

CerAnode Ag/AgCl High Stability Reference Electrode

Product Data Sheet



The fundamental component of the CerAnode Silver Chloride Reference Electrode is its high purity silver and robust silver chloride layer. The electrode element is manufactured by electroplating an initial layer of silver chloride followed by a kiln fired outer layer. This outer layer is in turn encapsulated in a semisolid electrolyte providing a well defined electrochemical ionic interface between it and a fully fired hard porous ceramic plug that contacts the process electrolyte. At each stage of the process the element is tested against a calibrated standard calomel electrode (SCE) to assure accuracy and stability within a prescribed microvolt window. The electrode can be specified to extend into the process as required. An optional shield is available for high turbulence.

CerAnode Ag/AgCl Reference Electrode	Specification
Sensing Area	2.85 cm ² Hard Porous Ceramic Plug Locked in Place
Silver Element Mass	15 grams
Silver Element Purity	Five Nines (99.999%) Pure Silver
Potential vs Saturated SCE at 25° Celsius	-5 mV +/-10 at 25°C (Note 2 & 3)
Temperature Range	0° to 65° Celsius
Design Life	25 Years (Infinite Shelf Life) (Note 3)
CerAnode Part Number (4" into process)	RPR-AG8-HS25-4-1.25-1.25-316SS-1.25-TB(PVC)

CerAnode Part Number (8" into process) RPR-AG8-HS25-8-1.25-1.25-316SS-1.25-TB(PVC)

- Note 1 - This cell is designed for seawater Cl concentration but will operate at Cl concentrations >200 ppm.
- Note 2 -- The absolute long term value is dependent on the ionic balance between its internal sea water and the process water concentration as well as the cell temperature based on the temperature coefficient of 0.6 mV/°C.
- Note 3 - To realize the extended life characteristics and other characterizations of this electrode it should be interrogated under a maximum load of the 3 microampere for the seconds needed for measurement. At other times it should be open circuit.
- Note 4 -- This Ag/AgCl Sea Water Reference Electrode is shipped pre-charged. Its Blue Protective Cap should not be removed until ready for installation but **MUST** be removed before operation.

