

INSULATION TESTER

NAGMAN 263

SALIENT FEATURES

1. Basic measurement functions

Earth resistance measurement (RE)
 Measurement method: 3-pole method,
 4-pole method
 Measuring range: $0.02\Omega \sim 1999\Omega$
 Minimum resolution: 0.01Ω
 Basic accuracy: 5%
 Soil resistivity measurement (ρ)
 Measurement range: $0.01\Omega \cdot m \sim 376.8K\Omega \cdot m$
 Interval of auxiliary earth rods,
 setting range: $1.0m \sim 30.0m$
 AC true RMS voltage E.V
 Measurement range : $0 \sim 50V$
 AC bandwidth: $40Hz \sim 200Hz$
 Measurement basic accuracy : 2%



Typical Photo: Final Product look may vary

2. Earth test other features

Earth resistance measurement adopts square wave excitation test, the maximum open-circuit voltage is 50Vp-p, and the short-circuit current is $<3mA$.
 Automatic range detection in earth resistance measurement.
 RK resistance test, the line resistance effect can be removed.
 Earth comparison test, the measurement result can be evaluated by the preset "pass/fail (\checkmark / \times)" limit and be given audio alarms accordingly.

3. Product calibration

By connecting with the standard instrument, calibrating panel according to the procedures and saving the appropriate calibration data, the periodic calibration is completed, and the due accuracy and performance of the product are guaranteed.

4. Large LCD display with white LED backlight.

5. Easy man-machine operation, portable, solid and suitable for field use.

GENERAL SPECIFICATIONS

AC Voltage E.V

Measurement range	Resolution	Frequency range	Precision
$0.00V \sim 50.00V$	$0.01V$	$45 \sim 200Hz$ sine	$2\%+5$

Input resistance: about $1M\Omega$
 Measurement rate: 2 times/s.

Earth Resistance RE (RG when testing ρ)

Range	Measurement range	Resolution	Precision	Remarks
20Ω	$0.10\Omega \sim 19.99\Omega$	0.01Ω	$5\%+5$	0.2 Ω error is added when the resistance is less than 2Ω . RH and RS are $500\Omega Rk$ corrected data.
200Ω	$20.0\Omega \sim 199.9\Omega$	0.1Ω		
2000Ω	$200\Omega \sim 1999\Omega$	1Ω		

Output features: test open circuit voltage U_M , the maximum is around 50Vpp, square wave

Test the short circuit current I_M , the maximum is around 3mA_{pp}, but $I_M \times (R_H + R_E) < U_M$

Measurement time: typical 2 seconds.

RH MAX: ($4K\Omega + 100RE$) or $50K\Omega$ (whichever is lower).

RS MAX: ($4K\Omega + 100RE$) or $50K\Omega$ (whichever is lower).

Additional error at RH MAX or RS MAX: $3\%+10$.

Series interference voltage: 16-2/3Hz, 50Hz, 60Hz, 400Hz and DC 3V (20 Ω range does not include DC).

Additional error at 3V series interference voltage: $5\%+10$.

Soil Resistivity (ρ) Measurement

Range	Measurement range	Resolution	Precision
20Ω·m	0Ω·m ~ 19.99Ω · m	0.01Ω·m	Depends on RG ρ=2×π×a×RG
200Ω·m	20.0Ω·m ~ 199.9Ω · m	0.1Ω·m	
2000Ω·m	200Ω·m ~ 1999Ω · m	1Ω·m	
20KΩ·m	2.00KΩ·m ~ 19.99KΩ · m	0.01KΩ·m	
200KΩ·m	20.0KΩ·m ~ 376.8KΩ · m	0.1KΩ·m	
The distance between the earth rods: a=1.0 m ~ 30.0 m			

GENERAL CHARACTERISTICS

Operating temperature and humidity	0 to 40°C (non-condensing $\leq 10^\circ\text{C}$), $\leq 85\%RH$
Storage temperature and humidity	-20°C to 60°C, $\leq 90\%RH$
Working altitude	$\leq 2000\text{m}$. (Indoor use)
Rated transient overvoltage	6K (1.2*50us) I, II, III measure peak value
Withstand voltage	AC8320V(50/60Hz)/5 seconds (between the circuit and the outer box)
Insulation impedance	1000M Ω or greater/DC1000V (between the circuit and the outer box)
Vibration and shock	Randomness 2g, 5 to 500Hz; 1m drop test
Power supply	8 x 1.5 V (AA) alkaline batteries
Automatic shutdown operation	Automatic shutdown time 0 ~ 90 minutes can be set
Size and weight	178 x 110 x 59 (mm), about 600g (including batteries)

STANDARD INCLUSIONS

- Basic Instrument with Battery
- Test kit (Red : 15 m; black/green : 5 m; yellow : 10 m) - 1 set
- Earth steel chisel - 4
- 1.5V Alkaline Battery - 8 Nos.
- Handle Rope
- Carrying Case
- Conformance Certificate
- Instruction Manual

OPTIONAL

- 15V Power Adapter
- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

Manufactured by



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AN ISO 9001:2015 CERTIFIED COMPANY

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Specifications subject to change owing to continuous development. Contact us for latest Datasheet.

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