

# **IRON PROBE DESERT**

The new patented reference electrode with high conductivity and hygroscopic (1 coupon)



### Cu/CuSO4 Reference electrode

Cathodic Protection patented Copper Sulphate Blend reference electrode (CSE), with integrated probes for Eirfree measurement (accordingly to EN ISO 15589-1).

Registered European trademark and patent no. 202022000002267

### **TECHNICAL FEATURES**

Case RECYCLED POLY OXYETHYLENE

Sizes  $150x158 \text{ mm (Hx} \emptyset)$ 

Weight 4 kg

Electrode Copper, 99% purity

Electrolite Patented Copper Sulphate Blend (CSM®)

Porous plug <u>Patented</u> ceramic mesh with high conductivity and

hygroscopic power suitable for sands and high resistance

soils with a contact surface of 117,5 cm<sup>2</sup>

Carbon Steel Coupon DC measure 10 cm<sup>2</sup>

Distance Coupon / Porous plug 7 mm

Cable Ml. 3 FG16OR16 0.6/1kV, 2x1,5mm<sup>2</sup>



## **IRON PROBE DESERT**

	Coupon	IRON PROBE	Reference Value	Max deviation
T 24h CSE-AAC stability	Not connected	min -120 mV max -115 mV,	- 120mV	+/- 5 mV
	Connected	min -130 mV max -110 mV	- 120 mV	+/- 20 mV
IR Drop	Measured Potential value Eon: -1,52 V		Real E irfree value: <b>-1,04 V</b>	-0,48 V
Ambient conditions	Sand grounds also with high resistivity with low chlorides content (<200 ppm)			
Temperature	-5°C ÷ +40°C			
Lifetime	>10 years			
Minimum input resistance of connected devices	10 Mega OHM			

The reference probe in copper with patented copper sulphate mixture (CSM®) with n. 1 polarization coupon (platelets) is used to evaluate the real cathodic potential in the absence of ohmic drops of the Eirfree electrolyte.

Thanks to the very reduced distance between coupons and porous plug, the new IRON PROBE DESERT delivers an extremely precise measure, with a minimal deviation.

The proprietary blend with copper sulphate (CSM®) has been designed to prevent the escape of sulphate by capillarity.

The patented porous plug is made by a ceramic mesh with a high hygroscopic power and conductivity: the 117,5cm<sup>2</sup> porous plug allows the measure stability across time compared to smaller surfaces, designed for sands and high resistance terrains.

The electrode integrates one steel carbon coupon 10 cm<sup>2</sup> for DC measures .

#### **STORING PROCEDURES**

Store in a proper dry location, avoiding humidity, low temperatures (freezing) and the direct exposition to sun light. If properly stored, IRON PROBE shelf life is **unlimited**.

In presence of moisture the external surface of the coupon can oxidize; in case of extended storing time it is preferable to protect the probe surface with mineral oil which, hovever, <u>must</u> <u>be accurately removed before the installation. A careful cleaning of the surface with metal brush or sand paper is highly recommended.</u>

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