

Portable Cu/CuSO₄ Reference(Ceramic Head)

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. It is not suitable for use in a chloride electrolyte as the chloride ions will migrate through the porous plug and contaminate the CSE. The 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. The portable type Copper/Copper Sulfate reference electrode used for buried structure and structure in fresh water.



KEY FEATURES

1. Stable Potential (via uniform microporosity)
2. Extended Lifespan (Robust construction)
3. Anti-Fouling
4. Low IR Drop
5. Impact Resistant

PRODUCT SPECIFICATIONS

Enclosure: Approx. $\Phi 30\text{mm} \times 150\text{mm}$ length

Enclosure Material: Ceramic Head, Copper element
99.9%, CuSO₄ solution

Lead Wire: 3m 1 $\times$ 2.5mm² Testing Cable
Stability: $\pm 5\text{mV}$ with 0.3 microamps load

APPLICATIONS

1. Oil & Gas Transmission Pipelines
2. Municipal Underground Utilities
3. Storage Tanks & Large Containers
4. Electrical Grounding Grids
4. Reinforced Concrete Structures (Land/Freshwater)
6. Industrial Temporary Testing