

## New Earth Resistance & Resistivity Tester

**KEW 4106**

- High test current up to 80mA yielding resolution of 0.001Ω on 2Ω range.
- Advanced Filtering method (based on FFT Fast Fourier Transform) reduces noise interference for obtaining stable measurements.
- Automatic and Manual selection of the Test Current Frequency in four bands (94/105/111/128Hz). In Automatic mode, KEW 4106 will select the most suitable Frequency.
- Several sub-results can be shown on the display. Resistance of the Auxiliary Earth Spikes, Frequency of Test Current, Voltage and Frequency of Interference (noise), Residual Resistance Rk, etc.
- Warning for excessive noise and high Auxiliary Earth Spikes resistance.
- Large Graphic Display with backlight for readings in poorly illuminated areas.
- Up to 800 measurement results can be saved in the memory and recalled on the display.
- The stored results can be transferred to a PC using the "KEW Report" software and a USB adaptor (Model 8212-USB) which are included.
- Robust design with IP54 protection.



**NEW**

Function	Range	Resolution	Measuring range	Accuracy
Earth resistance	2Ω	0.001Ω	0.03~2.099Ω	±2%rdg±0.03Ω
Re	20Ω	0.01Ω	0.03~20.99Ω	
(Rg at ρ measurement)	200Ω	0.1Ω	0.3~209.9Ω	
	2000Ω	1Ω	3~2099Ω	±2%rdg±5dgt (*1)
	20kΩ	10Ω	0.03~20.99kΩ	
	200kΩ	100Ω	3~209.9kΩ	
Auxiliary earth resistance Rh, Rs				8% of Re+Rh+Rs
Earth resistivity ρ	2Ω		0.2~395.6Ω·m	
	20Ω		0.2~3956Ω·m	
	200Ω	0.1Ω·m~1Ω·m	20~39.56kΩ·m	ρ=2×π×a×Rg (*2)
	2000Ω	Autoranging	0.2~395.6kΩ·m	
	20kΩ			
	200kΩ		2.0~1999kΩ·m	
Series interference voltage Ust (AC only) (*3)	50V	0.1V	0~50.9Vrms	±2%rdg±2dgt (50/60Hz) ±3%rdg±2dgt (40~500Hz)

Frequency Fst	Autoranging	0.1Hz 1Hz	40Hz~500Hz	±1%rdg±2dgt
Measuring method	Earth resistance: Fall-of-potential method (currents and voltages measured via the Probes) Measurement method of Earth Resistivity (ρ): Wenner 4-pole method Series interference voltage (earth voltage): RMS Rectifier (between the E-S Terminals)			
Memory capacity	800 data			
Communication Interface	Model 8212-USB Optical Adaptor			
LCD	Dot-matrix 192×64 monochrome			
Over-range Indication	"OL"			
Overload Protection	between E-S(P) and between E-H(C) terminals AC280V / 10 sec.			
Withstand voltage	between the electrical circuit and enclosure AC3540V(50/60Hz) / 5 sec.			
Applicable standards	IEC 61010-1 CAT.III 300V, CAT.IV 150V Pollution degree 2 IEC 61010-031, IEC 61557-1, 5, IEC 61326-1 (EMC), IEC 60529 (IP54)			
Power source	DC12V : sizeAA manganese dry battery (R6P) × 8 (Auto power off: approx. 5 minutes)			
Dimensions	167(L) × 185(W) × 89(D) mm			
Weight	approx. 900g (including batteries)			
Accessories	<a href="#">7229</a> (Precision measurement test leads), <a href="#">7238</a> (Simplified measurement test leads), <a href="#">8032</a> (Auxiliary earth spikes [2 spiks/set])×2 sets (4 spikes in total), <a href="#">8200-04</a> (Cord reel [4 pcs])×1 set, <a href="#">8212-USB</a> (USB adaptor with "KEW Report(Software)"), 9121 (Shoulder strap), <a href="#">9125</a> (Carrying case), R6P×8, Instruction manual, Calibration certificate			
Optional	<a href="#">8212-RS232C</a> (RS232C adaptor with "KEW Report(Software)")			

(\*1) Auxiliary earth resistance is 100Ω with Rk correction

(\*2) Depending on the measured Rg. Interval [a] between auxiliary earth spikes is 1.0~30.0m

(\*3) This instrument is NOT designed to measure line voltages on commercial powers.