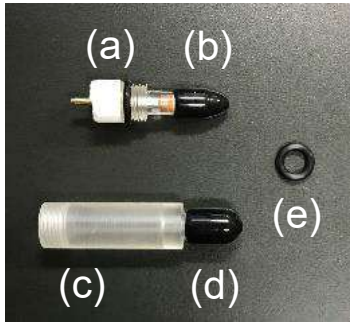
014052 RE-61VT Reference electrode screw type for alkaline solution

1. Contents



(a) Electrode main body
(b) Protective cap (main)
(c) Electrode holder (with a ceramics liquid-junction)
(d) Protective cap (holder)
(e) O-ring (holder)

Please prepare an alkaline internal solution before use. In this manual, 1 M NaOH solution is used as an example.

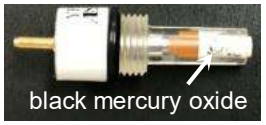
2. Assembly

2.1 Take an electrode main body(a) out of a packaging.

*For assembling, please use rubber gloves, as shown in the photo.

2.2 Remove a protective cap(b) from the electrode main body(a) gently and wash a tip of the electrode main body(a) with pure water.

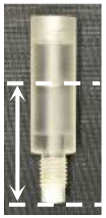
*Black mercury oxide may adhere to a ceramics wall during manufacturing processes, but this is not a problem for measurement.

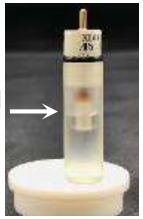


2.3 Fill an internal solution (1 M NaOH) (about 0.6 mL) up to the level that the tip of the electrode main body(a) is immersed. If you see air bubbles in the electrode holder(c), remove the bubbles by shaking the electrode holder(c). The air bubbles may cause an incorrect electrode potential.

2.4 Insert the electrode main body(a) to the electrode holder(c) securely. Be careful not to overfill the electrode holder(c) with the internal solution.

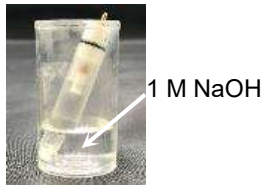
Internal solution
Length of the part of arrow is about 28 mm



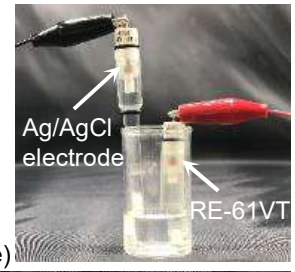


2.5 Before use, soak the electrode in an identical solution with the internal solution (1 M NaOH) for a day to stabilize the electrode potential.

*Do not use glass containers for alkaline solution.



2.6 The electrode potential can be checked with an electrometer and a typical reference electrode (Ag/AgCl) in the same solution as the internal alkaline solution. The electrode potential against the Ag/AgCl is -80 mV ±20 mV (25 ℃) with 1 M NaOH.



2.7 Attach an O-ring(e) to the tip of the holder(c) and set the assembled electrode in our flow cells.

3. How to keep

After use, wash the tip of the electrode with pure water, soak it in 1 M NaOH solution and keep it in a cool dark place.

If electrodes are not used for a long time, disassemble them. Wash the tip of the electrode body(a) with pure water, wipe off the water, attach the protective cap(b) and keep it in a cool dark place. Replace the internal solution of the electrode holder(c) with pure water, soak the tip of the electrode holder(c) in pure water and keep it in a cool dark place.

※To avoid deterioration of the O-ring(e), remove it from the holder(c) when immersing the holder(c) in solutions.

!!CAUTION!!

1. The electrode main body(a) contains hazardous agents. Be careful handling. At the time to discard the internal solution after final usage, please comply with the local government's law.
2. Do not remove a label of the electrode main body(a). The label is required for any case of inquiry.
3. Forcibly removing the protective cap(b) from the electrode main body(a) may damage the ceramic tip and cause leakage of hazardous substances.
4. The electrode is for alkaline solution measurement. Do not use it in organic solvents.
5. Use the electrode at room temperature and atmospheric pressure.
6. Avoid a strong shock to the electrode.
7. This electrode is only for our cells. Compatibility with other supplier's cells cannot be guaranteed.
8. If you screwed strongly, the tip might break.
9. Do not disassemble the electrode main body(a) or perform processing such as soldering. It may cause damage to the electrode or leakage of harmful substances. In that case, we cannot guarantee.
10. The electrode has individual difference and it is sensitive to the temperature, in some case the electrode potential may not coincide with theoretical value.
11. KOH internal solution (up to 6 M) is also applicable to this electrode.

You can browse the checking data of electrode in below URL.
https://www.als-japan.com/dl/

BAS Inc.
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