



# MIC-2501

Indeks: WMGBMIC2501

Insulation Resistance Meter

CAT IV

600V

CAT III

1000V



IP 65

## Description

- 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  $T_1$ ,  $T_2$  i  $T_3$  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).

[Sonel MIC-2501 insulation resistance tester / meter](#)

## Technical Specification

### Insulation resistance measurement (two-lead)

Measurement range acc. to IEC 61557-2 for

$R_{ISOmin} = U_{ISOnom} / I_{ISOmax} \dots 1 \text{ T}\Omega$  ( $I_{ISOmax} = 1 \text{ mA}$ )

Range	0,0...999,9 k $\Omega$
Resolution	0,1 k $\Omega$
Accuracy	$\pm(3\% \text{ m.v.} + 20 \text{ digits})$
Range	1,000...9,999 M $\Omega$
Resolution	0,001 M $\Omega$
Accuracy	$\pm(3\% \text{ m.v.} + 20 \text{ digits})$
Range	10,00...99,99 M $\Omega$
Resolution	0,01 M $\Omega$
Accuracy	$\pm(3\% \text{ m.v.} + 20 \text{ digits})$
Range	100,0...999,9 M $\Omega$
Resolution	0,1 M $\Omega$
Accuracy	$\pm(3\% \text{ m.v.} + 20 \text{ digits})$
Range	1,000...9,999 G $\Omega$
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Range	10,00...99,99 G $\Omega$
Resolution	0,01 G $\Omega$
Accuracy	$\pm(3\% \text{ m.v.} + 20 \text{ digits})$
Range	100,0...999,9 G $\Omega$

Resolution	0,1 GΩ
Accuracy	±(3% m.v. + 20 digits)

### Values of measured resistance depending on measurement voltage

Voltage UIISO	100 V
Measurement range	50 GΩ

Voltage UIISO	200...400 V
Measurement range	100 GΩ

Voltage UIISO	500...900 V
Measurement range	250 GΩ

Voltage UIISO	1000...2400 V
Measurement range	500 GΩ

Voltage UIISO	2500 V
Measurement range	1000 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	0,00...19,99 Ω
Resolution	0,01 Ω
Accuracy	±(2% m.v. + 3 digits)

Range	20,0...199,9 Ω
Resolution	0,1 Ω

Accuracy	$\pm(2\% \text{ m.v.} + 3 \text{ digits})$
Range	200...999 $\Omega$
Resolution	1 $\Omega$
Accuracy	$\pm(4\% \text{ m.v.} + 3 \text{ digits})$

- 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

### DC and AC voltage measurement

Range	0...299,9 V
Resolution	0,1 V
Accuracy	$\pm(3\% \text{ m.v.} + 2 \text{ digits})$
Range	300...750 V
Resolution	1 V
Accuracy	$\pm(3\% \text{ m.v.} + 2 \text{ digits})$

- Frequency range: 45...65 Hz

The acronym “m.v.” stands for a “measured reference value”.

### Electrical safety:

- type of insulation: double, in acc. with EN 61010-1 und IEC 61557
- 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 SONEL L-1 NiMH 9,6 V; DC 12 V 2,5 A
- 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