which we want to perform level control.



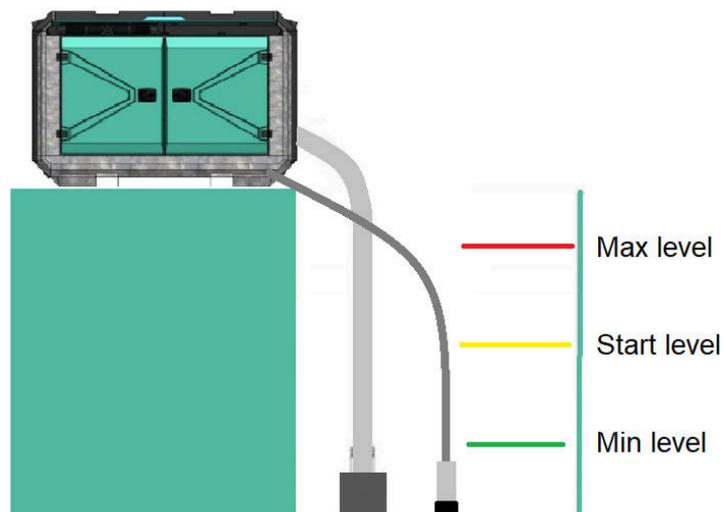
- Dual float switch – two float level control



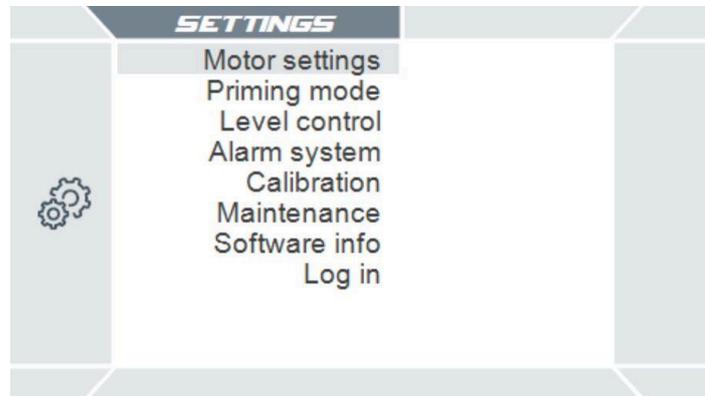
- One float level control



- Hydrostatic sensor



- Confirm your selection with the OK button on the control panel.
- Return to the Settings screen by pressing the ESC button on the Control Panel once.



- Select Motor settings with buttons 9 and 10 and confirm with OK on the control panel. (To complete this section, section 6.8 'Log in' shall be completed.)
- In the Motor section, input the necessary data

<b>MOTOR</b>		
Ramp up time	10	s
Ramp down time	10	s
Motor nom current	28.3	A
Motor max current	28.3	A
Motor nominal rpm	1475	RPM
Power	15.0	kW
Max speed	50	Hz
Min speed	25	Hz
Dry run power	10.0	kW
Vacuum off delay	10	min

- Confirm with the OK button on the control panel and exit to the main screen by pressing the ESC button on the control panel twice.



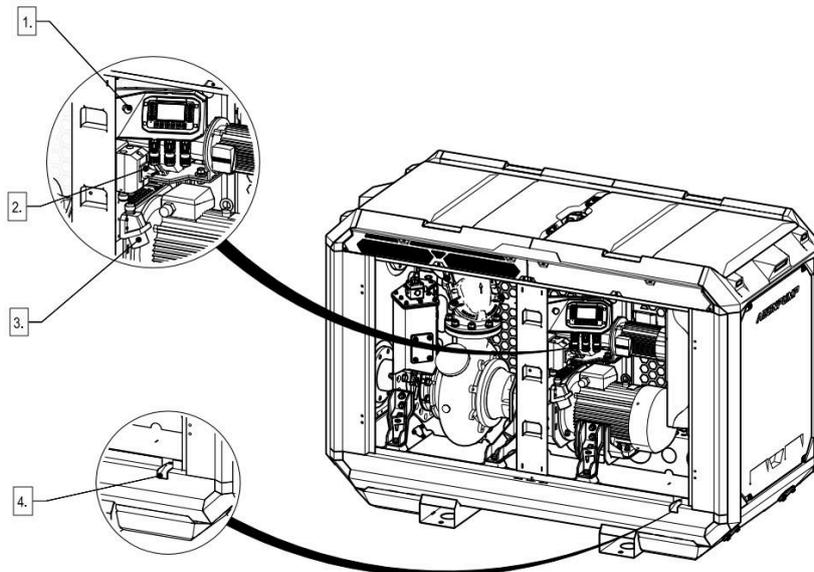
- Press the button 5  (START), the pump will only run when one of the set maximum levels is reached.
- On the main screen, using control panel buttons 7 and 8, one can look at the Overview parameters of the pump.

## 13. Stopping the Pump



**DANGER** – Never use the main switch or the Stop button to switch off the pump normally, as this can lead to dangerous situations and damage the pump.

- If the pump is running in manual mode, the motor speed shall be reduced by pressing button 10 on the pump control panel. 
- Only at nominal pump speed, switch off the pump with button 12 on the control panel 
- Turn off the main switch.



- Turn off the earth switch, if present.