

User Manual

Surface Resistance Meter SRM[®]110

Part.-No.: 7100.SRM110.A



■ Scope of Supply

- Surface resistance meter SRM®110
- Carrying bag
- 1 pcs battery 9V (installed)
- Grounding cord
- Small alligator clip
- User manual available for download (www.warmbier.com)
- Calibration certificate „German / English“

■ Description - SRM®110

The SRM®110 is a pocket size and lightweight, surface resistance tester. The built-in parallel bar electrode checks the surface resistance, but can also be used to check “resistance to ground”.

■ Technical Data

Dimensions:	130 x 65 x 31 mm (L x B x H)
Weight:	240 g
Power supply:	9 V battery or NiMH rechargeable battery
Test range:	10 ³ - 10 ¹² Ω
Test voltage (open-circuit voltage):	100 V

■ Calibration

We recommend a calibration cycle of 2 years.

■ Warranty

We grant a guarantee of **12 months** if handled correctly in accordance with the user manual. This does not apply to the 9V block battery.

The warranty expires in the event of mechanical damage to the surface resistance meter!

■ Warning

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

Discharge flashovers or measurements on electrostatically charged or voltage materials must be avoided!

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



■ Battery Control

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

■ Operation

Measuring Surface Resistance (Picture 1 and 2)

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

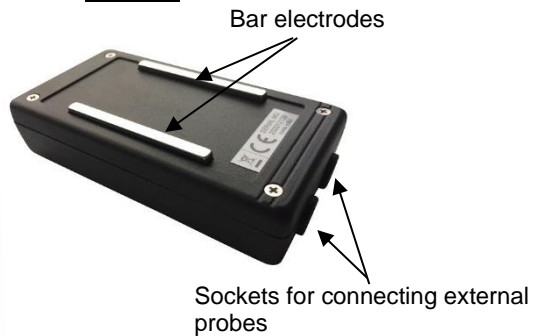
Additional Measurements (Picture 3)

By connecting external electrodes, other measurements can also be performed, e.g. point-to-point measurement with the Miniprobe Model 410. When using external electrodes, the bar electrodes are deactivated accordingly.

Picture 1



Picture 2



Picture 3



The LED`s indicate:

LED	Range	Definition
Green	$<, 10^3 \Omega$	Electrostatic conductive
Yellow	$10^4 - 10^{10} \Omega$	Electrostatic dissipative
Red	$10^{11} - 10^{12} \Omega, >$	Electrostatic insulating

Measuring Resistance to Ground (Picture 4)

- Plug in the supplied grounding cord to 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.

Picture 4



■ Device return and environmentally compatible disposal

This instrument complies with IEC 63000:2016 (Restriction of the use of certain hazardous substances [RoHS]).

This device complies with the requirements according to category 9 of the ElectroG (monitoring and control instruments). We identify our electrical and electronic devices in accordance with WEEE 2012/19/EU and ElektroG with the symbol shown to the right per DIN EN 50419.

These devices may not be disposed of with the trash.

Please contact our service department regarding the return of old devices.



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 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.

