

INSULATION RESISTANCE METER MIC-5001

INSULATION RESISTANCE
MEASUREMENT UP TO
5TΩ
IN ACCORDANCE
WITH IEC 61557-2



- **Insulation resistance measurement:**

- measuring voltage selectable in the 50 ... 500 V range with 50 V step, and in the 500 V to 5000 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 of T1, T2 and T3 for measuring the absorption coefficient DAR and polarization index PI,
- indication of actual test voltage during the measurement,
- protection against measuring live objects.

- **Two and three-lead measurement method.**

- **RampTest Insulation resistance measurement and measurement of breakdown voltage with increments up to ~ 1 kV / s.**

- **Measurement of alternating and direct voltages in the 0...750 V range.**

- **990 cells of memory (11880 records), data transmission to a PC through a USB cable.**

- **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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MIC-5001

Insulation resistance measurement (two-lead)

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

Range	Resolution	Accuracy
0,0...999,9 kΩ	0,1 kΩ	±(3% m.v. + 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	
1,000...5,000 TΩ	1 GΩ	±(4% m.v. + 50 digits)

Values of measured resistance depending on measurement voltage

Voltage U_{ISO}	Measurement range
up to 100 V	50 GΩ
200 V...400 V	100 GΩ
500 V...900 V	250 GΩ
1000 V...2400 V	500 GΩ
2500 V	1000 GΩ
5000 V	5 TΩ

RampTest Insulation resistance measurement

Range	Resolution	Accuracy
0,0...999,9 kΩ	0,1 kΩ	±(5% m.v. + 40 digits)
1,000...9,999 M.Ω	0,001 MΩ	
10,00...99,99 M.Ω	0,01 MΩ	
100,0...999,9 M.Ω	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	
1,000...4,999 TΩ	0,001 TΩ	

The measurement of breakdown voltage in RampTest mode

Range	Resolution	Chosen U_{ISO}	Accuracy
25,0 V ... 99,0 V	0,1 V	<600 V	(± 5% m.v. ± 10 digits)
100 V ... 600 V	1 V	<600 V	(± 5% m.v. ± 4 digits)
25 V ... 999 V	1 V	>600 V	(± 5% m.v. ± 5 digits)
1.00 kV ... 5.00 kV	10V	>600 V	(± 5% m.v. ± 4 digits)

DC and AC voltage measurement

Range	Resolution	Accuracy
0...299,9 V	0,1 V	±(3% m.v. + 2 digits)
300...750 V	1 V	±(3% m.v. + 2 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 and IEC 61557
- measurement category IV 600 V (III 1000 V) in acc. EN 61010-1
- case protection rating in acc. 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

Standard accessories of the meter:

- test lead with banana plug; 1.8 m; 5 kV; red
- test lead with banana plug; 1.8 m; 5 kV; blue
- test lead with banana plug; 1.8 m; 5 kV; black
- USB transmission cable
- crocodile clip K09; black; 11 kV
- crocodile clip K09; red; 11 kV
- crocodile clip K09; blue; 11 kV
- pin probe 5kV red
- pin probe 5kV black
- carrying case M8
- power supply adaptor Z7
- battery pack
- SONEI Reader software
- calibration certificate
- warranty card

WAPRZ1X8REBB
WAPRZ1X8BUBB
WAPRZ1X8LBLB
WAPRZUSB
WAKROBL32K09
WAKRORE32K09
WAKROBU32K09
WASONRE0GB2
WASONBLOGB2
WAFUTM8
WAZASZ7

Additional accessories of the meter:

- shielded test lead with banana plug; 5 m; black 5kV
- shielded test lead with banana plug; 5 m; red 5kV
- shielded test lead with banana plug; 5 m; blue 5kV
- probe insulation resistance of floors and walls
- test lead with banana plug; 10 m; 5 kV; black
- test lead with banana plug; 10 m; 5 kV; red
- test lead with banana plug; 10 m; 5 kV; blue
- lead for battery loading from the socket of car lighter (12V)
- SoneI PE 5 software
- 5 kV Calibration Box

WAPRZ0058LBBE5K
WAPRZ005REBB5K
WAPRZ005BUBB5K
WASONPRS1GB
WAPRZ0108LBBE5K
WAPRZ010REBB5K
WAPRZ010BUBB5K
WAPRZLAD12SAM
WAPROSONPE5
WAADACS5KV

