

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).**

Výhradný distribútor pre SR:

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MIC-5001

Insulation resistance measurement (two-lead)

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

Range	Resolution	Accuracy
0,0...999,9 k Ω	0,1 k Ω	$\pm(3\% \text{ m.v.} + 20 \text{ digits})$
1,000...9,999 M Ω	0,001 M Ω	
10,00...99,99 M Ω	0,01 M Ω	
100,0...999,9 M Ω	0,1 M Ω	
1,000...9,999 G Ω	0,001 G Ω	
10,00...99,99 G Ω	0,01 G Ω	
100,0...999,9 G Ω	0,1 G Ω	
1,000...5,000 T Ω	1 G Ω	$\pm(4\% \text{ m.v.} + 50 \text{ digits})$

Values of measured resistance depending on measurement voltage

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

RampTest Insulation resistance measurement

Range	Resolution	Accuracy
0,0...999,9 k Ω	0,1 k Ω	$\pm(5\% \text{ m.v.} + 40 \text{ digits})$
1,000...9,999 M Ω	0,001 M Ω	
10,00...99,99 M Ω	0,01 M Ω	
100,0...999,9 M Ω	0,1 M Ω	
1,000...9,999 G Ω	0,001 G Ω	
10,00...99,99 G Ω	0,01 G Ω	
100,0...999,9 G Ω	0,1 G Ω	
1,000...4,999 T Ω	0,001 T Ω	

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	$(\pm 5\% \text{ m.v.} \pm 10 \text{ digits})$
100 V ... 600 V	1 V	<600 V	$(\pm 5\% \text{ m.v.} \pm 4 \text{ digits})$
25 V ... 999 V	1 V	>600 V	$(\pm 5\% \text{ m.v.} \pm 5 \text{ digits})$
1.00 kV ... 5.00 kV	10V	>600 V	$(\pm 5\% \text{ m.v.} \pm 4 \text{ digits})$

DC and AC voltage measurement

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

• 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 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
- humidity 20%...90%

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
- SONE! Reader software
- calibration certificate
- warranty card

WAPRZ1X8REBB
 WAPRZ1X8BUBB
 WAPRZ1X8BLBB
 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)
- Sone! PE 5 software
- 5 kV Calibration Box

WAPRZ0058LBBE5K
 WAPRZ005REBB5K
 WAPRZ005BUBB5K
 WASONPRS1GB
 WAPRZ0108LBBE5K
 WAPRZ010REBB5K
 WAPRZ010BUBB5K
 WAPRZLAD12SAM
 WAPROSONPE5
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