

T: it means the temperature of the test solution (°C).

The commonly used indicating electrodes include glass electrode, antimony electrode, fluorine electrode, silver electrode and so on, among which glass electrode is the most widely used. The head of pH glass electrode is made of a special sensitive membrane, which is sensitive to hydrogen ions. When it is inserted into the solution under test, its potential changes with the concentration and temperature of hydrogen ions in the solution under test. Changes in solution temperature is 25 °C, every 1 pH, electrode potential change 59.16 mV. This is the theoretical slope coefficient of the electrode.

The potential of the commonly used reference electrode is not changed with the concentration of hydrogen ions in the tested solution.

The essence of pH measurement is to measure the potential difference between two electrodes. When the potential difference between a pair of electrodes in the solution is equal to zero, the pH value of the solution under test is equal to zero potential pH value, which is related to the solution inside the glass electrode. This instrument is equipped with a composite electrode, which is composed of glass electrode and ag-agcl electrode. Its zero-point pH value is  $7 \pm 0.025$ .

#### **Method of instrument use**

- open the instrument at the back of the battery cover, fitted with a 1.5 V battery section 4 (note the positive and negative). Remove the short circuit plug on the instrument electrode socket and plug in the electrode. Pay attention to the electrode plug before use should be clean and dry, do not be contaminated.
- according to the power supply is connected to open the key, preheat for about 5 minutes