



WDDS-2/3 Digital DC Earth Resistivity Meter

Power:
Max 3500W, 1000V(2000Vp-p)* 3.5A

Function:

- 1D VES Resistivity
- 1D Resistivity Profiling
- SP survey

Internal Tx power (WDDS-3 only):

- Max 200V, 3A

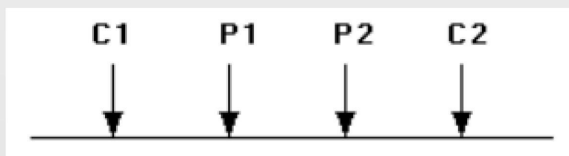
Portable and light: 4~5kg

Applications:

- Underground water inspection
- Engineering geology inspecting as dam base exploration and flood
- Metal source exploration
- Non-metal source exploration
- City geophysical exploration
- Railway and bridge

The purpose of electrical surveys is to determine the subsurface resistivity distribution by making measurements on the ground surface.

The traditional VES survey each time can measure one point through transmitting electrode and receiving electrode.



Main features:

- Transmitter and receiver designed in one unit.
- Large power up to 3500W, 48V wide voltage input range.
- Automatic compensation of self-potential, drift and electrode polarization .
- Monitoring the dynamic variation of MN electrode potential through inspecting its ground resistance.
- Receiver supports transient over-voltage protection; transmitter supports over-voltage, over-current and AB open-circuit protections.
- Internal 12v lithum battery for 20 hours contiously work
- Communicated by USB port
- Store measuring data for more than 150,000 times.
- Measuring data includes voltage, current, resistivity, relative error, SP, array constant, measuring point and so on.



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Transmitting

Max transmitting power	3500W
Max voltage	$\pm 1000V(2000V_{p-p})$
Max current	$\pm 3.5A$ (over-current protection)
Power supply waveform	duty cycle is 1:1, bipolar

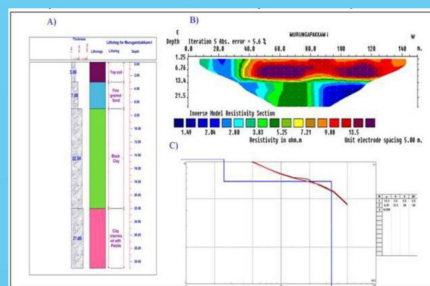
Receiving

Input impedance	$\geq 50M\Omega$
Input voltage range	$\pm 24V, \pm 0.5\% \pm 1LSB, 24$ bit A/D
Delay time	0.1 ~ 5s (programmable)
SP compensation range	$\pm 10V$
Max current sampling resolution	0.02 μA
Suppression	80dB for 50Hz or 60Hz (industrial frequency interference)
Current measurement	3.5A, $\pm 0.5\% \pm 1LSB, 24$ bit A/D

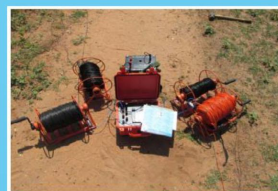
Others

LCD display	160 * 160 dot matrix LCD
Storage	$\geq 1GB$
Working temperature	-10° C~+50° C (Environmental), 95 %RH
Storage temperature	-20° C~+60° C (Environmental)
Power supply	built-in 7.4V4Ah lithium battery(or external 12V power supply),more than 20 hours of continuous work;
Built-in power supply (WDDS-3)	Max current is 300mA, max voltage is 200V.
Weight	$\leq 4.2Kg(WDDS-2); \leq 5.5kg(WDDS-3)$
Dimension	270mm * 246mm *175mm

CASE STUDY



Electrical Resistivity Imaging Method for Evaluate Estuarine Impact on Groundwater Salinization in Pondicherry Coastal Aquifers of India



Equipment used for the field Survey



Recording Readings during the Field Survey



1 D sounding using Schlumberger Configuration



Multi Electrode spreading for 2 D Sounding using Wenner- α configuration



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