



# Micro Ohmmeter RMO500A

- Lightweight - only 8 kg
- Powerful 2 A – 500 A DC
- Measuring range 0 – 999,9 mΩ
- Resolution to 0,1 μΩ
- SINGLE / CONTIN Mode
- Mechanical protection IP54



## High DC current resistance meter

### Description

RMO500A is a Micro Ohmmeter based on state of the art technology, using the most advanced switch mode technique available today. RMO500A generates true DC current with automatically regulated test ramps. During the test RMO500A ramps with increasing current before measuring and decreasing current after the measurement. This eliminates magnetic transients. After the test current has been set, the automatic test procedure is started by pressing the Ω-button.

The RMO500A instrument can store up to 100 measurements. All measurements are time and date stamped. Using RMOWin software a test can be performed from a PC, and the results can be obtained directly at a PC. Communication between RMO500A and PC is through USB (as standard) or RS232 cable (as an option). Using RMOWin the result can be arranged as an Excel spreadsheet which can be later shown as a diagram and printed for a report.

The set is equipped with thermal and overcurrent protection. The RMO500A has very high ability to cancel electrostatic and electromagnetic interference in HV electric fields. It is achieved by very efficient filtration. The filtration is made utilizing proprietary hardware and software.

### Output Ratings

The full output is available from the RMO500A at 230 V or 115 V Mains Supply.

Supply Voltage	Output Current	Full Load Voltage
230 V AC	500 A DC smoothed	5,25 V DC
	300 A DC smoothed	6,0 V DC
115 V AC	500 A DC smoothed	3,0 V DC
	300 A DC smoothed	5,0 V DC

Output current is filtered and has a ripple of less than 1 %. The RMO500A current output is rated at 500 A for 30 seconds, at 300 A for 90 seconds and 200 A for 2,5 minutes at 25 °C ambient temperature.

### CONTIN Mode

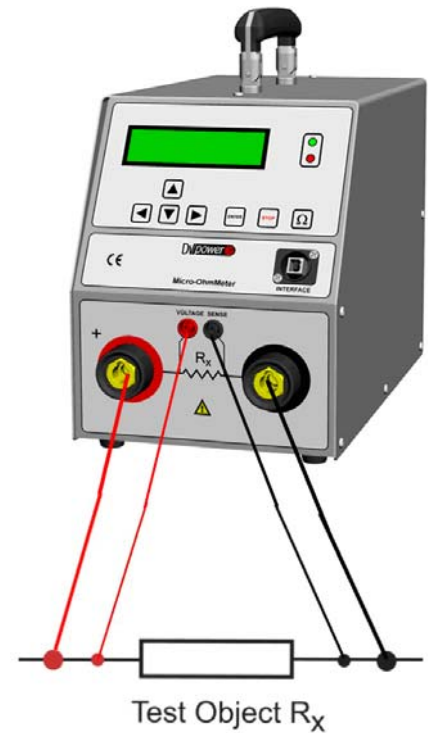
RMO500A can generate DC current continuously using the CONTIN menu. In this menu the current can be chosen the same way like in the SINGLE menu, but the duration of the test can be preset. The test is started pressing the Ω-button. During the test, a new result is shown on the display and stored into the PC (RMOWin) each second. Using RMOWin the result can be arranged as an Excel spreadsheet which can be later shown as a diagram and printed for a report.

## Application

Typical application is measuring resistance of:

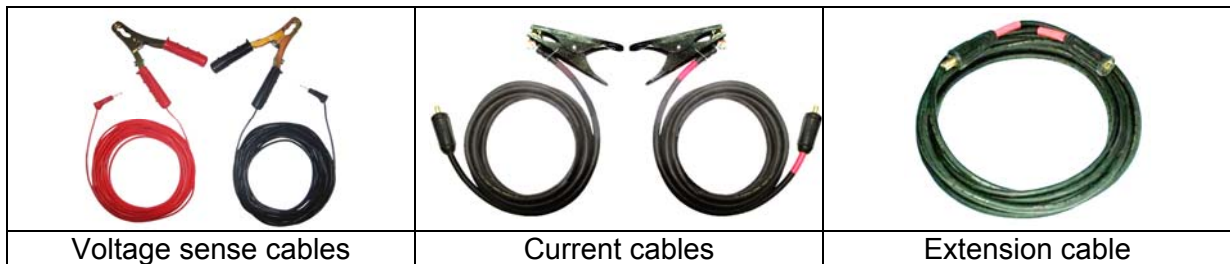
- ✓ High, middle and low voltage circuit breakers
- ✓ High, middle and low voltage disconnecting switches
- ✓ High-current bus bar joints
- ✓ Cable splices
- ✓ Welding joints

With RMO500A turned off, connect RMO500A to the test object ( $R_x$ ) in such a way that the measuring cables from the "Voltage Sense" sockets are attached as close as possible to  $R_x$ , and in between the current feeding cables. That way, resistance of both cables and clamps is almost completely excluded from the resistance measurement.



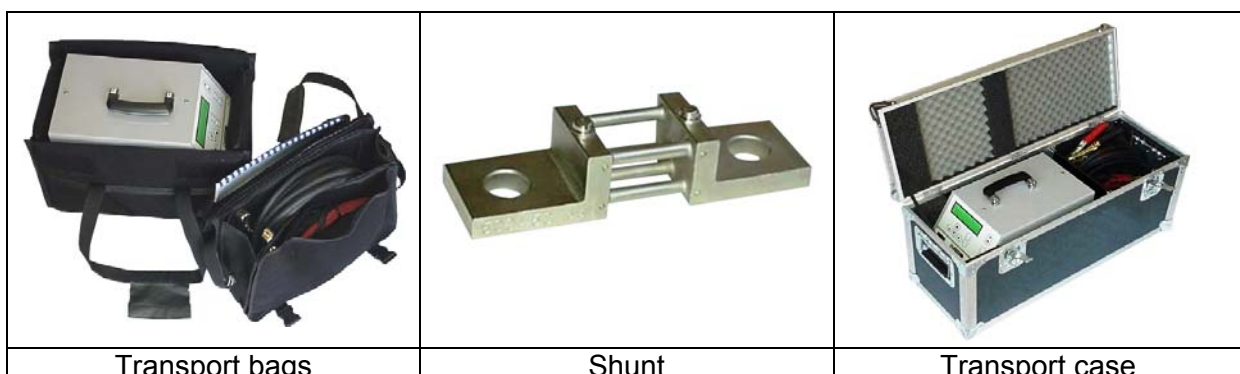
## Standard accessories

- ✓ Current cables 2 x 5 m 50 mm<sup>2</sup> with battery clips
- ✓ Sense cables 2 x 5 m 2,5 mm<sup>2</sup> with alligator clips
- ✓ RMOWin PC software
- ✓ Mains power cable
- ✓ Ground (PE) cable
- ✓ Transport bags



## Optional accessories

- ✓ Built-in thermal printer
- ✓ Transport case
- ✓ Test shunt 600 A / 60 mV
- ✓ Current cables 2 x 10 m 50 mm<sup>2</sup>
- ✓ Current cables 2 x 15 m 70 mm<sup>2</sup>
- ✓ Extension cable 2 x 10 m 70 mm<sup>2</sup>
- ✓ Sense cables 2 x 10 m 2,5 mm<sup>2</sup> with alligator clips
- ✓ Sense cables 2 x 15 m 2,5 mm<sup>2</sup> with alligator clips



## Technical data

### 1 - Mains Power Supply

- Connection according to IEC/EN60320-1; UL498, CSA 22.2
- Mains supply from 90 V to 264 V AC; 50 Hz – 60 Hz

### 2 - Output data

- Test current 2 A – 500 A DC
- Measuring range / Resolution
  - 0,1  $\mu\Omega$  - 999,9  $\mu\Omega$  0,1  $\mu\Omega$
  - 1000  $\mu\Omega$  - 9999  $\mu\Omega$  1  $\mu\Omega$
  - 10,00 m $\Omega$  - 99,99 m $\Omega$  10  $\mu\Omega$
  - 100,0 m $\Omega$  - 999,9 m $\Omega$  0,1 m $\Omega$
- Typical accuracy  $\pm$  (0,25 % rdg + 0,25 % FS)

### 3 – Environment conditions

- Operating temperature - 10 °C - + 50 °C / 14 °F - + 122 °F
- Storage and transportation - 40 °C - + 70 °C / - 40 °F - + 158 °F
- Humidity 5 % - 95 % relative humidity, non condensing

### 4 - Dimensions and Weight

- Dimensions 198 mm x 255 mm x 380 mm  
7,8 in x 10 in x 15 in  
(W x H x D) without handle
- Weight 8 kg/17,5 lb
- Mechanical protection IP54

### 5– Safety Standards

- European standards EN 61010-1  
LVD 73/23/EEC
- International standards IEC 61010-1  
UL 3111-1  
CAN/CSA-C22.2 No 1010.1-92

### 6 – Electromagnetic Compatibility (EMC)

- CE conformity EMC standard 89/336/EEC
- Emission EN 50081-2, EN 61000-3-2/3
- Interference Immunity EN 50082-2

Specifications are subject to change without notice.



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