



# MIC-2

## INSULATION RESISTANCE METER



Digital insulation meter MIC-2 automatically select insulation measurements range at 250 and 500V test voltages. This insulation meter is suited for insulation resistance measurements of electric installations, motors and other electric devices. MIC-2 can also be used to measure voltage up to 600V AC and resistance up to 1999Ω. Instrument is easy to use, professional tool in small and incredibly ergonomic case.

### Standard accessories of the meter MIC-2:

- „crocodile” clip K01; black
- pin probe with banana connector - black
- batteries 1,5V (AAA) (2 pcs.)

- WAKROBL20K01** - calibration certificate issued by SONEL S.A.
- WASONBLOGB1** - operating manual

### Optional accessories of the meter MIC-2:

- AGT-16P (triple phase socket adapter)
- AGT-32P (triple phase socket adapter)
- AGT-63P (triple phase socket adapter)

- WAADAAGT16P** - carrying case S2
- WAADAAGT32P** - calibration certificate issued by calibration laboratory
- WAADAAGT63P**

**WAFUTS2**

**LSWPLMIC2**

Sonel S.A.  
ul. Wokulskiego 11  
58-100 Świdnica, PL  
tel. +48 74 85 83 860  
fax +48 74 85 83 809

[export@sonel.pl](mailto:export@sonel.pl)  
[www.sonel.pl](http://www.sonel.pl)



# MIC-2

- **Insulation resistance measurement:**
  - the measurement voltage is selected between the two values 250V or 500V,
  - on-line insulation resistance measurement,
  - automatic discharge of tested object's capacitance after measurement of insulation resistance,
  - acoustic determination of 5 seconds time intervals that facilitates to take time characteristics during insulation resistance measurement,
  - protection against live objects.
- **Low voltage resistance measurement in range 0...2000Ω:**
  - current measurement <10mA with resolution 0.1Ω,
  - quick acoustic signalling (beeper) for circuit resistance below 10Ω.
- **AC/DC voltage measurement in range 0...600V:**
  - automatic detection AC/DC voltage.
- **Autoranging.**
- **Suitable for 50Hz and 60Hz network.**
- **Backlit display.**
- **„AUTO-OFF” function.**
- **Meter meets the requirements of the standard EN 61557.**

<b>Electric security:</b>	
- type of insulation	double, according to EN 61010-1 and IEC 61557
- measurement category	CAT IV 600V acc. to EN 61010-1
- protection class acc. to EN 60529	IP65
<b>Other technical data:</b>	
- power supply	batteries LR03 (AAA) (2 pcs.) or rechargeable battery
- measurement current $R_{iso}$	1,2mA ± 0,2mA
- max interference voltage at which a measurement is realised $R_{iso}$	20V
- number of $R_{iso}$ measurements	> 500
- dimensions	approx. 240 x 60 x 30 mm
- weight (including batteries)	approx. 0,3kg
- auto power OFF	5 min.
- electromagnetic compatibility	according to EN 61000-6-3 and EN 61000-6-2
- quality standard	ISO 9001

The group of Insulation Resistance Meters conforms the following directives or standards according to CE requirements.

- Directive: Low Voltage Directive (LVD) 2005/95/WE.
- Standards: EN 61010-1:2001 Safety requirements for electrical equipment for measurement, control and laboratory use. General requirements.  
 EN 61010-031:2002/A1:2008: Safety requirements for electrical equipment for measurement, control and laboratory use. Safety requirements for hand-held probe assemblies for electrical measurement and test.  
 EN 61557-2:2007 Electrical safety in low-voltage distribution systems up to 1000 V AC and 1500 V DC - Equipment for testing, measuring, or monitoring of protective measures Part 2: Insulation resistance. This part of IEC 61557 specifies the requirements applicable to equipment for measuring the insulation resistance of equipment and installations in the de-energized state.
- Directive: Electromagnetic compatibility (EMC): 2004/108/WE.
- Standards: EN 61325-1:2006 Electrical equipment for measurement, control and laboratory use - EMC requirements.

## Insulation resistance measurement:

$U_{iso}=250V$   
 Measurement range: IEC 61557-2: 250kΩ...1000MΩ

Range	Resolution	Accuracy
1...249kΩ	1kΩ	not specified
250...1999kΩ	1kΩ	±(3% m.v. + 8 digits)
2,00...19.99MΩ	0.01MΩ	
20,0...199.9MΩ	0.1MΩ	
200...1000MΩ	1MΩ	

$U_{iso}=500V$   
 Measurement range: IEC 61557-2: 500kΩ...1999MΩ

Range	Resolution	Accuracy
1...499kΩ	1kΩ	not specified
500...1999kΩ	1kΩ	±(3% m.v. + 8 digits)
2,00...19.99MΩ	0.01MΩ	
20,0...199.9MΩ	0.1MΩ	
200...1999MΩ	1MΩ	

## Resistance measurement:

Range	Resolution	Accuracy
0,0...199.9Ω	0.1Ω	±(4% m.v. + 3 digits)
200...1999Ω	1Ω	

- continuous audible signal for  $R < 10\Omega$
- measurement current (with open terminals for  $U_{out} > 3.0V$ ): < 10mA
- max voltage on open terminals: 4...24V
- max interference voltage for which measurement is still possible: +7V/-1V DC, 5V AC

## AC/DC voltage measurement

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

„m.v.” - measured value.

## Rated operational conditions:

- operating temperature 0...+40°C
- reference temperature 23 ± 2°C
- storage temperature -20...+70°C