

cescor•zero

Zinc Reference Electrode for Soil Applications



cescor.zero[®] is a new reference electrode for cathodic protection monitoring in soil.

Advantages

- Potential stability
- Non-polarizability
- Unlimited durability
- Robustness
- No metal ions release



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The zinc metallic element is in contact with a solid electrolyte, whose special composition ensures permanent active conditions of the zinc, preventing the formation of passive layer (Patent Application N. 102015000021001).

The solid nature of the backfill, in combination with the robust realization of the electrode, guarantees a long durability, much greater compared with the traditional reference electrodes for soil application, in particular the copper – copper sulphate electrode.

cescor.zero® does not produce any release of metal ions into the environment.

It is suitable also for application in chloride-contaminated soil.

INSTALLATION

The reference electrode shall be positioned as close as possible to the structure to be monitored. The electrode cable shall be routed to the test post and the potential difference measured with respect to a cable connected to the structure.

POTENTIAL

The Zinc electrode potential is -1.07 V vs. SCE (Saturated Calomel Electrode). The potential can be converted to copper/copper sulphate electrode by adding -1.14 V to the measured value. Example: $+0.20$ V vs. Zn measured value corresponds to -0.94 V vs. CSE. The recommended minimum impedance for measuring devices is 10 M Ω .

CABLE

Type FG7 1×2.5 mm² (AWG 13).

LIFE EXPECTANCY

Operating life is expected to be at least 20+ years.

