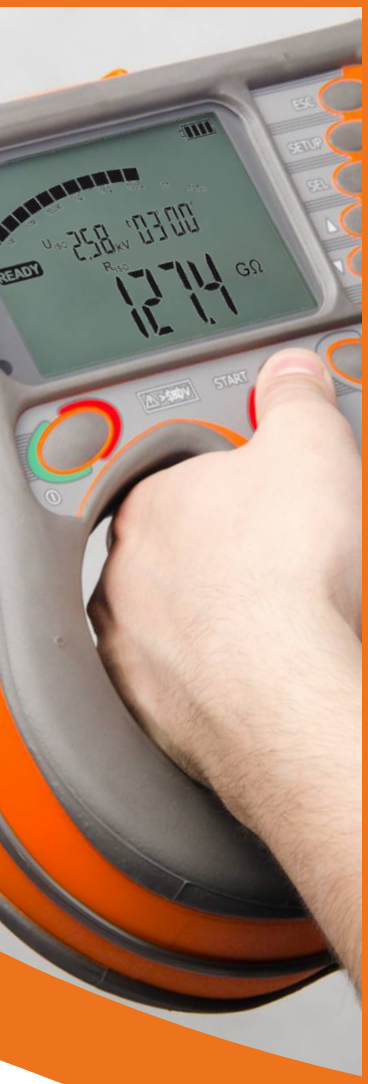
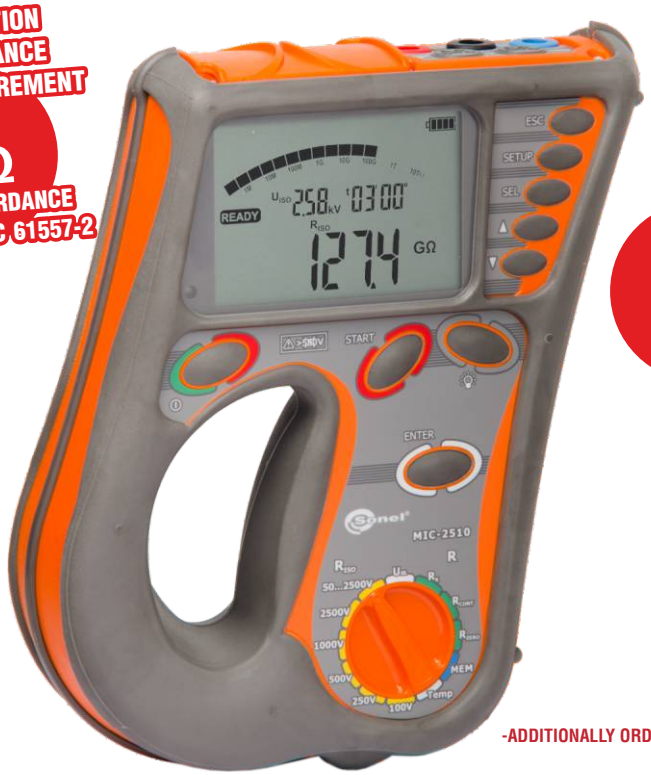
Index: WMGBMIC2510



INSULATION RESISTANCE METER
MIC-2510

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



°C FULL CAPTURE AND RECORDING OF MEASUREMENT CONDITIONS

Capability of wireless transmission of the data from memory to a PC
-ADDITIONALLY ORDER THE WIRELESS USB INTERFACE

- **Insulation resistance measurement:**

- selectable measurement voltage 100, 250, 500, 1000 V or any in the range of 50…2500 V at 10 V resolution,
- continuous indication of measured insulation resistance or leakage current,
- automatic discharge of measured object capacitive voltage after the completion of insulation resistance measurement,
- acoustic signaling of 5 seconds intervals to facilitate capturing time characteristics,
- metered T_1, T_2 and T_3 test times for measuring one or two absorption coefficients from the range of 1…600 s,
- capability of automatic measurement of multi-wire cables with the additional AutoISO-2500 adapter,
- indication of actual test voltage during measurement,
- protection against measuring live objects.

- **Continuity measurement of protective connections and equipotential bonding in accordance with PN-EN 61557-4 with current > 200 mA.**

- **Circuit continuity and resistance measurement at low voltage.**

- circuit resistance measurement (< 999 Ω) with current < 15 mA,
- quick acoustic signaling for a circuit of resistance lower than 10 Ω
- compensation (automatic zero) of test lead resistance.

- **Measurement of leakage current during insulation resistance testing.**
- **Measurement of capacity during the measurement of R_{ISO}.**
- **Continuous measurement of surrounding temperature with the capability of recording results in memory.**
- **DC and AC voltage measurement in the range of 0…600 V.**
- **990 cells of memory (11880 records) with the capability of wireless data transmission to a PC (with the USB-OR-1 adapter) or through a USB cable.**
- **Power supply from battery packs.**
- **The instruments meet the requirements of the PN-EN 61557 standard.**

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MIC-2510

Insulation resistance measurement (two-lead)

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

Range	Resolution	Accuracy
0.0...999.9kΩ	0.1kΩ	±(3% w.m. + 20 digits)
1.000...9.999MΩ	0.001MΩ	
10.00...99.99MΩ	0.01MΩ	
100.0..999.9MΩ	0.1MΩ	
1.000...9.999GΩ	0.001GΩ	
10.00...99.99GΩ	0.01GΩ	
100.0...999.9GΩ	0.1GΩ	
1.000...2.000TΩ	0.001TΩ	

Values of measured resistance depending on measurement voltage

Voltage U_{ISO}	Measurement range
50V	50GΩ
100V	100GΩ
250V	250GΩ
500V	500GΩ
1000V	1.00TΩ
2500V	2.00TΩ

Measurement of insulation resistance with the AutoISO-2500 adapter

Range	Resolution	Accuracy
0.0...999.9kΩ	0.1kΩ	±(3% w.m. + 20 digits) of the meter + max 1% of AutoISO-2500 uncertainty
1.000...9.999MΩ	0.001MΩ	
10.00...99.99MΩ	0.01MΩ	
100.0..999.9MΩ	0.1MΩ	
1.000...9.999GΩ	0.001GΩ	
10.00...99.99GΩ	0.01GΩ	
100.0...400.0GΩ	0.1GΩ	±(3% w.m. + 20 digits) of the meter + max 5% of AutoISO-2500 uncertainty

Values of measured resistance depending on measurement voltage

Voltage U_{ISO}	Measurement range
100V	100GΩ
250V	250GΩ
500V, 1000V, 2500V	400GΩ

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

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

Range	Resolution	Accuracy
0.00...19.99Ω	0.01Ω	±(2% w.m. + 3 digits)
20.0...199.9Ω	0.1Ω	
200...999Ω	1Ω	±(4% w.m. + 3 digits)

- Voltage on open terminals: 8...16V
- Output current at R <2Ω: I_{SC} >200mA
- Compensation of test lead resistance
- Current flowing in both directions, mean value of resistance is displayed

Resistance measurement with low current

Range	Resolution	Accuracy
0.0...199.9Ω	0.1Ω	±(2% w.m. + 3 digits)
200...999Ω	1Ω	±(4% w.m. + 4 digits)

- Voltage on open terminals: 8...16V
- Output current > 10mA
- Acoustic signal for measured < 10Ω ± 10%
- Compensation of test lead resistance

Capacity measurement

Display range	Resolution	Accuracy
1...999nF	1nF	±(5% w.m. + 10 digits)
1.00...9.99µF	0.01µF	

- Capacity measurement result is displayed after the R_{ISO} measurement

Temperature measurement

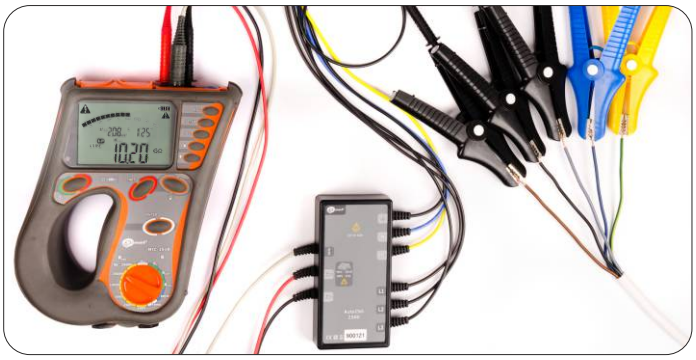
Range	Resolution	Accuracy
-40.0...99.9°C	0.1°C	±(3% w.m. + 8 digits)
-40.0...221.8°F	0.1°F	±(3% w.m. + 16 digits)

- measurement with the use of an external probe

DC and AC voltage measurement

Range	Resolution	Accuracy
0...600V	1V	±(3% w.m. + 2 digits)

- Frequency range : 45...65Hz



Standard accessories of the meter:

- test lead banana plug; 1,8m; 5kV; red	**WAPRZ1X8REBB**
- test lead banana plug; 1,8m; 5kV; blue	**WAPRZ1X8BUBB**
- test lead banana plug; 1,8m; 5kV; black	**WAPRZ1X8BLBB**
- USB cable	**WAPRZUSB**
- "crocodile" clip K02 5kV; black	**WAKROBL20K04**
- "crocodile" clip K05 5kV; red	**WAKRORE20K05**
- "crocodile" clip K05 5kV; blue	**WAKROBU20K05**
- pin probe 5kV with banana connector; red	**WASONREOGB2**
- pin probe 5kV with banana connector; black	**WASONBLOGB2**
- carrying case L4	**WAFUTL4**
- power supply adaptor Z7	**WAZASZ7**
- battery pack	
- meter harness	
- DVD with software, including "SONEL Reader" (reading data from memory)	
- calibration certificate	
- warranty card	

Electrical safety:

- type of insulation	double, in acc. with PN-EN 61010-1 and IEC 61557
- measurement category	IV 600V (III 1000V) in acc. with PN-EN 61010-1
- case protection rating in acc. with PN-EN 60529	IP54

Other technical specifications:

- power supply of the meter	SONEL L-1 NiMH 9.6V battery pack
- weight of the meter	approx. 1,3kg
- dimensions	260 x 190 x 60 mm
- display	LCD segment display
- measurement results memory	990 cells, 11880 records
- transmission of measurement results	USB or wireless interface

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