This manual contains safety information that if ignored can endanger life or result in serious injury. They are indicated by this icon.

Keep the controller protected from sun and water.
Avoid water splashes.

OPERATING INSTRUCTIONS FOR "LDOSIN PLUS" Controller SERIES

PRINTED ON RECYCLED PAPER • PRINTED ON RECYCLED PAPER •

Read Carefully !

ENGLISH Version

R16-03-19

NORME CE
EC RULES(STANDARD EC)
NORMAS DE LA CE

Direttiva Bassa Tensione
Low Voltage Directive
Directiva de baja tensión
2014/35/UE

Direttiva EMC Compatibilità Elettromagnetica
EMC electromagnetic compatibility directive
EMC directiva de compatibilidad electromagnética
2014/30/UE

GENERAL SAFETY GUIDELINES

Danger! In emergencies the instrument should be switched off immediately! Disconnect the power cable from the power supply!

When installing always observe local regulations!

Manufacturer is not liable for any unauthorized use or misuse of this product that may cause injury, damage to persons and / or materials.

Caution! Instrument must be accessible at all times for both operating and servicing. Access must not be obstructed in any way!

Feeder should be interlocked with a no-flow protection device to automatically shut-off the pumps when there is no flow!

Pumps and accessories must be serviced and repaired by qualified and authorized personnel only!

Always discharge the liquid end before servicing the instrument!

Empty and rinse the liquid end before work on a pump which has been used with hazardous or unknown chemicals!

Always read chemical safety datasheet!

Always wear protective clothing when handling hazardous or unknown chemicals!

Instrument must be operated / serviced by trained technicians only!

All connection operations must be performed while the instrument is not connected to main supply!

Missed activation for Min/Max alarm and Maximum Dosing Alarm may cause hazardous overdosing!

1. Introduction

LDOSIN PLUS is a digital controller for the water treatment through the REVERSE OSMOSIS process, with reading of the conductivity and the temperature. The main working mode are: continuous production without level control, one level control production, two levels control with manual hysteresis and production based on the amount set. The information is shown on a large LCD display. Using a revolutionary wheel, the controller can be easily programmed. The controller is housed in a IP65 plastic box.

MAIN PRODUCTION STEPS

1 Low level control, activation of inlet solenoid valve
2 Activation delay set, osmosi pump activation
3 Dosing pump water inlet with activation delay set
4 Start of production reverse osmosis
5 High-level control and deactivation of the metering pump
6 Asmosis pump OFF with delay set off
7 Delay (EV-IN Off) and deactivation of inlet solenoid valve

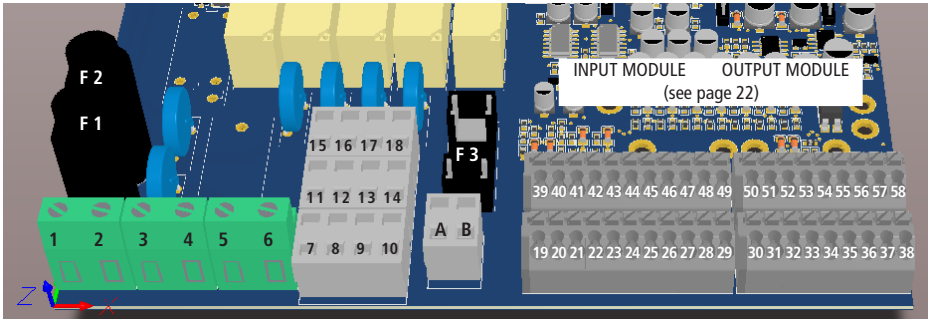
2. The wheel

Located in the upper right side of controller there is a wheel that must be used to control the controller. Wheel can be rotated in both directions to scroll over the menus and / or pressed to confirm highlighted selection / value.

NOTE: Once changes are made press "OK" to save and exit from submenu. Press "ESC" to exit without saving.

3. MAINBOARD CONNECTIONS

Unplug controller from main power supply then perform connections by following the below picture:



F1: Main Power Fuse (8A T) - F2: Instrument Fuse (3.15A T) - F3: Free contact Fuse (2A T)

(P) Phase, (N) Neutral, (E) Earth

OUTPUTS

39(+) - 19(GND)	Current for INPUT CONDUCTIVITY**
40(+) - 20(GND)	Current for OUTPUT CONDUCTIVITY**
54(+) - 55(-)	Optoisolated output (not used)
3(P) - 4(N) - 6(E)	OSMOSIS pump 230VAC (max 1,5KW) or 24VAC* 50/60 Hz
15(P) - 11(E) - 7(N)	DOSING pump 230VAC (5A max) or 24VAC* 50/60 Hz
16 (P) - 12(E) - 8(N)	EV IN 230VAC (5A max) or 24VAC* 50/60 Hz
17(P) - 13(E) - 9(N)	EV OUT 230VAC (5A max) or 24VAC* 50/60 Hz
18(P) - 14(E) - 10(N)	EV PURGE 230VAC (5A max) or 24VAC* 50/60 Hz
A-B	Main Alarm (free contact output max 2A)

***see controller's label**

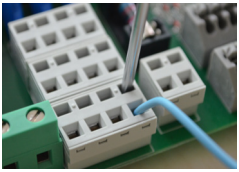
INPUTS

1(P) - 2(N) - 5(E)	Main power 230VAC (85-264Vac, 50/60Hz) or 24VAC* 50/60 Hz
41(+) - 21(GND)	LOW LEVEL input
42(+) - 22(GND)	HIGH LEVEL input
43(+) - 23(GND)	LOW PRESSURE
44(+) - 24(GND)	HIGH PRESSURE
45(+) - 25(GND)	HIGH TEMPERATURE alarm for OSMOSIS pump
46(+) - 26(GND)	OSMOSIS FILTER alarm
47(+) - 27(GND)	STANDBY alarm
48(+) - 28(GND)	DOSING PUMP alarm
49(+) - 29(GND)	GENERIC alarm (editable)
50(+) - 30(GND)	Pulse sender water meter (INPUT) max 300Hz
51(+) - 31(GND)	Pulse sender water meter (OUTPUT) max 300Hz
52(+) - 32(GND)	WM input 0/4-20mA
53(+) - 33(GND)	WM output 0/4-20mA
56 - 57 - 58	GND RS485, RS485 (+), RS485 (-)

35(Green) - 36(Brown) - 37(White) - 38(Yellow): PT100 temperature probe

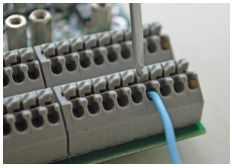
****Customized Software Ver. 1.5.0**

Current Output 39;19 for WM OUTPUT (permeated)
Current Output 40;20 programmable within menu "mA Outputs" (mA OUT label name)



Note: blocks from 7 to 18, A and D must be opened inserting a screwdriver in the upper part of module and inserting the wire in the lower part as shown in picture!

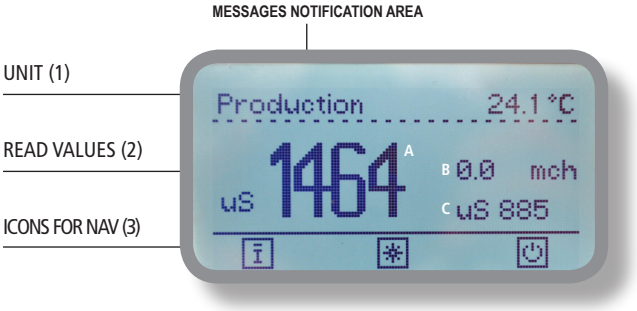
Blocks from 39 to 58 must be opened by pressing on the upper part of module and inserting the wire in the lower part of it.



Warning: Connections must be perfomed by qualified and trained personnel only.

4. Main Screen

When into normal operating mode, the controller shows the following main screen:



Main Screen

(1) UNIT Main unit for conductivity probe. It changes based on CD probe selected.

(2) VAUES Conductivity value for output water (A), input water (C), mc/h production (B)

(3) ICONS FOR NAV Move wheel until to highlight the following icons:

Service, quick status (alarms status, outputs status, etc...)

Main menu access

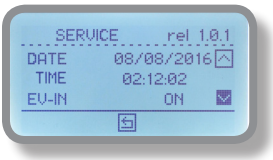
POWER ON / OFF

Back to main screen - previous menu

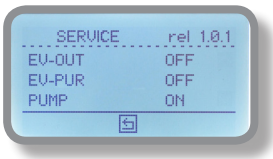
Note: the word "PUMP" as shown into this manual refers to a "dosing device" connected to the controller!

5. Service, quick status check

From main screen click on to main controller parameters

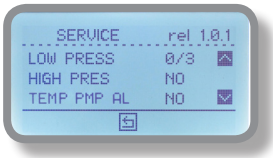


Local Date
Local Time
EV-IN electrovalve status

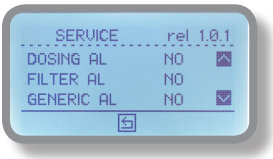


EV-OUT output electrovalve status
EV-PUR purg electrovalve status
Main pump activity

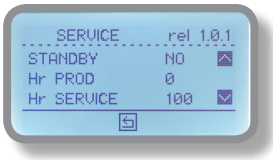
Chemical dosing activity
Main alarm status



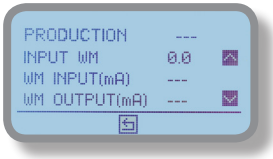
Number of try to restore low pressure (max 3, EV in ON)
High pressure alarm
High temperature for dosing pump alarm



Dosing problem alarm
Main water filter alarm
Generic Alarm (editable)



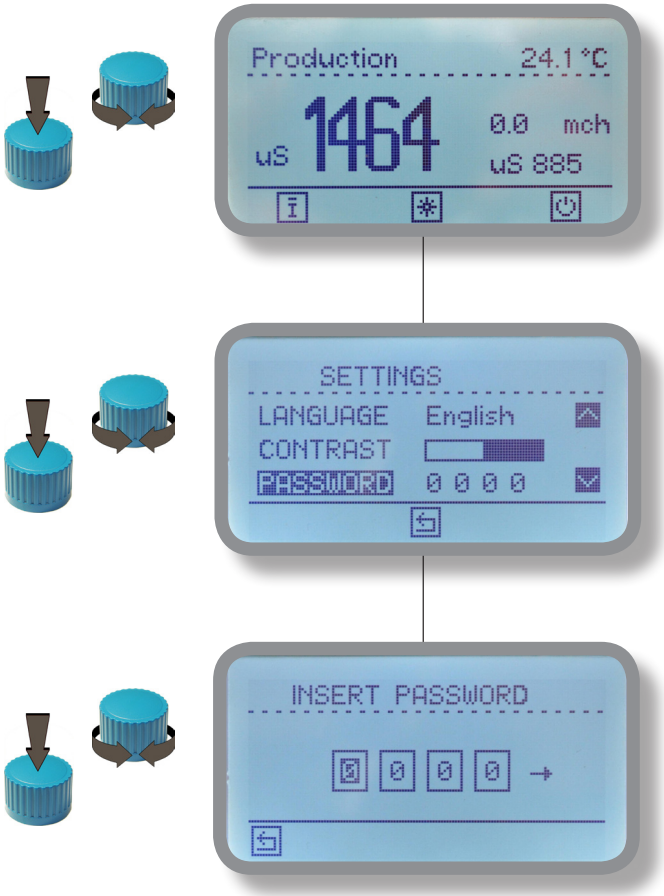
Controller STANDBY
OSMOSIS total production hours
Controller total working hours



OSMOSIS production rate
Pulse Sender Water Meter Input Status
Pulse Sender Water Meter Input / Output status (mA for current WM version)

6. Password

At first start of the controller there is no password set. To set a new password with administrator privileges to enter the main menu by clicking on the icon, ,then select "Settings", press the dial and select "PASSWORD". Press the knob and insert a code of four numbers. Move on the icon and press the knob to save the settings. The new administrator password is now active. At the same time, it also generated a default password (0000) without administrative privileges (not enable to reset hour maintenance tool). To change repeat the above procedure entering the main menu with the default user password (0000).



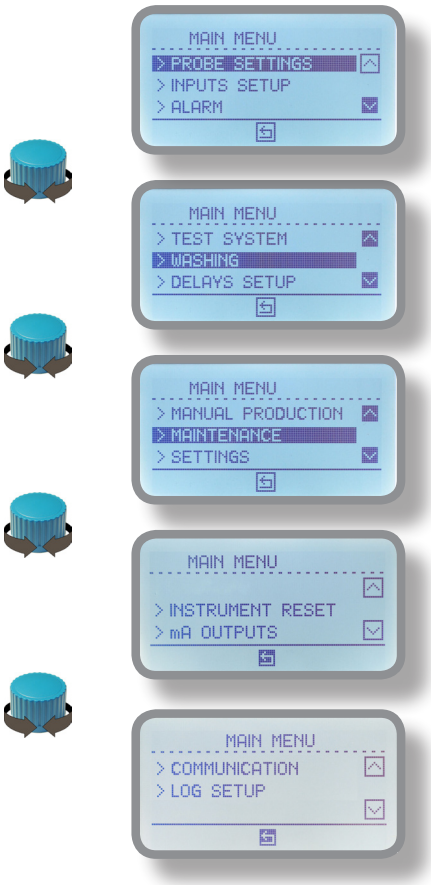
To access the "Main Menu" from the main screen, select the icon and press the dial, then enter the password (User or Administrator). Note: Do not use the same password for user and administrator.

LOST password ?

Contact your local distributor for assistance.

7. "Main Menu"

To access the "Main Menu" from the main screen, select the ✱ icon and press the dial, then enter the password (User or Administrator). Note: Do not use the same password for user and administrator.



"Probe Settings" page 9
"Inputs setup" page 13
"Alarm" page 16

"Test System" page 16
"Washing" page 16
"Delays Setup" page 17

"Manual Production" page 17
"Maintenance" page 17
"Settings" page 18

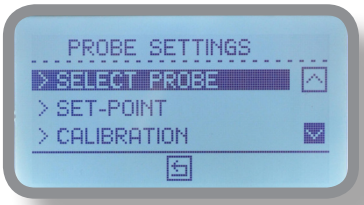
"Controller reset" page 19
"mA Outputs" page 19

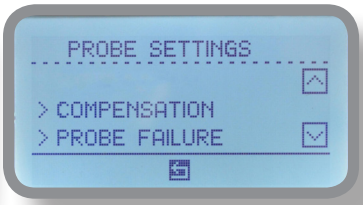
"Communicarion" (ERMES / SMS / Email) page 24
"Log Setup" (Events log setup) page 26

Click on ⏎ to exit from main menu and go to the main screen (normal working mode)

8. "Probe Settings"

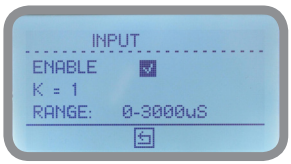
Use this menu to configure all probes, calibration, configuration setpoints, temperature compensation and measures to be set in case of probe failure / damaged.





8.1 "Probe Settings / Select Probe"

Use this menu to set both the system probes (input and output), including their field of work.



INPUT

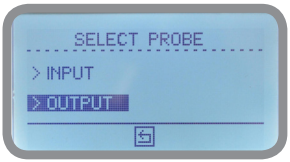
Use this menu to set the conductivity probe input (see function diagram on page 21). Basically this sensor is installed to read the high conductivity values (HIGH CONDUCTIVITY) of the inlet water and thus before the transformation of the process of reverse osmosis. The primary display is the value (C), see page 5.

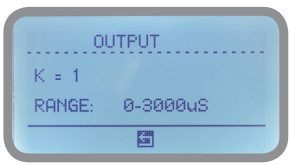
The options are:

ENABLE (leave blank to disable or "turn on" to enable)

K-Factor (enter the value shown on probe's label or probe's datasheet)

RANGE (scale of work according to the specifications of the probe)





OUTPUT

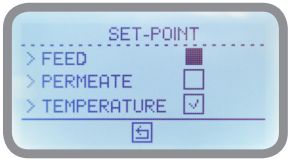
Use this menu to set the conductivity probe output (see function diagram on page 21). Basically this probe is installed to read the values in the OUTPUT treated water for reverse osmosis (LOW CONDUCTIVITY). The primary display is the value (A) See page 5.

The options are:

K-Factor (enter the value shown on probe's label or probe's datasheet)

RANGE (scale of work according to the specifications of the probe)

8.2 "Probe settings / Set-Point"



FEED (INPUT)

Use this menu to enable and set the set-point for the conductivity probe input (see function diagram on page 21). Basically this sensor is installed to read the high conductivity values (HIGH CONDUCTIVITY) of the inlet water and thus before the reverse osmosis process. The primary display is the value (C), see page 5.

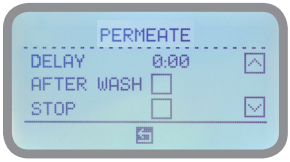
The options are:

POINT (maximum setpoint for high conductivity)

DELAY (max waiting time for high conductivity before enabling the alarm output and generate a message)

STOP (stop the controller when the setpoint has been reached). If not enabled the symbol ⚠ will be displayed in case of high conductivity read value for the input probe.

Note: "delay" does not block the activity of the Production



PERMEATE (OUTPUT)

Use this menu to enable and set the set-point for the conductivity probe output (see function diagram on page 21). Basically this probe is installed to read the values for the OUTPUT reverse osmosis water (LOW CONDUCTIVITY). The primary display is the value (A) See page 5.

The options are:

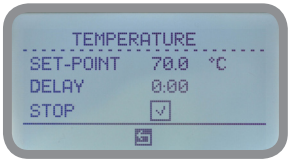
SETPOINT (minimum setpoint for low conductivity)

DELAY (max waiting time for high conductivity before enabling the alarm output and generate a message)

AFTER WASH (Check to enable the reading of imediate conductivity of the probe at the end of the membrane washing procedure)

STOP (stop the controller when the setpoint has been reached). If not enabled the symbol ⚠ will be displayed in case of high conductivity read value for the output probe.

Note: "delay" does not block the activity of the Production



TEMPERATURE

Use this menu to enable and set the set-point for the temperature probe.

The options are:

SETPOINT (punto di consegna valore massimo prima di generare l'allarme)

DELAY (max waiting time for high temperature before enabling the alarm output and generate a message)

STOP (stop the controller when the setpoint has been reached). If not enabled the symbol ⚠ will be displayed in case of high conductivity read value for the temperature probe.

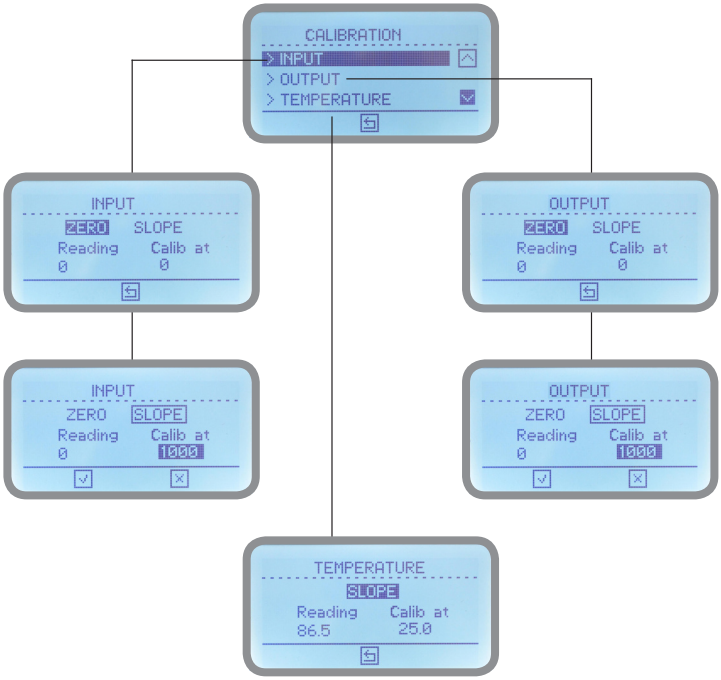
8.3 "Probe settings / Calibration"

Use this menu to calibrate both conductivity probes and the temperature probe.
The calibration of the conductivity probe involves a zero calibration (ZERO) and a second calibration point (SLOPE) which requires a buffer solution having value closest to that of the working field.

Note: This procedure assumes that the controller is properly installed and configured, connected to a working sensor. Perform calibration with the temperature in the system use, otherwise you may experience incorrect results. Also check that the scale of the probe is correctly set.

ZERO & SLOPE for input and output conductivity probes
During this procedure probes must be dry and clean and still not installed on the system.
Select the sensor to be calibrated and then move the cursor to "ZERO". Keeping the probe in hand, with the tips exposed to the air and move the cursor to and press the dial. Note: Normally the zero calibration is not necessary.

Now move the cursor to "SLOPE", insert the tip of the probe in a buffer solution with a value closest to that of the working field and wait for the reading shown on the controller display is stable and then press the knob to confirm and enter the value of the solution buffer, then move the cursor to "check" to confirm the displayed value. To stop the calibration procedure, select "X".



A professional thermometer is necessary to obtain a reliable calibration of the temperature probe. From "Menu Calibration" choose "TEMPERATURE". This procedure assumes that the controller is properly installed and configured, connected to a PT100 probe. Select SLOPE, quindo move the cursor to "Calib. at "and enter the value read from the thermometer temperature. Finally move on to confirm and save acquired data.

8.4 "Probe settings / Compensation"

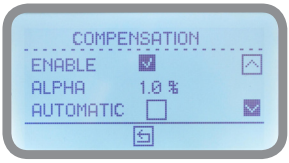
Conductivity measurements are temperature dependent. The degree to which temperature affects conductivity varies from solution to solution and can be calculated using the following formula:

$$Gt = Gtcal \{1 + a(T-Tcal)\}$$

where: Gt = conductivity at any temperature T in °C, Gtcal = conductivity at calibration temperature Tcal in °C, a = temperature coefficient of solution at Tcal in °C.

Substance at 25°C	Concentration	Alpha (a)
HCl	10 wt%	1.56
KCl	10 wt%	1.88
H2SO4	50 wt%	1.93
NaCl	10 wt%	2.14

Common alphas (a) are listed in the table above. To determine that (a) of other solutions, simply measure conductivity at a range of temperatures and graph the change in conductivity versus the change in temperature. Divide the slope of the graph by Gtcal to get a. Temperature compensation (Alpha) can be changed within 0.0% and 5.0%. It should be set according to measured chemical properties. If a temperature probe is installed choose "Enable" for "Automatic". Otherwise select "Disable" and enter a temperature value in "Temperature" field. If the controller is connected to a temperature probe, check the "Automatic" field: temperature compensation is automatic. Otherwise choose to leave the field blank and enter a value of average temperature in the system under which compensation must be made (field TEMPERATURE).

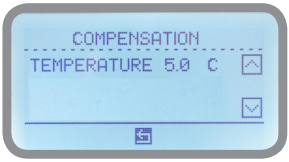


Options are:

ENABLE (tick to enable on the basis of the following parameters for the temperature compensation)

ALPHA (see explanation above)

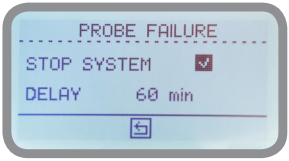
AUTOMATIC (tick to enable automatic temperature compensation based on the reading provided by the PT100 sensor installed)



TEMPERATURE (manually enter a fixed value, if there is any installed temperature probe)

Note: If "AUTOMATIC" is enabled then the "TEMPERATURE" field is not visible.

8.5 "Probe settings / Probe Failure"

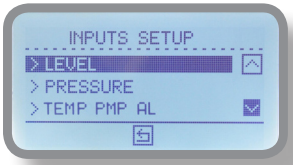


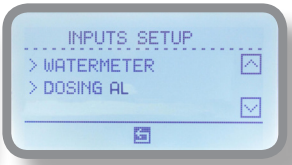
STOP SYSTEM (tick to enable system stop in case of permanence of probe's malfunction over the set time in the below field)

DELAY (system stop delay in case of probe's malfunction)

9. "Inputs Setup"

Use this menu to enable / disable and configure all inputs including water meters.



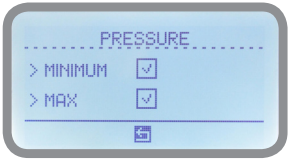


9.1 "Inputs Setup / Level"

Use this menu to turn on / off control of high and low level.

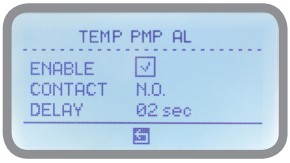
9.2 "Inputs Setup / Pressure"

Use this menu to activate / deactivate the pressure check through the installed pressure switches (where available) for its minimum input and maximum pressure. For each field settgings are: contact type (N.O. or N.C.) and DELAY (activation delay). Note: minimum pressure control occurs when EV IN is open / active.



9.3 "Inputs Setup / TEMP PUMP AL"

Use this menu to enable / disable contact for the thermal control of the engine. This type of control allows that the motor of a pump is efficient (optimum operating temperature). In case an anomalous variations, outside of normal working parameters, it is possible to activate a contact to block the production of reverse osmosis in order to protect the whole system.



Options are:

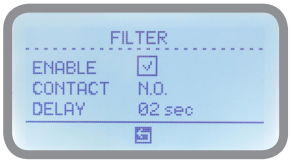
ENABLE (enable thermal control of the pump)

CONTACT (type of available contact normally open or closed)

DELAY (alarm activation delay for the contact status change)

9.4 "Inputs Setup / Filter"

Use this menu to enable / disable the control osmosis filter if provided with a contact type N.O. or N.C. This contact allows to pause the activities of the water production until the next change of state.



Options are:

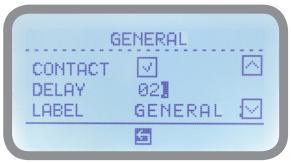
ENABLE (enable thermal control of the pump)

CONTACT (type of available contact normally open or closed)

DELAY (alarm activation delay for the contact status change)

9.5 "Inputs Setup / General"

Use this menu to enable / disable and edit the name for the input general alarm. This contact allows you to pause the activities of the reverse osmosi production until the next change for contact.



Options are:

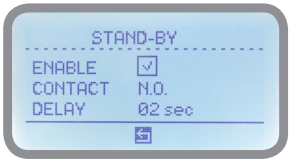
ENABLE (enable contact)

DELAY (alarm activation delay when the contact status changes)

LABEL (change alarm rules, default: general)

9.6 "Inputs Setup / Standby"

Use this menu to enable / disable the STANDBY contact. This function stops the activity of the controller (EV IN / OUT block, EV PURGE, osmosis pump and metering pump) until the next change for contact.



Options are:

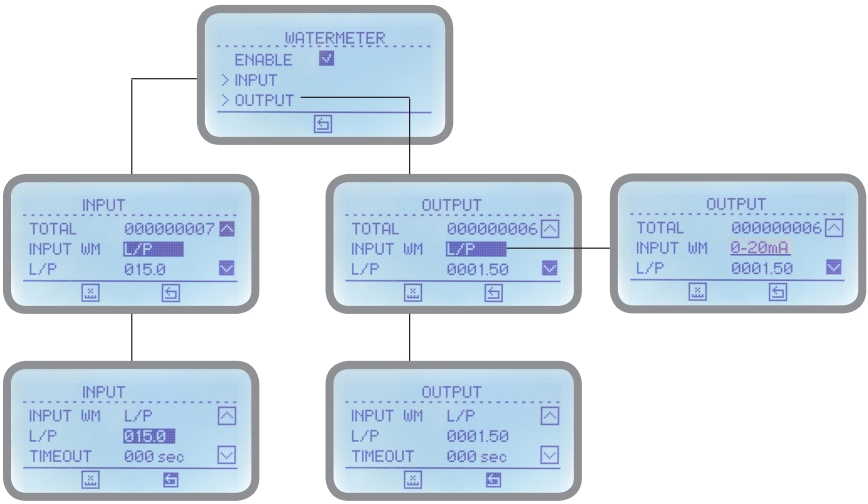
ENABLE (enable thermal control of the pump)

CONTACT (type of available contact normally open or closed)

DELAY (alarm activation delay for the contact status change)

9.7 "Inputs Setup / Water Meter"

Use this menu to configure the mode of operation for pulse sender water meters that can be installed up to a maximum of two devices. Formally they are called "WM INPUT" (counter placed on plant input) and "WM OUTPUT "(counter placed at the end of the reverse osmosis water production). See function diagram on page 21 for the correct installation position.



Options are:

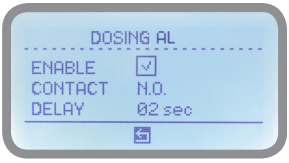
TOTAL (showing the total amount of water passed through the pulse-emitter)

INPUT WM (choice between the working mode (liters per pulse, pulses per liter or 0/4-20mA)

Timeout (if the counter does not receive pulses within the set time then the hourly amount of cubic meters displayed on the main screen will be set to zero, indicating that there is no passage of water in the system). This option operates on pulse sender WM model only.

9.8 "Inputs Setup / Dosing ALARM"

Use this menu to enable or disable the alarm for METERING PUMP contact. This contact leads to pause the activities of the production until the next change of state of the contact itself.



Options are:

ENABLE (enable thermal control of the pump)

CONTACT (type of available contact normally open or closed)

DELAY (alarm activation delay for the contact status change)

10. “Alarm”

Use this menu to enable or disable the alarm contact.

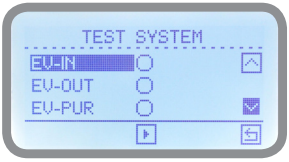
Options are:

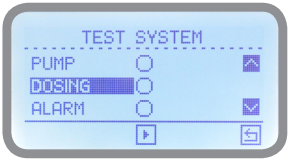
ENABLE (enable thermal control of the pump)

CONTACT (type of available contact normally open or closed)

11 “Test System”

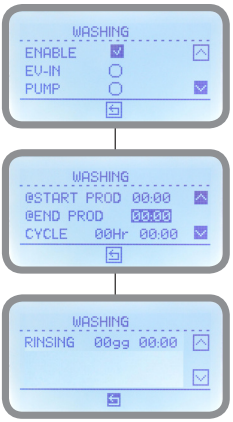
Use this menu to check the functionality of the inputs: IN-EV, EV-OUT, osmosis pump, metering pump (pump inlet water) and contact alarm. Test duration can be set in minutes and seconds. Click on ▶ to start it.





12 “Washing” (washing of reverse osmosis membrane)

Use this menu to perform a reverse osmosis membrane cleaning.



Options are:

ENABLE (enable timered washing procedure)

EV-AT (if necessary enabling solenoid valve inlet)

PUMP (if necessary activate the osmosis pump)

REF START (start of membrane cleaning before reverse osmosis production for the set period of time)

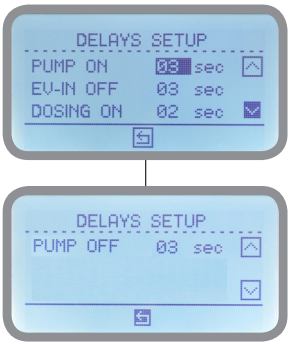
END REF (opening of the membrane cleaning procedure after the reverse osmosis production for the period of time set)

CYCLE (washing procedure repeated every Hr (hours) and set for the set period of time). This option is executed during “waiting time” only.

Rinsing (washing procedure repeated every days (DD) and lasting for the duration of time you set. The function is only activated when STANDBY is on).

13. "Delays setup"

Use this menu to set the activation delays during the production steps.



@pump On (osmosis pump start delay)

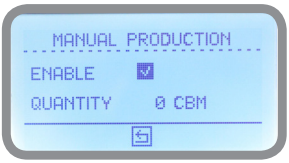
@EV-In Off (input EV delay)

@Dosing ON (dosing pump delay)

@pump Off (osmosis pump stop delay)

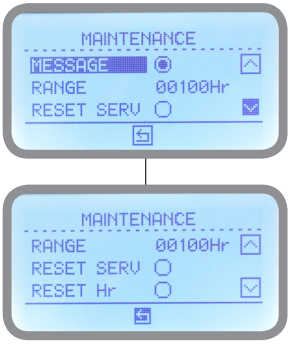
14. "Manual Production" (for reverse osmosis water)

Use this menu to enable the production of reverse osmosis water manually based on the amount of CBM (m^3 / hour) set. Note: all security controls (level, pressure, etc ..), if available are enabled and working.



15. "Maintenance"

Use this menu to set maintenance messages every set period of time.



Options are:

MESSAGE (enables account maintenance message)

RANGE (countdown to the next maintenance message)

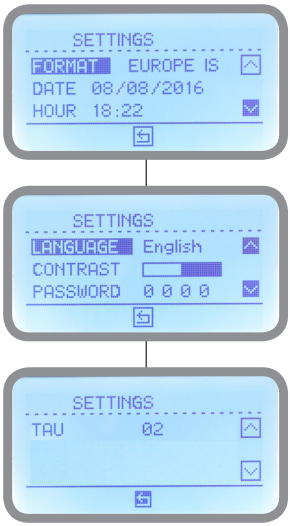
RESET SERV (reset countdown to next maintenance message)

Hr RESET (pulse sender water meter counter reset for production water) *

***Available with administrator access only**

16. "Settings"

Use this menu to choose the language, format units, date and time, display contrast, the access password and TAU probe. The name of this menu is SETTINGS ADMIN or USER, depending on the password entered from the main menu.



FORMAT (EUROPEAN metric units or AMERICAN, see table below)

DATE (local date)

HOUR (local time)

LANGUAGE (system language)

CONTRAST (increase or decrease display contrast)

PASSWORD (change password for access to the main menu)

TAU (if probe's reading value is extremely unstable can be stabilized increasing this value)

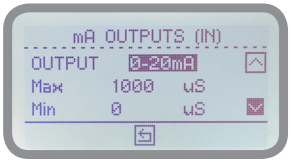
EUROPE IS (Internationl Standard)	USA
Date (DD/MMM/YY)	Date (MMM/DD/YY)
Time 24h	Time AM / PM
°C	°F

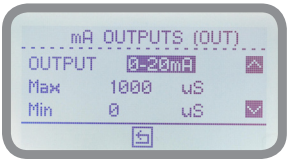
17. "Controller Reset"

Use this menu to reset the instrument to default settings. Note: If the procedure is performed after you have logged in with USER password then ADMINISTRATOR password will not be deleted.

17.1 "mA Outputs"

Use this menu to configure IN and OUT current outputs located on blocks 39 - 19 and 40 - 20 of mainboard. These outputs are conductivity readings dependent (CD probes).





Options are:

OUTPUT (0-20mA or 4-20mA current setup)

MIN (0 or 4mA) and MAX (4 or 20mA) conductivity values read by INPUT / OUTPUT conductivity probes

ENABLED ON ALARM (if checkbox is ticked the related output will stay enabled even during an alarm)

18. Technical Information

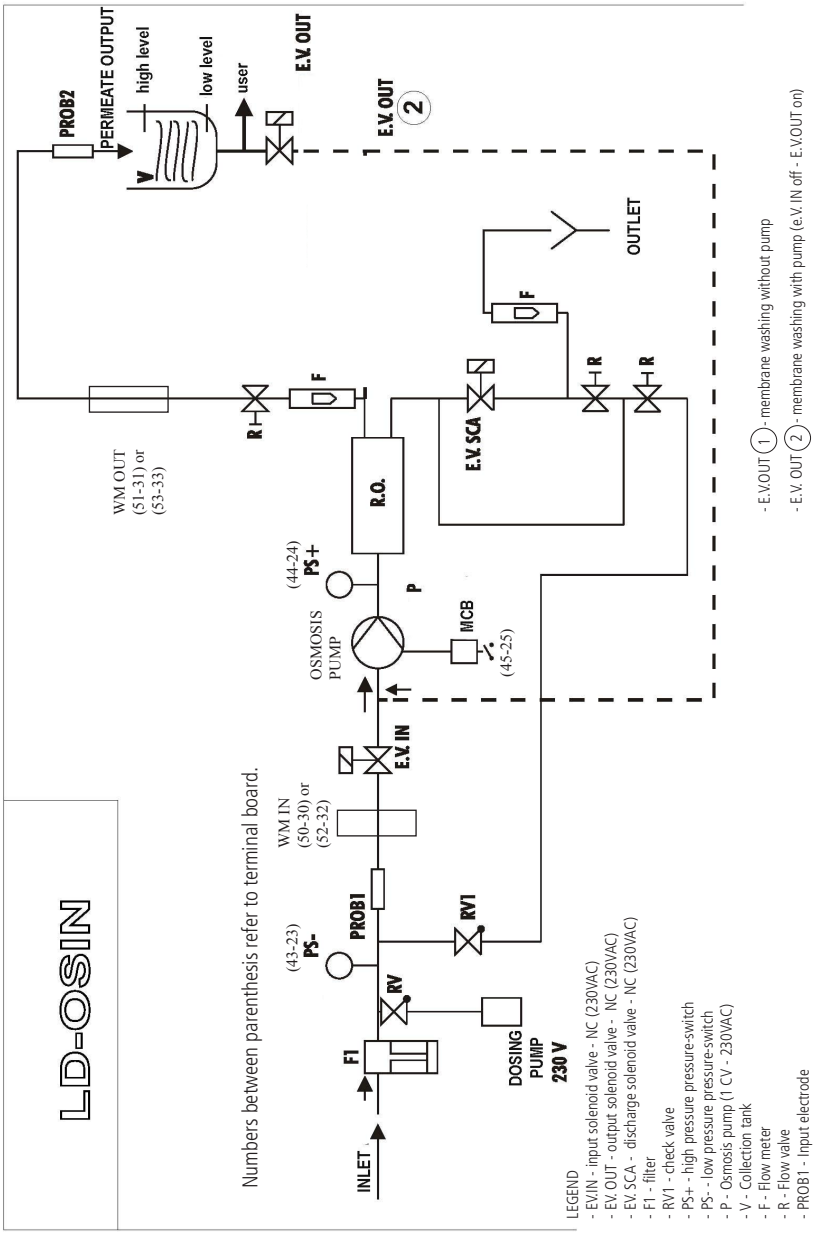
Power supply: 85÷264 VAC
Conductivity range: 0-3000uS ; 0-30.00mS ; 0-300.0mS ; K1 ppm ; K0.1 ppm ; K10 ppm

IN PROBE
K10 scala 30.00mS 300.0mS
K1 scala 30.00mS 3000uS
K0.1 scala 300.0 uS

OUT PROBE
K0.1 scala 300.0uS
K1 scala 3000 uS 30.00 mS

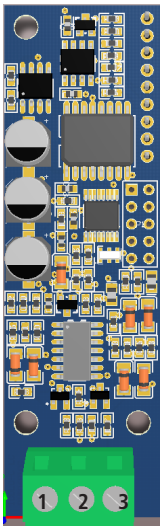
Environment Temperature: -10 ÷ 45°C (14 ÷ 113°F)
Chemical Temperature: 0 ÷ 50°C (32 ÷ 122°F)
Installation Class: II
Pollution Level: 2
Packaging and Transporting Temperature: -10 ÷ 50°C (14 ÷ 122°F)
Protection degree: IP 65
Max operating altitude 2000m (6.561feet)

19. "Logical working mode"

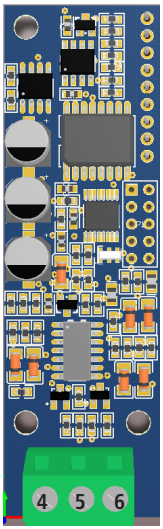


Appendix - Conductivity probe MDCDLO-A

Make connections for probes and alarms (if available).



INPUT



OUTPUT

Connect probes as follows:

1 (GND), conductivity probe INPUT
2 (Red Wire), conductivity probe INPUT
3 (Black Wire), conductivity probe INPUT

4 (GND), conductivity probe OUTPUT
5 (Red Wire), conductivity probe OUTPUT
6 (Black Wire), conductivity probe OUTPUT

Appendix - ERROR / ALARM MESSAGES

Alarms that stops controller:

1. "Error Levels": it closes the high level before you experienced the low level
2. "Probe's error": communication error between the instrument and the probe sensing circuit
3. "Thermic Pump": high temperature of osmosis pump
4. "High Pressure": high pressure alarm in the process of osmosis
5. "Low Pressure Alarm": they exceed the number of attempts for the restoration-pressure
6. "High Output Conduc.": To overcome the output setpoint
7. "High input Conduc": input setpoint over reached only active when the instrument has the lock option enabled
8. "Probe failed": probe is broken, exceeded maximum recovery time

Alarms that don't stops controller, the system resumes to normal operation when the contact changes state again:

1. "Stand-by": standby alarm
2. "Dosing Alarm": dosing pump alarm
3. "Filter Alarm": plant's filter alarm
4. "General Alarm": generic alarm

"Low Pressure X / Y": it happens when occurs the low pressure. With this alarm the EV-IN remains active. After 5 minutes being in this condition, it tries to restore the pressure for osmosis reactivating the pump and the dosage for 15 seconds. If the alarm still occurs the attemps counter increases and it starts again the sequence.
Otherwise it resets and revert to the normal working mode. If in the next 20 minutes there aren't more alarms then the number of recovery attempts is reset.

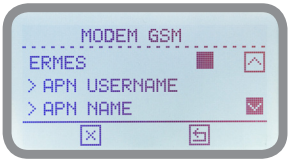
"Parameters Error": exit from the probe setup screen, verify that the entered parameters are correct in order to be aligned with the following table (it's just an info screen)

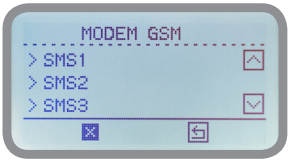
Appendix. "Communication"

Use this menu to configure communication parameters when a Ethernet or GSM modem has been installed.

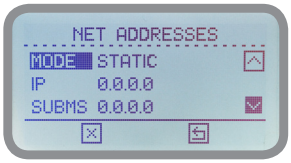
RS485.
In order to activate a fresh installed module (GSM, Ethernet / WiFi) enter into "RS485" menu and click on ASSOCIATE. This procedure must be repeated for every instrument installed into the same controller's network. Use DISASSOCIATE if controller has been moved to a new network, use RESET if you need to remove all assigned controllers serial numbers to the main one.

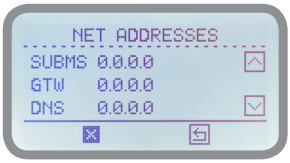
MODEM GSM.
Install a "Data Network" enabled SIM and, if needed, enter APN parameters (including username & password). Usually these values are automatically loaded from SIM. Change them according to your SIM provider communication. To enable ERMES Services please check "ERMES". If you need to receive up to 3 mobile phone numbers the controller's events messages click con "SMS1", "SMS2" and "SMS3" and enter phone number.Setup messages content through "LOG SETUP" menu. **Note: these options need a subscription fee for data and messages traffic that IS NOT included with the modem.**





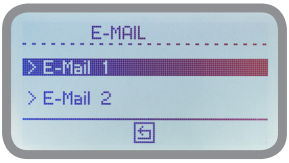
NET ADDRESSES.
Configure this menu to enable network accessibility for all controllers installed through the main one. Ask to your network administrator for values to enter. Usually just setup the communication MODE option to "DYNAMIC". For STATIC mode (IP manually assigned) enter all needed parameters: manual assigned IP, SUBNET MASK, GATEWAY (usually router IP), DNS.





EMAIL.

Up to 2 email addressed can be setup to reaceive controller's activity / warning events log. Enter addresses here. Setup messages content through "LOG SETUP" menu.

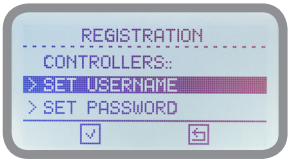


WIFI.

If a WIFI module has been installed use this menu to associate it to an existing local wifi network. Options are SCAN NETWORK to generate a list of available network or SET NETWORK to manually enter WIFI parameters (e.g.: if network is hidden). Once the WIFI network has been selected or manually setup enter the password (if needed).

REGISTRATION.

To enable ERMES server for desktop remote control enter username and password used to access to ERMES services. If you need one refer to http://ermes-server.com. Alternatively click on QR CODE to generate a link for a smartphone or mobile device.



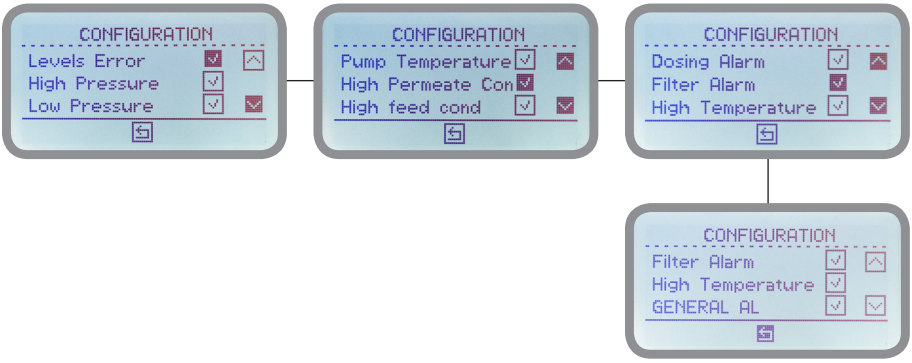
Appendix. "LOG SETUP"

In order to use alarm notifications (SMS and / or Email), you must configure log options from the "LOG SETUP" menu. To enable logging, select "ENABLE" and activate the check mark by pressing the knob.

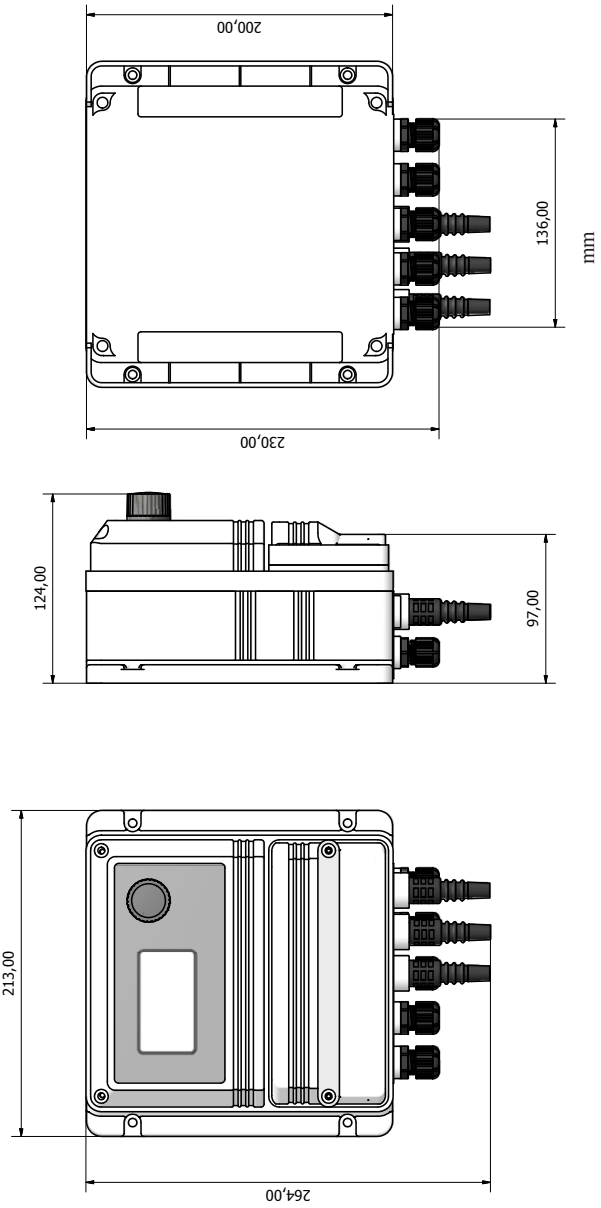
To set an hourly / daily report, set time using the "EVERY" entry.
This feature does not handle any alarms that will be reported to their occurrence anyway.
Click on "CHECK LOGS" to scroll through latest events list.

The "CONFIGURATION" submenu lets you select which alarms should be notified if they occur. To enable, select the required item and activate the check mark by pressing the knob.

Selectable alarms are:



Appendix - Dimensions



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Information on this manual may contain technical inaccuracies or typographical errors.
The information contained may be changed at any time without prior notification or obligation.

REUSE
REDUCE
RECYCLE

When dismantling this controller please separate material types and send them according to local recycling disposal requirements.
We appreciate your efforts in supporting your local Recycle Environmental Program.
Working together we'll form an active union to assure the world's invaluable resources are conserved.