AMIC-5005

HIGHEST ACCURACY & LOWEST COST

Insulation Resistance Meter

AMIC-5005

Insulation resistance measurement - **15TΩ**:

* 50 – 1000 V, 10 V steps
* 1000 – 5000 V, 25 V steps

Memory of 999 measurement results and PC transmission.

Capacitance and DC/AC voltage measurement.

Leakage current measurement.

Digital filters function.

amperis

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Main characteristics are the following:

Insulation resistance measurement:

- Measurement voltage:
  - *50 – 1000 V, 10 V steps
  - *1000 – 5000 V, 25V 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 and 3 mA test current,.
-Medición de Resistencia de aislamiento con Voltage Rampa (step voltage SV).
-Dielectric Discharge calculation (DD).
-Protection against measuring live objects.
-Measurements with test leads up to 20 m.

Digital filters function for measurements in high noise enviroment (10 s, 30 s, 60 s).
Measurement of leakage current during insulation resistance testing.
Measurement of capacitance during the measurement of R_{ISO}.
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 adapter) or through a USB cable.
Power supply from main power line or battery packs, low battery warning indicator, built-in fast charger.
Keyboard and display backlit.

Measurement of capacitance

Range	Resolution	Accuracy
1...999 nF	1 nF	±(5%m.v. + 5 digits)
1,00...49.99 µF	0,01 µF	

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

DC and AC voltage measurement

Range	Resolution	Accuracy
0,0...29.9 V	0,1 V	±(2%m.v. + 20 digits)
30,0...299.9 V	0,1 V	±(2%m.v. + 6 digits)
300...600 V	1 V	±(2%m.v. + 2 digits)

Frequency range: 45...65Hz.

Insulation resistance measurement

Measurement range acc. to EN 61557-2: **50 kΩ...15,0TΩ (I_{ISOnom} =1,2 mA ó 3 mA)**

Range	Resolution	Accuracy
0,0...999,9kΩ	1kΩ	±(3%.m.v.. + 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	
100,0...999,9GΩ	1GΩ	±(3,5%.m.v.. + 10 digits)
1,000...9,999TΩ	0,01TΩ	±(7,5%.m.v.. + 10 digits)
10,0...15,00TΩ	0,1TΩ	±(10%.m.v.. + 10 digits)

Values of measured resistance depending on measurement voltage

Voltage U_{ISO}	Measurement range
250V	500GΩ
500V	1,00TΩ
1000V	2,00TΩ
2500V	5,00TΩ
5000V	15,00TΩ

Measurement of leakage current

Range	Resolution	Accuracy
0...1,2 mA*	Resolution and units result from the measurement range of individual insulation resistance.	Calculated basing on resistance measurements.
0...3 mA*		

* - depending on the setting.

Step voltage insulation resistance measurement

Target voltage	Measurement voltage sequence
1 kV	200, 400, 600, 800, 1000 V
2.5 kV	0.5, 1, 1.5, 2, 2.5 kV
5 kV	1, 2, 3, 4, 5 kV

Duration of each "step" adjustable from 30 s to 5 mins.
Measurement result for each voltage step is stored in memory.

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

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Specifications AMIC-5005

Electric security:

Type of insulation	Double, acc. to EN 61010-1 and IEC 61557
Measurement category	CAT IV 600V (III 1000V) EN 61010-1
Above sea level	3000 m.
Protection class acc. to EN 60529	IP54 (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 170 mm
Display	LCD
Measurement results memory	990 cells of memory (11880 records)
Transmission of measurement results	USB or wireless interface

Standard accesories:

- USB cable
- Test lead banana plug; 1,8 m; 10kv; red
- Test lead banana plug; 1,8 m; 10 kv; blue
- Test lead banana plug; 1,8 m; 10 kv; black; shielded
- “Crocodile” clip 5,5 kv; black
- “Crocodile” clip 5,5 kv; blue
- “Crocodile” clip 5,5 kv; red
- Pin probe 5,5 kv with banana connector; red
- Pin probe 5,5 kv with banana connector; black
- Carrying case L4 for accesories
- Power cord
- Battery pack (built-in)
- Software
- Calibration certificate

Optional accesories:

- Test lead banana plug; 3 m; 10kv; red
- Test lead banana plug; 3 m; 10kv; blue
- Test lead banana plug; 3 m; 10kv; black; shielded
- Test lead banana plug; 5 m; 10kv; red
- Test lead banana plug; 5 m; 10kv; blue
- Test lead banana plug; 5 m; 10kv; black; shielded
- Test lead banana plug; 10 m; 10kv; red
- Test lead banana plug; 10 m; 10kv; blue
- Test lead banana plug; 10 m; 10kv; black; shielded
- Test lead banana plug; 20 m; 10kv; red
- Test lead banana plug; 20 m; 10kv; blue
- Test lead banana plug; 20 m; 10kv; black; shielded
- Carring backpack L7
- OR-1 radio receiver for data transmission

OR-1 radio receptor USB para transmisión de datos.

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