

# CU1 - Permanent Cu/CuSO<sub>4</sub> Reference Electrode

## APPLICATION

The Refine™ CU1 reference electrode is used for underground buried structures, typically pipes, vessels and tanks. The electrode uses a porous ceramic end plug to act as an ionic barrier designed to ensure long life, accuracy and stability over decades of service. Excessive leaching of chlorides into the environment or cross contamination from exterior sources is reduced to a minimum. The Refine™ reference electrodes are designed for use in wet and dry soil areas, taking the place of the old terracotta copper pots, and as an option can come pre-packaged in wetting backfill.



## CU1 - Permanent Cu-CuSO<sub>4</sub>

### MATERIAL SPECIFICATION

Electrode element	High conductivity copper to HD HC C101 specification
Electrode media	Specially formulated CuSO <sub>4</sub> matrix
Body	uPVC
Conductive tip	Specifically formulated high temperature fired ceramic

### PERFORMANCE DETAILS

Operating life	Minimum 25 years if handled & installed to manufacturer's spec
Shelf life	Indefinite when following manufacturer's recommendations
Stability	+ or - 5mV at 5µA
Temperature range	0 - 75°C (32 - 167°F)

### DIMENSIONAL DATA

Electrode body diameter	75mm (3")
Electrode body length	300mm (11.8")
Electrode body weight	450 grams (15.87oz)

### CABLE TAILS

Standard specification	1 x 4mm <sup>2</sup> (12 AWG) XLPE/PVC stranded copper conductor 15m long with green insulation
You specify	Cable tail fitted to your requirements

### QA/QC DETAILS

Traceability	Fully traceable calibration certificate provided
Tested Vs SCE	+50 to 70mV vs saturated calomel electrode tested in tap water