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PEK-015 rev.1

## TECHNICAL DATA SHEET

### ION-RESISTANT RETENTION STATIONARY REFERENCE ELECTRODE

#### type as IRRS-Cu



#### FUNCTION

IRRS-Cu reference electrode is used in cathodic protection systems for long term application. It provides potential measurement of embedded and immersed metal structures, and reinforced steel structures. Owing small dimension IRRS-Cu can be applied in narrow places where is impossible to settle electrodes of a larger size.

A membrane thickness, granulation and porosity, as well as retention property of electric mud makes this electrode soppy even in most extreme dry conditions. Dry-wetting process in soil won't destroy IRRS-Cu, and potential reading will stay stable. Ionic blocker inside the electrode will keep halogen ions away from copper surface.

PA-EL d.o.o. za projektiranje i izvođenje elektroinstalacija i antikoroziivne zaštite.  
Trgovački sud u Zagrebu, MBS: 080146747. Temeljni kapital: 65.800,00 kn uplaćen u cijelosti. Član uprave: Neda Pavliša.  
Ziro račun: Zagrebačka banka d.d. Zagreb 2360000-1101325990. OIB: 56740849320



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### ION-RESISTANT RETENTION STATIONARY REFERENCE ELECTRODE SPECIFICATION (MANUFACTURE STANDARD)

#### GEOMETRY

- length 190 mm (7,48") x 46 mm (1.81") diameter
- exchange surface 27444 mm<sup>2</sup>
- mass 590 g

#### ELECTROCHEMICAL SYSTEM

- ⇒ Cu/CuSO<sub>4</sub> sat.
- ⇒ E (IRRS-Cu) vs. E (H<sub>2</sub>) = 318 mV

#### RETENTION SYSTEM

- porous membrane + electric mud + ionic exchanger

#### STABILITY

- potential stability:  $\Delta E = \pm 10$  mV
- current load:  $I_N \leq 3$   $\mu$ A
- temperature range 0° C do 58° C
- life time 30 years

#### INSTALLATION

##### In water:

- on PE carriers
- on PE cord with dead weight
- on bottom covered with natural mud

##### In soil:

- embedded in sand or soil
- embedded in soil with electric mud or coke backfill in 10 cm layer around electrode

##### In concrete:

- suffused with concrete

**CONNECTING CABLE** – type as PP00 2x1.5mm<sup>2</sup> (1x6 mm<sup>2</sup>)

**MAINTENANCE** – No maintenance.

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