ITC DOSING PUMPS

WTR PRO

WTRPRO Q / pH / RX
WTRPRO pH-RX / pH-Q

ENGLISH

SAFETY RULES

To avoid personal or enviromental damages and to guarantee a proper operation of the equipment, the staff in charge of the installation, set up and maintenance of the equipment must follow the instructions of this manual, specially those recommendations and warnings explicitly detailed. In addition, specific instructions for the chemical products to be dosed should be followed.

TABLE OF CONTENTS

1 GENERAL DESCRIPTION

The WTRPRO controller together with the DOSITEC and DOSTEC dosing pumps constitute a complete control and dosing system for water treatments.
WTRPRO controller allows the user to monitor flow, pH, ORP (redox) and temperature, and to regulate them by means of the control outputs for dosing pump (or proportional valve in treatment systems with gas chlorine).

Depending on the configuration, control in recirculation (or closed circuit) by means of output relay, or on line control by means of analogic output (mA) with PI regulation, can be done.

WTRPRO models with one parameter

WTRPRO Q

Flow reading system and proportional dosing
Control 4-20mA or relay
Output for maximum and minimum alarm
Output 4-20mA for register
PC communication (RS485)

WTRPRO pH

Reading system and pH automatic adjustment.
Control 4-20mA with PI adjutment or by proportional relay.
Output for maximum and minimum alarm
Output 4-20mA for register
Communication PC (RS485)

WTRPRO RX

Reading system and automatic adjustment of potential redox RX
Control 4-20mA with adjustment PI or by proportional relay.
Output for maximum and minimum alarm
Output 4-20mA for register
Communication PC (RS485)

WTRPRO models with two parameters

WTRPRO pH-RX

Reading system and automatic adjustment of pH and potential redox (RX)
Control 4-20mA with PI adjustment or for proportional relay, for pH and RX
output for maximum and minimum alarm, for pH and RX
output 4-20mA for register, for pH and RX
PC communication (RS485)

WTRPRO pH-Q

Reading system and automatic adjustment of pH and potential redox (RX)
Control 4-20mA with PI adjustment or for proportional relay, for pH and RX
Output for maximum and minimum alarm, for pH and flow
Output 4-20mA for register, for pH and RX
PC communication (Rs485)

SYSTEM DESCRIPTION

(1) LCD Screen

(2) Keyboard: ENT Confirm
ESC Exit without confirm
▲ ▼ Increase / reduce value
▶ ◀ Move left/right

(3) Connections ruler guide

2.- TRANSPORT AND MAINTENANCE

The original packaging is designed to ensure that the transport and storage of the system can be carried out without causing damages to the system, provided these processes are performed inside dry, ventilated areas and away from sources of heat.

The packaging includes:
WTRPRO controller
Instruction manual

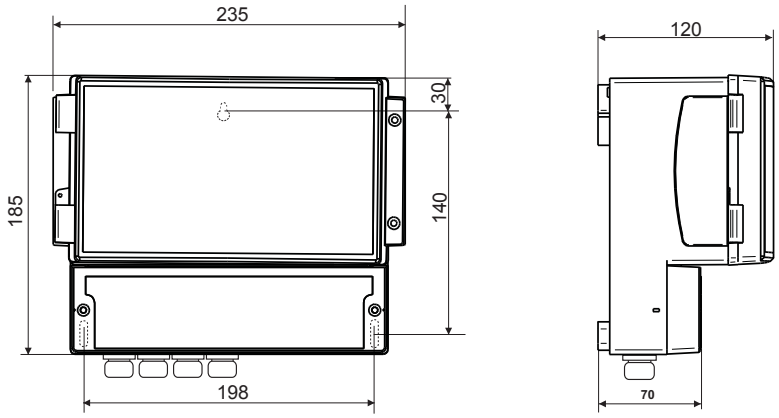
3. TECHNICAL FEATURES

Power supply: 230V AC (+/-10%) - 50/60Hz
Protection: IP65
Work temperature: 0 - 45 ºC
Relative Humidity max.: 95% (without condensation)

MEASUREMENT LIMITS

Flow: 0.00 - 9999 (m3/h or gph)
pH: 0.00 - 14.00
(pH reading with temperature adjutment)
Redox: -2000 - +2000 mV
Temperature: 0.0 -100 ºC ; 32.0 - 212 ºF

DIMENSIONS



INPUT and OUTPUT according to the model

WTRPRO Q :
- Flow input: Pulses input optically isolated for high frequency flowmeters (paddle wheel or electromagnetic)
- Control output 4-20mA or for proportional relay
- Output 4-20mA for register.
- Output RS485 for connection to PC
- Flow alarm output: Relay output NO. 24V AC - 1A maximum.

WTRPRO pH :
-Flow input: Pulses input optically isolated for a pH sensor connection.
-Control output 4-20mA or for proportional relay
- Output 4-20mA for register.
- Output RS485 for connection to PC
- Flow alarm output: Relay output NO. 24V AC - 1A maximum.

WTRPRO RX :
- RX input: Pulses input optically isolated for a Rx sensor connection. (redox)
-Control output 4-20mA or for proportional relay
- Output 4-20mA for register.
- Output RS485 for connection to PC
- Flow alarm output: Relay output NO. 24V AC - 1A maximum.

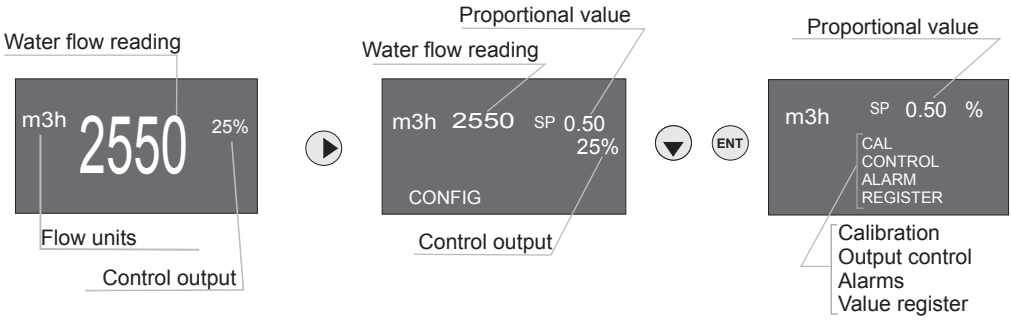
WTRPRO pH- RX :
- pH input. input optically isolated for the pH sensor connection.
Rx input. input optically isolated for the Rx sensor connection (redox)
- Output control pH: Type 4-20mA with adjustment PI or by proportional relay.
- Output control RX: Type 4-20mA with adjustment PI or by proportional relay.
- Output 4-20mA for register of the PH and RX
- Output RS485 for connection to PC
- Output pH alarms: Relay output NO 24V AC - 1A maximum.
- Output alarm RX: Relay output NO 24V AC - 1

WTRPRO pH- Q :
pH input. input optically isolated for the pH sensor connection.
- Flow input. Pulse input optically isolated for high frequence flowmeters (palettes or electromagnetic)
- Output control pH: Type 4-20mA with adjustment PI or by proportional relay.
- Output control Q: Type 4-20mA with adjustment PI or by proportional relay.
- Output 4-20mA for register of the PH and Q
- Output RS485 for connection to PC
- Output Q alarm: Relay output NO 24V AC - 1A maximum.
- Output pH alarm: Relay output NO 24V AC -1A maximum
- Output flow sensor's alarm in the sensor holder (Q Switch): Relay NO24V AC 1A maximum

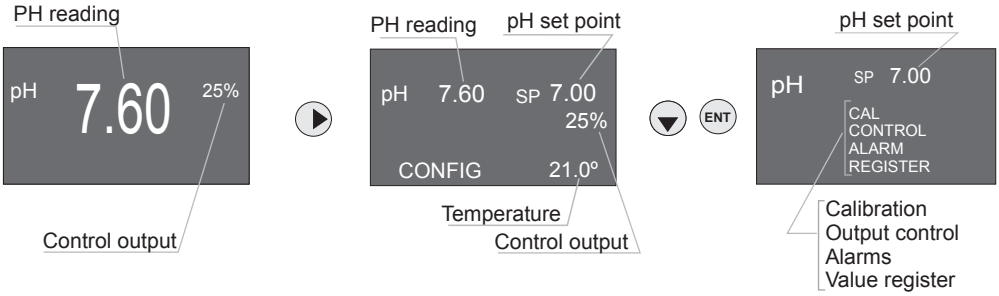
4 OPERATION

4.1 START SCREENS AND MENU ACCES

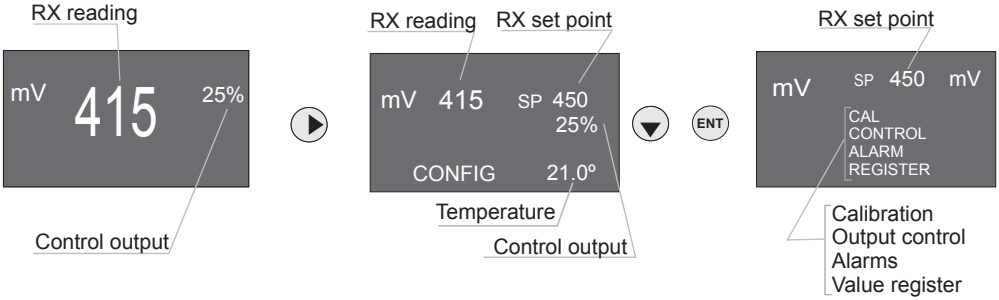
WTRPRO Q



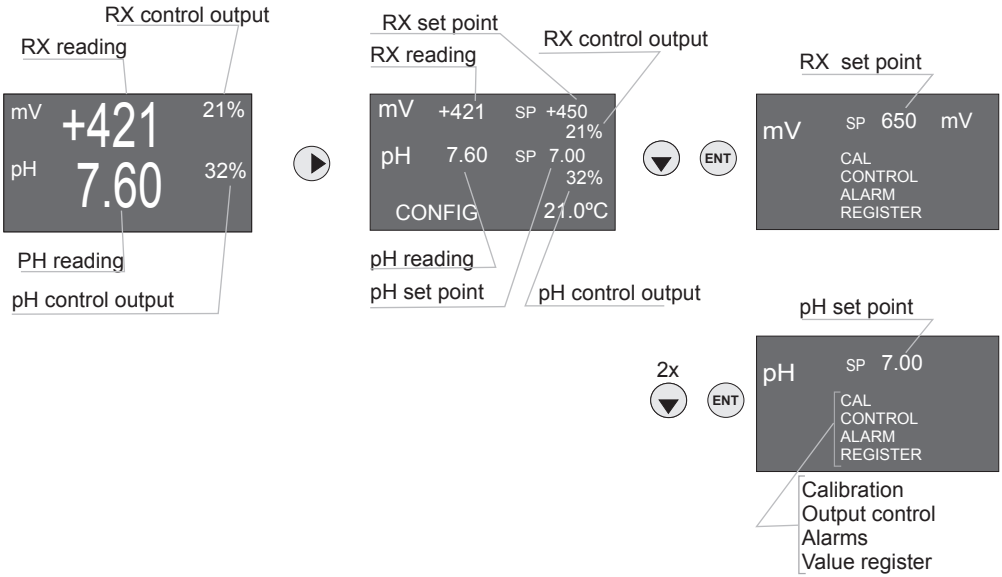
WTRPRO pH



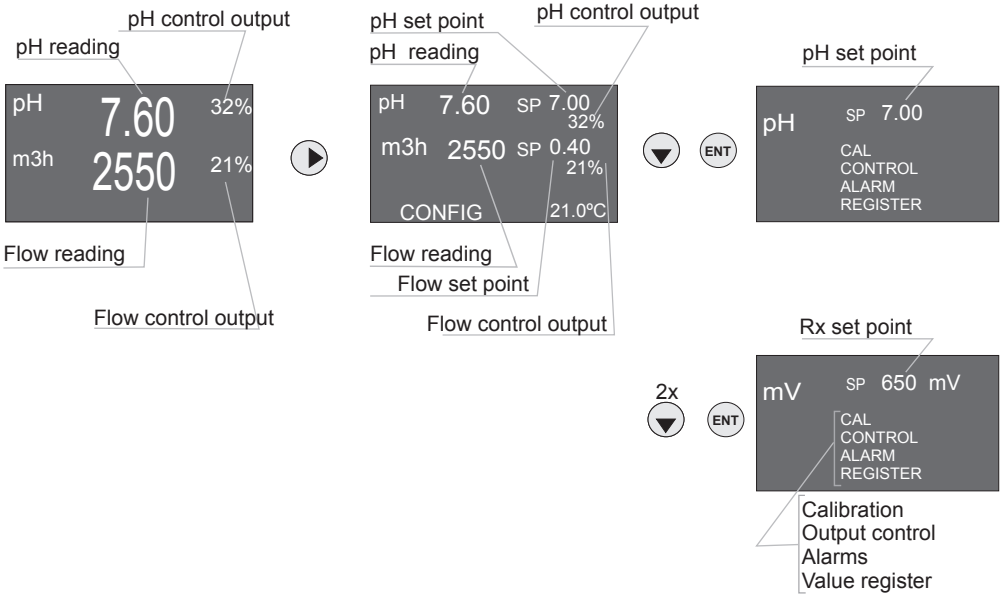
WTRPRO RX



WTRPRO pH-RX



WTRPRO pH-Q

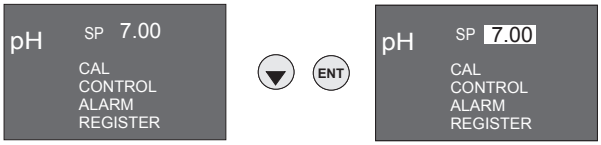


4.2 SET POINT (SP)

4.2.1 FLOW SET POINT

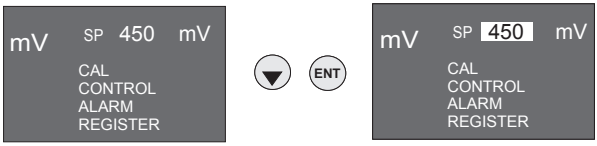
Proportionality value (% / ppm)
Change values with ▼▲ and confirm with **ENT**

4.2.2 pH SET POINT



pH set point value
Change values with ▼ ▲ and confirm with **ENT**

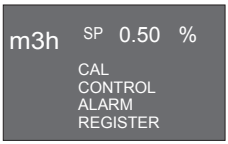
4.2.3 RX SET POINT



Redox set point value(mV)
Change values with ▼ ▲ and confirm with **ENT**

4.3 CALIBRATION

4.3.1 FLOWMETER CALIBRATION



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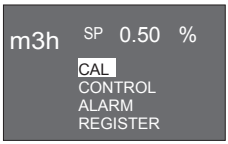

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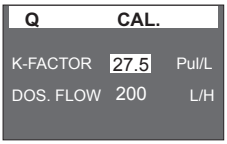
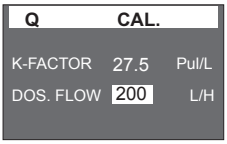


K-Factor (pulses/liter or pulses/gallon) :
See flowmeter manual to determine the K-factor
Change values with ▼ ▲ ,and confirm with **ENT**

When K-FACTOR = 0, the PIQ control will be disabled, it will be working by means PI control.

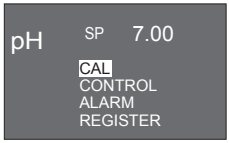
ENT



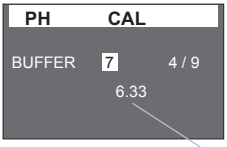
The nominal flow of the dosing pump in the work conditions.
Change values with ▼ ▲ and confirm with **ENT**

4.3.2 pH CALIBRATION

2x



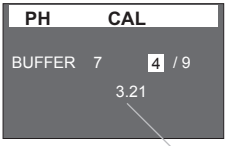
ENT



Introduce the sensor in the buffer of pH7
Wait 1 minute and confirm with ENT

Current reading of the uncalibrated sensor

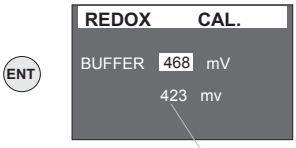
ENT



Press ▶◀ in order to select 4 or 9 (according to the buffer to use)
Introduce the sensor in the correct buffer (pH4 or pH9)
Wait a minute and confirm with **ENT**

Current reading of the un calibrated sensor

4.3.3 REDOX CALIBRATION



Buffer value for the calibration 468mV (it is possible to modify by ▼▲ .)
Introduce the sensor in the corresponding buffer
Wait 1 minute and confirm with **EN**T

Current reading of the uncalibrated sensor

4.4 CONTROL SELECTION OUTPUT

The system have one or two outputs (according to the model) for the dosing pumps control. Set each output in the corresponding parameter menu.

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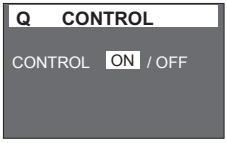
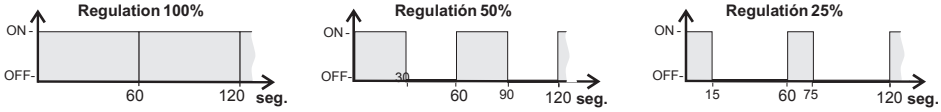


Dosing pump control
ON: activated
OFF: not activated
Press ▶ to change it, and confirm with **ENT**

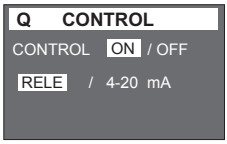
There are two types of control outputs:

RELAY output: Generally used for recirculation dosing. Using this on/off command the output will remain activated, in 60-second cycles, for the corresponding time so as to achieve the desired regulation. Examples:



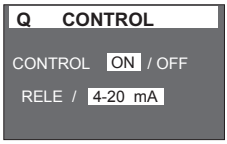
4-20mA output: Generally used in-line dosing. A dosing pump is needed with 4-20mA analogue input. Using the parameter LIMIT OUT enables the user to limit the maximum flow of the dosing pump. Example: *LIMIT OUT 50 %-> The output is limited to 12mA; maximum dosing flow is reduced by half*

ENT



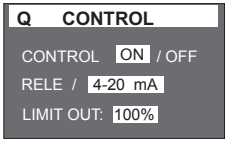
Type of control for the dosing pump
RELE: relay sign on / off
Press ▶ to change it, and validate with ENT

ENT



Type of control for the dosing pump
4-20mA: analogical sign 4-20mA
Press ▶ to change it, and validate with ENT

ENT



Limit of the sign 4-20mA
Change value with ▼ ▲ and validate with ENT

For further information see paragraph 4.8.1

4.5 ALARMS

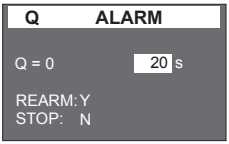
4.5.1 FLOW ALARM

In the WTRPRO pH, WTRPRO RX and WTRPRO pH-RX models we can use the flow detector of the sensor holder (Ref 44-020) to stop the control in case of insufficient flow. At this moment “ALARM Q=0 ”will appear on-screen and the WTRPRO pH-RX model will activate alarm output “ ALM “ (” ALM Sw. Q ”). When the flow is correct again, it reset automatically. If you do not have a flow detector, a bridge must be placed in terminals 1-3 of the Q Switch.

In model WTRPRO pH-Q we can use the flow detector of the sensor holder (Ref. 44-020) to stop the control in case of insufficient flow. At this moment the reading of the flow will be zero and the alarm output of the flow detector will be activated “ALM Sw. Q”. When the flow of the sensor holder is sufficient again it rearms automatically.

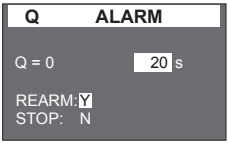
In the WTRPRO Q and WTRPRO pH-Q models the user can configure the flow alarm as follows:

ENT



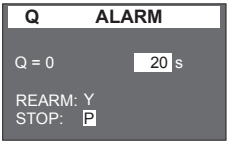
Time allowed at zero flow before alarm is activated
(----s =disabled alarm)
Increase or decrease by pressing ▼▲ and validate with ENT

ENT



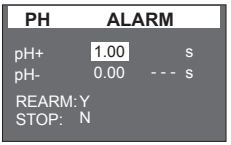
Automatic reset of the alarm when the reading is correct.
Y: auto reset
N: no auto reset
Press ▼▲ to change it, and validate with ENT

ENT



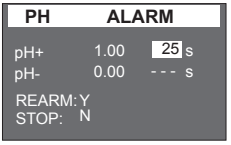
In case of alarm the control stops of:
P: Chosen parameter
T: All the parameters
Press ▼▲ to change it, and validate with ENT

4.5.2 ALARM pH



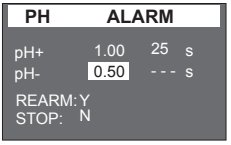
ENT

Higher differential in relation to set point
Increase or decrease by pressing ▼ ▲ and validate with ENT



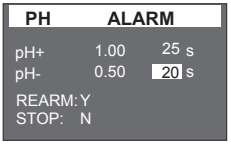
ENT

Time allowed away from greater differential before alarm is activated
Increase or decrease by pressing ▼ ▲ and validate with ENT



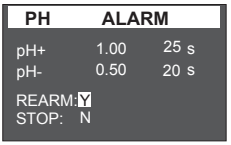
ENT

Lower differential in relation to set point
Increase or decrease by pressing ▼ ▲ and validate with ENT



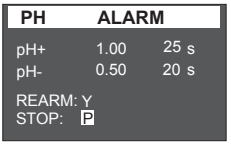
ENT

Time allowed away from greater differential before alarm is activated
Increase or decrease by pressing ▼ ▲ and validate with ENT



ENT

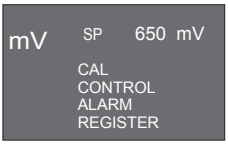
Automatic reset of the alarm when the reading is correct.
Y: auto reset
N: no auto reset
Press ▼ ▲ to change it, and validate with ENT



ENT

If the alarm sounds the control stops for:
P: Selected parameter
T: All parameters
N: None
Press ▼ ▲ to change it, and validate with ENT

4.5.3 REDOX ALARM



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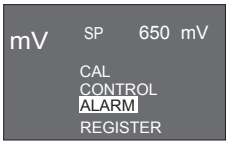
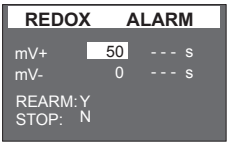
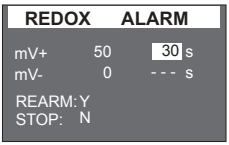


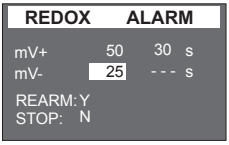


Higher differential in relation to set point
Increase or decrease by pressing ▼ ▲ and validate with ENT



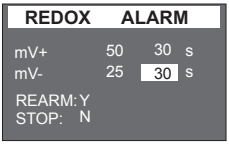
ENT

Time allowed away from greater differential before alarm is activated
Increase or decrease by pressing ▼ ▲ and validate with ENT



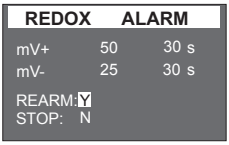
ENT

Lower differential in relation to set point
Increase or decrease by pressing ▼ ▲ and validate with ENT



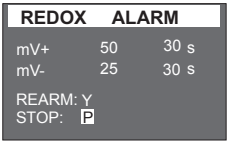
ENT

Time allowed away from greater differential before alarm is activated
Increase or decrease by pressing ▼ ▲ and validate with ENT



ENT

Automatic reset of the alarm when the reading is correct.
Y: auto reset
N: no auto reset
Press ▼ ▲ to change it, and validate with ENT

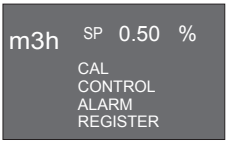


ENT

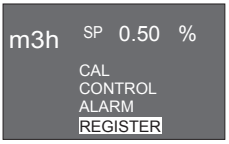
In case of alarm the control stops for:
P: Selected parameter
T: All parameters
N:Nothing
Press ▼ ▲ to change it, and validate with ENT

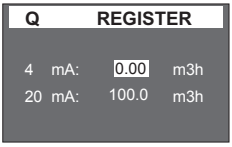
4.6 VALUE REGISTER

The system has one or two output4-20mA analogue outputs for registering values (depending on the model). Configure the output within the corresponding parameter.



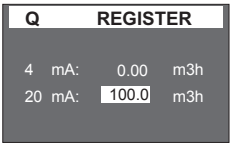
5x





ENT

Introduce the corresponding value for 4mA output
Increase or decrease by pressing ▼ ▲ and validate with ENT.



ENT

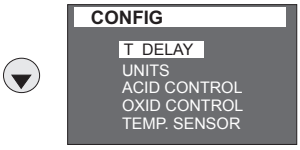
Introduce the corresponding value for 20mA output
Increase or decrease by pressing ▼ ▲ and validate with ENT.

4.7 CONFIGURATIONS MENU (CONFIG)

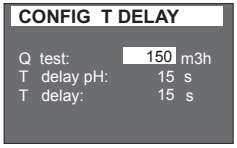
*4.7.1 INSTALATION DELAY TIME (**T DELAY**)*

This parameter corresponds to the time between two consecutive orders by the WTRPRO for positioning the regulation outputs. For a correct regulation, this time has to be greater than the one that takes a drop of product dosed in moving from the point of injection to the point where the sensor is. (See Section 6-Start-Up)

In the WTRPRO pH-Q model, equipped with a flowmeter, the parameter Q test makes it possible to establish a reference flow in order to define a variable Tdelay.
For a Qtest=0, the Tdelay will be fixed.
For a Qtest other than 0, the Tdelay will change in inverse proportion to to the change of the flow variation.
Example:
For a Qtest=20m ³/h, and an initial Tdelay of 20 seconds, when the flow is 40m/h, then the Tdelay will be 10 seconds.



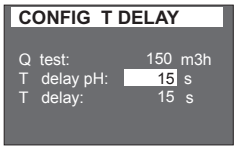
ENT



Introduce the reference flow to define the values of the Tdelay

Change value with ▼▲ and validate with ENT

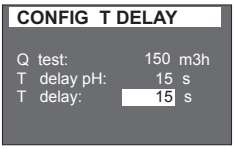
ENT



Introduce the Delay Time (Tdelay) of the pH, which is the time that passes between two consecutive orders (see paragraph 6)

Increase or decrease by pressing ▼▲ and validate with ENT

ENT



Introduce the Delay Time (Tdelay) for the RX, which is the time that passes between two consecutive orders (see paragraph 6)

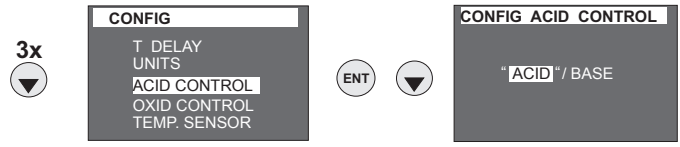
Increase or decrase by pressing ▼▲ and validate with ENT

4.7.2 UNITS

Select units pressing ▶ and validate with ENT

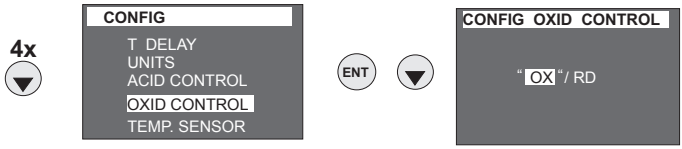
LITERS: GALLONS
ºC: degrees centigrade / ºF: degrees Fahrenheit
%: percentage / ppm: parts per million

4.7.3 FOR PH ACID/BASE CONTROL



Select according to the product dose.
ACID: Acid product
BASE: Alkaline product
Press ▶ to change it , and validate with ENT

4.7.4 FOR OXIDATION/REDUCTION CONTROL



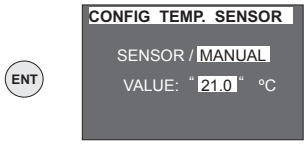
Select according to the product dose.
OX: Oxidizing product
RD: Reducing product
Press ▶ to change it, and validate with ENT

4.7.5 TEMPERATURE SENSOR

The equipment has compensation of temperature for the pH reading. In case of not having sensor of temperature, introduce the value manually for it´s compensation

Select sensor if you have a temperature sensor.

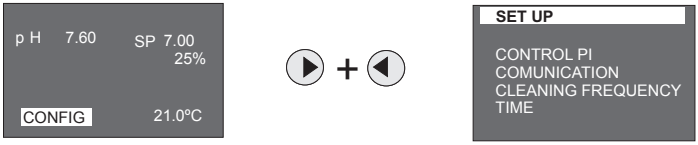
Press ▶ to change it, and validate with ENT



If ithere isn`t a temperature sensor introduce the value manually

Change value with ▼ ▲ and validate with ENT

4.8 SET UP CONFIGURATION



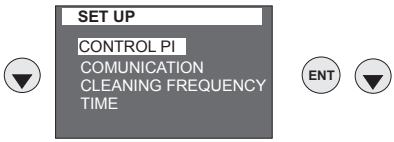
4.8.1 PI CONTROL

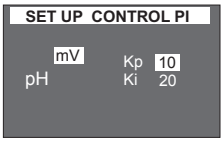
The adjustment of the pH and Redox values is carried out by means of a Proportional Integral regulation (PI).

The parameters for changing the approximation PI curve are Kp (Proportional) and Ki (Integral).

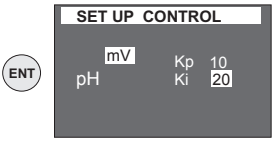
The default values (Kp=10, Ki=20) are standard values for a vast majority of instalations where in-line control is performed.

For a control in recirculation, the value of Ki = 0, except in special applications.

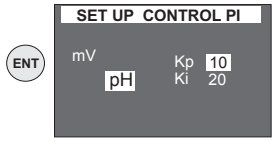




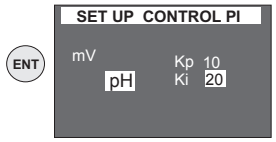
Redox control, proportionality constant for the PI control
Kp:10
Change value with ▼▲ and validate with ENT



Redox control, integral constant for the PI control
Ki:20
Change value with ▼▲ and validate with ENT

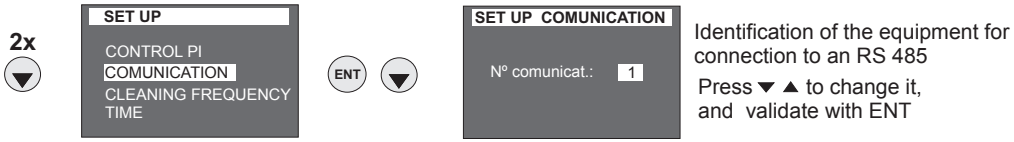


pH control, proportionality constant for the PI control
Kp:10
Change value with ▼▲ , and validate with ENT



pH control, integral constant for the PI control
Ki:20
Change value with ▼▲ , and validate with ENT

4.8.2 COMMUNICATION



Identification of the equipment for connection to an RS 485

Press ▼ ▲ to change it, and validate with ENT

CLEANING FREQUENCY

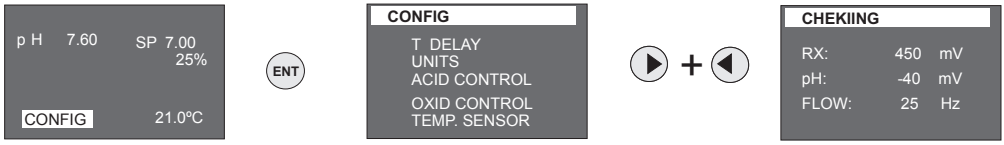
Not available

REFRESH TIME

Not available

4.8.3 CHECKING

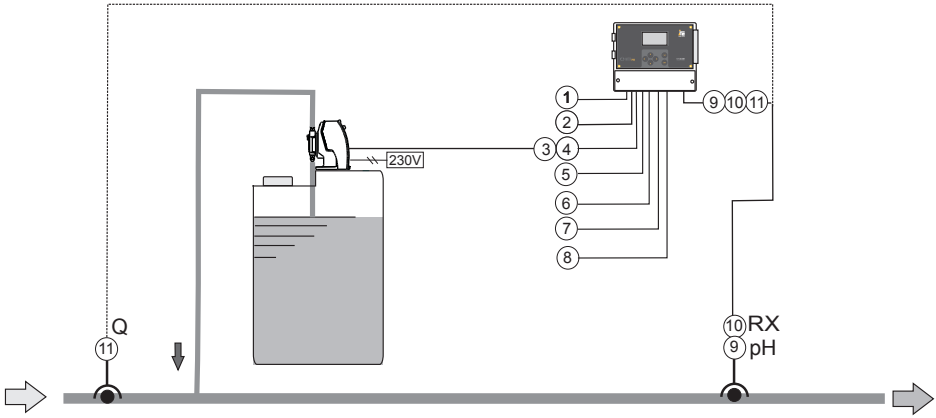
In the CHECKING menu we can verify the state of the sensors,by visualizing the readings of the sensors in mV or in Hz, according to the sensor.



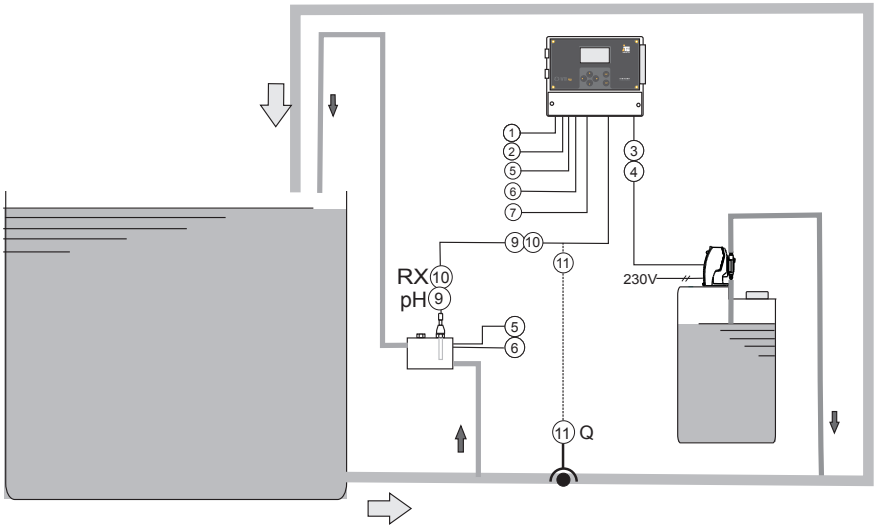
5 INSTALLATION AND WIRING

Choose a place protected from the water, away from sources of heat and direct sunlight to install the system.

In-line dosing

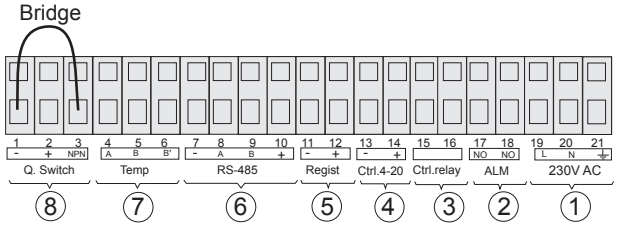


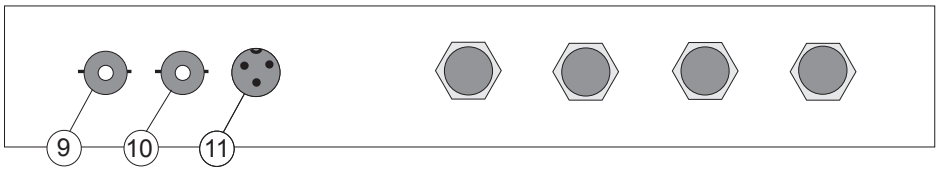
Recirculation dosing



WIRING FOR MODELS WTRPRO Q / WTRPRO pH / WTRPRO Rx

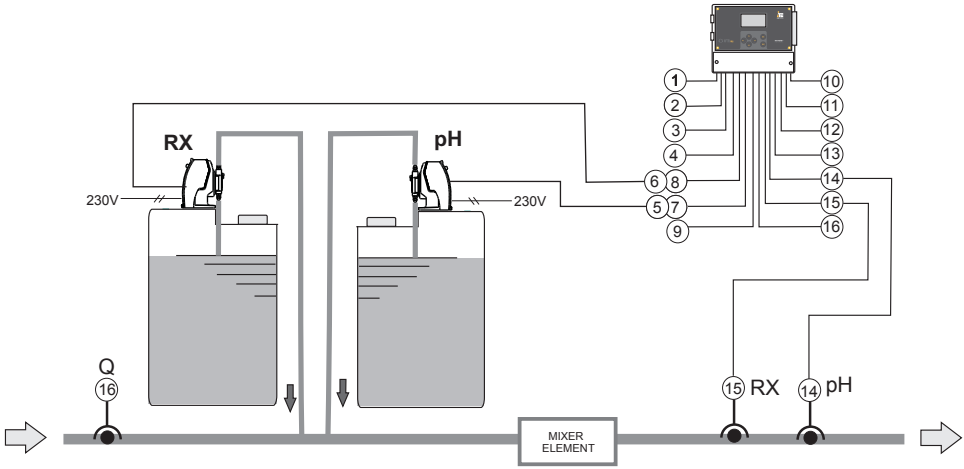
1. Power supply 230 V AC +/- 10%, 50/60Hz (nº 19,20,21)
2. Alarm output. Relay output NO, 24V AC-1A máx(nº 17,18)
3. Output control relay (nº 15,16)
4. Output control 4-20 mA (nº 13,14)
5. Output register (nº 11,12)
6. Output RS485, for the connection to a PC (nº 7,8,9,10)
7. Temperature sensor input (nº 4,5,6)
8. Flow detector input, Switch Q (nº 1,2,3) (If the Q.switch is not povided, place a bridge betwen 1 and 3, except in model **WTRPRO Q**)
9. PH sensor input (Socket BNC) **WTRPRO pH**
10. Redox sensor input RX (Socket BNC) **WTRPRO RX**
11. Flow input (Socket 3 pins) **WTRPRO Q**



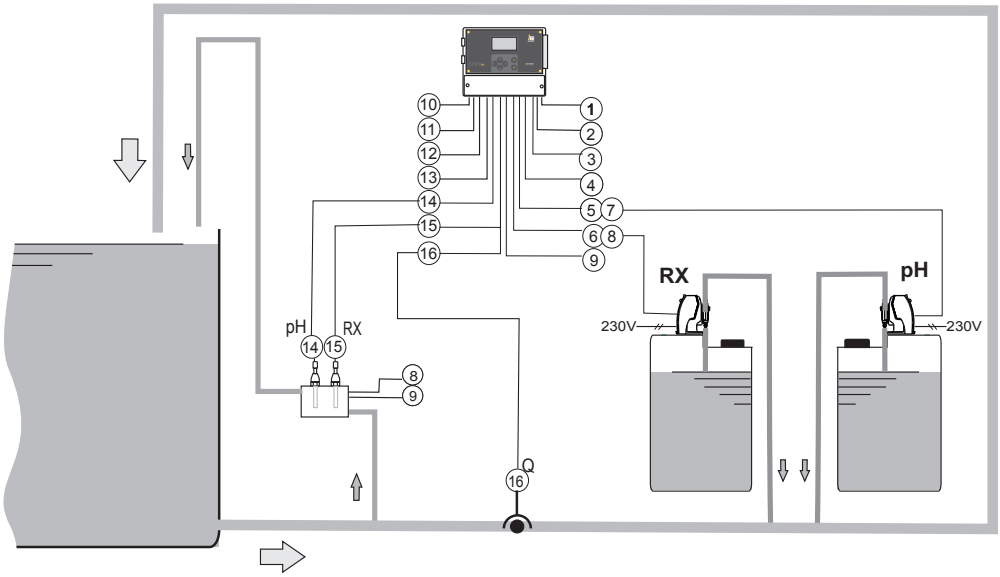


The probe wires must pass through a separate canalization.
A feed sectioning device must be installed which complies with Standard EN-60204-1.
A disconnection device must be installed in case of emergency. The system will have to be protected to prevent undesired sudden start-ups

In-line dosing

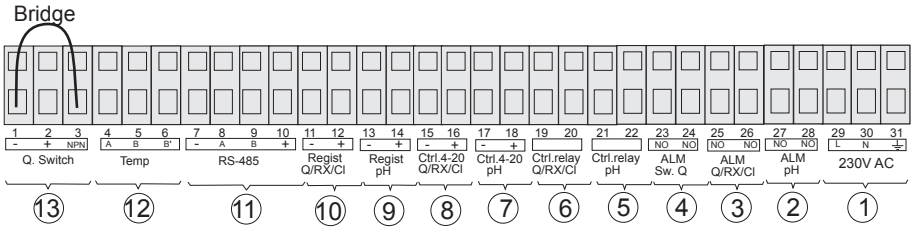


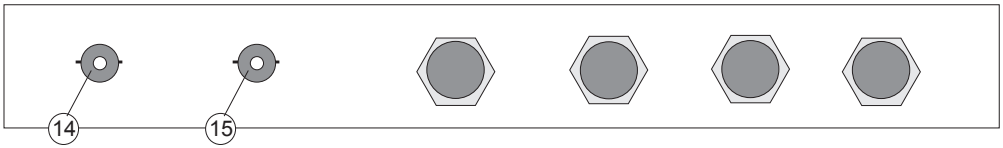
Recirculation dosing



WIRING FOR MODELS WTRPRO pH-RX

1. Power supply 230 V AC +/- 10%, 50/60Hz (nº 29,30,31)
2. Alarm output pH. Relay NO, 24V AC-1A máx(nº 27,28)
3. Alarm output RX. Relay NO, 24V AC-1A máx(nº 25,26)
4. Flow detector alarm output, Switch Q. Relay NO, 24V AC-1A máx(nº 23,24)
5. Output control relay pH (nº 21,22)
6. Output control relay RX (nº 19,20)
7. Output control 4-20 mA pH (nº 17,18)
8. Output control 4-20 mA RX (nº 15,16)
9. Output register pH (nº 13,14)
10. Output register RX (nº 11,12)
11. Output RS485 for the connectión to a PC (nº 7,8,9,10)
12. Temperature sensor input (nº 4,5,6)
13. Flow detector input, Q.switch (nº 1,2,3)(If the Q.switch is not povided, place a bridge betwen 1 and 3)
14. PH Sensor input, pH (socket BNC)
15. Redox Sensor input ,RX (socket BNC)



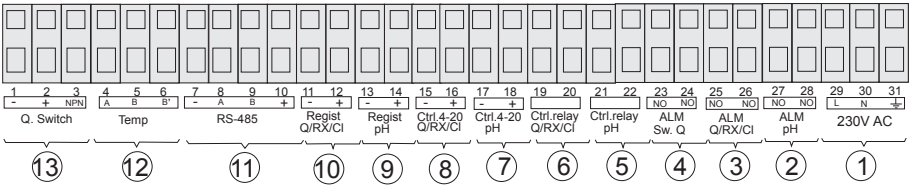


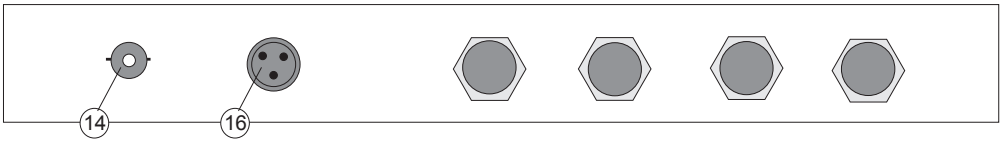
The probe wires must pass through a separate canalization.
A feed sectioning device must be installed which complies with Standard EN-60204-1.

A disconnection device must be installed in case of emergency. The system will have to be protected to prevent undesired sudden start-ups

*WIRING FOR MODELS WTR*PRO *pH-Q*

1. Power supply 230 V AC +/- 10%, 50/60Hz (nº 29,30,31)
2. Alarm output pH. Relé NO, 24V AC-1A máx(nº 27,28)
3. Alarm flow meter output Q. Relé NO, 24V AC-1A máx(nº 25,26)
4. Alarm flow detector meter output, Switch Q. Relé NO, 24V AC-1A máx(nº23,24)
5. Output control relay, pH (nº 21,22)
6. Output control relay, flow Q (nº 19,20)
7. Output control 4-20mA, pH (nº 17,18)
8. Output control 4-20mA, flow Q (nº 15,16)
9. Output register pH (nº 13,14)
10. Output register flow Q (nº 11,12)
11. Output RS485 for connection to a PC (nº 7,8,9,10)
12. Temperatura sensor input (nº 4,5,6)
13. Flow detector input, Q switch(nº 1,2,3)
14. PH sensor input , pH (socket BNC)
16. Flow meter input, Q (socket 3 pins)





The probe wires must pass through a separate canalization.
A feed sectioning device must be installed which complies with Standard EN-60204-1.

A disconnection device must be installed in case of emergency. The system will have to be protected to prevent undesired sudden start-ups

6 START-UP AND REGULATION

1. Installation:

Install the system and connect the pumps (see Installation and connections)

2. Calibration and configuration of the system:

Calibrate the corresponding sensors (pH, RX) (See Calibration)
Configure the system: Set point
Type of control
Installation and system configurations

3. Checking readings

Start the installation work and check to ensure that the sensor readings are correct

4. Checking dosing pump operation:

The DOSITEC dosing pump is activated by means of the keyboard of the pump ("Manual" function)
Dosing pumps with frequency variator: place the inverter box switch in position 50Hz.

5. Determine the "Tdelay" (Delay Time), according to the installation:

This parameter corresponds to the time that passes between two consecutive orders of the WTRpro, for positioning the regulation outputs.

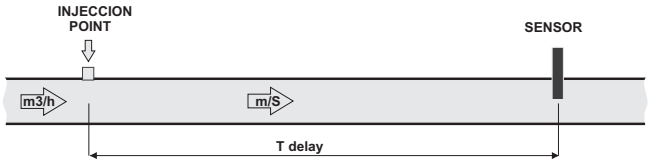
5.1 RECIRCULATION DOSING

In this case the Tdelay must be the minimum possible (Tdelay = 2 s)

5.2 IN-LINE DOSING

The Tdelay is the time that a drop of dosed product takes to move from the point of injection to the point where the sensor is, plus the sensor reaction time.
The Tdelay changes when the installation flow is varied. To optimize regulation, the Tdelay can be associated with a certain flow (Q Test), so that the WTRPRO modifies the Tdelay according to the water flow.

5.2.1 SENSOR INSTALLED IN MAIN PIPE



Calculation of ***Tdelay***

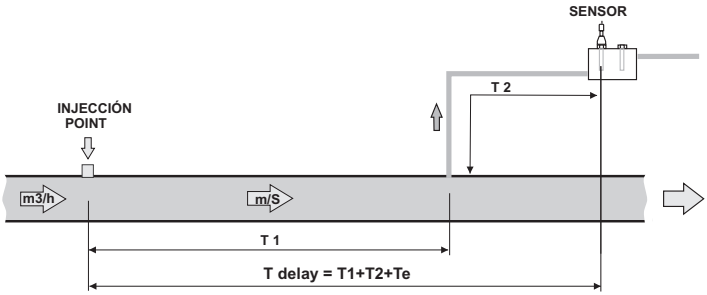
$$Tdelay = \left[\frac{0.28 \times L \times D^2}{Q \times 100} \right] + Te$$

L = length (m)
Q = minimal flow (m3/h)
D = inner pipe diameter (mm)
Te = Time stabilization of the sensor (5 s)

Example:
A pipe of inner diameter 190mm (D=19), with a flow of 100 m3/h (Q=100) .The length between the point of injection and the sensor is 10 meters (L=10m.). Time stabilization sensor 5s (Te=5). Applying the formula we find the Tdelay = 15 seconds.

It is necessary to bear in mind that if between the point of injection and the sensor there is some filter or another element that retains a considerable volume of water this calculation will owe corrected

5.2.2 SENSOR IN EXTERNAL SENSOR HOLDER



Tdelay *Calculation*

$$Tdelay = T1 + T2 + Te$$

T1 = Main pipe time

$$T1 = \frac{0.28 \times L \times D^2}{Q \times 100}$$

L = Length, principal pipe (m)
Q = flow (m3/h)
D = inner pipe diameter(mm)

T2 = Time in hose of the sensor holder (ref:44-020) with flow regulator to 50l/h and inner hose diameter of 6mm

$$T2 = 2 \times l$$

L = length for the hose to sensor holder (m)

Te =Sensor stabilization time (Te = 5 s)

Bear in mind that if there is a filter or another element that retains a considerable volume of water between the point of injection and the sensor this calculation will have to be corrected.

Example:
A pipe with an inner diameter of 190 mm (D=19), with a flow of 100 m3/h (Q=100). The length between the point of injection and the sensor is 10 metres (L=10m.). By applying the formula we find the Tdelay = 10 seconds.
The length of tubes from the sensor holder is 2 metres (l = 2). By applying the formula we find the T2 = 4 seconds,
Supposing a sensor stabilization time of 5 s, Te=5
Finally, by applying the initial formula, the user will find the Tdelay = 19 seconds

If the T2 time is very much lower than the T1 time, we may consider the Tdelay to be variable with the flow, meaning that we will introduce the value of the Qtest.
If the T2 time is slightly lower or higher than the T1 time, it is incorrect to consider that the Tdelay is variable with the flow, meaning we will introduce a Qtest = 0, thus establish a fixed Tdelay

Practical determination of the Tdelay

1. Let non-treated water flowing through the pipes making sure that there is no product dosage.

2. Wait until the sensor readings are stable.

3. Start a dosing pump manually and start a chronometer at the same time.

4. The reading of the corresponding sensor will begin to increase until becoming stable. The chronometer will then stop, and the time which has passed will be Tdelay time.

5. Introduce the value of the flow with which this has been carried out, within the Qtest parameter, so as to have a Tdelay that varies with the flow. (For a fixed Tdelay, introduce a Qtest = 0).

See paragraph 4.7.1

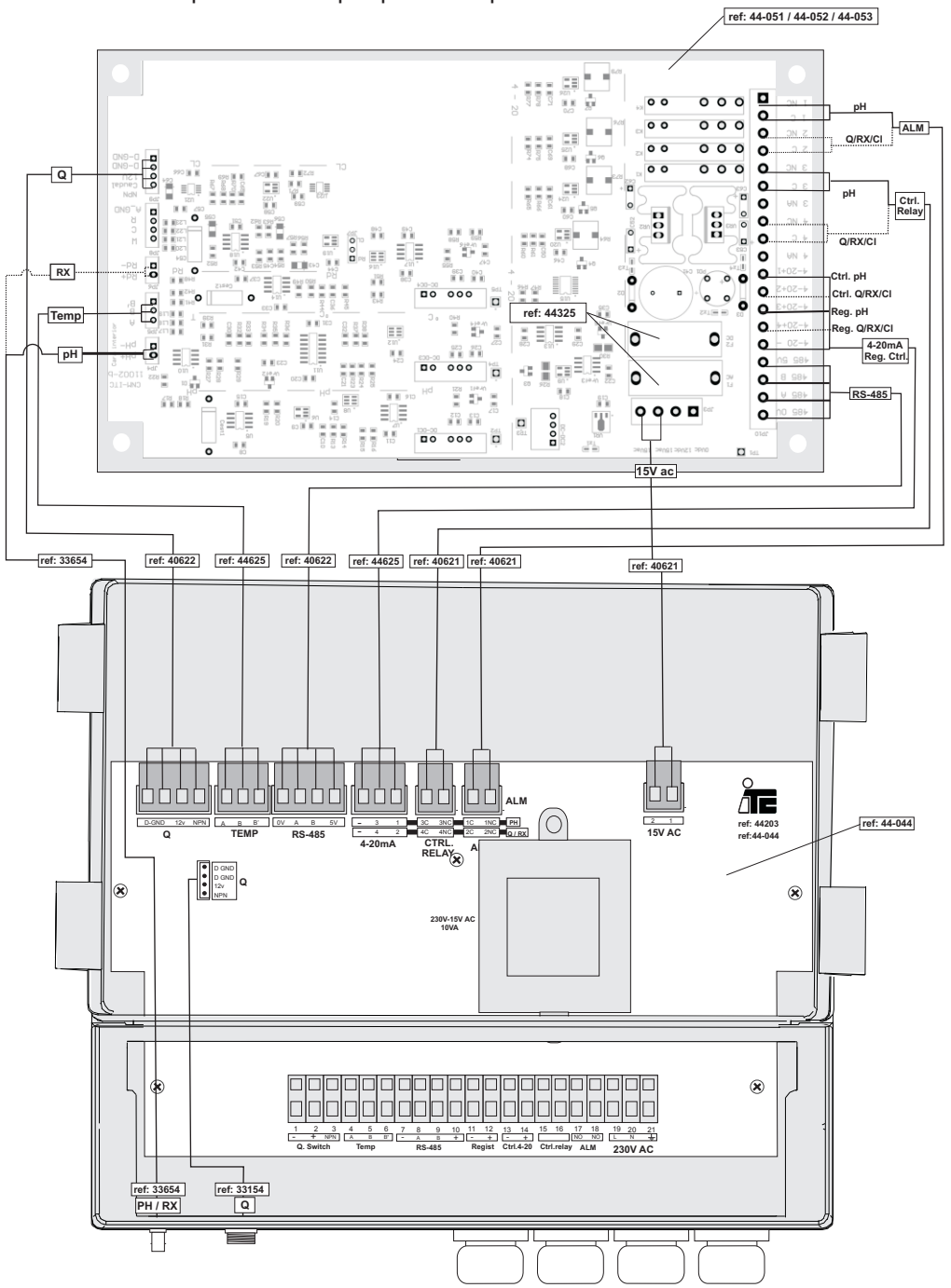
6.- Alarms:

Configure the alarms, once you have checked to ensure the proper operation of the installation.

See paragraph 4.5

7.- MAINTENANCE

7.1 Models WTRpro Q / WTRpro pH / WTRpro RX



List of parts

Model WTRPRO Q

CODE	DESCRIPTION	QUANTITY
33154	Flowmeter cable C+(C 3P)	1
44-051	Electronic card WTRPRO Q assembly	1
44-044	Connection card WTRPRO 1 output	1
40621	Cable 2 wire female elbow strips	3
40622	Cable 4 wire female elbow strips	2
44625	Cable 3 wire female elbow strips	2
44325	Fuse 500 mA L 5x20	2

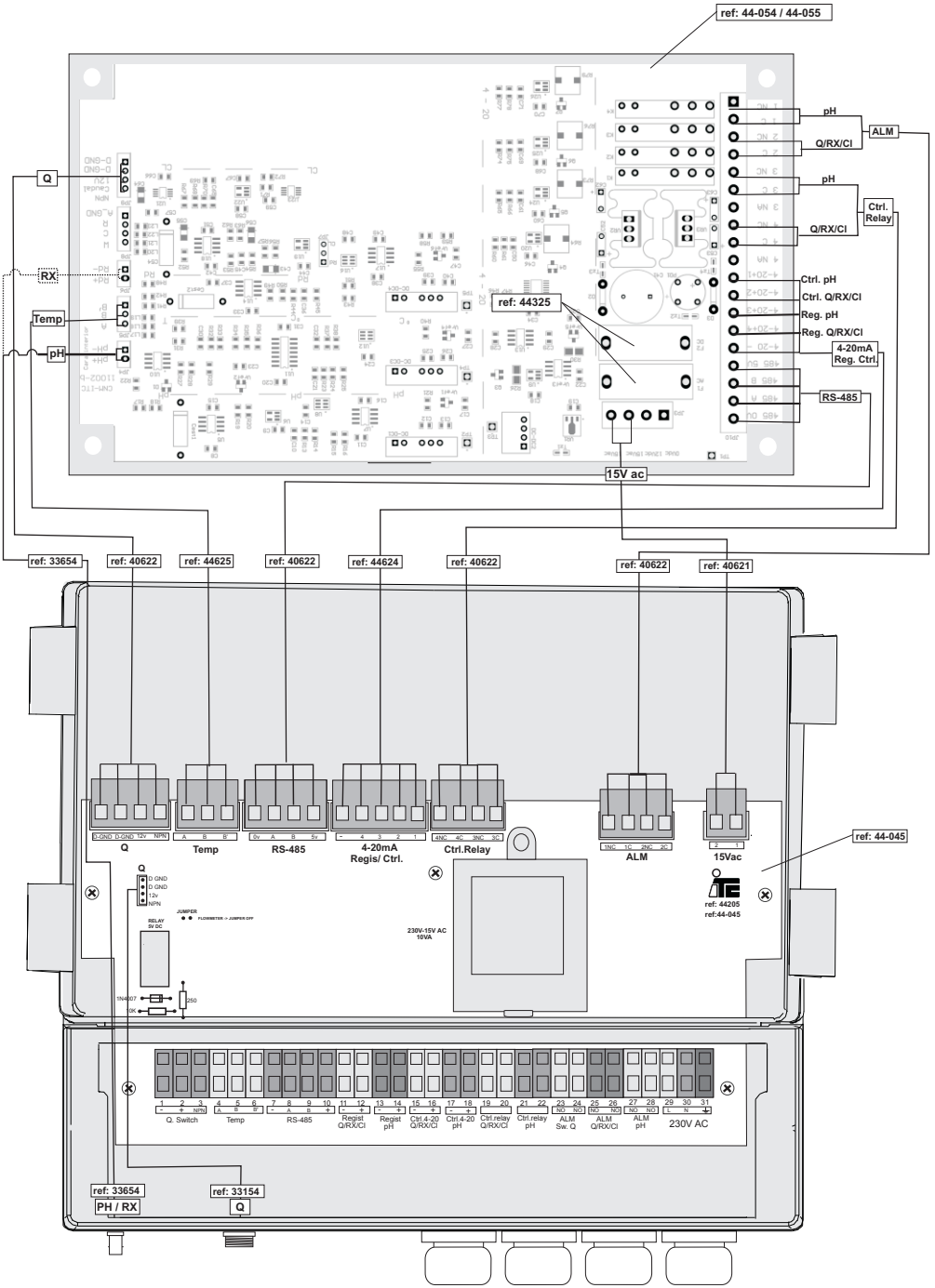
Model WTRPRO pH

CODE	DESCRIPTION	QUANTITY
33154	Flowmeter cable C+(C 3P)	1
33654	Cable pH (RX) (CBNC 2P)	1
44-052	Electronic card WTRPRO pH assembly	1
44-044	Connection card WTRPRO 1 output	1
40621	Cable 2 wire female elbow strips	3
40622	Cable 4 wire female elbow strips	2
44625	Cable 3 wire female elbow strips	2
44325	Fuse 500 mA L 5x20	2

Model WTRPRO RX

CODE	DESCRIPTION	QUANTITY
33154	Flowmeter cable C+(C 3P)	1
33654	Cable pH (RX) (CBNC 2P)	1
44-053	Electronic card WTRPRO Redox assembly	1
44-044	Connection card WTRPRO 1 output	1
40621	Cable 2 wire female elbow strips	3
40622	Cable 4 wire female elbow strips	2
44625	Cable 3 wire female elbow strips	2
44325	Fuse 500 mA L 5x20 2	2

7.2 Models WTRpro pH-RX / WTRpro PH-Q



List of parts

Models WTRPRO pH-RX

CODE	DESCRIPTION	QUANTITY
33654	Cable pH (RX) (CBNC 2P)	2
44-054	Electronic card WTRPRO pH-RX assemblly	1
44-045	Connection card WTRPRO 2 outputs 1	
40621	Cable 2 wire female elbow strips	1
40622	Cable 4 wire female elbow strips	4
44625	Cable 3 wire female elbow strips	1
44624	Cable 5 wire female elbow strips	1
44325	Fuse 500 mA L 5x20	2

Models WTRPRO pH-Q

CODE	DESCRIPTION	QUANTITY
33154	Flowmeter cable C+(C 3P)	1
33654	Cable pH (RX) (CBNC 2P)	1
44-055	Electronic card WTRPRO pH-Q assembly	1
44-045	Connection card WTRPRO 2 outputng	1
40621	Cable 2 wire female elbow strips	1
40622	Cable 4 wire female elbow strips	4
44625	Cable 3 wire female elbow strips	1
44624	Cable 5 wire female elbow strips	1
44325	Fuse 500 mA L 5x20	2

CONFORMITY DECLARATION

I.T.C S.L..
Vallès, 26
Polígono Industrial Can Bernades-Subirà
08130 Santa Perpètua de Mogoda

Declares that all the models of the products WTRPRO identified with serial number and year of manufacture fulfill the Managing Low Tension D2006/95/CE and the board of Electromagnetic Compatibility D2004/108/CE whenever the installation, the use and the maintenance are carried out in agreement in accordance with the current regulation and following the indications of the manual of instructions.

Antón Planas
Gerente

WARRANTY

ITC DOSING PUMPS

I.T.C. S.L. warranties the product specified in this document by the period of 1 year from the date of buy, against any shortcoming of manufacture or material, whenever the installation, use and maintenance of the team have been the correct ones.

The system must be sent, freely from expenses, to our workshop or technical service of I.T.C. Accredited S.L. and his return will be carried out to due freightages.

It will should accompany the system the document of guarantee with the date of buy and stamp of the selling establishment, or photocopy of the invoice of buy.

MODEL
_____

SERIES Nº
_____

Date of buy and stamp of the selling establishment

DATE: _____

Original manual Ed: 30/04/2019 - EN

ITC
DOSING PUMPS

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