HIOKI

1999

3151 EARTH HiTESTER

Field measuring instruments

CE
Complies with the following standards:
IEC61010
EMC

INTERNET
HIOKI Website
http://www.hioki.co.jp/

60 years of technology and reliability

Ground measurements in a wide variety of locations

Safer

Easier to use

No cable kinks

9216 CABLE WINDER (supplied)

The grounding resistance meter with a difference -- from HIOKI

Functions to meet the requirements of tough environments.
A new concept in grounding resistance measurement from HIOKI.

Taut band meter provides shock resistance.

Measurement switch has **tough and durable** design.

Measurement range for grounding resistance increased to **115%** of nominal range.

Elastomer rotary knob fits the hand.

Auxiliary grounding resistance (P/C) check function

The size of the auxiliary grounding resistance is a possible source of error, but can be checked for each auxiliary grounding electrode separately.(OK if within "P/C CHECK" band)

Measurement method and measurement frequency selector switch

This selects the "simple" two-wire measurement method, using a low ground conductor such as the ground side of a commercial power supply, or the conventional three-wire measurement method. You can also select a measurement frequency to reduce the influence of harmonics of the power supply frequency on the ground current.

3151 Specification (accuracy at 23°C ± 5°C, 80% RH or less)

Measurement item	Measurement range (effective range in parentheses)	Limit deviation tolerance
Grounding resistance	10Ω (0 to 11.5Ω)	±2.5%f.s.
	100Ω (0 to 115Ω)	±2.5%f.s.
	1000Ω (0 to 1150Ω)	±2.5%f.s.
Grounding voltage	30V (0 to 30V)	±3.0%f.s.

Using the two-wire measurement method : applied to 100Ω/1000Ω range only.

- Influence of auxiliary grounding resistance: ±5% for fluctuation of 0 to 5 kΩ .
- Influence of grounding voltage: ±2% for fluctuation of 0 to 5 V; ±5% for fluctuation of 0 to 10 V (50/60 Hz); ±5% for fluctuation of 0 to 3 V. (DC, 16 2/3, 400 Hz)
- Influence of power supply voltage: within specification for fluctuation of 6 to 10 VDC.
- Operating method: AC phase difference.
- Open-circuit terminal voltage: 50 VAC max.
- Measurement current: 15 mA AC max. (3 mA AC max. using two-wire method)
- Measurement frequency: 575 Hz or 600 Hz selectable.
- Applicable standards: Ground measurement: EN61557-5 ; Safety: EN61010-1/EN61010-2-031; EMC: EN55011/EN50082-1; Environment Protection: EN60529-1991 "IP40"
- Overvoltage protection: 250 VAC 1 minute (between E-P (S), E-C (H) terminals)
- Power supply:R6P(AA) manganese battery×6 or LR6(AA) alkaline battery×6
- Operating time: Minimum 500 operations (using R6P); Minimum 1400 operations (using LR6) (30 second measurement / 30 seconds off)
- Approximate dimensions and weight: 164(W)× 119(H)× 88(D)mm; 800 g (main unit only)
- Supplied accessories: 9214 AUXILIARY EARTHING RODS (2), 9215 MEASURING CABLE [one each: black 5 m, yellow 10 m, red 20 m, 9216 CABLE WINDER (3)], 9393 CARRYING CASE

Option

9050 EARTH NETS (set of two)
Use in locations where there is no driven-in ground (where water seepage is present)

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■Internet HIOKI website http://www.hioki.co.jp/
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