AMPROBE[®] Model GP-2 **Ground Resistance and Resistivity Tester**

Features

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- arth Ground Resistance (Ω) Measures
- Automatically Calculates Resistivity (mΩ)
- leads, auxiliary electrodes and software are included for Teal complete instrument
- Voltage Measurement
- Automatically applies three testing frequencies for the most accurate readings
- Auto ranging
- Stores up to 999 measurements in the memory
- DATA download to a PC (RS-232)

Benefits

- Three point test (fall of potential) measures earth ground resistance as required by equipment manufacturer specifications and as mandated by national code requirements for proper
- Two point test is used to test grounding wires resistance and resistance of connection points between ground system elements i.e.,wires and electrodes
- Tests soil for a new ground system design
 Does not require any additional meters to test voltage before grounding test is performed
 - Easy to operate
- Data can be stored for later viewing
- Durable
- Downloads data to a personal computer to generate reports and store historical data

put me to the test.

The largest selection of test measurement equipment for electrical professionals



Miami, Florida P(305) 423-7500 • F(305) 423-7554 www.amprobe.com

AAD-197

GP-2 Geo Test

Applications

- · Ground resistance of the electrode or grid system
- Cathodic protection
- Soil contamination
- Lighting protection
- Isolated grounding



Model GP-2

TECHNICAL SPECIFICATIONS

Resistance measurement

| Range (**) (Ω) | Resolution (Ω) | Accuracy (*) |
|-------------------|-------------------|--------------------------|
| 0.01 ÷ 19.99 | 0.01 | |
| 20.0 ÷ 199.9 | 0.1 | ±(2% reading + 3 digits) |
| 200 ÷ 1999 | 1 | |

Resistivity measurement p

| | Range (**) | Resolution | Accuracy (*) |
|---|-----------------|------------|---|
| 1 | 0.6-125.6 Ωm | 0.1 Ωm | |
| | 0.125-1.256 kΩm | 0.001 kΩm | $\pm(2\% \text{ reading} + 3 \text{ digits})$ |
| | 1.25-19.99 kΩm | 0.01 kΩm |] |
| | 20.0-199.9 kΩm | 0.1 kΩm | |

(*) If R_{p}>100R_E and/or R_c>100R_E, R_{p}>50k\Omega and/or R_c>50k\Omega, if the

instrument carries out the test the accuracy of the instrument is ±(10%Reading)

- Rp= resistance of the voltage circuit
- Rc= resistance of the current circuit
- RE= earth resistance
- $\rho = 2\pi DR_E$ = calculated resistivity
- (**) Automatic selection of the range

Testing frequency Testing current Open-terminal measuring voltage Waveform of measuring voltage: Interfering voltage:

GP-2

Geo Test

125Hz/75Hz/41.66Hz 10mA 25Vrms sine wave

- amperometric circuit: the measurement is taken with the stated accuracy if the interfering voltage is ≤ 3V, while for interfering voltages between 3 and 30V inclusive, the accuracy decreases progressively; with an interfering voltage of about 30V the instrument does not perform the test.
- voltmetric circuit: the measurement is taken if the interfering voltage is ≤ 3V; in case of higher voltages the instrument does not perform the test.

Interfering voltage measurement

| Range (**) (V) | Resolution (V) | Accuracy |
|-------------------|-------------------|--------------------------|
| 500 | 1 | ±(2% reading + 2 digits) |

Safety Standards

This instrument complies with EN 61010, EN 61557-1, EN 61557-5 standards.

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|---|--|
| Insulation | Class 2, double insulation |
| Pollution | 2 |
| Maximum altitude | 2000m |
| Surge voltage category | CAT III 250V (phase to earth) |
| General features | |
| Mechanical features | |
| Dimensions: | 8.74" (L) x 6.38" (W) x 2.25" (H) |
| Weight (batteries included): | About 2.2 lb (1000g) |
| Power supply | |
| Batteries: | 6 batteries 1.5 V size AA (LR6 -AM3-MN1500) |
| Low battery indication: | The symbol 🖴 appears on the display when the |
| | battery voltage is low. |
| Battery life: | about 300 measurements |
| Fusible Link: | F 100 mA (not accessible to the operator) |
| Auto Power Off: | The instrument will automatically switch off 2 minutes after last selecting a function or PC command |

Display

| Features: | standard LCD 65mm x 65mm. |
|----------------------|--|
| Memory: | 999 memory locations |
| Interfaces: | opto-insulated serial output RS232 to transfer data to a PC. |
| OPERATING CONDITIONS | |

Environmental conditions

| Reference temperature: | 73 ± 41F | $(23^{\circ}C \pm 5^{\circ}C)$ |
|------------------------|------------|--------------------------------|
| Operating temperature: | 14 ± 122F | (-10°C ÷ 50°C) |
| Relative humidity: | <80% | |
| Storage temperature: | -4F ± 140F | (-20°C ÷ 60°C) |
| Storage humidity: | <70% | |

ECM

This instrument has been designed in compliance with the EMS standards in force and its compatability has been tested for:

| Irradiated emissions: | EN55011 |
|---------------------------|------------------|
| Immunity: | EN50140, EN61000 |
| Electrostatic discharges: | EN61000-4-2 |
| R.F. range: | EN50140 |
| Fast transient: | EN61000-4-4 |

ACCESSORIES

Standard and optional accessories

| Standard accessories* | Code |
|------------------------------|-----------------|
| -1 carrying case containing: | |
| -4 earth rods | GP-2CON |
| -4 cables banana crocodile | |
| Carrying case | GP-2CC |
| Optical serial cable | C2000 |
| Software and manual | www.amprobe.com |

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