



LECTOR

CONDUCTIVITY

PH

FLOW



SAFETY RULES

To avoid personal or environmental 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.

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1.- GENERAL DESCRIPTION



1.1 GENERAL DESCRIPTION

LECTOR

Constant values display of:

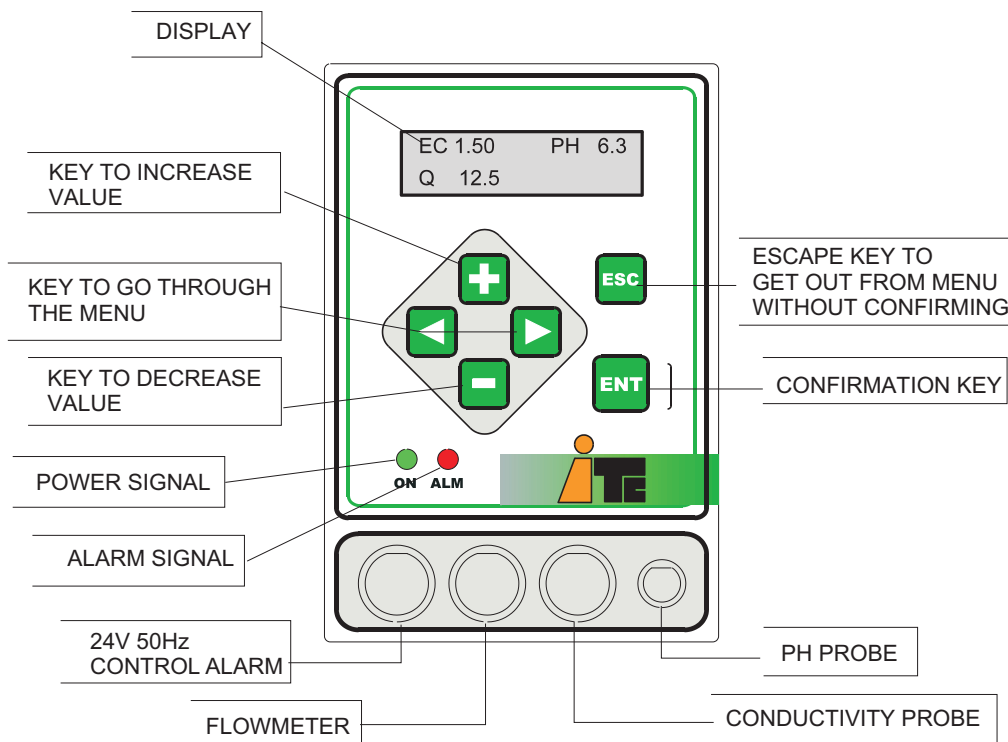
- **INSTANT FLOW** (m^3 / h - **GPM**)
- **CONDUCTIVITY**
- **PH**

Depending on how electrodes and flowmeter are connected.

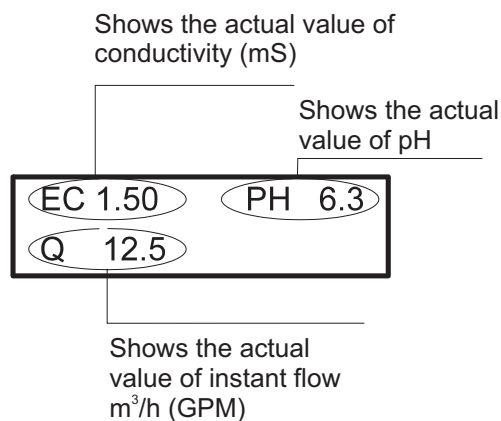
A max/min alarm can be fixed for a conductivity/PH parameter or for "0" flow.

Provided by 220/24V AC transformer - plug

1.2.- DESCRIPTION OF FRONT PART



1.3.- DESCRIPTION OF DISPLAY



2.- CARRIAGE AND MAINTENANCE



The original packing is prepared so that carriage and storing of the product do not cause any damage to the product, as long as this is done far from heat sources and in dry, ventilated spaces.

Inside packing we include:

Lector

Handbook

Output alarm cable

3.- TECHNICAL FEATURES



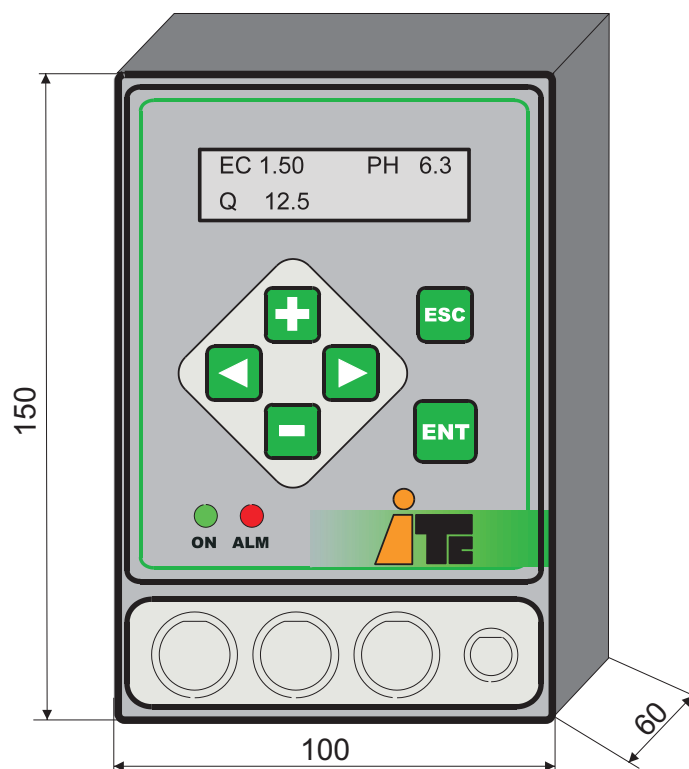
Power supply: 230 V AC (+/- 20%)

Max consumption: 0,3 A

Working temperature: 0 - 45 °C

Don't leave outdoors unprotected and keep away from the sun

DIMENSIONS



4.- FUNCTIONEMENT



4.1 - SPECIAL CONFIGURATION MENU

To reach this menu you must push both keys ESC and ENT for three seconds.

To run forward you will use the arrows (forward without validation) and ENTER (forward with validation). To modify values you will use keys +/-.

EC: 1.40 mS

Value of the conductivity buffer supplied by ITC. If another buffer is to be used, the value of the new buffer will have to be introduced.

Q UNIT: LITERS

Visualization of flow in l/hr (m³/hr) or in gallons/minute (GPM).

DIAM UNIT: MM

Visualization of diameter in MM or in inches.

FLOW K: 34.7

Amount of pulses per m/sec given by the flowmeter.

4.2 - GAUGING



GAUGING THE CONDUCTIVITY PROBE

PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC N.NN PH N.N Q N.N </div>	EC N.NN in intermittent
PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC N.NN ALM CAL </div>	N.NN in intermittent
PUSH	 	WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC N.NN ALM CAL </div>	CAL in intermittent
PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC M.MM 0.00 1.40 </div>	0.0 In intermittent
Unplug the conductivity probe and wait for reading to become stabilized				
PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC M.MM 0.00 1.40 </div>	1.40 In intermittent
Put the conductivity probe in the buffer liquid 1.4 mS, wait for the N.NN to be stabilized.				
PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC N.NN PH N.N Q N.N </div>	PROBES ARE GAUGED

GAUGING OF THE PH PROBE



PUSH		WILL APPEAR		PH N.NN in intermittent
PUSH		WILL APPEAR		N.NN in intermittent
PUSH		WILL APPEAR		CAL in intermittent
PUSH		WILL APPEAR		7.0 in intermittent
Put the pH probe in the buffer liquid pH7, wait for the N.NN to be stabilized				
PUSH		WILL APPEAR		4.0 in intermittent
Put the pH probe in the buffer liquid pH4, wait for the N.NN to be stabilized				
PUSH		WILL APPEAR		PROBES ARE GAUGED

GAUGING OF FLOWMETER



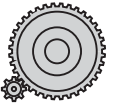
PUSH		WILL APPEAR		Q N.N in intermittent
PUSH		WILL APPEAR		0% in intermittent
PUSH		WILL APPEAR		CAL in intermittent
PUSH				
PUSH	 			To set the sum of the flows of the different injection modules, keeping in mind their regulation, and excluding the acid one.
PUSH		WILL APPEAR		
PUSH	 			To set the inner diameter in mm of the pipe one which the flowmeter is located.
PUSH	 	WILL APPEAR		THE FLOWMETER IS GAUGED

4.3 - ALARMS



CONDUCTIVITY ALARM

PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC N.NN PH N.N Q N.N </div>	EC N.NN In intermittent
PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC ALM N.NN CAL </div>	N.NN In intermittent
PUSH	 	TO INCREASE OR DECREASE THE MAXIMUM ALLOWED DIFFERENTIAL		
PUSH		TO SET THE NEW SET-POINT VALUE		
		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC 2.50 PH 6.3 Q 7.8 </div>	
PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC N.NN PH N.N Q N.N </div>	EC N.NN In intermittent
PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC ALM N.NN CAL </div>	N.NN In intermittent
PUSH	 	WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC ALM N.NN CAL </div>	ALM In intermittent
PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC >0.0 T-- <0.0 T-- </div>	0.0 In intermittent
PUSH	 	To increase or decrease maximum allowed differential		
PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC >N.N T-- <0.0 T-- </div>	-- In intermittent
PUSH	 	To increase or decrease the time allowed with the differential T =-- No alarm		



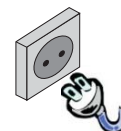
PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC >N.N TNN <0.0 T-- </div>	0.0 In intermittent
PUSH	 			To increase or decrease minimum allowed differential
PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC >N.N TNN <N.N T-- </div>	-- In intermittent
PUSH	 			To increase or decrease the time allowed with the differential T =--- no alarm
PUSH	 	 		To validate and go back to original screen. To go back to main screen without validation

PH ALARMS

PUSH	 	WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC N.NN PH N.N Q N.N </div>	PH N.NN In intermittent
PUSH		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> PH N.NN ALM CAL </div>	N.NN In intermittent
PUSH	 			TO INCREASE OR DECREASE THE SET-POINT VALUE OF PH
PUSH				TO SET THE NEW SET-POINT VALUE
		WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC N.NN PH N.N Q N.N </div>	
PUSH	 	WILL APPEAR	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> EC N.NN PH N.N Q N.N ' </div>	EC N.NN In intermittent

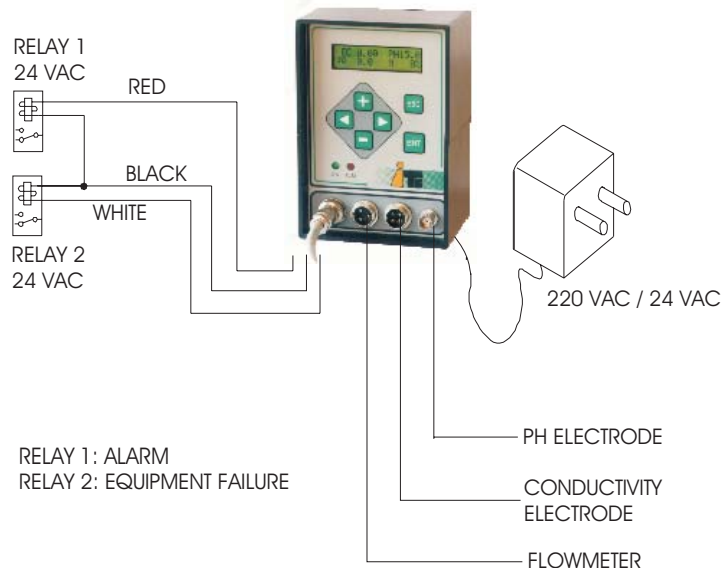


PUSH		WILL APPEAR		N.NN In intermittent
PUSH		WILL APPEAR		ALM In intermittent
PUSH		WILL APPEAR		0.0 In intermittent
PUSH	 			To increase or decrease maximum allowed differential
PUSH		WILL APPEAR		- - In intermittent
PUSH	 			To increase or decrease the time allowed with the differential T =--- no alarm
PUSH		WILL APPEAR		0.0 In intermittent
PUSH	 			To increase or decrease minimum allowed differential
PUSH		WILL APPEAR		- - In intermittent
PUSH	 			To increase or decrease the time allowed with the differential T =--- no alarm
PUSH	 	 		To validate and go back to initial screen To go back to main screen without validating



5.- INSTALLATION

Relays 1 and 2 will be assembled if an electric device is to be switched ON/OFF when an alarm is activated



The maximum distance where we can set up the controller is the one allowed by the cable length of the different electrodes of **CONDUCTIVITY**, **pH** or **FLOWMETER (5 m / 15 ft)**. If this is not enough, please contact **ITC**.

6.- MAINTENANCE



- It is important to BUFFER the CONDUCTIVITY and pH probes regularly in order to verify their right working. To this end it is advised to use the buffers supplied by ITC and to follow the GAUGING instructions.
- For the maintenance of the injection pump, follow the instructions therein contained.
- Never keep the pH probe dry (whether inside or outside the pipe) as it becomes very quickly polluted and it can be damaged.

EC CONFORMITY DECLARATION



*I.T.C S.L..
Mar Adriàtic, 1
Polígono Torre del Rector
08130 Santa Perpètua de Mogoda*

Declares that all models LECTOR products, identified by a serial number and year of manufacture, strictly fulfill low voltages directives 73/23/CE and electromagnetic compatibility directives 89/336/CE, as long as installation, use and maintenance are carried out following the prevailing regulation and following the instructions contained in the handbook.

*Josep Segura
Manager*

WARRANTY



I.T.C. S.L. Warrants the product specified in this document for a period of 1 year from the purchase date. This warranty obligation is limited to the free replacement of the damaged parts due to any material or manufacture defect. This warranty does not include periodic maintenance and damage resulting from misuse.

The equipment must be sent to I.T.C. S.L. Service Center with prepaid transport charges, and will be sent back with transport charges for customer's account.

The warranty document with sales date and shop stamp, or an invoice copy must be sent with the equipment.

MODEL

SERIAL #

Sales date and shop stamp

DATE: _____



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