

REFERENCE CELLS

Permacell[®] 802

Permanent Reference Cell

For Reliable Potential Measurements On Buried Structures

Permanent reference electrodes provide accurate and reliable potential measurements on buried metallic structures. Their placement in close proximity to protected structures permits readings which are more exact and less affected by fluctuating soil conditions than those obtained by portable cells. Corrpro's Permacell 802 is a permanent copper/copper sulfate reference electrode with a proven track record for stability. Long-life performance is achieved through a rugged design, which includes impact-resistant PVC tubing. The tubing houses a 99.99% pure copper element and a supersaturated solution of copper sulfate. The copper sulfate mixture ensures that the copper element remains electrically stable, so that the cell's potential value will not fluctuate. From this special composition, the cell achieves a minimum design life of fifteen years, and maintains an accuracy level of ± 5 millivolts.

Corrpro's Permacell 802 is designed for trouble-free installation. The cell is pre-packaged in a cloth bag containing a low-resistance backfill material, and is completely assembled and ready for immediate installation. Plastic positioning pins on the cell assure that a sufficient amount of the backfill will exist around the cell's electrical contact point. Because of this, a low-resistance groundbed can be created simply by watering the area surrounding the cell. Lead wire connections to the cell are made using #14 AWG wire containing HMWPE insulation. The cell is provided with fifteen feet of this wire to address numerous types of applications.



Typical Applications

The Permacell 802 permanent reference cell is designed to measure electrical potentials on buried metallic structures, such as underground pipelines and storage tanks. It is ideal for structures located under pavement or other impediments which prevent the use of a portable cell. The cell can be operated in temperatures of up to 135°F, but should not be used in areas containing high chloride concentrations. The cell should be installed below the frost line in relatively moist soil.



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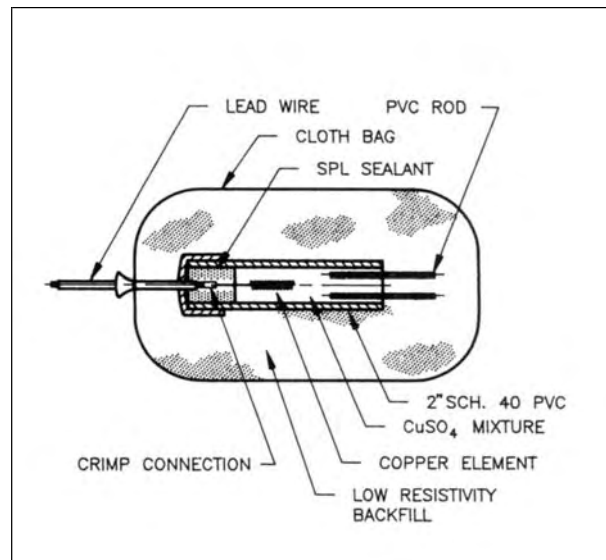
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Ordering Procedure

Corpro's Permacell 802 is made according to customer specifications. To order this cell for your particular application, indicate that you need a Permacell 802 copper/copper sulfate reference electrode, and specify the quantity desired and the lead wire length, size, and insulation if different from the standard provided. An example is included to help illustrate this process.

Ordering Procedure Example	
ITEM	EXAMPLE
Quantity	10
Product	Permanent Reference Cell
Permacell Model	802
Lead Wire: Length (15 ft. = Standard)	15 ft.
Size (#14 AWG = Standard)	#14 AWG
Insulation (HMWPE = Standard)	HMWPE



Product Specifications

	NOMINAL DIMENSIONS		WEIGHT lbs. (kg)	ELECTRICAL STABILITY	DESIGN LIFE
	in. (mm)	LENGTH			
Bare	2 (50.8)	8 (203.2)	4 (1.82)	±5 millivolts with 8.0 microamp load	15 years
Pkgd.	8 (203.2)	15 (406.4)	19 (8.62)		

