APERA INSTRUMENTS
Fluid Precision since 1991

LabSen® 851-S pH Electrode for Highly Viscous Samples

User Manual

LabSen® pH electrodes are made with proprietary sensor technologies and key components from Switzerland. LabSen® 851-S pH electrode is designed for high-accuracy pH measurement of highly viscous samples such as coatings, syrups, resin, glue, etc.

1. Features

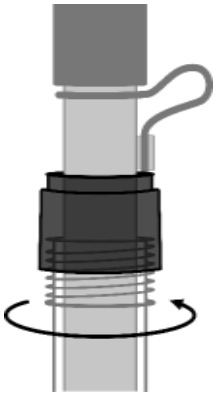
- The low-impedance S membrane ensures a fast response and is yet impact resistant.
- The pre-pressurized structure allows the electrolyte to stably flow out even in highly viscous samples so as to ensure reliable measurements.
- Blue gel inner solution - does not flow and will not generate air bubbles.

2. Technical Specifications

Measuring Range	0-14 pH
Temperature Range	-5-100°C
Body Material	Lead-free Glass
Reference	Pre-pressurized Silver ion trap
Junction	Ceramic
Membrane Type	S
Membrane Resistance	<150MΩ
Reference Solution	Gel KCL
Soaking Solution	3M KCL
Electrode Dimension	Φ12×120 mm
Connector	BNC
Cable	Φ3×1m

3. How to use

1. Connect the electrode to the BNC connector of your pH meter.
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. Perform at least a two-point calibration before measuring after connecting the new electrode to your pH meter.
4. After using, put the electrode back into the storage bottle and twist on the bottle cap.



4. Maintenance

1. When not in use, the electrode should be soaked in the storage bottle containing 3M KCL soaking solution to keep the glass membrane and junction in a healthy condition. Clean the bottle and replace the soaking solution if it gets contaminated. 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.

5. Limited Warranty

We warrant this electrode to be free from defects in material and workmanship and agrees to repair or replace free of charge, at option of APERA INSTRUMENTS (Europe) GmbH, 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:

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

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