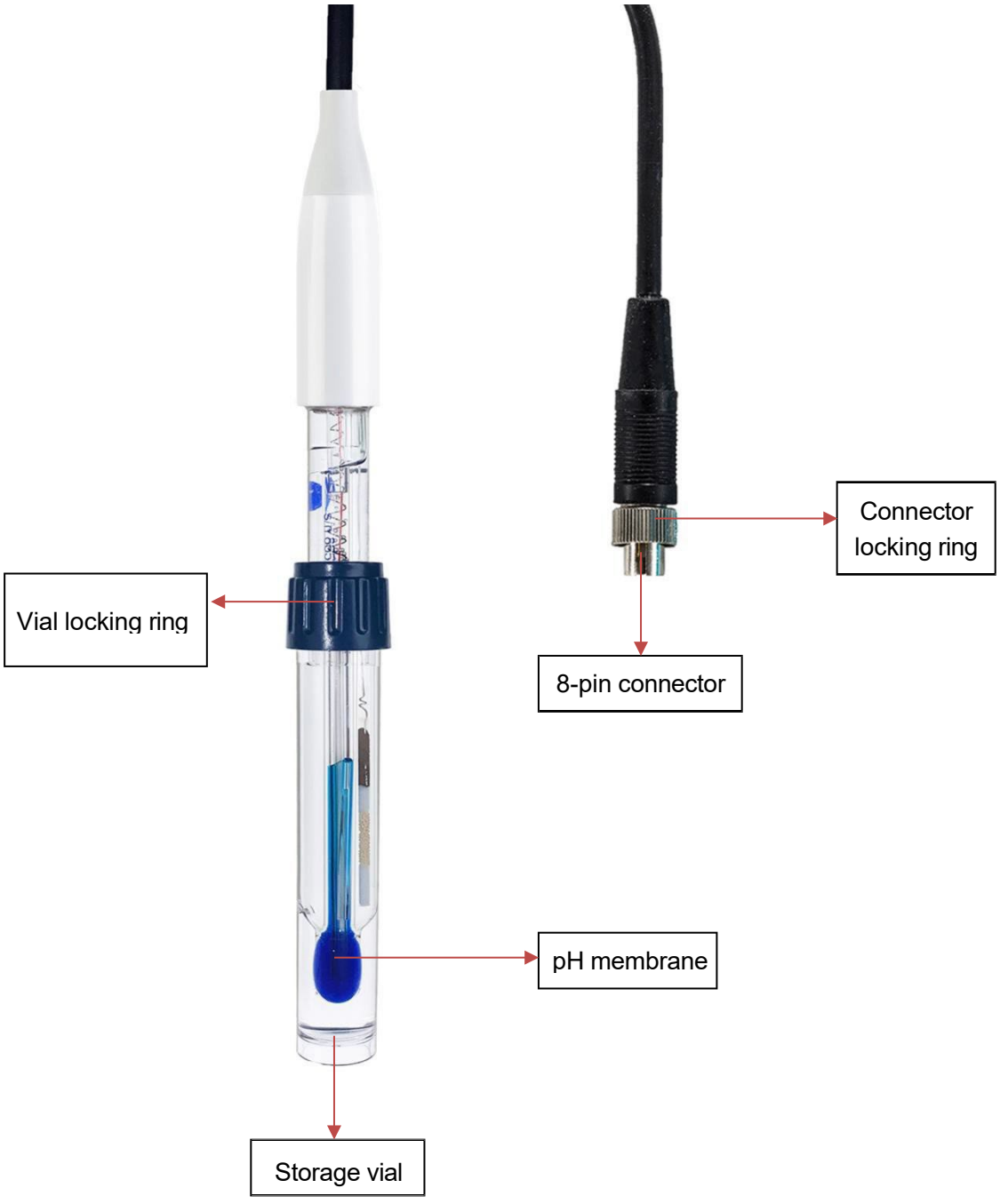
LabSen® 855 pH/Temp. Electrode

User Manual



Crafted with proprietary sensor technology and premium materials from Switzerland, Apera LabSen 855 Glass pH/temp. Electrode is designed for high-precision pH measurement of viscous liquid such as cosmetics, skin care products, paints, coatings, glues, slurry, honey, liquid resin, etc.

Features

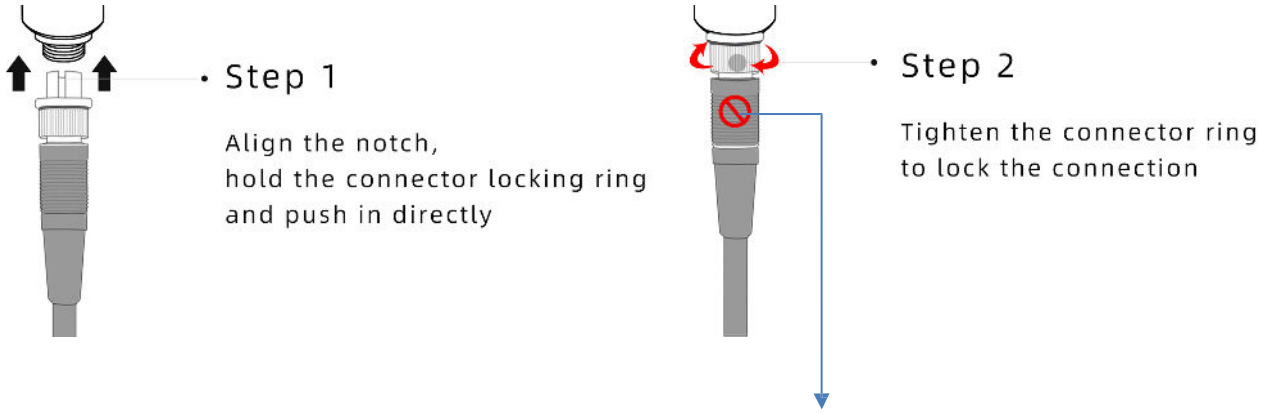
- The pre-pressurized long-life electrolyte eliminates the common issue of junction clogs when testing viscous samples, ensuring a smooth electrolyte discharge for quick response and extending the electrode's service life.
- HA membrane for minimizing alkaline error and withstanding high temperature
- Sturdy glass membrane, 10 times stronger than traditional glass membranes
- The built-in temperature sensor enables automatic temperature compensation.

Technical Specifications

Measuring Range	1 - 14 pH
Temperature Range	0 - 130°C
Membrane Type	HA
Body Material	Lead-free Glass
Reference	Silver ion trap
Junction	Ceramic
Reference Solution	Pre-pressurized gel KCl
Built-in Temp. Sensor	NTC 30KΩ
Soaking Solution	3M KCL
Membrane Resistance	<500MΩ
Electrode Dimension	(Φ12×120) mm
Connector	8-pin
Cable	Φ5×1m

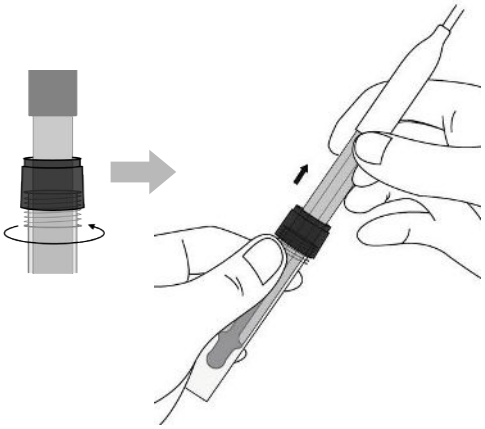
How to Use

1. Connect the electrode to your pH meter according to the graph below:



Never twist the black rubber part to prevent damage on the cable.

2. Before measuring, twist off the storage vial locking ring (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. To start measuring, submerge the electrode into your sample solution at least 1 inch deep, make a quick stir and hold still. Record the reading as the pH measurement when it is stabilized.



5. After measuring, rinse off the electrode and put it back into the storage vial containing 3M KCl, twist on the vial locking ring when not in use.

How to Clean

1. The electrode is only as accurate as it is clean. Always thoroughly rinse off the electrode before and after each measurement with distilled or deionized water. Remove the excess water by shaking off, or dapping off with Kimwipe or lint-free cloth. Never rub or wipe the pH membrane as doing so could generate static electricity and cause measurement errors.
2. For tough contaminants staying on the glass membrane or junction, refer to the following table for cleaning procedures:

Type of Contamination	Cleaning Agent	Soaking Time
Lipophilic substances	Home dish soap water	5 – 10 minutes
Proteins	Apera Electrode Cleaning Solution (SKU: AI1166)	30 – 60 minutes
Inorganic coatings such as hydrocarbons	commercially available glass cleaning solutions	5 – 10 minutes

Hard, scale-type calcium deposits	Apera Electrode Cleaning Solution (SKU: AI1166)	5 – 10 minutes
Alkaline coatings	Apera Electrode Cleaning Solution (SKU: AI1166)	5 – 10 minutes
Acidic coatings	0.1M NaOH solution	5 – 10 minutes
Sulfide-containing substances	Thiourea	30– 60 minutes
Unknown substances	Apera Electrode Cleaning Solution (SKU: AI1166)	30 – 60 minutes

3. Use a soft brush to help thoroughly clean off the contaminants. After the cleaning procedure, the pH electrode should always be soaked in 3M KCl solution for 12-24 hours for rehydration. A re-calibration is also necessary before a new pH measurement.
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.

Maintenance

1. When not in use, the electrode should be soaked in the storage vial containing 3M KCL soaking solution (SKU: AI1107) to keep the glass membrane and junction in a healthy condition. Clean the vial and replace the soaking solution if it gets contaminated (once per month as a rule of thumb). The electrode should NEVER be stored in pure water such as deionized, drinking, RO or distilled water.
2. 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, nature of test samples, and how well you keep it clean and properly stored. Testing in high-temperature solutions will accelerate the aging of the electrode. Minimizing the measurement time in high temperature solutions is a recommended method for keeping a long service life. We recommend replacing your electrode every 12-18 months to ensure the best performance.

Warranty

We warrant this instrument to be free from defects in material and workmanship and agree 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 (Europe) GmbH for a period of **six months** from the delivery. This warranty does not apply to defects resulting from actions such as misuse (violation of the instructions in this manual or operations in the manner not specified in this manual), improper maintenance, or unauthorized repairs. Warranty period is the time limit to provide free service for the products purchased by customers, not the service life of the tester or probe.

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