

CONTENTS

Presentation 2

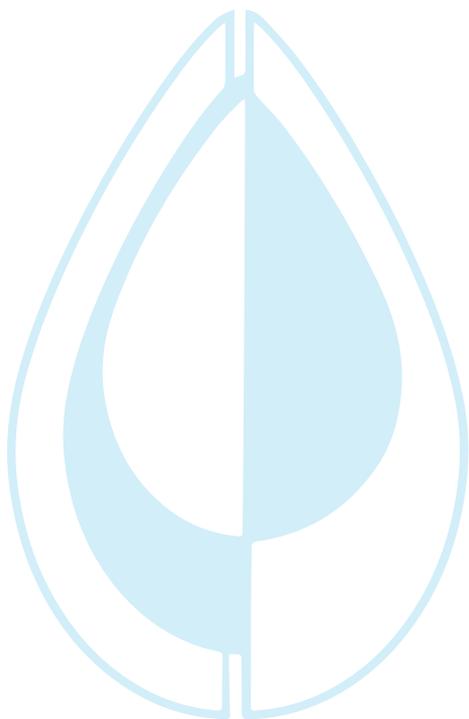
PH Control pump 3 - 4

EC Control pump 5- 6

PH & EC Controller 7 - 10

Hydroponic System 11 - 14

PROSYSTEM AQUA S.L



ProsystemAqua is a widely experienced company in the field of Water Treatment. We continuously work to respect the environment, finding solutions for waste water treatments and controls.

WE MANUFACTURE PH pumps, EC pumps and nutrient controllers.

WE DESIGN automatic irrigation systems for all kinds of crops.

WE DEVELOP home-automation systems for the entire control of rooms.



1 REGULATORY PH PUMP

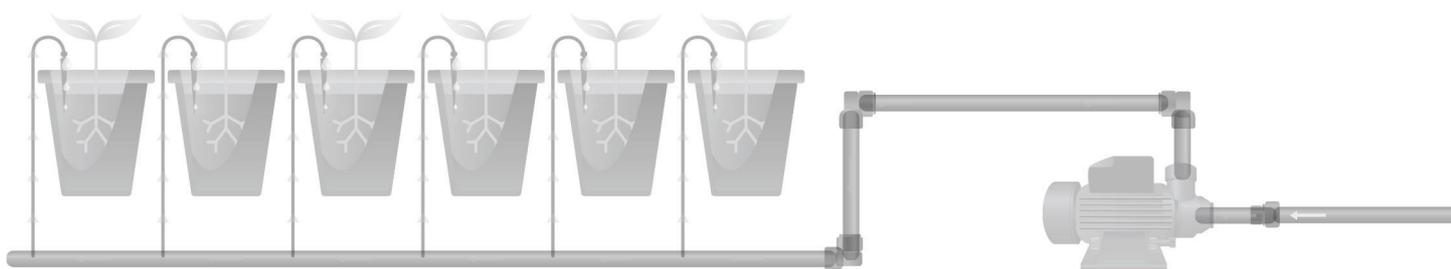


The regulatory PH pump has been specially designed for continuous measurement and control of pH in water tanks. Its small and precise flow rate of 40 ml / h, makes it the simplest and yet most advanced market instrument for this kind of application.

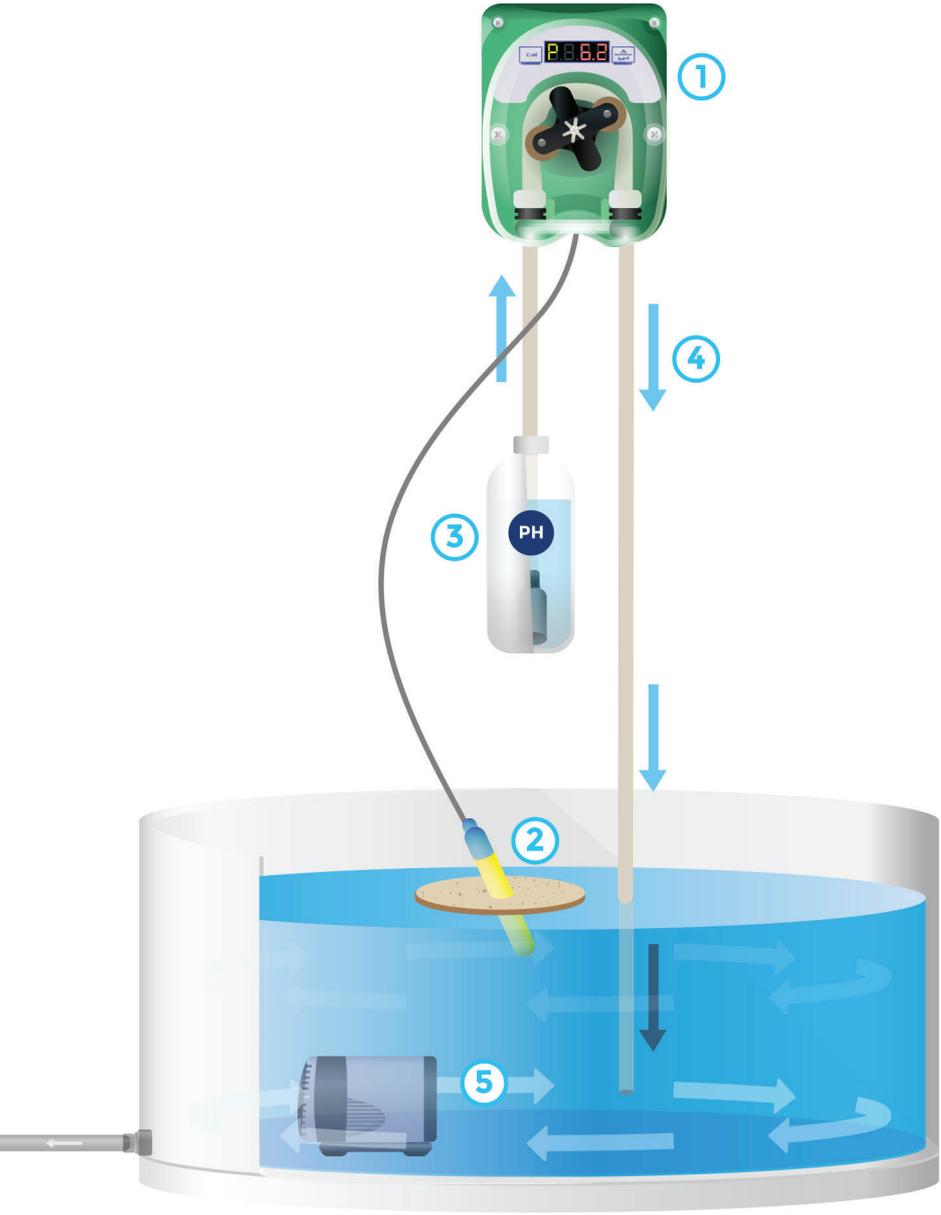
Its uses are many and varied: Golf fields, seed beds, gardens, backyard gardens, garden centers and aquariums, grow shop. In short, in any installation where regulation of PH of the water is required.

Comes equipped with a complete installation kit including: PH electrode, suction and discharge fittings, suction and discharge pipes, PH7 standard solution, wall mounting bracket and fixing screws.

Cod. 01001 PH PUMP KONTROL01



REGULATORY PH PUMP



- 1 Switching on the pump**

Once installed and running, proceed to the programming of the pump. Entering the value we want to "set point", programming the mode PH down (acid) or PH Up (alkaline) and check that the probe is calibrated, otherwise proceed with the calibration.
- 2 Measuring of PH**

The probe detects the PH level of the water and is indicated on the display of the pump.
- 3 Aspiration of PH Down or PH up**

The pump sucks from the container PH down or PH up through the suction filter.
- 4 Injection of the product**

The pump delivers the fluid PH down or PH up through the drip injection valve.
- 5 PH adjusted**

The water recirculation pump and the PH regulation product injected through the pump will be agitated until the probe detects the programmed "set point" value and stops the dosing.

2 REGULATORY EC PUMP



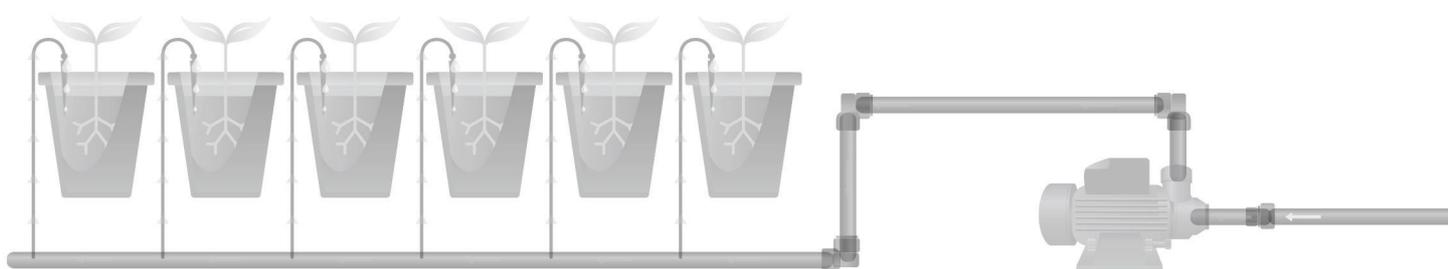
The regulatory EC pump is one of the most complete and simplest nutrient dosing pumps in the market. It is designed to control or booster fertilizers in water tanks. Its small and simple functioning makes it the simplest and yet most advanced market instrument for this kind of application.

The conductivity is controlled and regulated by the pump with a constant flow rate of 40ml through EC probe.

Once set point is programmed, the pump dispenses the mixture of fertilizers or booster in the water tank up to the programmed EC value.

It comes equipped with a complete installation kit including: conductivity probe, cable connector for EC probe, suction and discharge fittings, suction and discharge pipes, wall mounting bracket and fixing screws.

Cod. **02002** EC PUMP CONTROL02



REGULATORY EC PUMP



1

Switching on the pump

Once installed and connected to the circuit, proceed to the programming of the pump. Introduce the desired set point and calibrate the probe.

2

Water recirculation

The water recirculation pump should be running at the same time with the EC pump and should re-circulate the water through the collector, which we have previously installed together with the EC probe and the pump injector.

3

Conductivity measurement

EC probe detects the conductivity in the water and is indicated on the display of the pump.

4

Aspiration of fertilizers

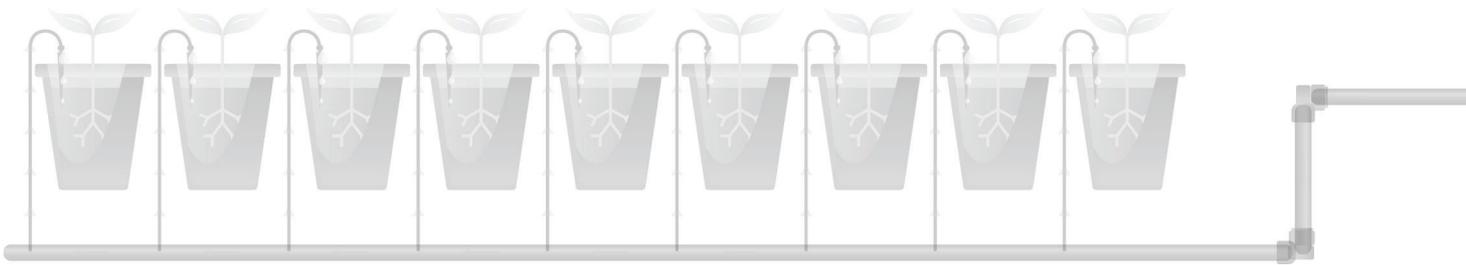
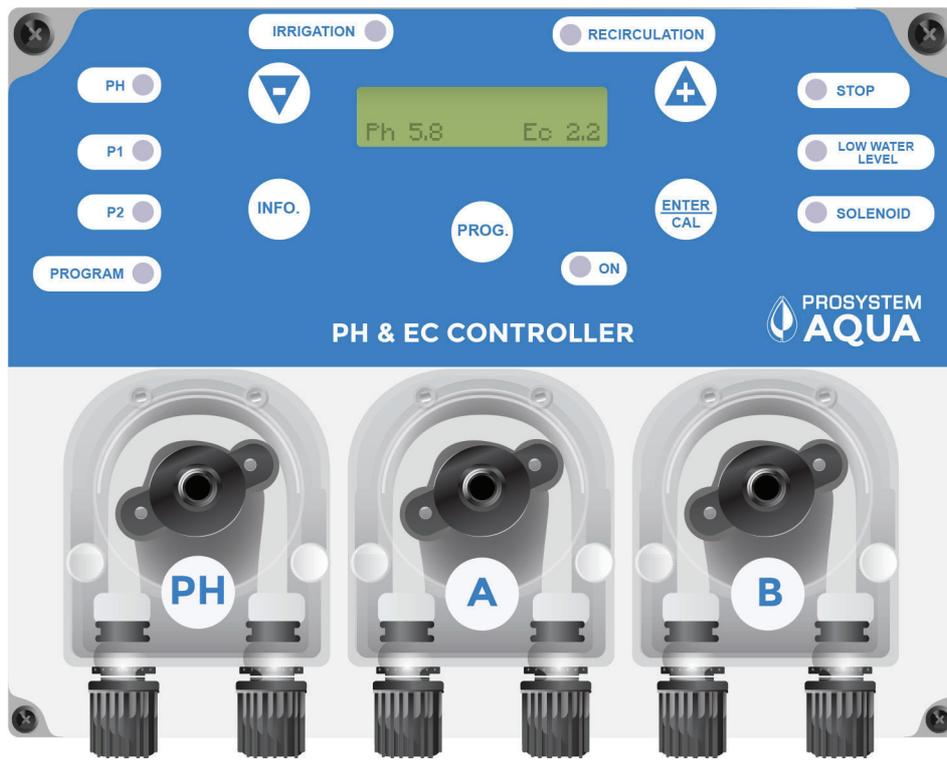
The pump sucks through the suction filter and from the container that includes the mixing of fertilizers that we have prepared.

5

Injection of fertilizer

The metering EC pump dispenses through the injection valve of the collector until the set point value of EC in the tank for irrigation water is adjusted.

3 PH & EC CONTROLLER



PH & EC CONTROLLER

The PH & EC controller is a control system and continuous measurement of conductivity and PH in water tanks.

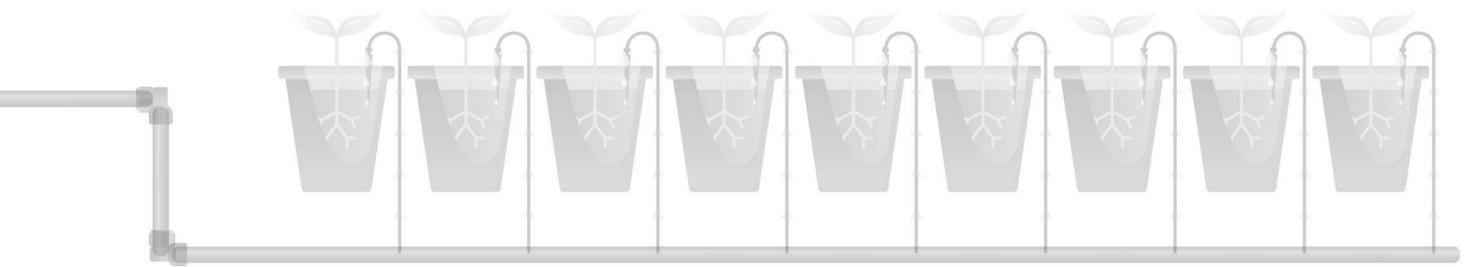
Its special design makes it one of the most complete and simple PH and nutrient controller in the market. It works for any irrigation system or application where we must control and measure water for PH and EC accurately.

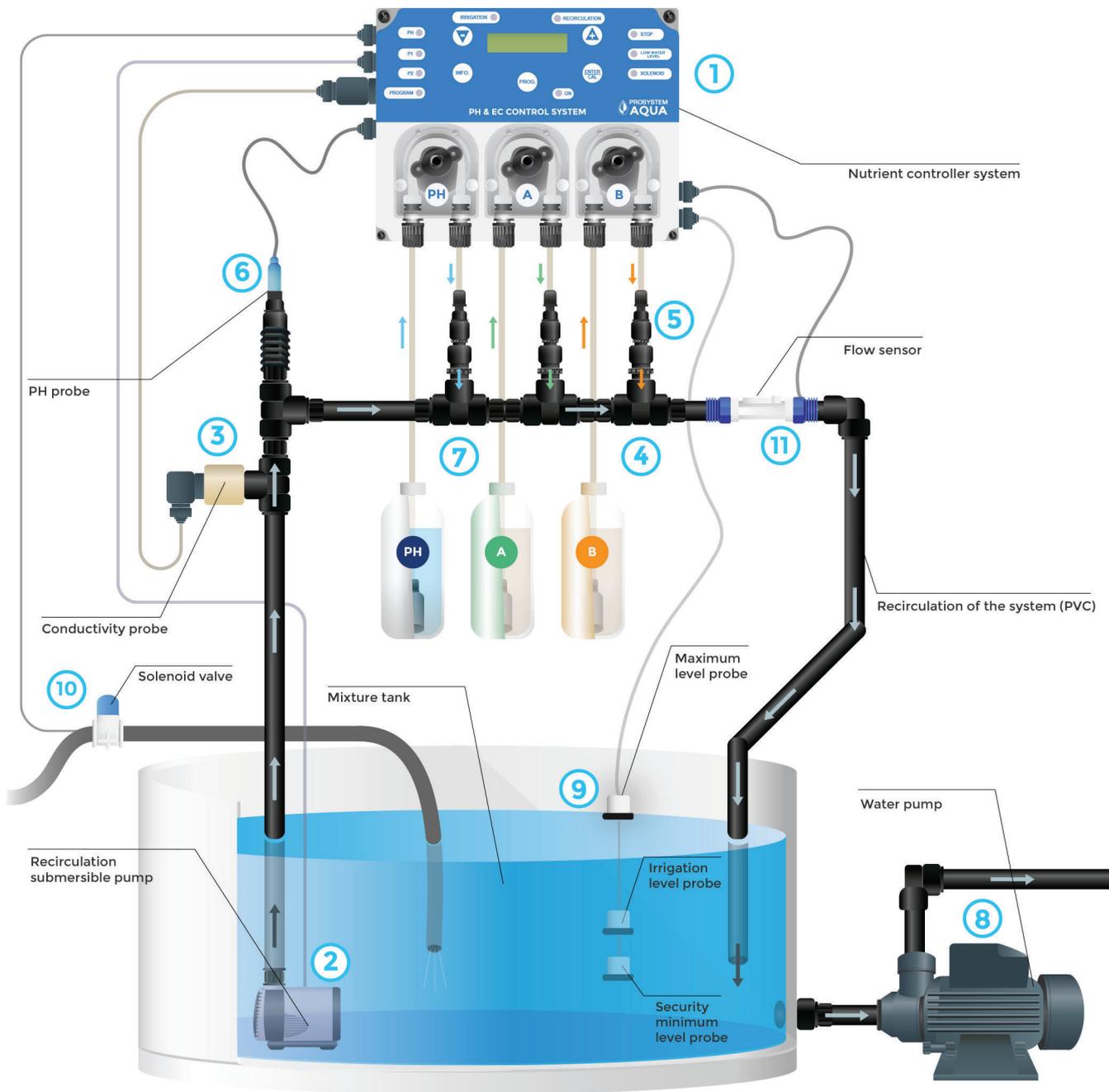
The PH & EC Controller regulates automatically and very precisely the fertilizers and PH of the water tank by adjusting the programmed PH value of EC in the controller. The amount of fertilizer needed for each of the pumps is independently adjustable proportional with flow variable from 0-2 L / h.

The controller is also able to activate automatically the filling level of the water reservoir. It also automatically switches the irrigation pump once the values of EC and PH in the water tank are checked.

PH & EC controller comes fully equipped including: PH probe, EC probe, PH probe holder, cable connector EC, PH7 PH4 calibration bottles, impulsion and suction tubes, injectors, brackets and wall plugs for fixing.

Cod. **04001** PH & EC CONTROLLER





PH & EC CONTROLLER

1

Switching on the PH & EC Controller

Once installed the controller and connected to the circuit, proceed to the programming of the fertilizer pump. Entering the value we want to "set point" and the proportional fertilizer flow of each pump. Later we will be programming the set point of PH and adjust the mode of PH down (acid) or PH Up (alkaline). We proceed to verify that the probe PH and EC are calibrated. We must also set the start times of irrigation and time.

2

Recirculation of the pump

The recirculation pump of the water tank will be activated by PH & EC Controller at the scheduled start time.

3

Measurement of conductivity

EC probe detects the conductivity in the water and is indicated in the display driver.

4

Dosing of fertilizers

The dosing pumps for the control of conductivity A,B draw from the fertilizer containers through the suction filters.

5

Injection of fertilizers

The pumps perform the dosing of the fertilizers through the injection valves and are incorporated in the water recirculation collector.

6

Measuring of PH

The PH probe continuously measures the value that is in the water and is indicated in the display drive.

7

Dosing of product

The PH regulating pump draws from the ph down o PH Up bottle and performs the dosing through the injector until reaching the programmed set point value.

8

Activation of irrigation pump

The irrigation pump is automatically activated through the controller when it detects that the values of EC and PH are perfectly adjusted and stable in water.

9

Level probes (Optional)

Probes for minimum and maximum level, to regulate water level and automatic filling. Emergency probes that deactivates PH & EC Controller in order to avoid overdosing.

10

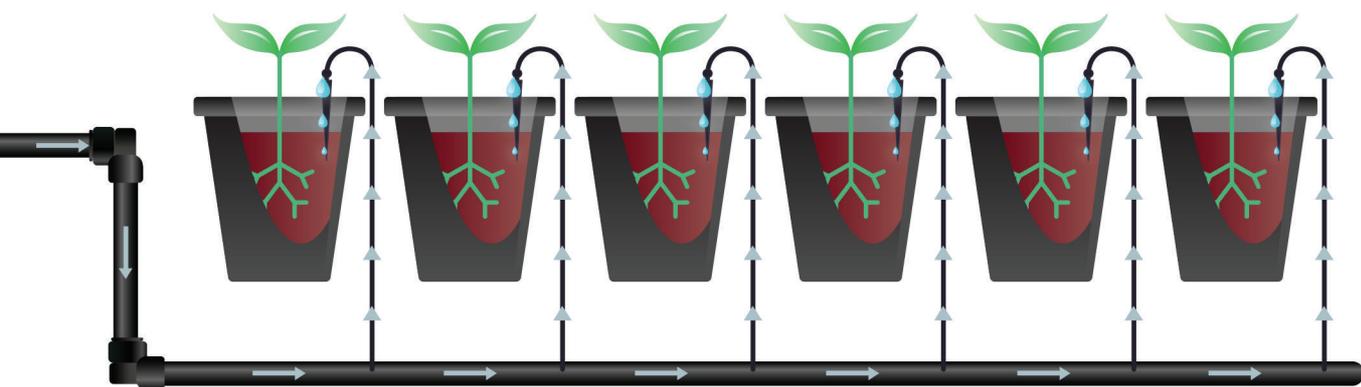
Solenoid valve (Optional)

Solenoid valve, which is activated through the minimum probe for filling water into the reservoir and deactivated by the maximum probe when the maximum water level is reached.

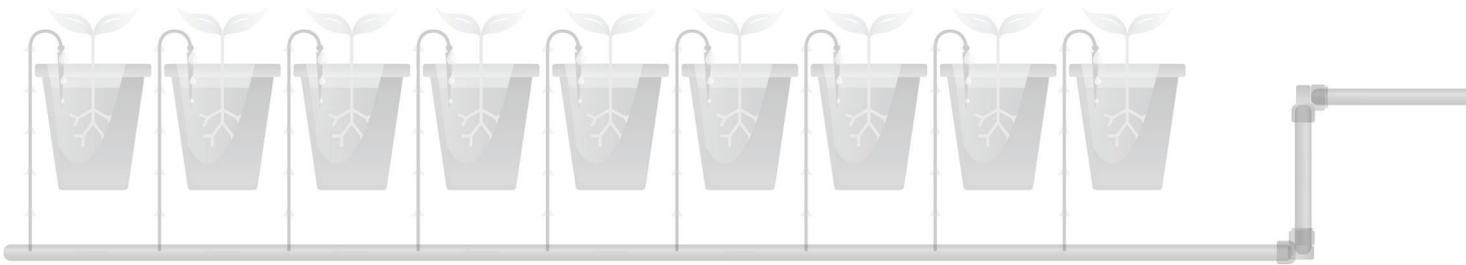
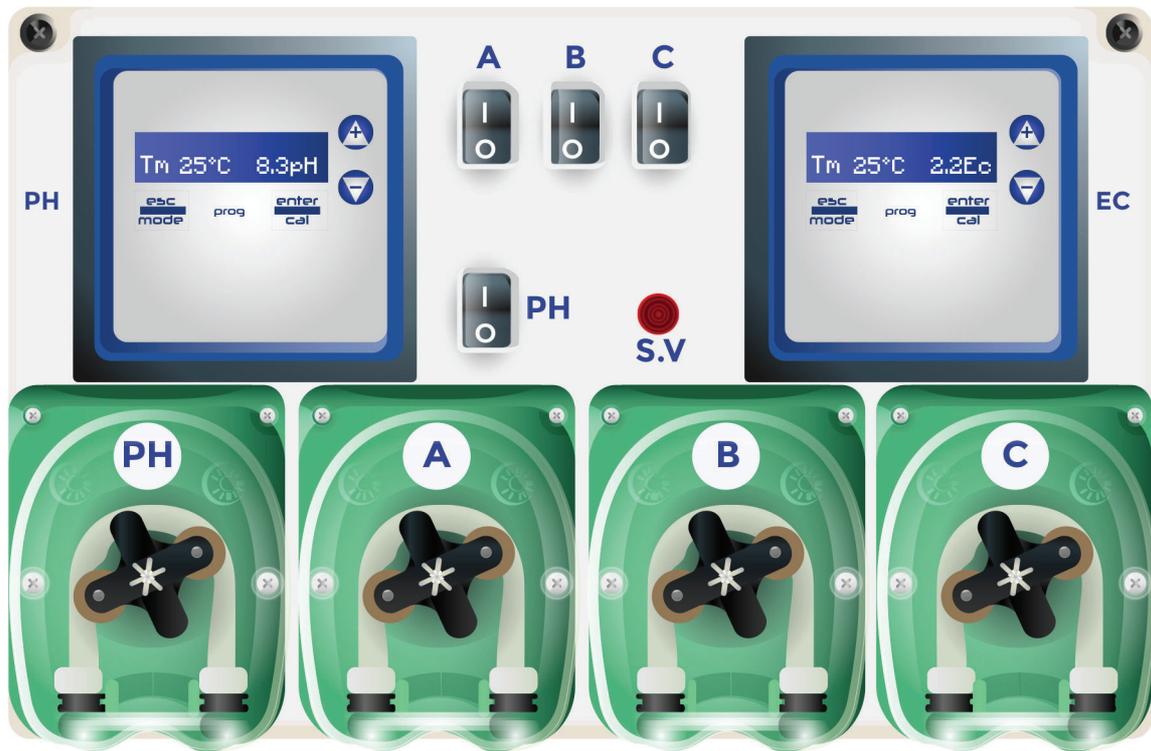
11

Flow sensor (Optional)

Flow sensor, deactivates the PH&EC controller when there is lack of water in the collector.



4 HYDROPONIC SYSTEM



HYDROPONIC SYSTEM

The nutrients controller HIDROPONICS SYSTEM is an automatic fertirrigation system ideal for types of crops, especially hydroponics. It is able to apply various types of fertilizers together, and regulate the PH of the water inside the tank.

Controlling the dosage of the fertilizer is carried out automatically by measuring the conductivity continuously, obtaining a final solution or mixture with the desired conductivity for the customer.

Regulating the PH of the water is also carried out continuously, obtaining the end PH that is requested by the user.

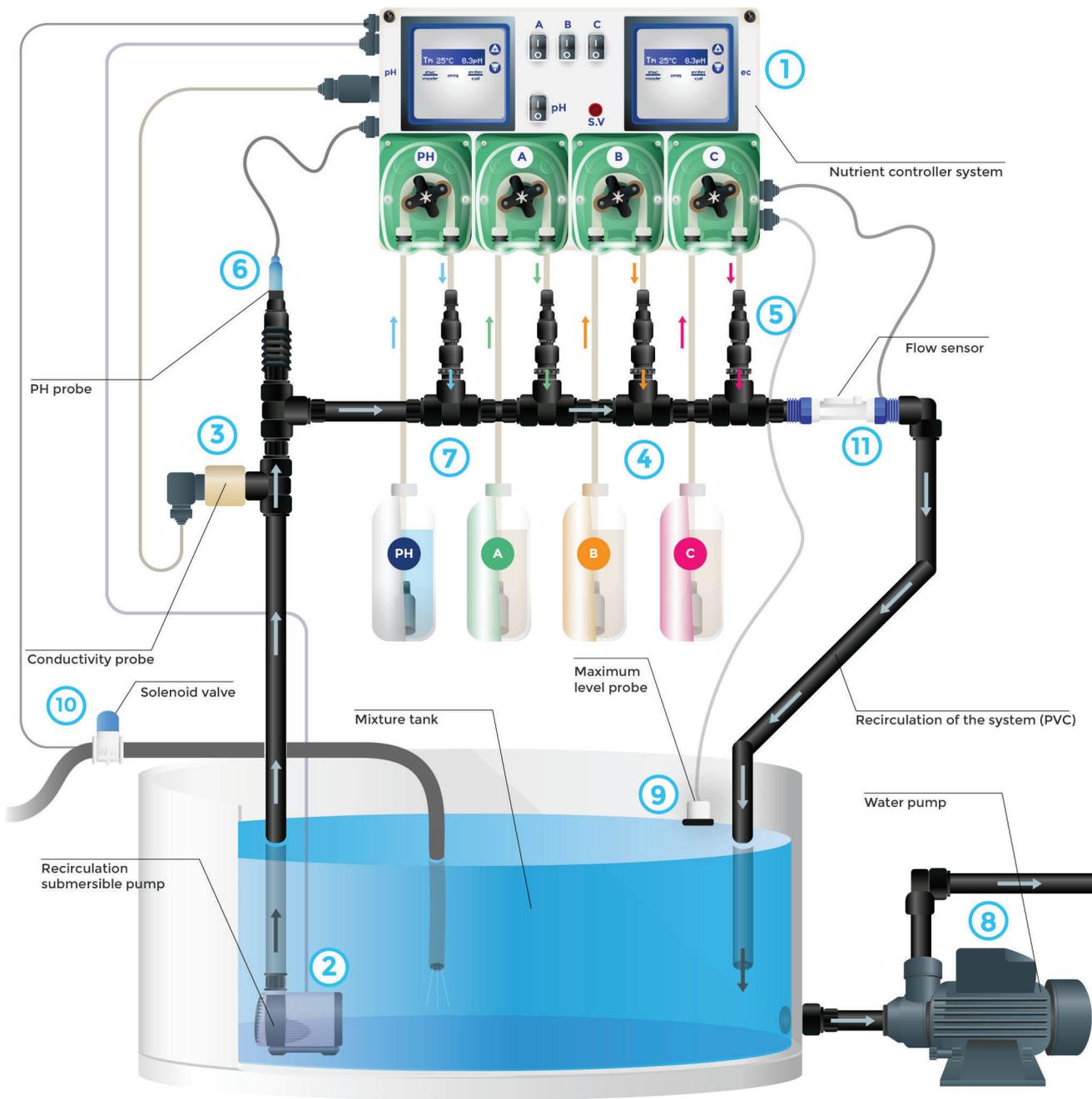
The dosing flow of each pump with a capacity from 0 to 7 L/h is adjustable independently. If requested flow can be increased according to order.

Possibly the most advanced fertigation system and with the best quality / price ratio in the market.

Hydroponic System comes equipped with a complete installation kit including: nutrient controller, PH probe, EC probe, PH probe holder, cable connector EC, PH7 PH4 calibration bottles, impulsion and suction tubes, injectors, brackets and wall plugs for fixing.

Cod. **06002** HYDROPONIC SYSTEM





HYDROPONIC SYSTEM

1

Switching on the Hydroponic System

Once installed the controller and connected to the circuit, proceed to the programming of the fertilizer pump. Entering the value we want to "set point" and the proportional fertilizer flow of each pump. Later we will be programming the set point of PH and adjust the mode of PH down (acid) or PH Up (alkaline). We proceed to verify that the probe PH and EC are calibrated.

2

Recirculation of water in the collector

The recirculation water pump of the container should be activated at the same time like the hydroponics system controller.

3

Measurement of conductivity

EC probe detects the conductivity in the water and is indicated in the controller display.

4

Dosing of fertilizers

The dosing pumps for the control of conductivity A,B draw from the fertilizer containers through the suction filters.

5

Injection of fertilizers

The pumps perform the dosing of the fertilizers through the injection valves and are incorporated in the water recirculation collector.

6

Measuring of PH

The PH probe continuously measures the value that is in the water and is indicated in the controller display.

7

Dosage of the PH regulator

The PH regulator pump draws from the bottle PH Up and PH down and doses through the nozzle to until the programmed set point is reached.

8

Activation of irrigation pump.

The irrigation pump can be triggered automatically by a programmer once the values of EC and PH are adjusted and stable.

9

Level probe (Optional)

Level sensor for controlling the water level in the reservoir.

10

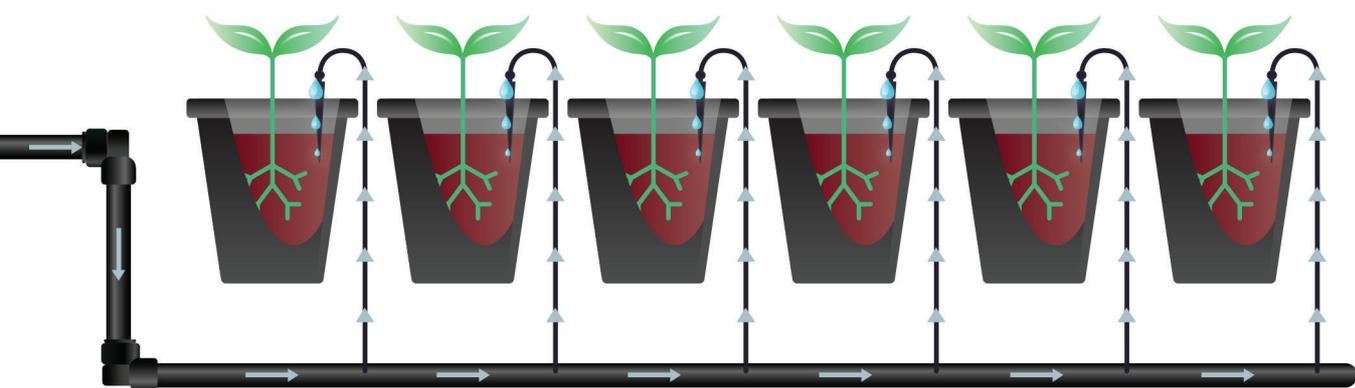
Solenoid Valve (Optional)

Solenoid valve, which will be activated by the Hydroponic System through the level probe.

11

Flow sensor (Optional)

Flow sensor, PH & EC disables the controller in case of lack of water in the collector.





ProsystemAqua Europe S.L
Carr. Aeropuerto km5 14005 CÓRDOBA SPAIN
info@prosystemaqua.com
Td. + 34 679 229 890