

MS4105A

Digital Ground Resistance Tester



Contact us

Mikrosize Precision Instrument Co.,Ltd

A-4035 RuiFeng Business Expo, Wuhu City, China , 241000.

Web: www.mikrosize.com

Email: mikrosize@mikrosize.com



Feature And Application

The MS4105A digital ground resistance tester is a device that combines the functions of measuring ground resistance and AC voltage. It is designed in accordance with the IEC 61010-1 CAT.II safety standard of 600V, and is suitable for measuring various parameters related to grounding in various electrical environments. It features an LCD backlight display, with the maximum display value being "1999", which makes it convenient to read data under different lighting conditions, and it also has multiple practical functions and safety protection designs.

Product Feature

- The safety design complies with the IEC 61010-1 CAT.II 600V standard. It features multiple warning protections to prevent personal injury and equipment damage.
- The measurement functions are diverse, capable of measuring grounding resistances ranging from 0 to 1999 Ω and grounding voltages ranging from 0 to 199.9 V, meeting the needs of various scenarios.
- Equipped with LCD backlight display, low battery indication and LED warning light, the reading is clear and the status is intuitive.
- By using a small test current (up to 3mA), the RCD will not be triggered, ensuring a safe and stable measurement process.
- Supports 3-line precise measurement and 2-line simple measurement, adaptable to different grounding environments, with flexible measurement methods.
- It has good adaptability to the environment, a wide range of working temperature and humidity, a small size and light weight, and is convenient to carry and use.

Product Application

- Suitable for scenarios where the grounding resistance needs to be measured, such as the inspection of grounding systems for power equipment;
- It can be used for measuring the grounding voltage, which helps in determining whether there is any abnormal voltage in the grounding system.
- Supports precise measurement and is suitable for engineering acceptance checks where high accuracy of grounding resistance is required.
- Simple measurement is applicable to places with low grounding resistance electrodes, such as the detection of grounding for metal water pipes.
- Can be used in various environments, including different geological conditions such as wet or dry soil;
- It can be used to check whether the grounding system complies with safety standards and ensure the safe operation of electrical equipment.



Product Details



1.LCD Display Screen

2.AC Voltage Measurement Port

3.Ground Resistance Measurement Port

4.LED Indicator Light

5.Test Port

6.Backlight Button

7.Data Retention Button

8.Range Selection Switch



1.Battery

2.Battery Compartment

3.Battery Cover

Product Details

Measurement Function



- Measurement method is flexible: It supports 3-wire precise measurement and 2-wire simple measurement. The 3-wire method is suitable for scenarios with high precision requirements, while the 2-wire method is applicable to places with low grounding resistance electrodes, meeting different testing conditions.
- Measurement range practical: The range covers grounding resistance from 0 to 1999Ω and grounding voltage from 0 to 199.9 V, which meets most of the daily grounding test requirements. The over-range display shows "1" for easy identification.
- Test accuracy is reliable: The measurement accuracy of ground voltage is $\pm(1.0\% + 5)$, and the accuracy of ground resistance for each range reaches $\pm(2.0\% + \text{corresponding value})$, ensuring the credibility of the test data.
- High safety test: The maximum test current is only 3mA, which will not trigger the RCD; It has overload protection, and the grounding resistance can withstand 280V AC/DC for 10 seconds, and the voltage can withstand 450V AC/DC for 1 minute.

Product Details

Rich in Functions



- Pressing the "HOLD" button will lock the current reading and display the "HOLD" symbol, which is convenient for data recording. Press it again to cancel, and the operation is simple and efficient, thereby improving the measurement efficiency.
- In complex measurement scenarios, it can accurately fix the instantaneous reading, avoiding errors in recording due to changes in line of sight or data, thereby ensuring the accuracy of the data.



- Pressing the "*" key can turn on or off the backlight. When the light is insufficient, it can illuminate the LCD screen to ensure clear reading of the measurement data and enhance the usability in various environments.
- The backlight function is suitable for various working scenarios, especially in environments with dim lighting such as inside mechanical equipment or in corners of power facilities, ensuring clear readings and reducing visual errors.
- Turn on or off the backlight as needed, which can not only meet the lighting requirements but also avoid unnecessary power consumption. Combined with the low battery indicator, it can extend the battery usage time.

Product Details

Rich in Functions



- When powered by an external 9V DC adapter, the internal battery will be disconnected. This design is suitable for long-term continuous measurement, avoiding the frequent replacement of batteries and ensuring the continuity of the operation.
- 1.5V "AA" battery-powered mode, making the instrument more portable. No external wiring is required, suitable for mobile scenarios or use in environments without an external power source.
- The two power supply modes can be flexibly switched. The external power supply is suitable for fixed-site operations, while the battery mode is suitable for outdoor or mobile detection, meeting the power demands of different scenarios.


Technical Specification

Name	MS4105A Digital Ground Resistance Tester
Standard	IEC 61010-1 CAT.II
Display	LCD screen,maximum display "1999"
Ground Resistance Measurement Range	0-1999Ω
Ground Voltage Measurement Range	0-199.9V
Working Temperature And Humidity Range	-10°C to 50°C,80% or less
Storage Temperature And Humidity Range	-20°C to 60°C,75% or less
Size	176*166*62.5mm
Weight	Approximately 580 grams (including the battery)





Range Technical Parameters

Range	Resolution	Test Current
200V	±(1.0%+5)	0.1V
20Ω	±(2.0%+0.1)	0.01Ω
200Ω	±(2.0%+3)	0.1Ω
2000Ω	±(2.0%+3)	1Ω

Standard Delivery

Name	Qty	Photo
15-Meter Red Line	1pc	
10-Meter Yellow Line	1pc	
5-Meter Green Line	1pc	
Auxiliary Grounding Stake	2pcs	
User Manual	1pc	

Standard Delivery

Name	Qty	Photo
Certificate of Conformity	1pc	 <p>The image shows a Mikrosize Product Certificate. It features the Mikrosize logo at the top, followed by the text 'Aval Mikrosize Pordukt Sertifikasi Co., Ltd.' and 'PRODUCT CERTIFICATE'. Below this, there are several fields for 'No. of Items', 'No. of Units', 'No. of Pieces', 'Quality Inspection', and 'No. of Units, etc.', each with a line for text entry. A circular seal with a star is visible on the right side. At the bottom, there is a 'Contact Information' section with details for Mikrosize Pordukt Sertifikasi Co., Ltd. and a QR code.</p>
5# Battery (1.5V)	6pcs	 <p>The image shows six 1.5V PICCELL batteries standing upright in a row. Each battery is blue and yellow with the 'PICCELL' logo and 'Extra Heavy-duty' text.</p>
Back Strap	1pc	 <p>The image shows a black fabric back strap with a buckle, coiled into a loop.</p>
Packaging Bag	1pc	 <p>The image shows a dark blue, rectangular packaging bag with a shoulder strap and the Mikrosize logo on the front.</p>