

AMIC-10k1

HIGHEST ACCURACY & LOWEST COST



Insulation Resistance Meter

AMIC-10k1

Insulation resistance measurement - $40T\Omega$:

* 50 – 1000 V, 25 V steps

* 1000 – 10000 V, 50 V steps

Memory, bluetooth keyboard (option), burnout location.

Capacitance and DC/AC voltage measurement.


Leakage current measurement.

Digital filters function.

Measurement of protective connections and equipotential bonding.

amperis

www.amperis.com

 AMPERIS PRODUCTS S.L
Agricultura,34
27003, Lugo, Spain

 Contact

+T [+34] 982 20 99 20 | F [+34] 982 20 99 11
info@amperis.com | www.amperis.com

Main characteristics are the following:

Insulation resistance measurement:

- Measurement voltage:

*50 – 1000 V, 25 V steps

*1000 – 10000 V, 50V steps

-Continuous indication of measured insulation resistance or leakage current.

-Automatic discharge of measured object capacitance voltage.

-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.

-Adjustable measuring time to 99'59".

-Polarization index (PI) and dielectric absorption ratio (DAR) measurement.

-Indication of actual test voltage during measurement.

-1.2 mA, 3mA and 5 mA test current.

-Insulation resistance measurement using two- or three-wire method.

-Measurements with test leads up to 20 m.

-Protection against measuring live objects.-Measurement of capacitance during the measurement of R_{ISO} .

-Measurement of temperature (with additional probe - WASONT1).

-Step voltage insulation resistance measurement (SV).

-Dielectric Discharge calculation (DD).

-Location of damage (burnout).

Digital filters function for measurements in high noise environment.

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

Adjustable limits for measured resistance R_{ISO} and R_{CONT} .

Measurement of leakage current during insulation resistance testing.

DC and AC voltage measurement in the range of 0...750 V.

Drawing graphs on the display during measurement.

Innovative memory with possibility of description of: measurement points, facilities,...

Operating with mini Bluetooth keyboard (option).

Graphic LCD 5,6" backlit.

Power supply from main power line or battery packs.

Built-in fast charger.

Measurement of capacitance

Range	Resolution	Accuracy
1...999 nF	1 nF	±(5% <i>m.v.</i> + 5 digits)
1,00...49,99 μF	0,01 μF	

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

For measuring voltages under 100 V capacitance measurement accuracy not specified.

DC and AC voltage measurement

Range	Resolution	Accuracy
0,0...29,9 V	0,1 V	±(2% <i>m.v.</i> + 20 digits)
30,0...299,9 V	0,1 V	±(2% <i>m.v.</i> + 6 digits)
300...750 V	1 V	±(2% <i>m.v.</i> + 2 digits)

Frequency range: 45...65Hz.

Insulation resistance measurement

Measurement range acc. to EN 61557-2: 5 MΩ...20,0TΩ ($U_N = 5000V$)

Range	Resolution	Accuracy
0,0...999,9kΩ	1kΩ	±(3% <i>m.v.</i> + 10 digits)
1,000...9,999MΩ	0,01MΩ	
10,0...99,99MΩ	0,1MΩ	
100,0...999,9MΩ	1MΩ	
1,000...9,999GΩ	0,01GΩ	
10,0...99,99GΩ	0,1GΩ	±(3,5% <i>m.v.</i> + 10 digits)
100,0...999,9GΩ	1GΩ	
1,000...9,999TΩ	0,01TΩ	±(7,5% <i>m.v.</i> + 10 digits)
10,0...40,00TΩ	0,1TΩ	±(12,5% <i>m.v.</i> + 10 digits)

Values of measured resistance depending on measurement voltage

Voltage U_{ISO}	Measurement range	Measurement range (AUTOISO-5000)
50V	200GΩ	20GΩ
100V	400GΩ	40GΩ
250V	1,00TΩ	100GΩ
500V	2,00TΩ	200GΩ
1000V	4,00TΩ	400GΩ
2500V	10,00TΩ	400GΩ
5000V	20,00TΩ	400GΩ
10000V	40,00TΩ	----

Continuity measurement of protective connections and equipotential bonding, I=200mA

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

Voltage on open terminals: 4...24 V.

Output current at $R < 15 \Omega$: min. 200 mA (I_{SC} : 200...250 mA).

Compensation of test lead resistance.

Current flowing in both directions, mean value of resistance is displayed.

Measurement of temp

Range	Resolution	Accuracy
-40,0...99,9 °C	1 °C	±(3% <i>m.v.</i> + 8 digits)
-40,0...211,8 °F	1 °F	±(3% <i>m.v.</i> + 16 digits)

"*m.v.*" = "measured value".

Specifications AMIC-10k1

Electric security:

Type of insulation	Double, acc. to EN 61010-1 and IEC 61557
Measurement category	CAT IV 600V (III 1000V) EN 61010-1
Protection class acc. to EN 60529	IP40 (IP67 with cover closed)

Other technical data:

Power supply	90 – 265V 50/60Hz and built-in battery packs
Weight	aprox. 7 kg
Dimensions	390 x 310 x 180 mm
Display	LCD de 5,6”
Transmission of measurement results	USB or Bluetooth

Standard accesories:

- Test lead banana plug; 3 m; 10kv; red
- Test lead banana plug; 3 m; 10 kv; blue
- Test lead banana plug; 1,8 m; 10 kv; black; shielded
- Usb cable
- “Crocodile” clip 5,5 kv; black
- “Crocodile” clip 5,5 kv; blue
- “Crocodile” clip 5,5 kv; red
- Pin probe 10 kv with banana connector; red
- Pin probe 10 kv with banana connector; black
- Carrying case I4 for accesories
- Power cord
- Battery pack (built-in)
- Software
- Calibration certificate