



INSIDE WATER

IW-MULTIPOOL 2



USER'S MANUAL





FILTRATION • DOSING • DETERGENT & HYGIENE • POOL EQUIPMENT




EU Declaration of conformity

In accordance with Annex IV of Directive 2014/35/EU

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Manufacturer: Aqua S.p.A.
Via T. Crotti, 1 – 42018 S. Martino in Rio (RE)

Subject of declaration:

| | | |
|--------------------|--|--|
| <i>Description</i> | PERISTALTIC DOSING PUMPS WITH MULTIPARAMETRIC MEASUREMENT AND CONTROL INSTRUMENT IW-MULTIPOOL 2 |  |
| <i>Model(s)</i> | IWMP22061000000 | |

(*) The image is purely indicative and may not completely reflect the characteristics of the product.

The object described above complies with the relevant EU harmonization legislation:

| <i>Directive</i> | <i>Conformity assessment procedure</i> |
|--------------------------------------|--|
| Directive 2014/35/EU (LVD) | Internal product control |
| Directive 2014/30/EU (EMC) | Internal product control |
| Directive 2011/65/EU (RoHS) e s.m.a. | Internal product control |

The following harmonized standards and technical specifications in relation to which conformity is declared have been applied:

- (LVD) EN 61010-1:2010 +A1:2019 +AC:2019-04
- (EMC) EN 61326-1:2013
- (RoHS) EN 63000:2018

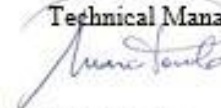
Additional information:

This declaration includes all accessories of the product.
Please refer to the instructions for the intended use of the product.

Sign in the name and on behalf of Aqua S.p.A.

San Martino in Rio (RE), 6/6/2024

Ing. Marco Povolo
Technical Manager




INDEX

1. GENERAL RULES..... 4

1.1 SHIPPING AND TRANSPORTING THE PUMP 4

1.2 INSTALLATION STANDARDS 4

1.3 PROPER USE OF THE PUMP 4

2. OPERATION 5

2.1 OVERALL DIMENSIONS..... 5

2.2 TECHNICAL FEATURES..... 5

2.3 INSTALLATION..... 6

2.4 HYDRAULIC FEATURES 7

2.5 CONTENT OF THE PACKAGE (Standard version) 7

3. IW-MULTIPOOL 2 pH-Rx 8

3.1 GENERIC PUMP CONTROLS 8

3.2 MEANING OF THE PUMP STATE LEDS..... 8

3.3 MEANING OF THE MULTI-FUNCTION BUTTON AND LED..... 9

4. ELECTRICAL CONNECTIONS 9

4.1 IW-MULTIPOOL 2 pH-Rx pumps..... 9

5. TROUBLESHOOTING 11

5.1 PROBLEM – CAUSE – SOLUTION..... 11

6. MAINTENANCE..... 11

6.1 CLEANING THE PUMP 11

6.2 PUMP MAINTENANCE..... 11

6.3 FUSE REPLACEMENT..... 12

7. WARRANTY..... 12

1. GENERAL RULES

Carefully read the warnings listed below as they provide important information regarding the rules for installation, use and maintenance.

Please keep this manual carefully for further reference.

1.1 SHIPPING AND TRANSPORTING THE PUMP

The equipment must be transported in its original packaging, organized and built in such a way as to minimize shocks and to protect the protruding parts that can be damaged. If there is a need for transport after the equipment has already been installed (e.g. for a return for repair or replacement), reuse the original packaging or a sufficiently sturdy packaging with the equipment protected with absorbent material (eg bubble wrap). The external packaging must be such as to ensure the safety of the equipment in the event of a fall from 1 meter in height.

1.2 INSTALLATION STANDARDS

Install the dosing pump so that it is easily accessible whenever maintenance is required. Never obstruct the place where the dosing pump is located.

The servicing and maintenance of the dosing pump and all its accessories must always be carried out by qualified personnel.

AQUA SpA cannot be held responsible for damage to persons or things caused by poor installation or incorrect use of the dosing pump.

1.3 PROPER USE OF THE PUMP

The use of this pump must comply with the methods and instructions set out in this manual. The pump can dose chemicals that can be harmful to human health and for this reason it is essential that must be used by qualified personnel who adopt the appropriate safety methods and personal protective equipment.

AVOID IMPROPER USE of the equipment in order to avoid damage to things and people, due to uncontrolled splashes, drips, electrical contacts, etc.

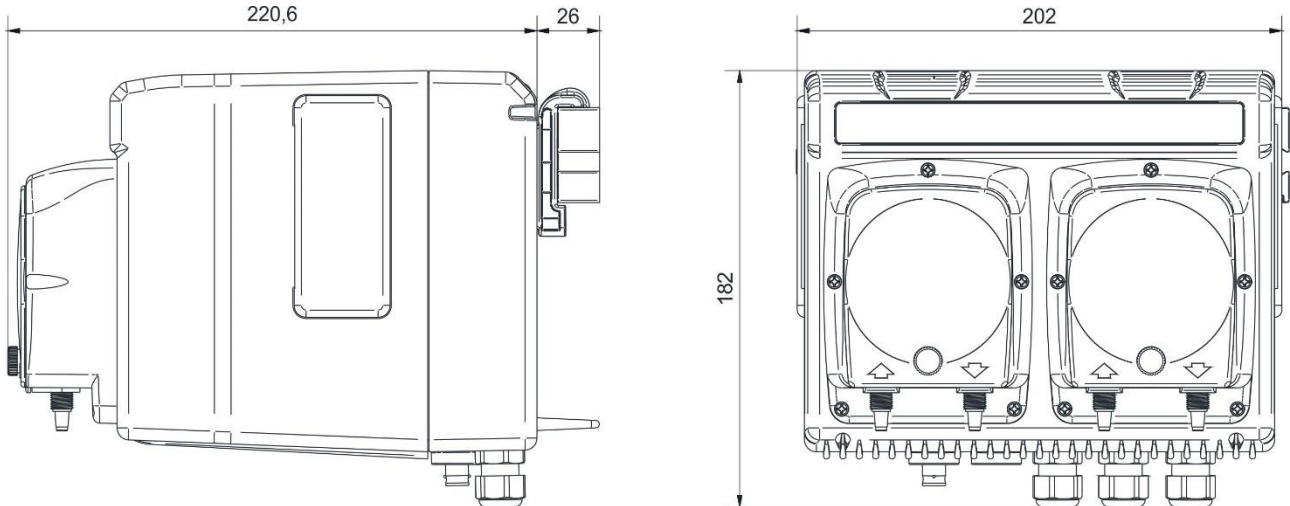
The following uses can be considered improper uses, in indicative and non-exhaustive form:

- Dosing of products not consistent with the materials with which the pump is made;
- Dosing of explosive and / or flammable products;
- Dosing of fluids with excessive viscosity (500 cps), such as to prevent the priming of the pump itself;
- Dosage of food liquids, if intended to maintain such use;
- Avoid inverting the pump delivery and suction;
- Avoid powering the pump with voltages other than those indicated in the technical specifications;
- Avoid connecting any equipment other than specific equipment to the signal outputs (level, pulse counter, current signal, etc.);
- Before opening the back cover, be sure to disconnect the device from the power supply.


2. OPERATION

The IW-MULTIPOOL 2 is a digital device with double peristaltic that can be controlled remotely via our INSIDE WATER software. The device can be connected to various sensors that allow the control of the chemical-physical parameters of the water in a swimming pool such as pH or oxidation-reduction power (ORP). The device is also designed to be connected to a PT100 temperature sensor and a proximity sensor (not included in the package) to monitor the temperature and the presence of flow within the measurement system.

2.1 OVERALL DIMENSIONS



2.2 TECHNICAL FEATURES

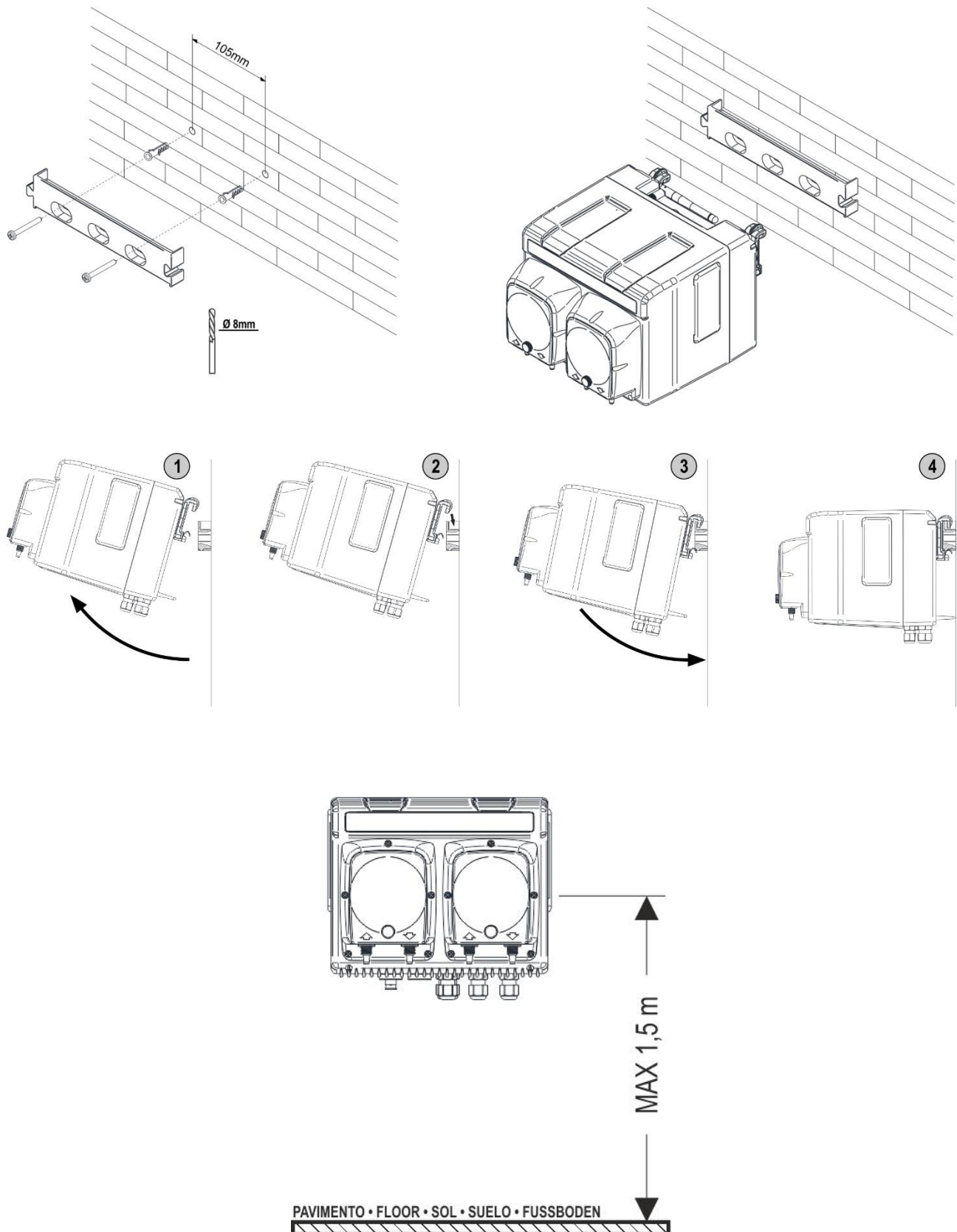
| | |
|----------------------------------|--|
| Power supply: | 100÷240VAC ± 10% – 50/60Hz |
| Insulation class: | CLASS II  |
| Absorbed power: | Max 10 Watt |
| Overvoltage category: | CAT II |
| Operating ranges: | pH: 0÷14 / Redox: 0÷ ±2000mV |
| Protection grade: | IP65 |
| Environmental conditions: | Indoor environment, altitude up to 2000m, room temperature from 5°C up to 40°C, maximum relative humidity 80% (linearly decreases until it is reduced to 50% at 40°C). |
| Pollution degree: | PD2 |



BEFORE OPENING THE BACK COVER, BE SURE TO DISCONNECT THE DEVICE FROM THE POWER SUPPLY.

2.3 INSTALLATION

To install the control unit on a wall follow the images below. To ensure maximum performance we suggest installing the unit at a maximum height from the ground of 1.5 metres.



2.4 HYDRAULIC FEATURES

| FLOW RATE | PRESSURE | ABSORBED POWER | HOSE MATERIAL |
|-----------|----------|----------------|---------------|
| l/h | bar | Watt | |
| 6 | 1 | 10 | Santoprene® |
| 4 | 1 | 10 | Santoprene® |

The above data refer to tests carried out with water at room temperature.

Values can fluctuate by 10%.

Chemicals with viscosity different than water may also have significant variations on the flow rate.

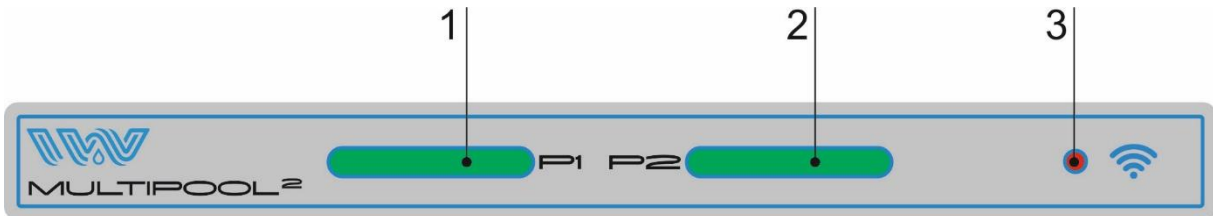
2.5 CONTENT OF THE PACKAGE (Standard version)

- IW-MULTIPOOL 2 pump
- Quick Start Guide
- n.1 pH electrode
- n.1 ORP electrode
- n.1 pH 7 buffer solution
- n.1 pH 4 buffer solution
- n.1 475mV buffer solution
- n.2 electrode housing injection system
- n.2 PP-VL-VT bottom filter
- 8 meters of transparent PVC tube
- Fixing bracket
- Set of screws and plugs for wall mounting

3. IW-MULTIPOOL 2 pH-Rx

3.1 GENERIC PUMP CONTROLS

The control panel of the IW-MULTIPOOL 2 pump is composed of a status LED for each pump (1 and 2), a multifunction button on the back that allows you to perform various actions and a LED connected to the functions of the button (3). The figures below show how the control panel looks:



- 1. Pump 1 (pH) state leds;
- 2. Pump 2 (mV ORP) state leds;
- 3. Led functions

3.2 MEANING OF THE PUMP STATE LEDS

| | | |
|--|--|---|
| | | Pompa in funzione • Pump running • Pompe en fonctionnement • Bomba en funcionamiento • Pumpe in Funktion |
| | | Stand-by |
| | | Inhibit |
| | | Allarme • Alarm • Alerte • Alarma • Warnung |
| | | Stand-by fuori fascia oraria • Out of time stand-by • hors cr neau horaire stand-by • stand-by fuera de horario • au erhalb der Stunde stand-by |
| | | Aggiornamento firmware in corso • Firmware update in progress • Mise   jour du firmware en cours • Actualizaci n de firmware en curso • Firmware Update in Arbeit |
| | | Mancanza flusso • No flow • Manque de circulation • Falta de flujo • Fehlende Bereitstellung von Strom |
| | | Ritardo allarme di livello • Level alarm delay • D lai d'alarme de niveau • Retardo de alarma de nivel • Level Alarm Verz gerung |



Led rotanti / Rotating LEDs / Leds rotatives / Led giratorios / Rotierende Leds



Led lampeggianti / flashing LEDs / Leds clignotantes / Led intermitente / Blinkende LED'sotierende Leds



Dissolvenza / Fade out / / Fondu / Desvanecimiento / Ausgeblendet

3.3 MEANING OF THE MULTI-FUNCTION BUTTON AND LED

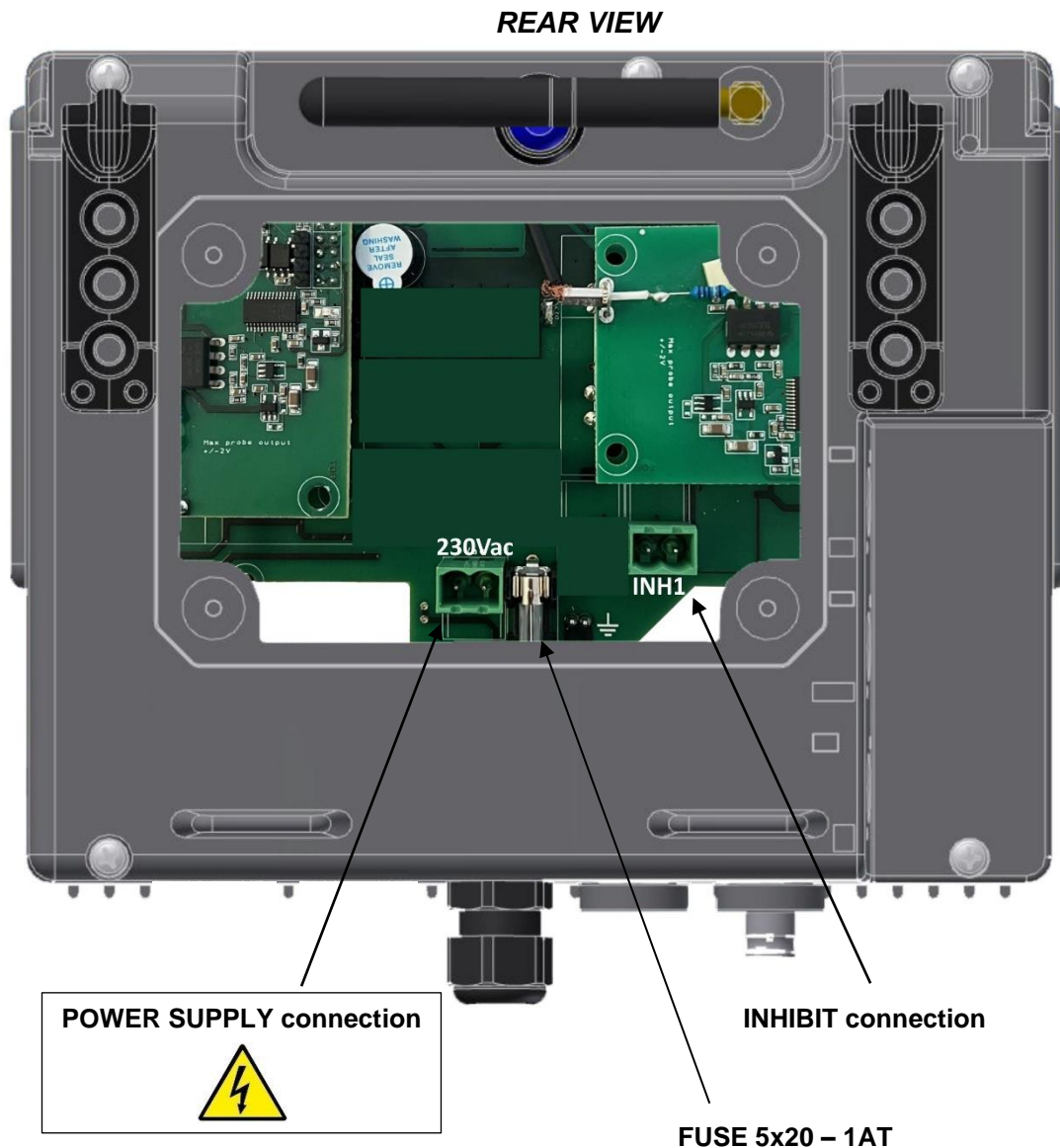
The pump is equipped with a blue button (on the back of the unit next to the antenna) which has the following functions:

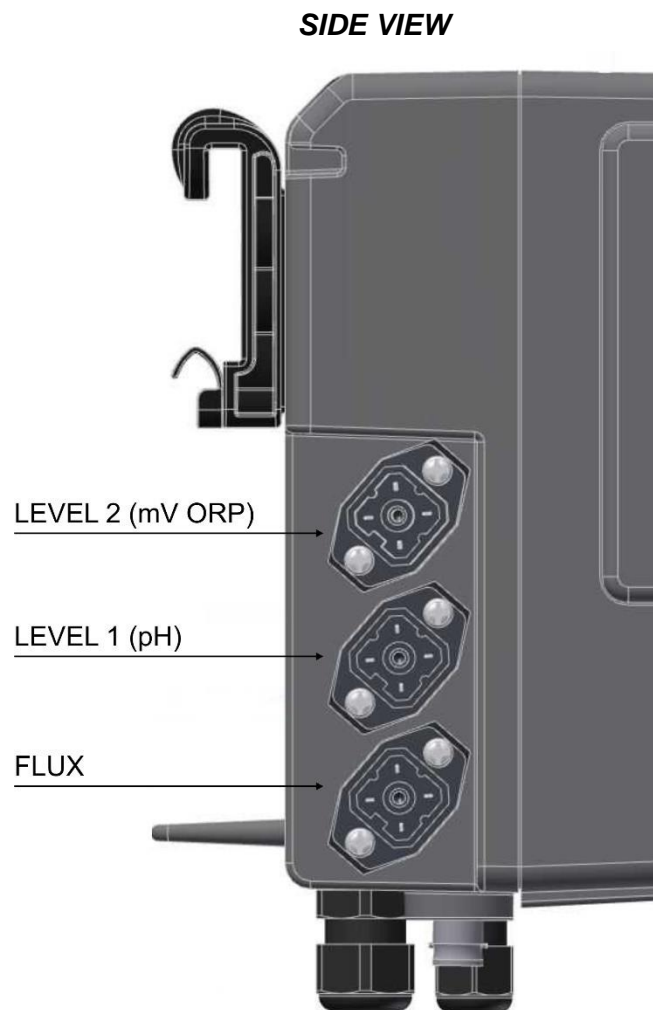
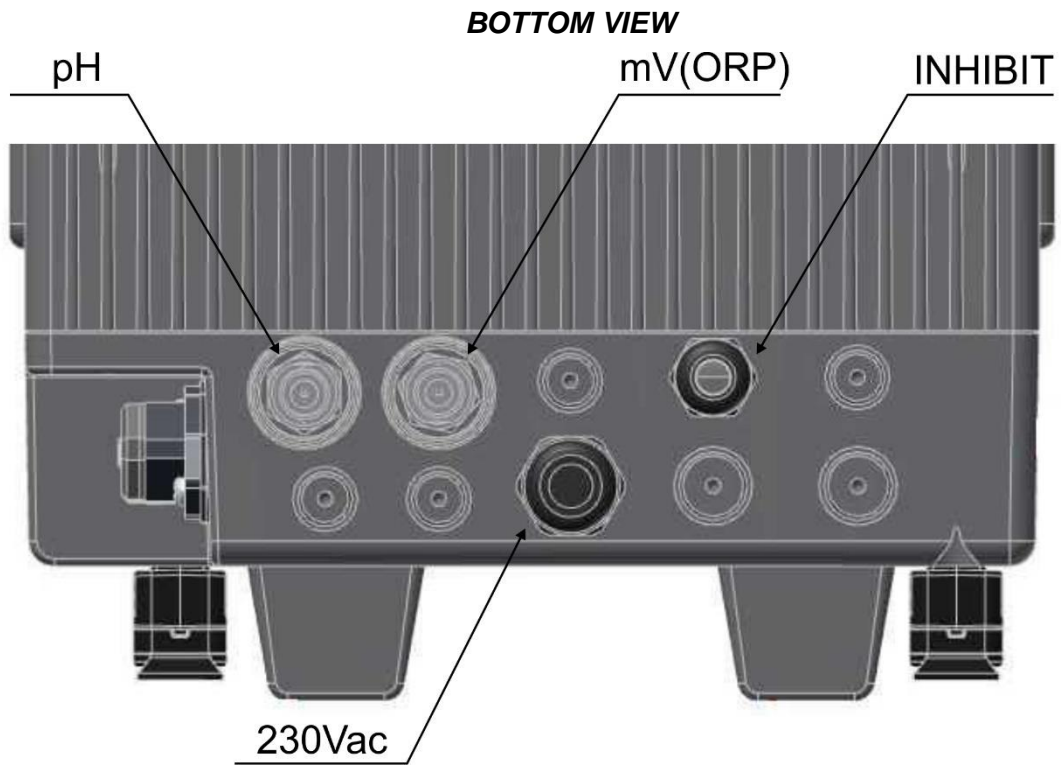
- If it is pressed for more than 5 seconds, the multipool 2 switches to “access point” mode (flashing white LED);
- If pressed between 1 and 2 seconds: stand-by is activated/deactivated; if the pump is in OFA alarm, this is reset;
- If it is pressed for a period of between 20 and 30 seconds, the factory settings of the access password are reset (fixed yellow LED);

4. ELECTRICAL CONNECTIONS

4.1 IW-MULTIPOOL 2 pH-Rx pumps

There are several connectors on the unit, these allow the connection of an external signal or the connection of a pH/ORP electrode. The pump is also equipped with two HIRSCHMAN connectors for the connection of two level probes (not included in the package).





5. TROUBLESHOOTING

The IW-MULTIPOOL 2 is a relatively robust device, so the chances of mechanical failure are low. Chemical leaks can sometimes occur from loose hose nipples or nuts or simply due to a broken peristaltic tube. If any of the above cases occur, the user should first disconnect the unit from the power supply, then replace the damaged part, clean the unit of any chemical leaks, replace any damaged parts and then restart the pump.

5.1 PROBLEM – CAUSE – SOLUTION

Below are listed some of the problems that may occur, the causes and solutions

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|---|--|--|
| The pump does not switch on | The pump is not powered | Connect the pump to the mains. |
| | The protection fuse is blown up. | Replace the fuse. |
| | The electronic board is damaged | Replace the electronic board. |
| The peristaltic pump does not dose but the electric motor is working | The foot filter is obstructed. | Clean the foot filter. |
| | The suction tube is empty, the pump is not primed. | Repeat the priming procedure. |
| | Air bubbles in the hydraulic circuit. | Check nipples and hoses |
| The pump does not dose and the electric motor does not works or runs hard. | Crystals formation, valve occlusion. | Clean the valves and try to circulate water instead of the chemical product. |
| | The injection valve is obstructed | Replace the injection valve |

6. MAINTENANCE

6.1 CLEANING THE PUMP

The pump must be periodically cleaned in order to ensure its efficiency. We suggest to carry out regular cleaning during maintenance period.

Before carrying out any maintenance or cleaning operations on the peristaltic pump, it is necessary to:

1. Make sure that it is electrically disabled (both polarities) by disconnecting the conductors from the contact points of the power supply by opening the omnipolar switch;
2. Eliminate in the most appropriate and gradual way, (paying the utmost attention not to generate splashes), the existing pressure in the delivery pipe.
3. Remove the transparent cover of the pump, to highlight any underlying leaks and encrustations;
4. Clean any incrustations due to leaks or drips on the entire pump structure, paying particular attention to the lower part of the pump where, usually, any incrustations due to drips accumulate;
5. Reassemble the transparent cover, the delivery and suction hoses and reconnect the pump electrically;
6. Carry out priming if necessary and restore the normal operating status of the pump.

6.2 PUMP MAINTENANCE

Under normal operating conditions, the peristaltic pump should be checked monthly.

To avoid malfunctions or sudden stops, carefully check the following items:

- check that the electrical and hydraulic connections are intact;
- check for any leaks on the connections of the peristaltic tube or the injection valve;
- check that there are no parts of the pump or pipes corroded.

*Always empty the peristaltic tube from chemical, if there could still be presence of dangerous chemical inside the peristaltic tube it is mandatory to declare it filling the RETURN MATERIAL AUTHORIZATION module.
Always use original spare parts if it is necessary to replace worn parts*

All technical assistance operations must be performed only by expert and authorized personnel. If the pump requires direct assistance from the manufacturer, it is necessary to remove all the liquid inside the pump head and dry it BEFORE packing it in its original box!

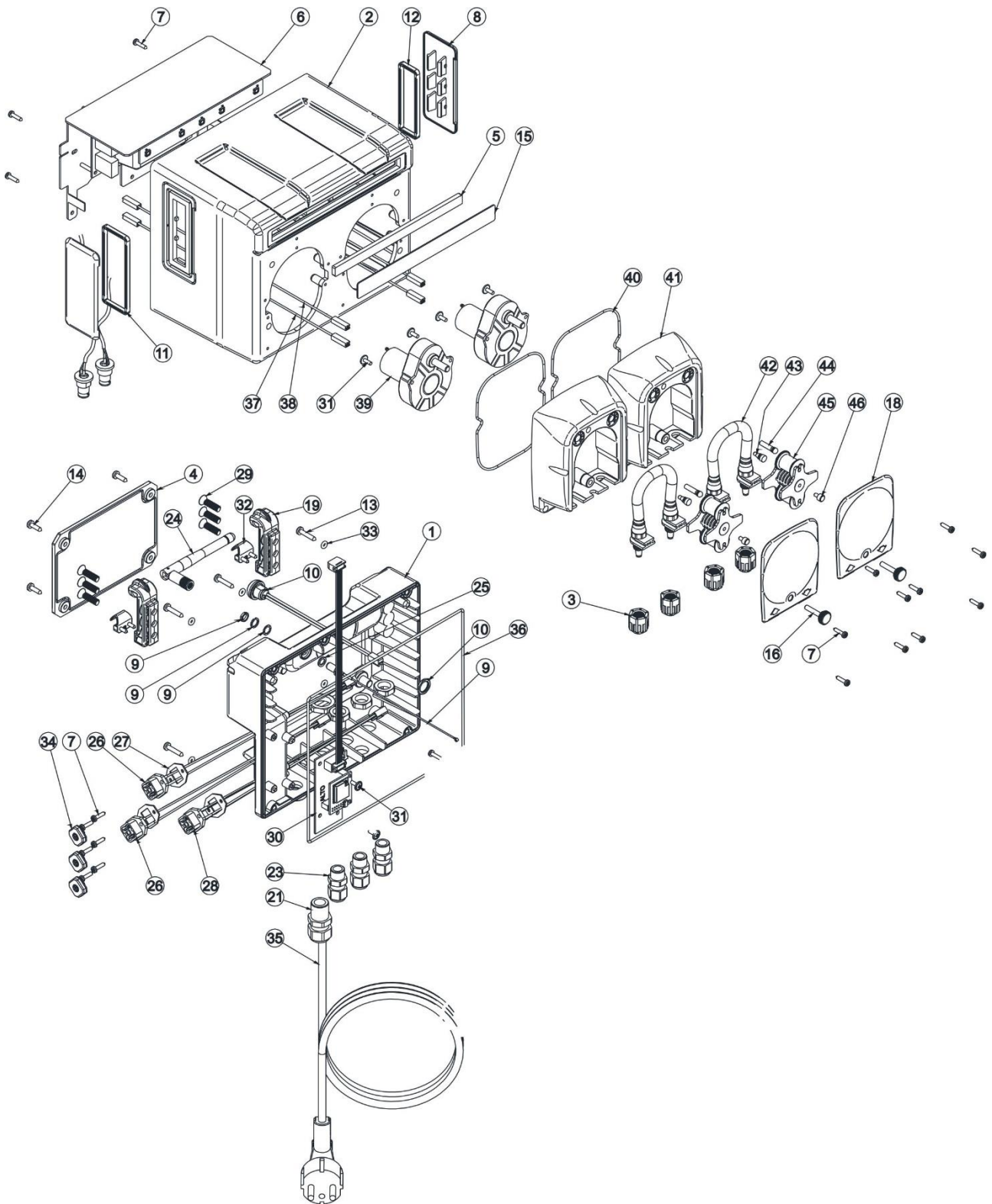
6.3 FUSE REPLACEMENT

If the control unit does not turn on, check the status of the fuse and replace it if necessary (the position of the fuse is shown in the previous images).

7. WARRANTY

The product is covered by the manufacturer's warranty for manufacturing defects. The methods and conditions are set forth in the "General Conditions of Sale" document of AQUA SpA.

EXPLODED VIEW



| Item | Description | Q.ty |
|-----------------|---|------|
| IW30101000 | COPERCHIO POSTERIORE TESTA DOSAGGIO X 2 - GRIGIA | 1 |
| IW30151000 | FRONTALE TESTA DOSAGGIO X 2 PDP - GRIGIA | 1 |
| ADSP5004001E | GHIERA FISSATUBO PP NERA 1/8" 4X6 STD | 4 |
| IW30201000 | COPERCHIETTO CONNESSIONI TESTA DOSAGGIO - GRIGIO | 1 |
| IW15430 | METACRILATO (PLEXIGLASS) ESTRUSO OPALE PER LED MULTIPPOOLX2 | 1 |
| IWSKDRMULTIPOOL | KIT SCHEDE COMPLETO PER IW MULTIPPOOL | 1 |
| ADSP6000714 | VITE M 2,9 X 13 UNI 6954 (TCTC) INOX A2 | 26 |
| IW10501000 | COPERCHIETTO LATERALE TESTA PER ZEC - ARIETE - GRIGIO | 2 |
| IW15015 | CAVO ANTENNA ESP32 - RFUFLSMAL - 15 cm | 1 |
| ADSP4200018 | KIT CAVO PULSANTE BLU ADESCAMENTO ECO-WASH LUNGHEZZA 24 Cm | 1 |
| IW11100000 | GUARNIZIONE SX PER TESTA -ZEC - ARIETE | 1 |
| IW11200000 | GUARNIZIONE DX PER TESTA -ZEC - ARIETE | 1 |
| ADSP6000767 | VITE M 3,5 X 19 UNI 6954 (AF-TCTC) INOX A2 | 5 |
| MB010900 | VITE M 3,5 X 13 UNI 6954 (AF-TCTC) INOX A2 | 4 |
| IW15410 | ETICHETTA POLICARBONATO IW-MULTIPOOL 2 | 1 |
| ADSP8000029 | MANOPOLA FISSAGGIO COPERCHIO TRASPARENTE TEC | 2 |
| ADSP6000626 | DADO PG7 NERO CH17 | 3 |
| ADSP8000081 | COPERCHIO FRONTALE TRASPARENTE TEC FUME' | 2 |
| IW90030 | GANCIO DI SUPPORTO PER TESTA 2/3 VIE STAMPATA - IW | 2 |
| IW90010 | SUPPORTO A PARETE TESTA 2 VIE STAMPATA - IW | 1 |
| ADSP6000581 | PRESSACAVO PA 6.6 FILETTO LUNGO IP68 PG9 - NERO | 2 |
| ADSP7000803 | DADO PA 6.6 PG9 - NERO | 1 |
| ADSP6000424 | PRESSACAVO PASSO PG7 - 1900.07 - NERO | 3 |
| IW15010 | ANTENNA ESP32 - WIFI03CSMAB | 1 |
| IW15020 | GUARNIZIONE PER CONNETTORE ANTENNA - ARIETE | 1 |
| ADSP6001045 | CABLAGGIO HIRSHMANN PER Sonda LIVELLO - IW | 2 |
| ADSP6020015 | GUARNIZIONE (G30 E-2) PER BASE CONNETTORE LIVELLO | 3 |
| ADSP6001044 | CABLAGGIO HIRSHMANN PER TEMP/FLUX - IW | 1 |
| MB011035 | VITE HI-LO 6X20 TS+ PH UNI 9709 ZINCATE Cr.3 | 6 |
| IWSKDRMULPSUESP | SKDR MULTIPPOOL Supporto ESP32 e Tasti (ESP) | 1 |
| ADSP6001021 | VITE M 3 X 8 D.9 mm ACCIAIO ZINCATO PER PLASTICA (RONDELLA INTEGRATA) | 2 |
| IW90040 | CLICK PER GANCIO DI SUPPORTO - IW | 2 |
| ADSP5007113 | OR VITON NERO D.3x2 - FKM75 | 5 |
| ADSP6000849 | TAPPO COMPLETO (GUARNIZIONE+VITE) PER CONNETTORE G4A5M | 3 |
| ADSP6020315 | CAVO TRIPOLARE 3X1mmq L=3 mt CON SPINA SCHUKO | 1 |
| ADSP5007223 | GUARNIZIONE EPDM MOUSSE 40 Sh A FILO D.2.0 mm | 1 |
| CAMPROFA250T | FILO ROSSO CABLATO CON FASTON A 90° + FASTON 2,8x0,8 + COPRIFASTON | 2 |
| CAMPNEFA250T | FILO NERO CABLATO CON FASTON A 90° + FASTON 2,8x0,8 + COPRIFASTON | 2 |
| ADSP8000255 | MOTORE RAP 125 24VDC PER-R | 2 |
| ADSP5007074 | OR - RIF. 2412 (T.1,78xD.104,4) - NBR | 2 |
| ADSP8000084G2 | CASSA ANTERIORE TEC PP GRIGIA RAL 7040 - IW | 2 |
| ADSP800I109 | TUBO SANTOPRENE PER-R INCOMPLETO | 2 |
| ADSP6000107 | TAPPO ROSSO PER FORO REGOLAZIONE PER-R | 2 |
| ADSP9500001 | CONDUTTORE LUMINOSO (GUIDA LUCE) PER HC150 MISURA DEL GAMBO D.E=4 L=17 | 2 |
| ADSP8000009A | PORTA RULLINI COMPLETO PER-R/TEC 4/6-1 | 2 |
| ADSP8000028 | PERNO GUIDA PORTARULLINO PER-R RES.ACET.HB | 2 |



INSIDE WATER

è un brand di :

AQUA SPA

Via Tonino Crotti, 1 - 42018 San Martino in Rio (RE) - Italy