

LabSen 803 Pure Water Combination pH Electrode

User Manual

LabSen electrochemical sensors are premium pH electrode with manufacturing technology and key components imported from Switzerland. LabSen 803 pH electrode is suitable for pure water measurement, such as drinking water, distilled water etc.

This probe has following features:

- Impact-resist membrane (see the right picture), there is no danger of electrode breakage during normal use.
- Movable sleeve, able to adjust infiltration rate of electrolyte.
- Blue gel inner solution, does not flow and will not cause bubble.
- Silver ion trap reference prevents the contamination of the junction when testing sample contains sulfides and proteins, which helps to improve the stability and service life of the electrode.
- Fast heat conducting pH/Temp. combination structure (Swiss patented, Nr.699927), increase sensing speed by 40%, refer to diagram-2.

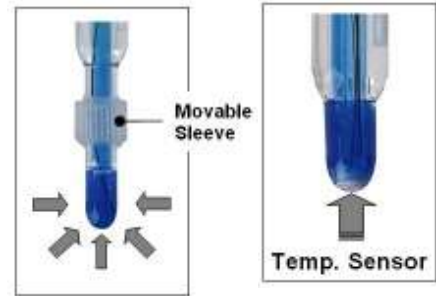


Diagram-1

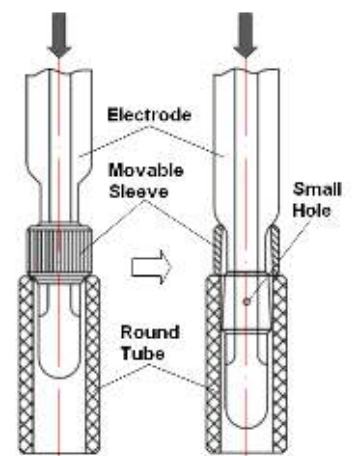
Diagram-2

1 Technical Data

| | | | |
|---------------------|-----------------|---------------------|--------------|
| Measuring Range | (0 ~ 11) pH | Electrolyte | 3M KCl |
| Temperature Range | (0 ~ 80) °C | Soaking Solution | 3M KCl |
| Shaft Material | Lead-free Glass | Temp. Probe | NTC 30kΩ |
| Membrane Type | L | Electrode Dimension | (Ø12×130) mm |
| Membrane Resistance | <50MΩ | Connector | BNC/RCA |
| Reference | Silver Ion Trap | Cable | Ø5×1m |
| Junction | Movable Sleeve | | |

2 How to Use the Movable Sleeve

As shown on the right picture, reference solution flows out of the small hole, seeps through the tapered surface of movable sleeve. You may adjust the degree of firmness when use, push up the movable sleeve to loose. If it is too tight to push, please referring to the right picture: insert the probe into the round tube (the accessory comes with the probe), and push down the probe, then the movable sleeve will be loosen. Please pay attention to remove the rubber plug when adjusting the movable sleeve, enables reference solution flowing out of the small hole; then slowly rotate and tighten the movable sleeve, so that there will be no air remain in the tapered surface of movable sleeve, which can greatly influence the correct measurement of the probe.



3 Usage and Maintenance

3.1 When measuring, please unscrew the bottle cap, pull out the electrode and rinse it with deionized water. After using, please put the electrode back into the bottle and screw tight the cap.



Before pulling out or putting back the electrode, make sure to fully loosen the blue cap on the storage sleeve so that the electrode can move in and out smoothly.

- 3.2 Connect BNC & RCA plug to the input on the pH meter.
- 3.3 Prior to measurement, remove the rubber plug to maintain pressure of the reference solution, keep consistent flow rate of reference solution and stable potentials of junction.
- 3.4 After a period of usage, the reference solution will be running low. Whenever the level falls to 1/2 height of the electrode, add 3M KCL solution to the refilling hole by using syringe or pipette.
- 3.5 Reference solution refilling in cases of contamination; pull out plastic plug, loosen movable sleeve, Electrolyte will drop out quickly. After cleaned with 3M KCL solution, tighten glass sleeve (see section 4), refill 3M KCL solution after washing cavity with pure water and 3M KCL. Then loosen movable sleeve and slowly twist it tighten, to avoid air remain in the tapered surface of movable sleeve.
- 3.6 Drop speed of reference solution decides by the glass sleeve tightness, the tighter the slower. Electrodes must recalibrate upon tightness adjusted. For viscous or low ion concentration solution measuring, requires fast speed.
- 3.7 The connector of the electrode should keep clean and dry. If being contaminated, please clean it with medical cotton and absolute alcohol and blow dry to prevent the short circuit of the electrode and slow reaction of electrode.
- 3.8 The electrode's measuring tip should be soaked in the soaking bottle containing certain amount of storage solution to keep the membrane hydrated and junction unblocked. Clean the bottle and replace the storage solution if the storage solution gets turbid and mildewed. The electrode should never be sinked in pure water or buffer solution for long.
- 3.9 After 1-year of use, we recommend replacing the electrode to ensure the best accuracy.

4 Warranty

We warrant this electrode free from defects in material and workmanship and agrees to repair or replace free of charge, at option of APERA INSTRUMENTS any malfunctioned or damaged product attributable to responsibility of APERA INSTRUMENTS for a period of **six months**. Warranty period is the time limit to provide free service for the products purchased by customers, not the service life of the tester or electrodes.

This limited warranty does not cover any damages due to:

transportation; storage; improper use; failure to follow the product instructions or to perform any preventive maintenance; modifications; combination or use with any products, materials, processes, systems or other matter not provided or authorized in writing by us; unauthorized repair; normal wear and tear; or external causes such as accidents, abuse, or other actions or events beyond our reasonable control.

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