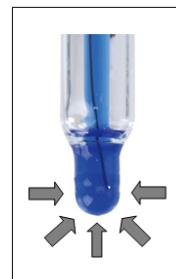


LabSen® 823 Food pH/Temp. Electrode User Manual

LabSen® electrochemical sensors are premium pH electrodes with manufacturing technology and key components imported from Switzerland. LabSen 823 food pH/Temp. electrode is ideal for protein-containing dairy products, beverages, and liquid food.

This probe has following features:

- Impact-resistant membrane (see the right picture), there is no danger of electrode breakage during normal use.
- Protelyte reference solution does not react with protein; 3 ceramic pores reduce the possibility that the junction could be blocked.
- Fast heat conducting pH/Temp. combination structure (Swiss patented, Nr.699927), increase sensing speed by 40%, refer to diagram-2.
- Blue gel inner solution, does not flow and will not cause a bubble.
- Long life reference system, and silver ion trap reference prevent the contamination of the junction when testing samples containing sulfides and proteins, which helps to improve the stability and service life of the electrode.



1. Technical Data

Measuring Range	(0-14) pH	Electrolyte	Protelyte
Temperature Range	(-5~100) °C	Soaking Solution	Protelyte
Shaft Material	Lead-free Glass	Electrode Dimension	(Φ12×120) mm
Membrane Shape	Half Ball	Connector	BNC
Reference	Silver Ion Trap	Cable	Φ3×1m
Junction	Ceramic x 3	Temperature sensor	NTC 30kΩ

2. Usage and Maintenance

- 2.1 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.
- 2.2 After a period of usage, the reference solution will run 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.
- 2.3 The connector of the electrode should keep clean and dry. If 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.
- 2.4 The electrode's measuring tip should be soaked in the soaking bottle containing storage solution to keep the membrane hydrated and junction unblocked. 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. Clean the bottle and replace the storage solution if the storage solution gets turbid and mildewed. The electrode should never be soaked in purified water or buffer solution for long.
- 2.5 After 1-year of use, we recommend replacing the electrode for best accuracy.

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, LLC, any malfunctioned or damaged product attributable to responsibility of APERA INSTRUMENTS, LLC 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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