

# Calomel Reference Electrode

## 1. Main technical data

- 1.1 Internal resistance: $\leq 10\text{K}\Omega$
  - 1.2 Electrode standard potential(25°C):0.244V
  - 1.3 Salt solution: Saturated potassium chloride
  - 1.4 Liquid flow rate:  $\geq 1$  drop / 10 min
- ## 2. Use maintenance and precautions
- 2.1 Before starting a measurement, remove the rubber cover at the liquid junction, small amount of salt is crystallized around the outer wall of the glass tube, This is a slowly leaking KCL solution in a glass tube, Rinse with distilled water, without affecting the use.
  - 2.2 The electrode salt bridge solution should not contain large bubbles, to avoid blocking the electronic measuring circuit; If there is, you can put up the electrode, flicking with your fingers, so that bubbles rise.
  - 2.3 When measuring, the level of the salt solution liquid should be higher than sample solution, In order to avoid reverse osmosis and change sample solution concentration or composition of saltbridge.
  - 2.4 Should used to measure the sample of reaction with liquid saltbridge, In particular, the precipitate forming medium will block the micropores of the collaterals and cause the electrode to be scrapped. As the inevitable to use with other concentrations of potassium chloride or reaction medium, suggested between electrode and solution, increase salt bridge to block.
  - 2.5 The electrode body should be kept clean and replace the saltbridge liquid, the attachment of contamination should be promptly removed, in order to maintain the normal work of Liquid flow part. When the replacement of salt bridge

# Calomel Reference Electrode

solution, take off the injection electrode inlet on the upper part of the rubber cap, taking the salt solution with Syringe and then inject a new solution. Operate carefully to prevent the syringe needle from damaging the inner core of the electrode.

2.6 Do not expose the electrode to the air for a long time (more than a few minutes) when taking the electrode cap, Otherwise, the solution in the glass tube will leak and become dry. When the electrode is not in use in a short time, please immerse the electrode into the saturated potassium chloride. If you don't use it for a long time, please replace the new saturated potassium chloride, then seal it, keep it away from the light, keep it sealed.

2.7 Remove the electrode cap, it also remove the electrode cap on upper and lower ends of the electrode to avoid the air pressure inside and outside the bottom electrode of liquid flow too fast.

## Specifications

Reference potential vs. standard hydrogen electrode when filled with sat. KCl(Temperature range: -10 to 60°C)
---

Temperature(°C)	0	10	20	25	30	40	60
mV	260	254	248	244	241	234	220



These electrodes contain mercury and a mercury salt.  
***In case of contact with mercury, wash exposed areas immediately with plenty of water.***