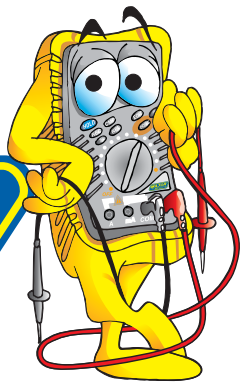
Earth Resistivity & Resistance Tester



Technical Data

K4106

The K4106 is a 2/3/4-wire digital Earth resistance/Earth Resistivity Tester equipped with a microcomputer and can measure earth resistances and calculate earth resistivity's (ρ), ussing the "Wenner " 4 pole method. This instrument is ideal for Earth measurements also in large Earthing systems because it uses a considerable test current of 80mA (max) yielding a high resolution of 1mΩ on 2Ω range. The Earth Resistivity measurement is useful for soil surveys to establish the optimum earth electrode system design and site, to avoid extra cost of re-working electrode installations. It can also be suitable for geological investigations.

Features Include:

- Stores up to 800 measurement results
- Ideal for large Earthing systems - test Current of 80mA (max)
- The best suitable Test Current Frequency in four bands of 94/105/111/128Hz and the advanced Filtering method reduce the noise interference
- "Zero-Adjust" the Residual Resistance (Rk)
- The soil Earth Resistivity (ρ) is automatically calculated. Distance can be set within a range of 1.0 to 30.0m at 0.1m steps.
- Several sub-results and parameters can be shown on the display
- Memory, Recall and Download - results via USB adaptor
- Warning indication of noise and high resistance of auxiliary earth spikes
- IP54 protection

General Specifications

Display	:	Backlight, Dot-matrix display
Power Source	:	Battery R6P X 8
(number of measurement)		400 times or more (measure 1Ω on 2Ω range every 30 seconds)
Dimensions	:	167(L) X 185(W) X 89(D) mm
Weight	:	Approx. 900g (including battery)
Operating Temperature	:	-10°C ~ 50°C, relative humidity 75% or less (no condensation)
Storage Temperature	:	-20°C ~ 60°C, relative humidity 75% or less (no condensation)
Accessories	:	Precision measurement cords (green, black, yellow: 20m, red: 40m) Simplified measurement probe, Auxiliary earth spikes (4pcs), Cord reel (4pcs) USB adaptor, USB cable, CD software KEW report, R6P X 8, carrying bag, shoulder strap.

IEC 61010-1 CAT III 300V

IEC 61010-1 CAT II 600V

Function	Range	Resolution	Measuring Range	Accuracy
Earth (Ground) Resistance **Re (2/3/4 wires)** **Rg (at Resisiitivity)** **ρ only)**	2Ω	0.001Ω	0 ~ 2.099Ω	± 2%rdg ± 0.03Ω
	20Ω	0.01Ω	0 ~ 20.99Ω	± 2%rdg ± 5dgt
	200Ω	0.1Ω	0 ~ 209.9Ω	
	2000Ω	1Ω	0 ~ 2099Ω	
	20kΩ	10Ω	0 ~ 20.99kΩ	
	200kΩ	100Ω	0 ~ 209.9kΩ	
Auxillary Earth Resistance Rh,Rs				8% of Re+Rh+Rs
Earth Resistivity ρ	2Ω	0.1Ω · m ~ 1Ω · m (Auto-ranging)	0 ~ 395.6Ω · m	p-Accuracy depends on measurement of Rg **ρ = 2 X π X a X Rg** "a" is distance of auxiliary earth spikes: 1.0 ~ 30.0m (0.1m steps)
	20Ω		0 ~ 3956Ω · m	
	200Ω		0 ~ 39.56Ω · m	
	2000Ω		0 ~ 395.6kΩ · m	
	20kΩ		0 ~ 1999kΩ · m	
	200kΩ			
Series Interference Voltage Ust (A.C only) Note 3)	200V	0.1V	0 ~ 50.9Vrms	± 2%rdg ± 2dgt (50/60Hz)
				± 3%rdg ± 2dgt (40 ~ 500Hz)
Frequency Fst	Auto-ranging	0.1Hz 1Hz	40 ~ 500Hz	± 1% ± 2dgt)

Ordering Information

HEAD OFFICE
Cnr Rover and Jaguar Roads,Rustivia Ext 3, Elandsfontein
P.O. Box 888, Isando 1600,South Africa
Telephone: +27 11 822 1551
Sales Fax: +27 11 822 2806
Admin Fax: +27 11 822 1411
e-mail: sales@major-tech.com
National Tel: 08 61 MAJORT / 08 61 62 5678

BRANCHES - DURBAN
6A Pastel Park, Wareing Road, Pinetown
P.O. Box 15550, Ashwood 3605
Telephone: +27 31 701 5830
Sales Fax: +27 31 701 6986

BRANCHES - CAPE TOWN
109 Kyalami Drive, Killarney Gardens
P.O. Box 60122, Tabelview 7439
Telephone: +27 21 556 3091
Sales Fax: +27 21 556 3093

BRANCHES - PORT ELIZABETH
175 Kempston Road, Sidwell
P.O. Box 22499, Port Elizabeth 6000
Telephone: +27 41 453 3818
Sales Fax: +27 86 633 9809