




# CODEVINTEC

Tecnologie per le Scienze della Terra

45° 27' 39.384" N  
9° 07' 30.145" E

## Ares II Georesistivimetro multicanale



**Modalità di misurazione**

- 2D Imaging
- 3D Imaging
- Vertical Electrical Sounding
- Borehole-Borehole and Borehole-Surface Surveys
- Continuous Survey from Water Level
- Programmable 2D/3D Monitoring

Monitoraggio della superficie rocciosa per la deformazione del pendio e rischio di frane.

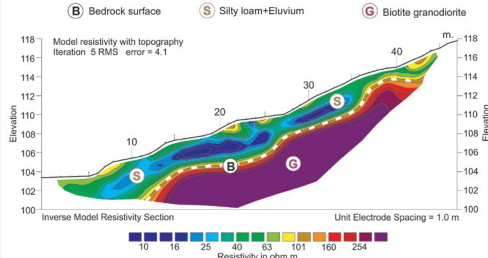
Legend: (B) Bedrock surface, (S) Silty loam+Eluvium, (G) Biotite granodiorite

Model resistivity with topography  
Iteration 5 RMS error = 4.1

Inverse Model Resistivity Section

Unit Electrode Spacing = 1.0 m

Resistivity in ohm.m.



**ARES II è la geoelettrica avanzata per misure di resistività e IP equipaggiata con sistema multicanale per tutte le applicazioni di prospezione nel sottosuolo.**

**L'unità di controllo è leggera, robusta, weatherproof e dotata di software che supporta molteplici metodi di misure geoelettriche**

### Applicazioni

- > Rilievi geologici e ambientali
- > Ricerche acquifere
- > Cavità
- > Controlli ambientali
- > Monitoraggio dighe e versanti
- > Geoelettrica marina
- > Bore - Hole



**Ares II** è il sistema GF Instruments perfetto per l'esecuzione di misure di resistività. Compatto, robusto e versatile perchè configurabile con cavi passivi o attivi, con elettrodi classici o non polarizzabili per acquisizioni in remoto, in assetto marino o terrestre.

## Technical specifications

### Transmitter

Power	up to 850 W
Current	up to 5.0 A
Current resolution	24 bits
Voltage	2000 V <sub>p-p</sub> (actually applied voltage automatically level of measured potential)
Protection	Full electronic protection

### Receiver

Number of channels	10
Input voltage range	±20 V <sub>p-p</sub>
Voltage resolution	24 bits
Input impedance	20 MΩ
Mains frequency filtering	50 or 60 Hz selectable notch filter

### Measuring methods

- > 2D/3D/4D Multi-Electrode Resistivity and IP Tomography
- > VES - Vertical Electrical Sounding (resistivity and IP)
- > RP - Resistivity and IP Profiling
- > SP - Self Potential
- > Cross-Hole Tomography
- > Moving Applications with GPS

### Supported arrays

- > Wenner Alpha / Beta / Gamma, Wenner-Schlumberger, Dipole-Dipole, Pole-Dipole, Reverse Pole-Dipole, Pole-Pole, Equatorial Dipole-Dipole, Multiple Gradient Method, Cross-Hole, Borehole-Surface, user defined configurations

### Measurement - features

- > Checking of grounding
- > Automatic calibration
- > Automatic pulse cycling and checking of measured values
- > Easy interruption and continuing of the measurement
- > Capability of profile prolongation by means of multi-electrode cable rolling

Total accuracy	better than 1 % (typically)
IP - Induced Polarization (Chargeability)	up to 20 adjustable IP-windows, each max. 30 s, step 20 / 16.66 ms
Pulse	0.2 s - 30 s, step 0.1 s
SP compensation	constant and linearly varying SP cancellation
Stacking	manual or automatic (with self-adaptive setting) adjustable optimum measured voltage and maximum acceptable measurement error
Stored values	position of the measured point, output current, input voltage, SP, apparent resistivity, standard deviation, chargeability with standard deviation for up to 20 IP windows
Number of electrodes	max. 65,000 in one array magnetic field

### Control unit

> Easy-Control system with alphanumeric keyboard and graphic 4.7" high resolution LCD display	
> Easy real time horizontal and vertical data consistency checking and data remeasuring	
> Real time decay curve on display	
> Measuring system can be upgraded via Internet	
> Safety switch	
Memory	256 MB, 100 files, more then 5 mil. readings
IPC interface	USB
PC software	provides data download and export for processing programs (RES2DINV / RES3DINV, Surfer, IPI2WIN and others) as well as upload of measuring procedures
Power supply	12 V car battery, 12 V attachable battery pack, 12 V electronic power supply AC/DC adapter for office
Connectors	current and potential clamps, data download (USB and flash disk), GPS, battery and a universal one for all measuring accessories
Dimensions	15 x 21 x 40 cm
Weight	5.9 kg
Ambient conditions	-10°C to +60°C, weatherproof

### Standard Accessories

- > Transport case
- > T-piece (for connection of multi-electrode cable sections and cables for current and potential electrodes)
- > Cable for external 12 V battery (protective)
- > AC/DC adapter (for all countries)
- > RS232 and USB cables
- > PC software ARES (MS Windows based)
- > User manual

### Optional Accessories

- > Multi-electrode cable sections - active and passive
- > Switch box (attachable 48-line adapter) for passive multi-electrode cables
- > 12 V electronic power supply
- > VES-adapter (for 5 pairs of potential electrodes)
- > Cables reels
- > Stainless steel electrodes, non-polarizable electrodes
- > Processing software for 2D/3D inversion, mapping and VES interpretation