

SIGNAL STACKING RESISTIVITY METER

MODEL SSR-MP1-SL



The IGIS Microprocessor based Signal Enhancement Resistivity Meter Model SSR-MP1-SL is a high quality microprocessor based data acquisition system incorporating several innovative features. The instrument design incorporates several advanced techniques of digital circuitry to make it reliable geophysical tool that provides high quality data useful for all types of mineral and groundwater exploration research etc.

Surface Resistivity : The instrument sends the entire current into the ground without wasting power for constant current generation thus increasing the signal strength to probe deeper layers.

The advanced design of Resistivity Meter achieves excellent depth penetration with relatively low power transmission. It utilizes the signal stacking upto 99 successive readings to achieve the beneficial signal enhancement..

Bore hole logging : Powered by internal rechargeable batteries, instrument provides spot measurements of Short Normal, Long Normal, Point Resistance and SP and finds extensive application in groundwater exploration, engineering studies and other lithological investigations.

Instructions for field personnel for operation and maintenance of instrument are minimal and the logging party does not have to depend on specialized technicians for routine operation.

Applications

- Groundwater Exploration
- Sand and Gravel Deposit Identification
- Bed Rock Investigations
- Mineral Investigations
- Delineation of Geological Structures
- Geophysical Field Training
- Resistivity Sounding /profiling / imaging /strip profiling.

Input Power Source	: 24V rechargeable batteries
Power Output	: 100watts (Current upto 2 Amp) 400V(800V peak to peak) Automatic voltage selection.
Frequency	: 0.3Hz (Approx.)
Noise Rejection	: 95 db
Potential Measuring range	: Microprocessor based unit with measurement resolution of 10 micro volts.
Range selection	: Automatic
Resistance Range	: 10^{-5} to 10^4 ohms.
Self potential cancellation	: Automatic
Dynamic Range	: 15 bits
Data Averaging	: Upto 99 cycles
Input Impedance	: 1 Mega Ohm
Accuracy	: $\pm 1\%$
Interaction with the System	: 20x4 Alphanumeric Liquid Crystal Display.
Measurement Display	: Stack No./Stacks selected, Current and running average of Resistance.
Output	: Resistance, through 20x4 Alphanumeric Liquid Crystal Display.
Depth Penetration	: Upto 600 m under favorable geological conditions.
Protection	: Protected against circuit overloads.
Error Signals for	: Poor current and Potential electrode grounding and Discontinuity.

SPECIFICATIONS for Logger

Recording parameters	: Self Potential, Short normal and Long normal
S.P. Range	: 0 to ± 1999 mV.
Resistivity Range	: 0 to 2×10^4 ohm-m
Frequency	: 0.3Hz
S.P. Range	: 0 to 1999 mV
Resistance Range	: 0.01 to 10k
Resistivity Range	: 0.05 to 200k
Cable Length	: 300 m.
Power Supply Battery	: Rechargeable battery
Winch Mechanism	: Manually operated.

Specifications are likely to change with R&D.

IGIS also makes custom-build resistivity meters to individual specifications and under take repairs

IGIS Instruments carry one-year guarantee against manufacturing defects.

Manufactured by:

**Integrated Geo Instruments
& Services (P) Limited**

12-13-382, Street No. 18, Tarnaka, Hyderabad - 500017,
Telangana, India. Ph.: 040-42218456 / 27018456