AMPROBE® Model GP-2 Ground Resistance and Resistivity Tester

GP-2 Geo Test

Applications

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

Features

- Measures Earth Ground Resistance (Ω)
- Automatically Calculates Resistivity (mΩ)
- Test leads, auxiliary electrodes and software are included for a 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 grounding
- 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

AMPROBE®
Built to Outlast

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

AAD-197

Model GP-2

TECHNICAL SPECIFICATIONS

GP-2

Geo Test

Resistance measurement

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

Resistivity measurement ρ

Range (**)	Resolution	Accuracy (*)
0.6-125.6 Ωm	0.1 Ωm	±(2% reading + 3 digits)
0.125-1.256 kΩm	0.001 kΩm	
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)

R_P= resistance of the voltage circuit

R_C= resistance of the current circuit

R_E= earth resistance

$\rho = 2\pi D R_E$ = calculated resistivity

(**) Automatic selection of the range

Testing frequency	125Hz/75Hz/41.66Hz
Testing current	10mA
Open-terminal measuring voltage	25Vrms
Waveform of measuring voltage:	sine wave

Interfering voltage:

- 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.

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°C ± 5°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 -4 cables banana crocodile	GP-2CON
Carrying case	GP-2CC
Optical serial cable	C2000
Software and manual	www.amprobe.com