

# INSULATION RESISTANCE METER

## MIC-2501

INSULATION  
RESISTANCE  
MEASUREMENT  
UP TO  
**1TΩ**  
IN ACCORDANCE  
WITH IEC 61557-2



- **Insulation resistance measurement:**
  - selectable measurement voltage in the 100...2500 V range with 100 V step,
  - continuous indication of insulation resistance or leakage current,
  - automatic discharge of capacitance of tested object after the insulation resistance measurement,
  - acoustic signalling of five-second periods to facilitate obtaining time characteristics,
  - measured test times T1, T2 i T3 to measure one or two absorption coefficients in 15, 60 and 600 s,
  - indication of actual test voltage during the measurement,
  - protection against measuring live objects,
  - two and three-lead measurement method,
- **Continuity measurement of protective and equipotential conductors according to EN 61557-4 with the >200 mA current.**
- **Leakage current measurement.**
- **Measurement of alternating and direct voltages in the 0...750 V range.**
- **Built-in rechargeable battery pack.**
- **The instruments meet the requirements of the EN 61557 standard.**
- **The ability to charge from car lighter (12 V) socket (additional accessories).**

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## Insulation resistance measurement (two-lead)

Measurement range acc. to IEC 61557-2 for  $R_{ISOmin} = U_{ISONom}/I_{ISOmax} \dots 1\Omega (I_{ISOmax}=1\text{ mA})$

| Range            | Resolution | Accuracy               |
|------------------|------------|------------------------|
| 0.0...999.9 kΩ   | 0.1 kΩ     | ±(3% w.m. + 20 digits) |
| 1.000...9.999 MΩ | 0.001 MΩ   |                        |
| 10.00...99.99 MΩ | 0.01 MΩ    |                        |
| 100.0...999.9 MΩ | 0.1 MΩ     |                        |
| 1.000...9.999 GΩ | 0.001 GΩ   |                        |
| 10.00...99.99 GΩ | 0.01 GΩ    |                        |
| 100.0...999.9 GΩ | 0.1 GΩ     |                        |

## Continuity measurement of protective connections and equipotential bonding with 200 mA current

Measurement range acc. to EN 61557-4: 0.10...999 Ω

| Range          | Resolution | Accuracy              |
|----------------|------------|-----------------------|
| 0.00...19.99 Ω | 0.01 Ω     | ±(2% w.m. + 3 digits) |
| 20.0...199.9 Ω | 0.1 Ω      |                       |
| 200...999 Ω    | 1 Ω        |                       |

- Voltage on open terminals: 4...24 V
- Output current at  $R < 2 \Omega$ :  $I_{sc} > 200 \text{ mA}$
- Compensation of test lead resistance
- Current flowing in both directions, mean value of resistance is displayed

Values of measured resistance depending on measurement voltage

| Voltage $U_{ISO}$ | Measurement range |
|-------------------|-------------------|
| 500 V             | 500 GΩ            |
| 1000 V            | 1.00 TΩ           |
| 2500 V            | 1.00 TΩ           |

## DC and AC voltage measurement

| Range       | Resolution | Accuracy              |
|-------------|------------|-----------------------|
| 0...299,9 V | 0,1 V      | ±(3% w.m. + 2 digits) |
| 300...750 V | 1 V        | ±(3% w.m. + 2 digits) |

- Frequency range : 45...65 Hz



## Standard accessories:

### Electrical safety:

- type of insulation double, in acc. with EN 61010-1 and IEC 61557-2
- measurement category IV 600 V (III 1000 V) in acc. to EN 61010-1
- case protection rating in acc. with EN 60529 IP65

### Other technical specifications:

- |                                       |  |
|---------------------------------------|--|
| - power supply of the meter           | NiMH 9.6 V - 2 Ah battery pack and power supply 12 V |
| - weight of the meter                 | approx. 0.9 kg                                       |
| - dimensions                          | 200 x 180 x 77 mm                                    |
| - display                             | LCD segment display                                  |
| - measurement results memory          | 990 cells, 11880 records                             |
| - transmission of measurement results | USB  |

- test lead banana plug; 1.8 m; 5 kV; red
- test lead banana plug; 1.8 m; 5 kV; blue
- test lead banana plug; 1.8 m; 5 kV; black
- USB cable
- "crocodile" clip 5.5 kV; black
- "crocodile" clip 5.5 kV; red
- "crocodile" clip 5.5 kV; blue
- pin probe 5 kV with banana connector; red
- pin probe 5 kV with banana connector; black
- carrying case
- power supply adaptor Z7
- meter harness
- DVD with software, including "SONEL Reader" (reading data from memory)
- calibration certificate
- warranty card

WAPRZ1X8REBB  
 WAPRZ1X8BUBB  
 WAPRZ1X8BLBB  
 WAPRZUSB  
 WAKROBL20K07  
 WAKRORE20K07  
 WAKROBU20K07  
 WASONRE0GB2  
 WASONBL0GB2  
 WAFUTM8  
 WAZASZ7

The acronym "m.v." stands for a "measured reference value".