APERA® INSTRUMENTS
Fluid Precision since 1991

LabSen® 801 Pure Water pH Electrode
User Manual

Built with proprietary sensor technology and premium materials from Switzerland, Apera LabSen 801 Glass-body pH Electrode is made for pH measurements of pure water such as distilled and deionized water, and other low ion concentration solutions.

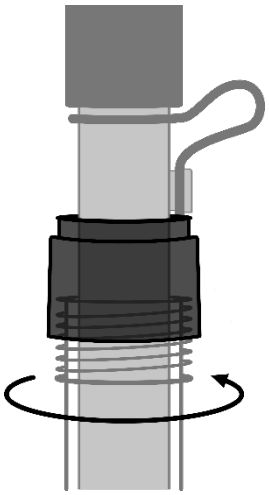
Features

- Built with LabSen® L-type cylindrical glass membrane, featuring ultra-low resistance, especially suitable for pure water measurement
- No more air bubbles inside the glass membrane thanks to the blue gel electrolyte.
- Movable sleeve junction, adjustable infiltration rate of electrolyte, easy to clean
- The silver ion trap reference system significantly increases measuring stability and extends service life.

Technical Specifications

Measuring Range	1 - 11 pH
Temperature Range	0 - 80 °C
Membrane Type	L
Body Material	Lead-free Glass
Reference	Silver Ion Trap
Junction	Moveable sleeve
Reference Solution	3M KCL
Soaking Solution	3M KCL
Membrane Resistance	<50MΩ
Temperature Sensor	N/A
Electrode Dimension	(Φ12×130) mm
Connector	BNC
Cable	Φ3×1m

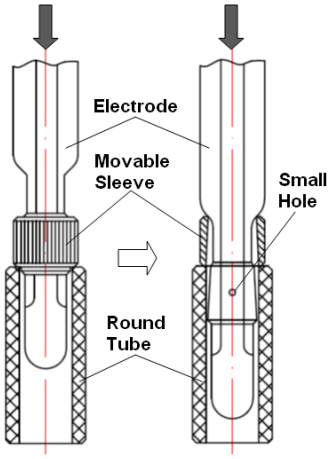
How to use



1. Insert the blue BNC connector of the electrode to the BNC socket of your pH meter while twisting clockwise until it's locked.
2. Before measuring, twist off the storage bottle cap (see graph on the right), pull out the electrode and rinse it off with distilled or deionized water.
3. Unplug the blue rubber plug to maintain a smooth electrolyte flow.
4. Perform at least a two-point calibration before measuring after connecting the new electrode to your pH meter.
5. The reference solution will run low as you use the electrode. Whenever the solution level falls to 1/2 height of the electrode, add 3M KCL solution to the refilling hole (unplug the blue rubber plug) using a syringe or pipette.
6. After using, put the electrode back into the storage bottle, twist on the bottle cap, and plug in the refilling hole.

How to Use the Movable Sleeve

As shown on the right picture, reference solution flows out of the small hole, seeps through the surface of the movable sleeve. You may adjust the degree of firmness. The looser the movable sleeve is, the faster the reference solution's flow rate is, meaning you will get stabilized readings in a shorter time. Purified water and low ion concentration solutions measurements require faster flow speed. The electrode must be recalibrated after tightness adjustment.



To loosen the movable sleeve, push up the movable sleeve. If it is too tight to push up, please place the probe onto the orange round tube (included in the box), and press down the electrode with force, then the movable sleeve will be loose. And then screw counterclockwise to loosen the movable sleeve or clockwise to tighten it.

Maintenance

1. When not in use, the electrode should be soaked in the storage bottle containing 3M KCL soaking solution (SKU: AI1107) to keep the glass membrane and junction in a healthy condition. Clean the bottle and replace the soaking solution if it's contaminated or insufficient. The electrode should never be stored in pure water such as deionized or distilled water.
2. The electrode is only as accurate as it is clean. Always thoroughly rinse off the probe before and after each measurement with pure water in a container or with a wash bottle.
3. For tough contaminants, soak the electrode in Apera cleaning solution (AI1166) for 30 minutes. Then use a soft brush to remove the contaminants. Afterwards, soak the electrode in 3M KCL soaking solution for at least 1 hour. Rinse it off, then re-calibrate it before using again.
4. The connector of the electrode should be kept clean and dry. If contaminated, please clean it with medical cotton and isopropyl alcohol and blow-dry it to prevent short circuit of the electrode or slow response of the electrode.
5. The electrode should avoid testing strong acid and strong alkali solutions, as well as dehydrating media such as absolute ethanol and concentrated sulfuric acid. If testing such solutions, the immersion time should be minimized and the electrode should be carefully cleaned after use.
6. Every pH electrode will eventually age and fail. The typical service life of Apera pH electrodes is 12-24 months depending on the frequency of usage and how well you keep it clean and properly stored. We recommend replacing your electrode every 12-18 months to ensure the best accuracy.

Warranty

We warrant this electrode to be free from defects in material and workmanship and agree to repair or replace free of charge, at option of APERA INSTRUMENTS, LLC, any malfunctioned or damaged product attributable to responsibility of APERA INSTRUMENTS, LLC for a period of SIX MONTHS from the delivery.

This limited warranty does NOT cover any damages due to:
Accidental damage, transportation, storage, improper use, failure to follow the product instructions or to perform any preventive maintenance, unauthorized repair or modifications, normal wear and tear, or other external causes or actions beyond our reasonable control.

To get the fastest warranty fulfillment, go to **support.aperainst.com** and click **"New Support Ticket"** on the upper right corner. Type your email in the requester field, "Warranty" in the Subject field, and then input the following information in the description field:

- Your full name
- Product model that needs warranty fulfillment
- Serial number of the product (can be found on the back sticker of the tester body)
- What problem or issue you had experienced with the product
- Attach a photo of your proof of purchase
- Attach a photo of the problematic product

Then click Submit. One of our customer care specialists will help you fulfill the warranty within one business day.

APERA INSTRUMENTS, LLC

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