

LabSen 251 Glass Spear pH Electrode User Manual

LabSen electrochemical sensors are premium pH electrode with manufacturing technology and key components imported from Switzerland. LabSen251 adopts spear type glass membrane, which can easily pierce solid or semi-solid medium. This electrode is suitable for cheese, meat, fruit and vegetable testing.

This probe has following features:

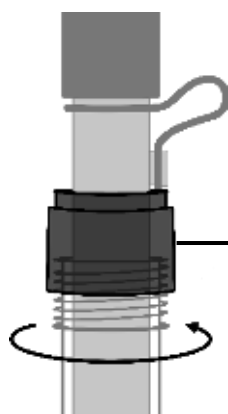
- Impact-resist membrane, there is no danger of electrode breakage during normal use.
- Blue gel inner solution, does not flow and will not cause bubble.
- Maintenance-free polymer electrolyte, non-diaphragm structure.
- Long life reference system, has better stability and service life.

1 Technical Data

Measuring Range	(0 ~ 14) pH	Electrolyte	Polymer
Temperature Range	(0 ~ 80) °C	Soaking Solution	3M KCl
Shaft Material	Lead-free Glass	Electrode Dimension	Electrode (Ø12×100) mm Measuring Tip (Ø6×35) mm
Membrane Shape	Tapered		
Reference	Long Life	Connector	BNC
Junction	Ceramic+Single Pore	Cable	Ø3×1m

2 Usage and Maintenance

- 2.1 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.

- 2.2 After long time exposure in air, Polymer electrolyte will cause shrinkage. It will not happen in measurement status. The electrode must be soaked in 3M KCl solution for storage. After long time soaking, there will be some floccules dissolving out from 3M KCl solution, this is normal phenomenon.

- 2.3 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.
- 2.4 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.
- 2.5 Spear pH Electrode is suitable for measure wet solid or semi-solid medium. Please forcibly even when piercing, to prevent damage of the electrode. In case the sample medium is strong (such as meat and fruit); please cut a small hole before piercing the electrode into it.
- 2.6 After 1-year of use, we recommend replacing the electrode to ensure the best accuracy.

3 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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