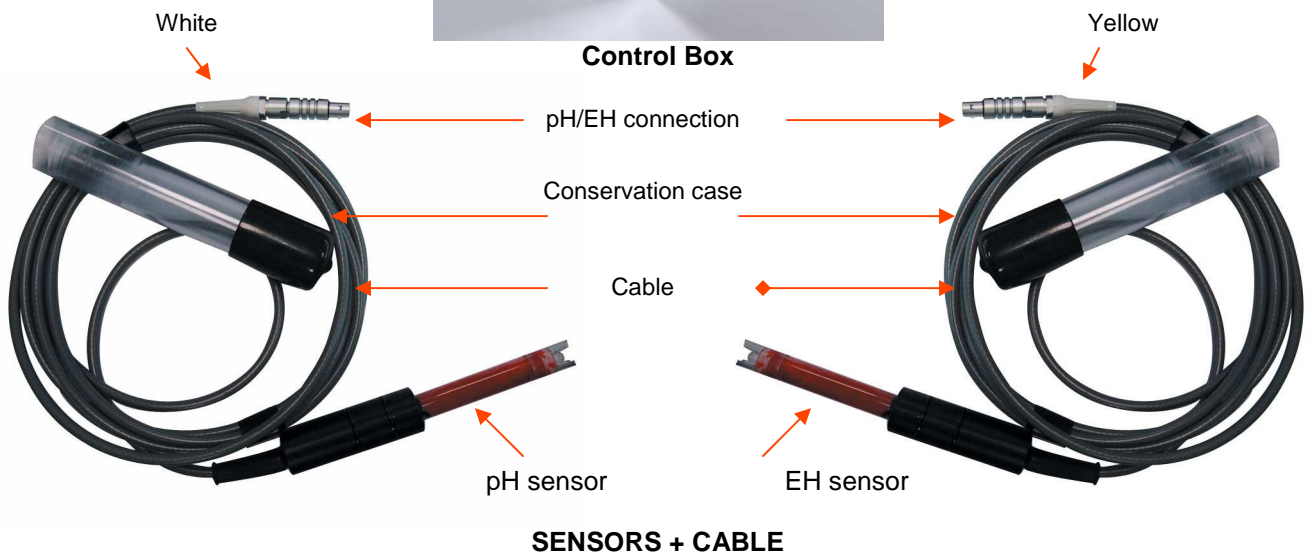
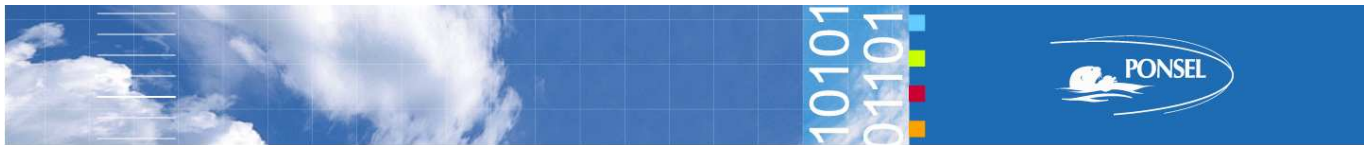


# PORTABLE INSTRUMENT : APW

## APWPH-EH

### AUTONOMOUS pH – REDOX- METER





## Powering up the device :

- Connect the sensors to the control box : **White** connector for pH (PWL), **Yellow** connector for EH (EWL)
- Push the button On/Off (2).
- Remove the conservation case.

## Calibration :

### pH sensor : PONCPC-PWL-S3

Make sure that the sensors and the calibration standards are at closed temperature !

	step 1 : Tampon pH 7	Step 2 : Tampon pH 4
Calibration protocol	Dip the sensor into a pH7 calibration standard solution (Ref : <b>PONPH- AMP- 7</b> ), after the measure stabilisation, adjust the value to pH 7,00 using the pH 7 taring screw (6),  Rinse the sensor with distilled water. Then wipe the sensor.	Dip the sensor into a pH4 calibration standard solution (Ref <b>PONPH- AMP- 4</b> ), after measure stabilisation, adjust the value to pH 4,00 with the pH 4 taring screw. (7)  Rinse the sensor with distilled water. Then wipe the sensor.

Observation : pH 7 taring is needed and used to configure the Offset. Nevertheless, , you can use an other calibration standard solution than pH 4 to adjust the Slope.

### EH sensor : PONCPC-EWL-S3

No calibration need. Just a control.

Electronic adjustment	Redox control
Control of 0 mV : Disconnect the sensor and adjust the EH measure to 0.00 using the potentiometer "0" (5).	Periodically and before each new media, polish the nail of platinum with a 500 abrasive, wetted with a solution standard (Ref : PONABNET). Dip the sensor into a calibration standard solution (calibration standard 240 mV : PONEHSOL240 ; calibration standard 470 mV : PONEHSOL470). Adjust the read value to the calibration standard value using the potentiometer " p " (4). Rinse with clean water.

## Measure :

Dip the sensors (without their conservation cases) into the solution to measure :

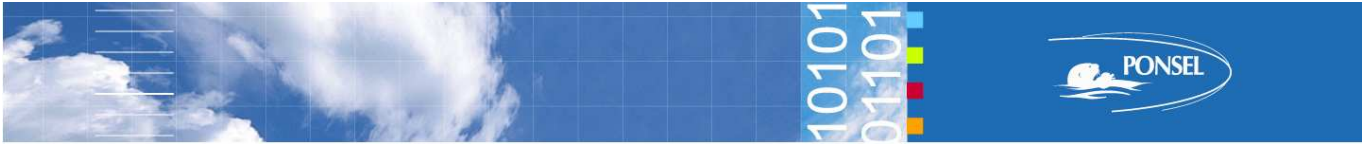
- **pH measure :**

Switch the pH/EH button to the pH position (3). Agitate the sensor, Wait for value stabilisation and read the pH value.

- **Redox measure.**

Switch the pH/EH button to the pH position (3). Agitate the sensor. Wait for value stabilisation and read the pH value

After using, rinse and clean the sensors. Place the sensors into the conservation case.



## Maintenance :

### Battery change

The LOBAT indicator on the display screen indicates that the battery could be change. Remove the transparent cover, open the battery compartment (8) and replace the 9 V battery.

Observation It is normal to read « LOBAT » on the display for a short time during the switching-off.

### Sensors

No maintenance

### Control Box and connectors

Keep the connectors dry and clean and connected if possible.

A temperature up to 80°C could make the control box worse.

## Technical specifications :

<p style="text-align: center;"><b>Control Box</b></p> <p><b>Power supply :</b> 1 x 9V battery - 1000 Hours life time.  <b>Electronic box :</b> Protection IP 67  <b>Dimensions :</b> (h x w x d) : 161 x 81 x 55 mm      Weight : 400 g  <b>Material :</b> reinforced polyester with hinged IP67 transparent cover.  <b>Display :</b> LCD display 3 ½ digit. 18 x 46 mm.  <b>Operating temperatures :</b> from – 10.0 to +50.0°C  <b>Mesured parameter :</b> Redox  <b>Measurement range :</b> – 1000 to + 1000 mV  <b>Accuracy :</b> 2% displayed value ± 1 digit  <b>Options :</b> Analogue output</p>	<p style="text-align: center;"><b>pH sensor</b></p> <p><b>Process :</b> Combined electrodes. Reference : Ag/AgCl            Electrolyte KCL 3M on Plastogel support gelled.            Connection with the medium by diaphragm with side hole.  <b>Material :</b> Delrin, Glass, Silicone, PVC - IP68  <b>Dimensions :</b> Diameter 20.5 mm - Length 130 mm  <b>Weight :</b> 70 g  <b>Cable :</b> Coaxial armoured, sheathed PVC, seal with the sensor            3 m standard length. (up to 10 m on request) . 40 g / m.</p> <p style="text-align: center;"><b>EH sensor</b></p> <p><b>Process :</b> Combined electrodes. Reference : Ag/AgCl            Electrolyte KCL 3M on Plastogel support gelled.            Connection with the medium by diaphragm with side hole.            Cathode : nail of Platinum  <b>Material :</b> Delrin, Platinum, Glass, Silicone, PVC - IP68  <b>Dimensions :</b> Diameter 20.5 mm - Height 130 mm      Weight : 70 g  <b>Cable :</b> Coaxial armoured, sheathed PVC, seal with the sensor</p>
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