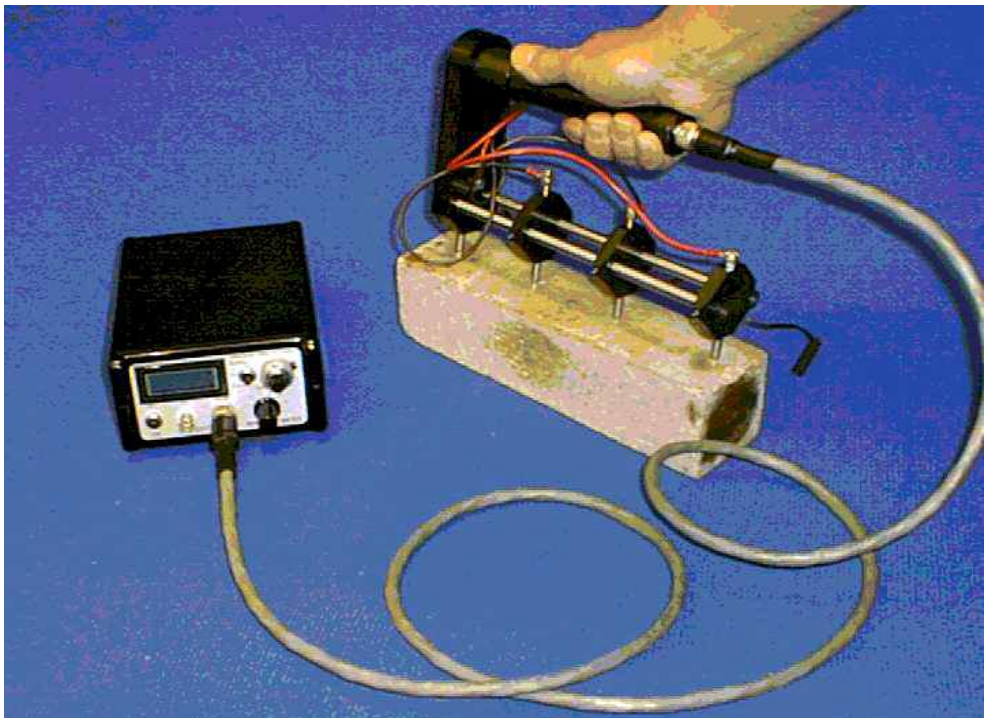
CONCRETE RESISTIVITY METER



Used in the assessment of concrete for :

- **corrosion**
- **rate of corrosion**
- **probability of corrosion**

PRINCIPLES

The corrosion of steel reinforcement in concrete is an electrochemical process which is directly affected by the resistivity of the surrounding concrete.

The lower the resistivity, the greater the chance that corrosion is occurring.

Suggested guidelines for the likelihood of significant corrosion are:

$\rho \geq 20k\Omega cm$ - low
$10k\Omega cm > \rho < 20k\Omega cm$ - low/moderate
$5k\Omega cm > \rho < 10k\Omega cm$ - high
$\rho \leq 5\ k\Omega cm$ - very high

ρ = Resistivity

FEATURES

- Superior patented measurement technique
- Overcomes the problems of high-contact resistance and unequal contact resistance
- Wenner linear four-point probe
- Adjustable probe spacing
- Six ranges covering up to $2M\Omega.cm$
- Can measure resistivity, true resistance and current
- Analogue output for data logging
- 'Remote' output for measurement and control by automated logging systems

SPECIFICATION

Functions
Selected by three position switch on front panel:
- Resistivity
- Current
- Resistance

Measurements
- Six ranges
- Accuracy: ±2% of reading
- Probe spacing: adjustable from 0-10cm

Display
- 3½ digit LCD
- Overrange indicated by blanking of last 3 digits
- Low battery indicator

Outputs
- 0-10V analogue output from BNC socket on front panel

Remote Function
- Meter can be switched on or off and analogue output can be obtained from the Remote socket on the rear panel

Environmental
- Power supply: Supplied with 4 NiCd rechargeable C-type cells
- Battery life: up to 10hrs with NiCd cells or up to 30hrs with standard alakaline cells
- Operating Temperature Range: 0°C to 40°C
- Packaging: 1 carton. Weights: Net 4.5kg, Gross 5.5kg

RM KIT

- **Resistivity Meter**
- **Four-point Wenner Probe**
- **Probe Cable**
- **Spare probe tip material**
- **Battery Charger**
- **Manual**
- **Carrying Case**

MEASUREMENT RANGES

Range	Resistivity	Current	Resistance
1	2kΩ.cm	2mA	20kΩ
2	20kΩ.cm	2mA	200kΩ
3	20kΩ.cm	200µA	200kΩ
4	200kΩ.cm	200µA	2MΩ
5	200kΩ.cm	20µA	2MΩ
6	2MΩ.cm	20µA	20MΩ

Recommended References:

BS 1881: Part 201:1986 *Testing Concrete. Guide to the use of non-destructive methods of test for hardened concrete.*

BUNGEY JH *Testing of Concrete in Structures (2nd Ed.).* Blackie A & P, London, 1989.

CNS Farnell Limited, Elstree Business Centre, Elstree Way, Borehamwood, Hertfordshire, England. WD6 1RX
Telephone: +44 (0) 20 8238 6900 Facsimile: +44 (0) 20 8238 6901
Website: www.cnsfarnell.com E-mail: sales@cnsfarnell.com