LabSen 553 Spear pH Electrode
User Manual

LabSen electrochemical sensors are premium pH electrode with manufacturing technology and key components imported from Switzerland. LabSen553 spear pH electrode adopts spear membrane, which can easily pierce into solid or semi-solid medium. This probe is suitable for pH measuring of fruits, vegetable and soil.

This probe has following features:

- Solid PVC housing, offers stronger protection.
- 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	PVC Plastic	Temp. Sensor	NTC 30kΩ
Membrane Type	S	Electrode Dimension	Electrode (Ø15×90) mm Measuring Tip (Ø6×25) mm
Membrane Resistance	<250MΩ	Connector	BNC+RCA
Reference	Long Life	Cable	Ø5×1m
Junction	Ceramic+Single Pore		

2 Usage and Maintenance

2.1 Connect BNC and RCA plug to the input on the pH meter.

2.2 Pull off the rubber cover. Set them aside (DO NOT pour out the KCl solution). Rinse the electrode with distilled water. Put the electrode back in the rubber cover after use.

2.3 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.

2.4 The electrode's measuring tip should be soaked in the soaking cover containing certain amount of storage solution to keep the membrane hydrated and junction unblocked. Clean the cover 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.

2.5 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.

2.6 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 too hard (such

as meat and fruit), please cut a small hole before piercing the electrode into it.

2.7 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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