Pioneering for You

Handling and Operating Manual

CKMA-HS Control Panel

CKMA-HS Control Panel Handling and Operation Manual

Contents

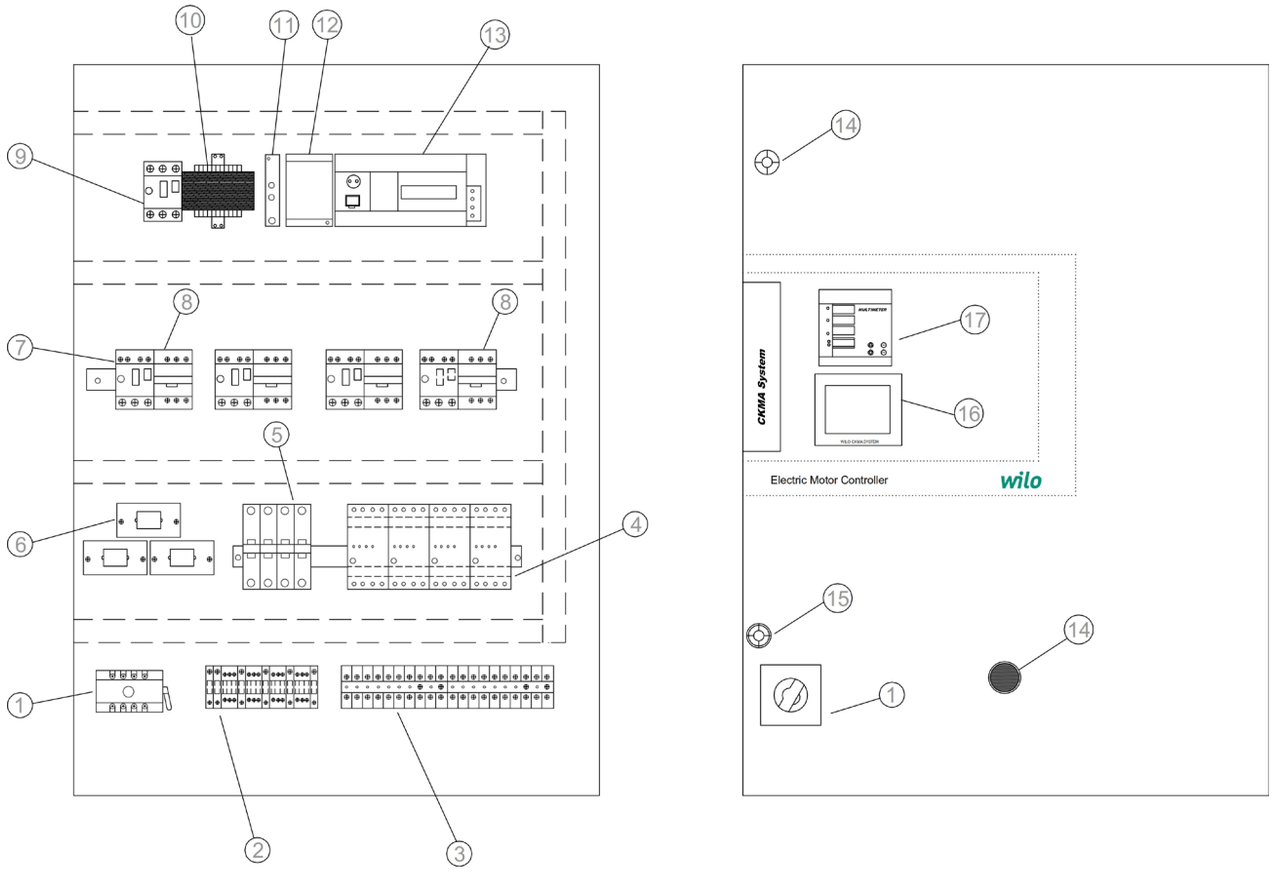


Figure: 1 (Wall Type)

1-Mains Power Switch

2-Electric terminals of Motor connection

3-Electric terminals of Control connection

4-Pump humidity sensor relay

5-Auto-manual selector switches

6-Current transformers

7-Thermal switches

8-Contactor

9-Isolation transformer thermal power switch

10-Isolation transformer

11-Phase protection relay

12-24 V DC power supply

13-PLC & Analog module

14-Emergency stop

15-Door locks

16-Touch screen

17-Digital multimeter

'' Panel design; The number of pumps may vary depending on the power and selected options "

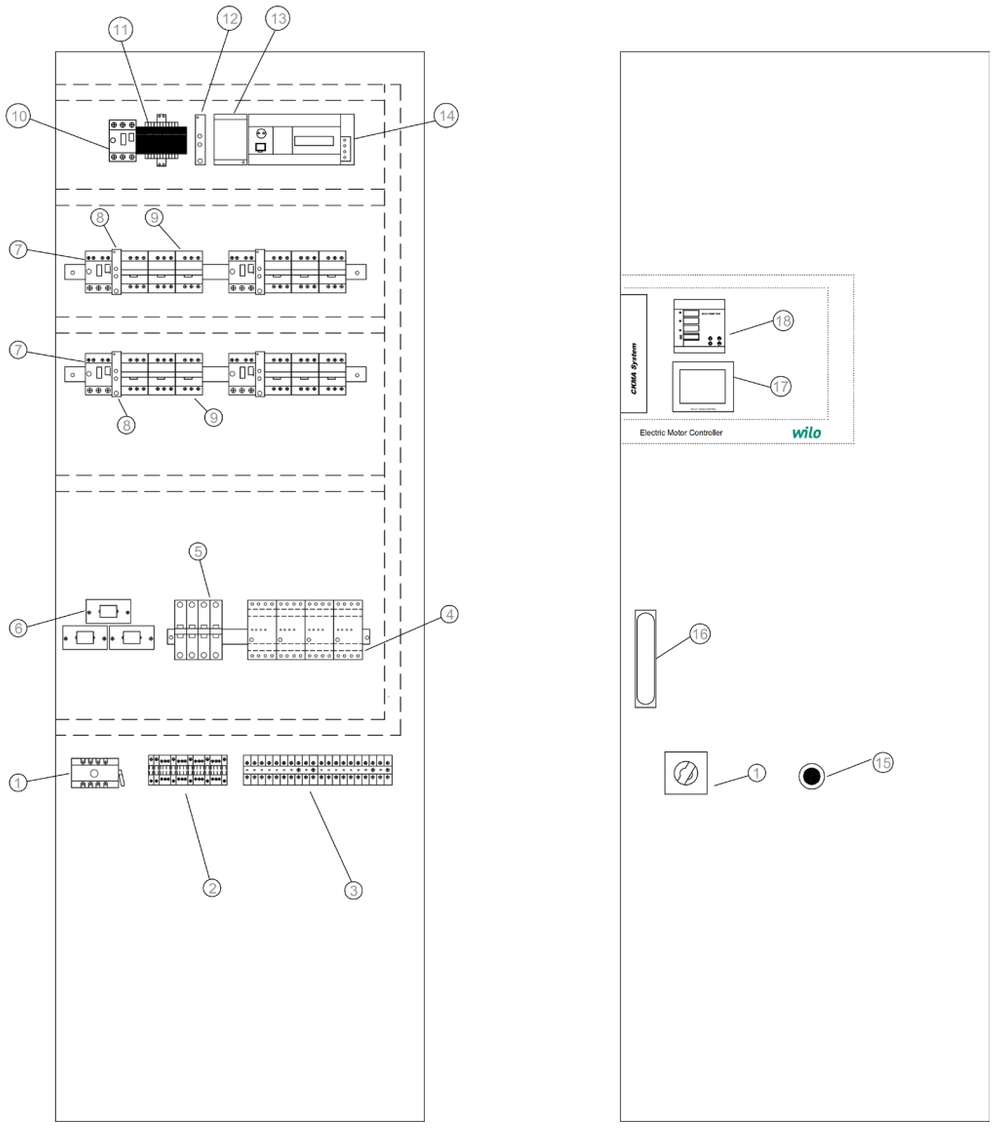


Figure: 2 (Standing Type)

1- Mains Power Switch

2- Electric terminals of Motor connection

3- Electric terminals of Control connection

4- Pump humidity sensor relay

5- Auto-manual selector switches

6- Current transformers

7- Thermal switches

8- Star Delta Relay

9-Contactor

10-Isolation transformer thermal power switch

11-Isolation transformer

12-Phase protection relays

13-24 V DC power supply

14-PLC & Analog module

15-Emergency stop

16- Door lock

17- Touch screen

18- Digital multimeter

'' Panel design; The number of pumps may vary depending on the power and selected options "

1. General

Installation and operating should only be carried out by qualified personnel!
Installation and operating instructions are part of the device. It should be available at the side of the device as a source for reference at any time. Completely observing this manual is essential for proper use of the device and proper operation . The installation and operating manual conforms to the device model and the current safety technical norms at the time of printing.

2. Safety

This user manual contains basic explanations that should be taken into account during installation and operation. For this reason, this manual must be read by the installer and the relevant operator during installation and operation. Not only the general safety instructions under this basic safety title but also the special safety instructions added under the following points must be taken into consideration.

2.1 Symbols related to explanations in the user manual

In this operating guide, the safety rules if not followed that may cause injuries and handicaps are indicated by the following symbol.

The warnings against electric shock are specified by the following symbol.

For the purpose of specifying safety rules that may cause damage to machinery, equipment or systems when not in compliance

ATTENTION!

Symbol is used.

2.2 Staff education

The personnel performing the installation must have been properly trained for these operations.

2.3 Dangerous hazards if the safety rules are not observed

Failure to comply with the safety instructions may result in personal injury and damage to the equipment. Failure to comply with the safety rules will also invalidate compensation claims that may arise due to possible injuries.
Failure to comply with the rules in general can lead to the following negative facts:
• The important functions of the equipment are disabled,
• Personnel injuries resulting from electrical or mechanical reasons.

2.4 Safety rules for operating personnel

The current legislation on the prevention of accidents should be respected. Necessary precautions should be taken against the hazards that may be caused by electricity. Hazardous electrical hazards must be considered and the directives of the local electricity distribution companies must be respected.

2.5 Safety rules for control and installation works

The business manager should ensure that all control and installation work is carried out by authorized and qualified specialist personnel and that they have information at a sufficient level regarding to the details given in the user manual. In principle, the work on the system should only be carried out when the system is in a completely stopped position.

2.6 Unauthorized modification and spare parts use

Changes to the appliance are only possible with the manufacturer's approval. The use of spare parts recommended by the manufacturer ensures that the safety is complete. The use of other parts may invalidate claims for compensation.

2.7 Unacceptable operating types

The operating safety of the supplied equipment is only guaranteed in case of operation in working condition indicated in paragraph 4 of the operating instructions. The operating limit values given in the catalog or brochures should never be exceeded.

3. Shipping and interim storage

ATTENTION!

The panel is shipped from the factory in boxes or on a pallet, protected against dust and moisture.
Receiving the product:
• The transport should be checked for damage,
• If any transport damage is detected, the transport company must make necessary initiatives.
During transport:
• Always use suitable lifting devices and take the safety nets to prevent parts from falling,

• Secure the product on a flat pallet, use a suitable pallet truck for transportation.
• Never stop under suspended loads, use a cage during lifting and secure the product straight into the cage.
• Ensure that the panel is stable and stable in storage and transport, and before the installation work in a safe place. The control unit must be protected against nausea and mechanical damage.

ATTENTION! The control unit must be protected against humidity and mechanical damage. Environment between -10 ° C and + 50 ° C Should not be used except this temperature range

4. Purpose of use

Automatic control of solid separation pump system with maximum 4 pumps, with 4-20 mA analog level sensor and level float.

5. Product information

5.1 Application

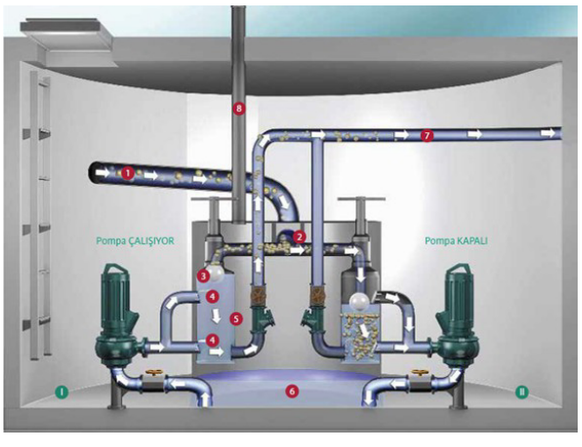
Automatic control of solid separation pumping system with maximum 4 pumps, with 4-20 mA analog level sensor and level float.

5.2 Panel Coding Sample

Sample : CKMA-HS 2X2.2 DOL

CKMA-HS	Solid separation pumping system
2	Number of pumps
2.2	Nominal power of each pump P2 [kW
DOL	Direct starter
SD	Star Delta starter
FC	With frequency converter
SS	With softstarter

5.3 Working Principle



1. Filling line
2. Distribution line
3. Closing ball
4. Separation valves
5. Solids separation tank
6. Collection chamber
7. Discharge line
8. Ventilation

System is designed as 1 + 1, 2 + 1, 3 + 1.
1 pump will be waiting in the continuous reserve. The hydrostatic level sensor in the collection chamber converts the wastewater level inside the chamber to a 4-20 mA signal and sends it to the PLC within the panel. When the water level reaches the level entered from the display, the control panel energizes the pump according to the When the water level drops to the set stop level, the pump is switched off.

5.4 Product Features / Benefits

- Lockable main switch
- Manual-0-Automatic switch
- Phase protection
- Auto test
- Emergency stop
- External on/off
- General operation / General fault signals
- Individual operation / Individual fault signals
- Automatic pump change in case of failure
- Color touch screen for all values and operating status
- Delay times of pump on and off
- Individual operating/recovering hours of pumps
- Resetting the pump operating time
- Automatic pump replacement
- Total time of system operation
- With the digital multimeter, voltage, ampere and Hz values of the system can be monitored
- Moisture sensor relay for motor water leaks
- Setting external setpoint with 4-20mA
- External 4-20mA flowmeter input
- 4-20 mA level signal output
- Spare level sensor input
- Digital-Analog signal tracking
- Maintenance settings by date and time
- Set history tracking
- Last 100 alarm can be seen
- Graphic monitoring screen
- Advanced options and operation options
- Protection class IP65
- External lighting output
- Insulated transformer
- Inside interior lighting
- Cooling fan
- Heater
- Suitability for pneumatic valve connection
- Drain pump feature
- External spare fuse output
- External fan output

5.4.1 Control and Signal Functions

- Operation / stop with external free contact
- SSM general fault signal
- SBM general operation signal
- Individual error signal for each pump
- Individual operation signal for each pump
- Horn output 24 VDC
- Max. Level of free contact output

5.4.2 Bus Types

- Modbus
- Ethernet + Web gate

5.5 Equipment used in Panel

The structure of the control panel is designed according to power of connected pumps.

- Main switch: It switches the control device on / off. (Fig. 1 and 2, no.1)
- Current transformer (Fig. 1 and 2, no.6)
- Phase sequence relay (Fig. 1- no.11 and Fig. 2- no.12)
- Touch screen: Operational data (see. Menus) and operation The status is indicated by the color change of the background lighting. It provides menu selection and parameter entry via the touch screen. (Fig.1 No:16, Fig.2 No:17)
- Memory programmable logical controler (PLC): The network is made up of modular construction. (Fig.1 No:13 Fig.2 No:14)
- Power supply: 24V DC power supply (Fig.1 No:12, Fig2 No:13)

• Protective / protection combinations:There are safeguards for the operation of the pumps: Overcurrent fuse thermal isolator (current rating: 0.58 IN) Time relay and contactors for star-to-delta transformation. (Fig.1 No: 7 Fig.2 No:7-9)

• Manual-0-automatic switch: Switch for selection of pump operation types. (Fig.1 and Fig.2 No:5) "Manual" (emergency operation on mains/test operation: motor protection available)"0" (pump off - can not be activated via PLC) "automatic" (pump is released via PLC for automatic operation)

• Emergency stop button

ATTENTION!

The emergency stop button does not interrupt the power supply,only stops the operation of the system. When you intervene to the control panel, cut off the input power supply. (Figure 1 No:20, Figure 2 No:18)

Technicial Specifications	
Mains supply voltage (V)	3~400 V, 50/60 Hz
Nominal current (A)	See. Product label
Protection type	IP54
Maximum permissible ambient temperature	50 °C
Mains insurance	According to the circuit plan

5.6 Delivery scope

• Control panel - WILO CKMA-HS
• Electrical Circuit Diagram
• Installation and operating instructions

5.7 Options / Accessories

CKMA-HS system can optionally be equipped with the options listed below. They must be ordered exclusively. The connection of the pumps must be carried out on the contact site in accordance with the circuit diagram,
• GSM module
• GPRS module
• Thermal magnetic breaker
• Leakage current protection relay
• Frequency converter
• Soft starter
• UPS
• Surge arresters
• In-board socket 220V-380V

6.Electrical connections

The electrical connection must be carried out by trained personnel in accordance with the regulations of the regional electricity distribution company.

Network connection:
Explanations regarding the installation and operating instructions of the whole equipment must be taken into account.
Pump network connections

ATTENTION!

Take into account the installation and operating instructions of the pump!

6.1 Pressure sensor

According to the installation and operating instructions, connect the 4/20 mA pressure sensor to the terminals according to the circuit diagram. Use shielded cable, place shield in one-sided circuit box

ATTENTION!

Do not apply external voltage to the terminals!

6.2 External on / off circuit:

According to the circuit plan, the tele (remote) on / off circuit can be connected via the potential free contact (opener) after the bridge has been removed with the corresponding terminals (pre-assembled by the factory).

External on / off circuit	
Contact off	Auto ON
Contact on	Auto OFF, reporting on the screen with a symbol.
Contact load	24 VDC / 10 mA

ATTENTION!

Do not apply external voltage to the terminals!

6.3 Dry running protection

According to the circuit plan, the dry running protection circuit can be connected via the potential free contact (opener) after the bridge has been removed with the corresponding terminals (pre-assembled by the factory).

Dry running protection	
Contact off	Water level is ok
Contact on	Water level is not ok
Contact load	24 VDC / 10 mA

ATTENTION!

Do not apply external voltage to the terminals!

7. Operation

We recommend that the device be operated by WILO Customer Service. Before the first commissioning, the cables on the side of the building must be checked for proper connection and especially grounding. The individual precautions must be taken from the installing and operating guide for the complete equipment.

ATTENTION!

All connection terminals must be tightened before commissioning.
Do not cover the fan inlet and outlet filters.

7.1Factory settings

Preset of the control panel was made in the factory. The factory setting can be recreated by the WILO Service.

7.2 Control of motor rotation

The motor is manually started. If labelled current is equal or close to value, direction of motor rotation is considered correct. If current is less than labeled current, this means that the motor is in the opposite direction. If the motor is vibrating and making too much noise, there is a possibility that the motor is in the opposite direction. From the panel screen the water levels must be monitered and the decrease in water levels must be noted. If the water levels are dropping slowly the motor is in opposite direction, if the water leves are dropping rapidly then the motor rotation is right.

8. Maintenance

Periodic maintenance and repair works are only carried out by WILO Pompa Sistemleri A.Ş. By qualified personnel who are authorized and authorized by the authorized service department!

There is a life-threatening hazard due to electric shock when working on electrical devices.

• During all maintenance and repairs, the control unit must be switched off and must be picked up in such a way that it can not be re-started by unauthorized personnel.
• Damage that may occur in the connection cable may only be rectified by a qualified electrician.
The following maintenance by the user must be visually checked once a month;
• The control cabinet must be kept clean,
If dusting occurs, it should be cleaned with a dry cloth outside the panel.
• The filter elements in the fans should be checked by removing the fan cover by means of the tabs on the fan without opening the panel cover, cleaned with air and cleaned if necessary.

ATTENTION!

The leakage current protection relay must be installed in the power line where the control panel is connected.

Do not cover the fan inlet and outlet filters.

9. Spare parts

Spare parts Is ordered through the services authorized by WILO Pompa Sistemleri A.Ş..
The spare parts list is on the back page of the electricity project.

10. Authorized services

You can find a list of services authorized by WILO Pompa Sistemleri A.Ş. :
http://www.wilo.com.tr/anasayfa/servis-destek/yetkili-servisler/

11. Misuse

• The control panel cover must be kept closed and locked.
• Do not switch off the power supply switch of the control panel except for periodic maintenance (controlled conditions).
• Do not intervene in the panel without interrupting the power supply.
• Do not place any material on or in front of the control panel.
• By inserting an isolated carpet in front of the control panel and pressing on the carpet
Interfere with the board.
• Do not pull the power supply line out of the control cabinet.

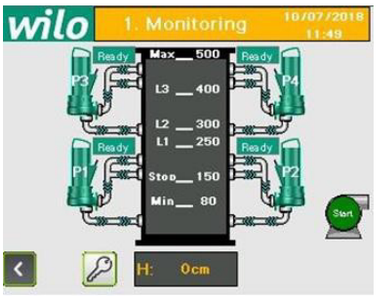
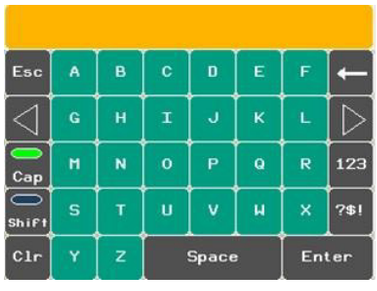
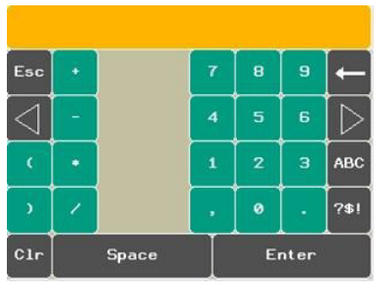
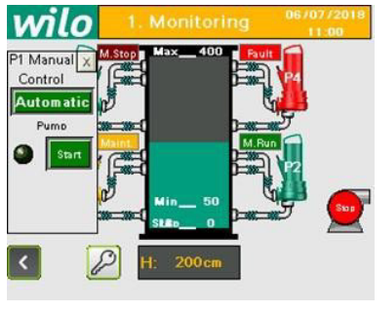
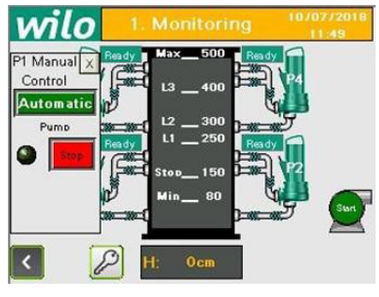
12. Safety and Environmental Instructions

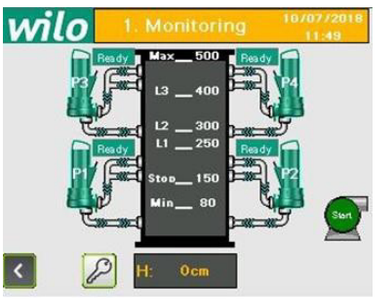
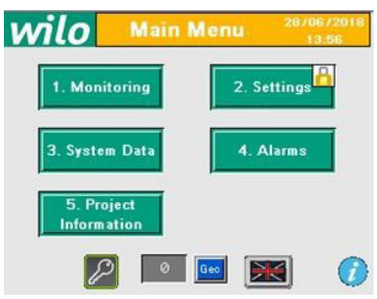
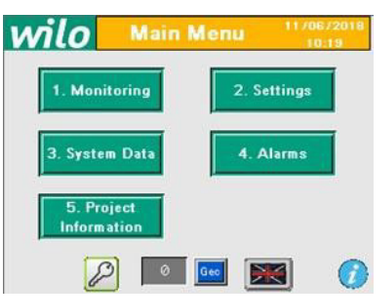
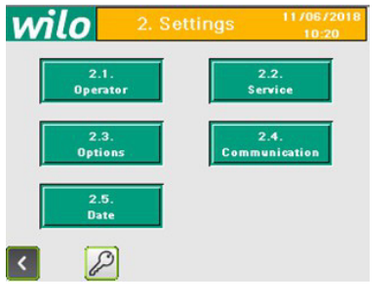
Waste disposal and Complying with WEEE Regulation on Control of Hazardous Wastes:
This product is in accordance with EU WEEE Instructions(2012/19/EU). This product includes a symbol that is used for management of waste from electric and electronical equipment. Within the European Union this symbol may be present on the product, packing or its relative manual. This symbol means that the relevant electric or electronic product must not be disposed alongside household waste products. The relevant products must be transported,recycled or disposed of according the following statements:
• These products must only be handed over to a certified disposal center.
• Comply with local law at all times! For the proper disposal procedure please contact local authorities, nearest disposal center or the dealer where you have made your purchase. For more information on recycling visit; http://www.wilo-recycling.com .

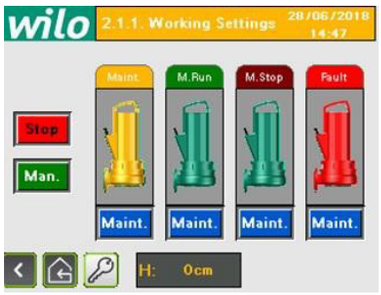
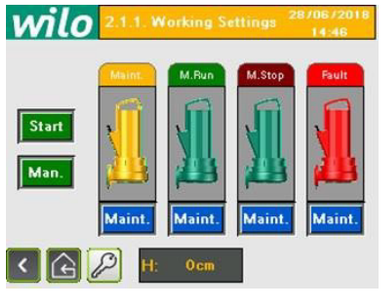
Packing Information Ambalaj Bilgileri : Packaging of this product is made from recycleable materials that comply with National Environmental Legislation. Do not dispose of packaging materials with household or other waste. Take these materials to recycling points designated by local authorities.

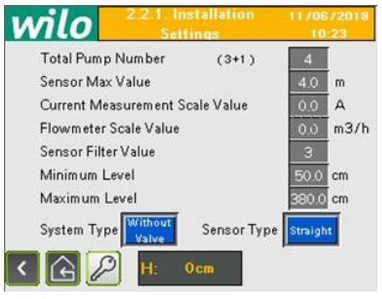
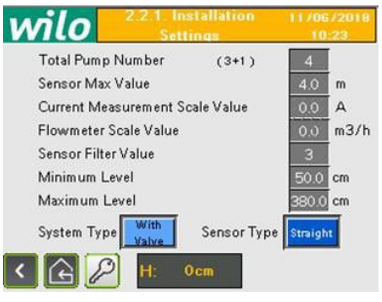
Technical differences may apply!

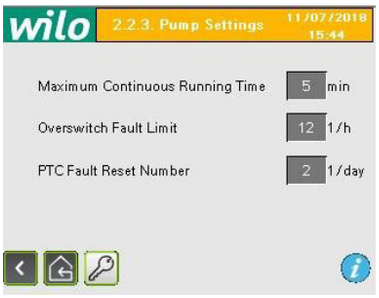
13. Screen Views and Explanations

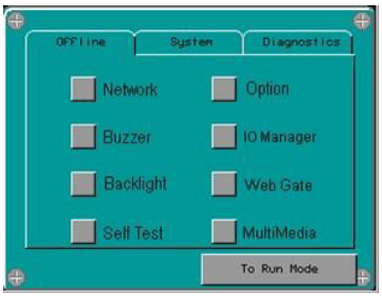
Screen View	Descriptions
	1. Monitoring page After the panel is energized the Monitoring page is opened. This page includes: the current water height, operation / failure conditions of the pumps, monitoring of the system, warnings and manual operation of the pumps.
	Manual operation of the pumps Pumps can be operated manually by touching the pump images on the monitoring page. To do this, the user must first be selected and the corresponding user password must be entered. Follow these steps to enter your password; Touch the button on the monitoring screen. The password entry screen appears after the user is selected. Touch the 123 button to open the keypad with numbers. Touch the Enter button after entering the password. The monitoring screen opens automatically after the Enter button is touched. Touching the pump image in the monitoring screen opens a small screen to manually control the pump. Valves must be opened manually before manual operation of the pump (only for the system with valve).
	
	
	
	

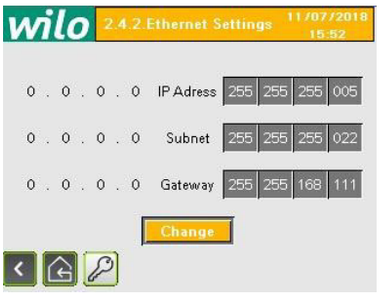
Screen View	Descriptions
 	**Main menu** In order to open the main menu, touch the button at the bottom left of the monitoring page.
	**2. Settings page** The service password or the operator password is entered by touching the 2. Settings button on the main menu.
 	**2.1. Operatör settings page** Touching the 2.1. Operatör button on the Settings page opens the Operator Settings page.

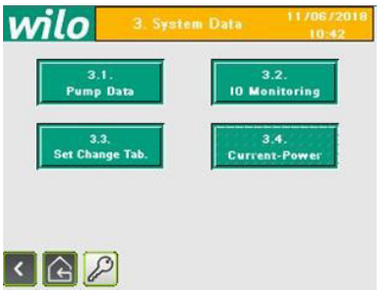
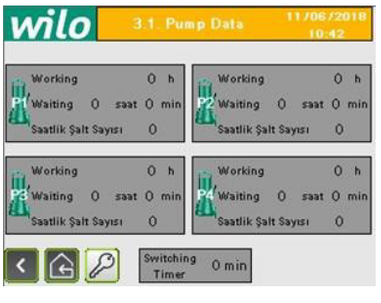
Screen View	Descriptions
 	**2.1.1. Working settings page** The working settings page is accessed by touching the  button on the Operator Settings page. Pumps can be operated manually and put into maintenance mode via this page. Touch the  button below the pump image to put the pump into maintenance mode. Valves must be opened manually before manual operation of the pump (only for the system with valve).
	**2.1.2. Level setting page** The level settings page is reached by touching the  button on the Operator Settings page. One stop level and the working levels are entered via this page as much as the number of pumps. When the water level reaches each of these entered operating levels, 1 pump runs in sequence. If the pump does not provide enough water level to reach the working level 2, the 2nd pump runs in the order. When the water level begins to drop and falls below the stop level, the pumps are deactivated.

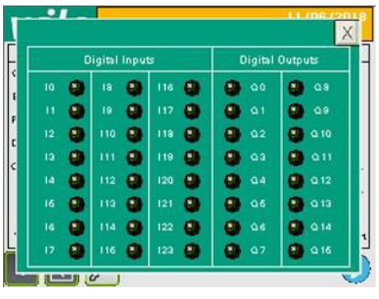
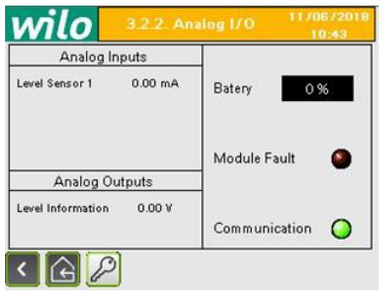
Screen View	Descriptions
	**2.2. Service settings page** The service settings page is accessed by touching the  button on the settings page.
 	**2.2.1. Installation settings page** The installation settings page is accessed by touching the  button on the Service settings page. Installation of the system is done via this page. Enter the value by pressing the corresponding figure. Number of pumps in the system to the total pump number, Sensor max. value is the maximum measured value of the sensor in the system (example 10 mt), In systems where current is measured the current measurement scale value is entered, Measuring range of flowmeter to flowmeter scale value, Analog sensor's detection sensitivity time is entered to sensor filter value. System type button is touched and the system is selected with or without valve. Sensor type is the part where the sensor is selected as straight or reverse. The straight sensor is usually selected for systems with hydrostatic sensors, and for inverted systems with ultrasonic sensors.
 Picture-a  Picture-	**2.2.2. Delay time settings** The time settings page is reached by touching the  button on the Service settings page. Time settings of the system are made on this page. Enter the value by touching on the corresponding number. If the system is selected with valve, the page will open as in Picture-a. If no-valve is selected, the page will open as in Picture-b. Pump take in delay time; pumps are activated after this delay when needed. Valve closed wait time; the system automatically sends the close command after this delay, if the closed signal does not come from the valve after the entered time, the error is displayed. Pump take out delay time; when not needed, the pumps are deactivated after this time. Valve opening delay time; if the opened signal does not come from the valve after the entered time, the error is displayed. Pump run feedback fault delay time; This time is counted after the command is run to the pump and if after this time the pump does not run then the system fails. Valve defected delay time; if the valve is opened and no signal is received at the end of the closed period, the system will give an error after counting this time.

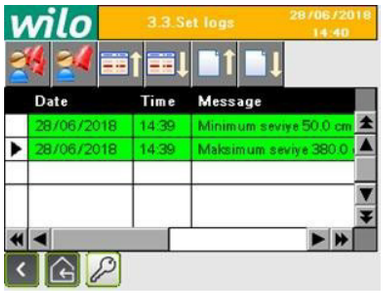
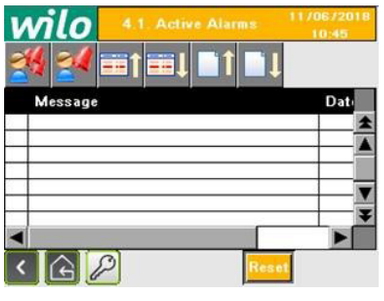
Screen View	Descriptions
	**Help pages** The help pages are accessed by touching the  buttons in the lower right corner of the menu pages. The help page contains descriptions about the currently open page.
 	**2.2.3. Pump settings page** The pump settings page is accessed by touching the  button on the Service settings page. Operation of the pumps is done via this page and the value is entered by pressing the corresponding figure. If any pump runs without stopping until the maximum continuous running time, the running pump stops and another pump starts running. Overswitch fault limit; If the pump enters the number of times entered in an hour then the system will fail. The number of PTC fault reset; the errors that are received during the day are automatically reset as the number entered here.
	**2.2.4. Working hours settings page** The run time settings page is accessed by touching the  button on the Service settings page. This page monitors the working and waiting times of the pumps and resets them.

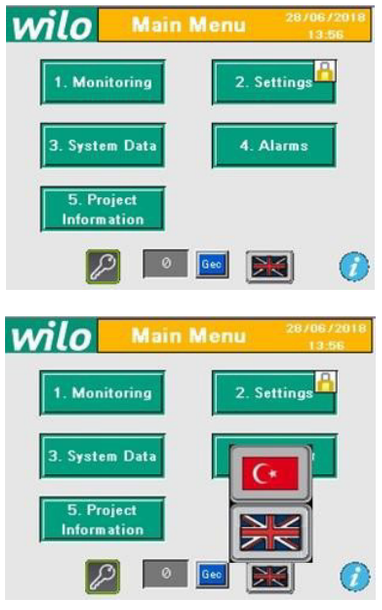
Screen View	Descriptions
 	**2.2.5. Screen settings page** Screen settings page is accessed by touching the 2.2.5. Screen button on the Service settings page. Screen saver settings are made on this page.
	**Screen configuration** The panel settings page is accessed by touching the Screen Conf. button at the bottom of the screen settings page. This page adjusts the touch sensitivity of the screen.
	**2.2.6. Routine maintenance settings page** Routine maintenance settings page is accessed by touching the 2.2.6. Maint. Routine button on the service settings page. The next maintenance date and time are entered on this page. After maintenance press the Time Reset button for start the time again.

Screen View	Descriptions
	**2.3. Options page** The options page is accessed by touching the 2.3. Options button on the Settings page. This page selects the optional features in the system. If these features are added to the system, they must be activated from this page.
	**2.4. Communication page** The communication page is accessed by touching the 2.4. Communication button on the Settings page.
	**2.4.1. Modbus settings page** The Modbus settings page is accessed by touching the 2.4.1. Modbus button on the Communication page. Modbus communication address and speed settings are entered via this page.
	**2.4.2. Ethernet settings page** The Ethernet settings page is accessed by touching the 2.4.2. Ethernet button on the Communication page. Ethernet communication settings are entered via this page.

Screen View	Descriptions
	**2.4.3. GSM settings page** The GSM settings page is accessed by touching the 2.4.3. GSM button on the Communication page.
	**2.5. Date & Time settings page** The Date and Time Settings page is accessed by touching the 2.5. Date button on the Settings page. The date to be set via this page is entered and the Change button is touched.
	**3. System data page** The system data page is accessed from the Main menu page by touching the 3. System Data button. Pages that can be viewed about the system data are accessed via this page.
	**3.1. Pump data page** The pump data page is accessed from the System data page by touching the 3.1. Pump Data button. The working / waiting times of the pumps are monitored from this page.

Screen View	Descriptions
	**3.2. I/O Monitoring page** The I / O Monitoring page is accessed from the System data page by touching the 3.2. IO Monitoring button. This page provides access to the pages on which analog / digital inputs and outputs can be viewed on the PLC.
 	**3.2.1. Digital I/O page** The digital I / O page is accessed by touching the 3.2.1. Digital I/O button on the I / O Monitoring page. The physical digital inputs and outputs on the PLC are monitored from this page.
	**3.2.2. Analog I/O page** The Analog I / O page is accessed by touching the 3.2.2. Analog I/O button on the I / O Monitoring page. Analog inputs and outputs on the PLC are monitored from this page. It is also possible to watch the battery level, analog module error and communication.

Screen View	Descriptions
	**3.3. Set logs page** Set changes page is accessed by touching the 3.3. Set Change Tab. button on the System data page. This page displays the water level set changes made previously. On this screen, it is possible to monitor 100 sets of past changes.
	**4. Alarms page** The Alarms page is accessed from the System data page by touching the 4. Alarms button. This page contains buttons for Active alarms and History alarms.
	**4.1. Active alarms page** The active alarms page is accessed by touching the 4.1. Active Alarms button on the Alarms page. This page monitors current alarms in the system.
	**4.2. Alarm history page** The alarm history page is accessed by touching the 4.2. Alarm History button on the Alarms page. This page displays previously created and resetted alarms. This screen can display up to 100 alarms.

Screen View	Descriptions
	**5. Project informations page** The project data page is accessed by touching the 5. Project Information button on the Home page. In this page; the project name, project author and PLC firmware information is monitored.
	**Changing the system language** To change the system language, touch the  button on the Home screen and touch the flag image to be changed.

13. Failure causes and possible solutions

Definition of Problem	Possible reasons	Solution recommendation
Pump operates short time and stops	Ground is not connected	Connect the grounding cable.
	The sensor reads incorrectly or interrupts the signal	Check the sensor cable.
	May Sensor value not entered or entered wrong	Enter the sensor type-meter setting from the Level settings-3 page.
Analog sensor / Analog module fault	Sensor cable faulty	Change the cable.
	Sensor may be faulty	Disconnect the sensor cable ends from the panel sensor (2) k ohm resistor is connected instead, if the error is erased the sensor is faulty
	Sensor cable ends are reversed	Replace the sensor cable ends.
Height of water read on the panel with actual water height is different	Sensor values may be misrepresented. The sensor value can be set low or high to allow equal perception	Enter the sensor type-meter setting from the Level settings-3 page.
	PLC analog input faulty	Replace the analog module.
Triangle mark on screen	PLC can not communicate, PLC program may be deleted or there is a problem with communication cables	Check the communication cable, try to reload the program if the problem persists
No text or images on screen	No display power supply.	The power supply should be checked if the display supply does not measure 24VDC.
There is no fault on the screen, system doesn't work.	Pumps left manually	Set pump to automatic position from manual control page
Earth fault and motor short circuit faults	Motor winding problems	The motor windings are measured.
	Short circuit in contactor	The contactor is changed.
	Touching the housing in the cables	A short-circuit check is performed and it is resolved if necessary.
	There may be looseness in the terminals.	Check the terminals.

GARANTİ BELGESİ

Bu belge 6502 sayılı Tüketicinin Korunması Hakkında Kanun ve Garanti Belgesi Yönetmeliği'ne uygun olarak düzenlenmiştir.

GARANTİ ŞARTLARI

1. Garanti süresi, malın teslim tarihinden itibaren başlar ve 2 **yıldır.**

2. Malın bütün parçaları dahil olmak üzere tamamı garanti kapsamındadır.

3. Malın ayıplı olduğunun anlaşılması durumunda tüketici, 6502 sayılı Tüketicinin Korunması Hakkında Kanunun 11 inci maddesinde yer alan;

a- Sözleşmeden dönme,

b- Satış bedelinden indirim isteme,

c- Ücretsiz onarılmasını isteme,

ç- Satılanın ayıpsız bir misli ile değiştirilmesini isteme,

haklarından birini kullanabilir.

4. Tüketicinin bu haklardan ücretsiz onarım hakkını seçmesi durumunda satıcı; işçilik masrafı, değiştirilen parça bedeli ya da başka herhangi bir ad altında hiçbir ücret talep etmeksizin malın onarımını yapmak veya yaptırmakla yükümlüdür. Tüketici ücretsiz onarım hakkını üretici veya ithalatçıya karşı da kullanabilir. Satıcı, üretici ve ithalatçı tüketicinin bu hakkını kullanmasından müteselsilen sorumludur.

5. Tüketicinin, **ücretsiz onarım hakkını** kullanması halinde malın;

- Garanti süresi içinde tekrar arızalanması,
- Tamiri için gereken azami sürenin aşılması,
- Tamirinin mümkün olmadığının, yetkili servis istasyonu, satıcı, üretici veya ithalatçı tarafından bir raporla belirlenmesi durumlarında;

tüketici malın bedel iadesini, ayıp oranında bedel indirimini veya imkân varsa malın ayıpsız misli ile değiştirilmesini satıcıdan talep edebilir. Satıcı, tüketicinin talebini reddedemez. Bu talebin yerine getirilmemesi durumunda satıcı, üretici ve ithalatçı müteselsilen sorumludur.

6. Malın tamir süresi **20 iş gününü** geçemez. Bu süre, garanti süresi içerisinde mala ilişkin arızanın yetkili servis istasyonuna veya satıcıya bildirimi tarihinde, garanti süresi dışında ise malın yetkili servis istasyonuna teslim tarihinden itibaren başlar. Malın arızasının **10 iş günü** içerisinde giderilememesi halinde, üretici veya ithalatçı; malın tamiri tamamlanıncaya kadar, benzer özelliklere sahip başka bir malı tüketicinin kullanımına tahsis etmek zorundadır. Malın garanti süresi içerisinde arızalanması durumunda, tamirde geçen süre garanti süresine eklenir.

7. Malın kullanma kılavuzunda yer alan hususlara aykırı kullanılmasından kaynaklanan arızalar garanti kapsamı dışındadır.

8. Tüketici, garantiden doğan haklarının kullanılması ile ilgili olarak çıkabilecek uyuşmazlıklarda yerleşim yerinin bulunduğu veya tüketici işleminin yapıldığı yerdeki **Tüketici Hakem Heyetine veya Tüketici Mahkemesine** başvurabilir.

9. Satıcı tarafından bu **Garanti Belgesinin** verilmemesi durumunda, tüketici **Gümrük ve Ticaret Bakanlığı Tüketicinin Korunması ve Piyasa Gözetimi Genel Müdürlüğüne** başvurabilir.

Üretici veya İthalatçı Firma:
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Faks :
E-posta :
Fatura Tarih ve Sayısı :
Teslim Tarihi ve Yeri :
Yetkilinin İmzası :
Firmanın Kaşesi :

Malın
Cinsi : ELEKTRİK PANOSU
Markası : WILO
Modeli :

Malın
Garanti Süresi : 2 yıl
Azami Tamir Süresi : 20 iş günü
Bandrol ve Seri No :

GARANTİ İLE İLGİLİ OLARAK
MÜŞTERİNİN DİKKAT ETMESİ GEREKEN HUSUSLAR

WILO Pompa Sistemleri San. ve Tic. A.Ş. tarafından verilen bu garanti, aşağıdaki durumları kapsamaz:

1. Ürün etiketi ve garanti belgesinin tahrif edilmesi.
2. Ürünün kullanma kılavuzunda yer alan hususlara aykırı ve amaç dışı kullanılmasından meydana gelen hasar ve arızalar.
3. Hatalı tip seçimi, hatalı yerleştirme, hatalı montaj ve hatalı tesisattan kaynaklanan hasar ve arızalar.
4. Yetkili servisler dışındaki kişiler tarafından yapılan işletmeye alma, bakım ve onarımlar nedeni ile oluşan hasar ve arızalar.
5. Ürünün tüketiciye tesliminden sonra nakliye, boşaltma, yükleme, depolama sırasında fiziki (çarpma, çizme, kırma) veya kimyevi etkenlerle meydana gelen hasar ve arızalar.
6. Yangın, yıldırım düşmesi, sel, deprem ve diğer doğal afetlerle meydana gelen hasar ve arızalar.
7. Ürünün yerleştirildiği uygunsuz ortam şartlarından kaynaklanan hasar ve arızalar.
8. Hatalı akışkan seçimi ve akışkanın fiziksel veya kimyasal özelliklerinden kaynaklanan hasar ve arızalar.
9. Gaz veya havayla basınçlandırılmış tanklarda yanlış basınç oluşumundan kaynaklanan hasar ve arızalar.
10. Tesisat zincirinde yer alan bir başka cihaz veya ekipmanın görevini yapmamasından veya yanlış kullanımından meydana gelen hasar ve arızalar.
11. Tesisattaki suyun donması ile oluşabilecek hasar ve arızalar.
12. Motorlu su pompasında kısa süreli de olsa kuru (susuz) çalıştırmaktan kaynaklanan hasar ve arızalar.
13. Motorlu su pompasının kullanma kılavuzunda belirtilen elektrik beslemesi toleranslarının dışında çalıştırılmasından kaynaklanan hasar ve arızalar.

Yukarıda belirtilen arızaların giderilmesi, ücret karşılığında yapılır.

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