

User's Manual



Surface Resistance Meter SRM[®] 110

Wolfgang Warmbier GmbH & Co. KG
Systeme gegen Elektrostatik
Untere Gießwiesen 21
D-78247 Hilzingen
www.warmbier.com

Introduction

The SRM110 is a pocket size, lightweight, auto ranging surface resistance tester. The built-in parallel bar electrode checks the surface resistance, but can also be used to check "resistance to ground".

Operating Instructions

Measuring Surface Resistance

- To measure the surface resistance of an object, hold the instrument to the surface and press the "TEST" button.
- The value is indicated with 12 LED's, in different colours.

The LED's indicate:

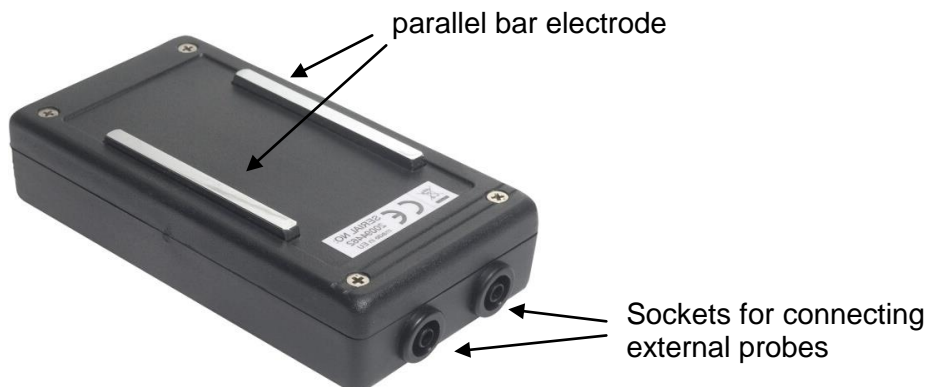
LED	Range	Definition
Green	$< - 10^4 \Omega$	Electrostatic conductive
Yellow	$10^5 - 10^{10} \Omega$	Electrostatic dissipative
Red	$10^{11} \Omega - >$	Electrostatic insulating

Measuring Resistance to Ground

- Plug in the supplied grounding cord at one socket of the instrument. The associated internal electrode is disconnected hereby.
- Connect the opposite end of the grounding cord to "ground" or a "groundable point".
- Hold the instrument to the surface like described above and press the button.

Other Measurements

By connecting external electrodes to the instrument's sockets it is possible to measure for example "point to point" resistance, or "volume resistance".



Packing List

The SRM 110 includes:

1. Instrument SRM110
2. Carrying bag
3. 9V battery (installed)
4. Grounding cord
5. User's manual
6. Calibration certificate

Technical Data

Dimension:	130 x 65 x 31mm (L x B x H)
Weight:	240 g
Power supply:	9V battery or NiMH rechargeable battery
Test range:	$10^3 - 10^{12} \Omega$
Test voltage (open-circuit voltage):	100V

Notice

This instrument is **not** approved for measurements in explosion hazard areas!

High electrostatic charges or measuring insulating highly charged materials might damage the instrument!



Using the instrument in power plants is **not** permitted.

Maintenance

When the (>)-LED flashes during measurement, it is due to replace the 9V battery. Open the back cover of the instrument by unscrewing the four screws. Take care of the polarity.

Calibration

The recommended calibration interval is 2 years.

Waste Disposal

The instrument is a category 9 product (monitoring and control instrument) in accordance with ElektroG (German and Electronic Device Law). This device is not subject to the RoHS directive. We identify our electrical and electronic devices in accordance with WEEE 2002/96/EG and ElektroG with the symbol shown to the right per DIN EN 50419. These devices may not be disposed of with the trash.



If you use batteries or rechargeable batteries in your instrument or accessories which no longer function properly, they must be duly disposed of in compliance with the applicable national regulations. Batteries or rechargeable batteries may contain harmful substances or heavy metal such as lead (Pb), cadmium (Cd) or mercury (Hg).

The symbol shown to the right indicates that batteries or rechargeable batteries may not be disposed of with the trash, but must be delivered to collection points specially provided for this purpose.