



# PORTABLE COPPER / COPPER SULFATE REFERENCE ELECTRODE

## PRODUCT DATA SHEET

# PORTABLE COPPER/COPPER SULFATE REFERENCE ELECTRODES

Reference electrodes are used to measure the polarization potential of cathodic protected structures. They shall be kept in contact with the same electrolyte (soil or water) surrounding the structures, and the voltage that rises between the structure and the lead cable of the electrode, measured with a high-impedance voltmeter, gives an indication of the effectiveness of cathodic protection.

Copper sulfate reference electrodes (CSE) are the most commonly used reference electrode for measuring potentials of underground structures and also for those exposed to fresh water. This reference electrode is composed of a copper rod, immersed in a saturated solution of copper sulfate, held in a non-conducting cylinder with a porous plug at the bottom. The copper ions in the saturated solution prevent corrosion of the copper rod and stabilize the reference electrode.

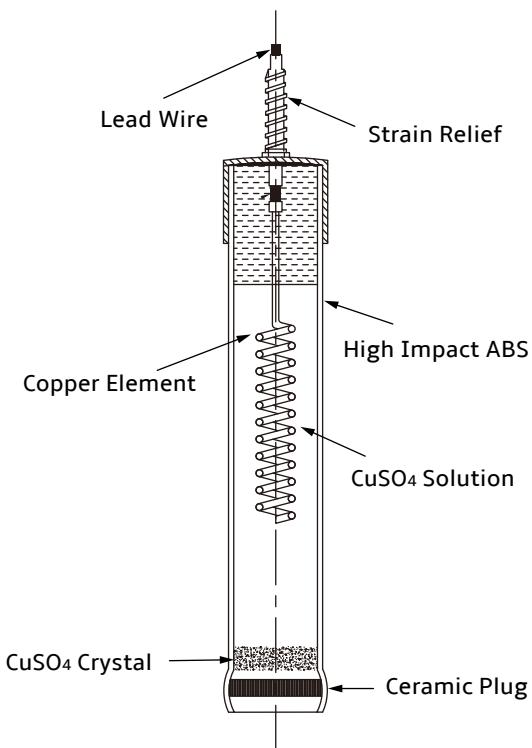


## ELECTROCHEMICAL PROPERTIES

Technical Measurement	Performance
Electrode Potential	+316 mV (25°C vs SHE)
Potential Stability	±5 mV (at 0.3 mA)
Insulation Resistance	> 1 MΩ
Operating Temperature	0°C ~ 55°C
Temperature Coefficient	0.96 mV/°C
Lifetime	30 yrs.

## SPECIFICATIONS

Item No.	Diameter	Length
YX-CSE-1	32mm (1.26")	150mm (5.9")





## Industrial Corrosion Control Solutions Provider

Established in 2003, YUXI has over a 20-year heritage of innovation in corrosion control science and technology. We're a spirited team of ambitious thinkers and pioneer sheep with a common goal in mind: protect our clients' assets from corrosion with cost-saving measures.

We have the most comprehensive catalog of cathodic protection materials including anodes, transformer rectifiers, backfills, coatings, etc. Our anodes and supplies are manufactured to strict quality standards through an ISO 9001 quality management system and are guaranteed to offer excellent performance in the industry.



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