



EIE INSTRUMENTS PVT. LTD.
(An ISO 9001:2015 Certified Company)

HALF CELL POTENTIOMETER - PORTABLE-WITH HMI



Compliance Standards

ASTM C876

HALF CELL POTENTIOMETER - PORTABLE-WITH HMI

"EIE instruments" Half cell potentiometer measures the potential and electrical resistance between the uncoated steel reinforcement and the surface to evaluate the corrosion activity as well as the actual condition of the cover layer during testing. The electrical activity of the steel reinforcement and the concrete leads them to be considered as one half of weak battery cell with steel acting as one electrode and the concrete as the electrolyte. The name half-cell surveying derives from the fact that the one half of the battery cell is considered to be the steel reinforcing bar and the surrounding concrete. The electrical potential of a point on the surface of steel reinforcing bar can be measured comparing its potential with that of copper – copper sulphate reference electrode on the surface.

Technical Specification

- Type : Potential type
- Battery : 20000 mAH
- Display : HMI display
- Accuracy : ± 1 millivolt
- Power : 230 Volts AC supply to Charge battery
- Sensor type : Saturated Cu – Cu So₄ solution
- Cable : Cables of 2.5-meter long
- Half-cell potential indicator with copper – copper sulphate electrode:
- The instrument is handheld portable battery operated with HMI display.
- Complete with USB cable and Pen drive for saving the data
- The instrument is capable of measuring half-cell potentials of reinforcing steel in concrete as ASTM C876 standard.

The system with Data acquisition systems for automated potential mapping and Temperature and humidity sensors to record environmental conditions is also available separately.

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