



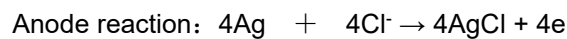
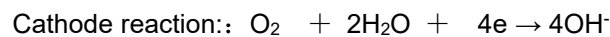
## SPE-DS130 Dissolved Oxygen Electrode

### ·Typical Application

Widely used in water quality monitoring, hydrological monitoring, wastewater treatment, swimming pools, fish ponds and chemical fertilizers, chemical, biological monitoring of oxygen content

### ·Measuring Principle

SPE-DS130 dissolved oxygen electrode is a diaphragm type polarographic (Clark) type sensor. A cathode and an anode connected by a conductive electrolyte. Appropriate polarization voltage between the cathode and the anode O<sub>2</sub> can be reduced at the cathode:



These chemical reactions produce a current that is proportional to the partial pressure of O<sub>2</sub> in the solution being measured.

### ·Features

- ★ responsive, good stability
- ★ no need to replace the membrane and electrolyte
- ★ Applicable to all kinds of bad water, the film is not easy to damage, anti-pollution

### ·Technical Parameters

Measuring principle: current measurement / polarography

Detection limit: <40ppb oxygen content

Response time: oxygen content decreased by 90% at 25 °C <2min

Residual current: Residual room temperature signal in anaerobic medium <2% of full scale

Temperature range: 0 ~ 60 °C when measuring

Pressure range: 0 ~ 4bar

Electrode signal: 20 ~ 80nA at 25 °C (according to customer requirements)

Temperature compensation: thermistor resistance according to customer requirements

Electrode size: diameter 12mm, length 120mm (PG13.5 thread interface), can be customized

Electrode material: 316L stainless steel shell, POM membrane cap

Breathable Film: Steel mesh reinforced PTFE and polysiloxane film.