



# MM200

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**Micro-Ohm Meter**  
**Self Powered 100A / 200A Test Current**

## Introduction

In response to ever growing demands for safer and more accurate methods of testing circuit breakers, Weis has developed the **Self Powered MM200** portable micro-ohm meter. It is used for measurement of resistance ( $\mu\Omega$ ) by injecting a heavy current through a breaker contact or load carrying joint.

A fixed regulated test current output of 100A pure DC or 200A pure DC is used in either pulsed or true continuous test modes, for static resistance measurement.

As a stand-alone unit, static testing can be performed with a direct readout on a built in LCD meter. When used in conjunction with the Weis SA100, SA100R or SA100RS switchgear analyser / breaker tester (having a travel input for breaker mechanism movement), a dynamic micro-ohm test can be made that will give detailed information about the state of fixed contact surfaces, moving contact surfaces, main contact, arcing contact and the complete current circuit of the breaker in every step during a close-open operation.

## Technical Specification

### MEASUREMENT OUTPUT

**Current:** 100 or 200A DC regulated (up to 4V).  
**No-Load Voltage:** 10V DC maximum.  
**Operation:** 100A pulse with adjustable on-time.  
200A pulse with adjustable on-time.  
100A continuous (no time limit).  
200A continuous (no time limit).  
**Safety:** Re-settable thermal / magnetic circuit breaker.  
**Connectors:** Heavy duty wing-nut.

Rotary Mode selector switch for Off / 100A / 200A.  
Rotary Range selector switch for 199.9 $\mu\Omega$  or 1999 $\mu\Omega$ .  
Rotary Pulse On-Time selector switch for 0.125s, 0.25s, 0.5s, 1s or 2s.  
LED Indicators: Fault, Over Current, Over Temperature, Battery Low and Charging.  
Multipurpose accessory socket for in-car charging, remote meter, power out, trigger in and trigger out.

### MEASUREMENT INPUT

**Range:** 0 to 199.9 $\mu\Omega$  or 0 to 1999 $\mu\Omega$ .  
**Resolution:** 0.1 or 1 $\mu\Omega$  (range dependant).  
1% of reading +/- 1.  
**Voltage Sense:** 1 x voltage input from contact / joint.  
**Connectors:** 4mm safety socket.

### OPERATING VOLTAGES

**Prime Power:** Internal sealed rechargeable batteries.  
**Recharge Power:** 110 to 330V DC or 85 to 265V AC (47 to 440Hz) auto-sensing.  
In-Car 12V DC @ 3A (negative earth).  
**Burden:** <100VA load.

### OUTPUTS

**Analogue:** 2 x conditioned outputs representing measured Current Level and Micro-Ohms (SA100 / SA100R / SA100RS required).  
1 x Calibrate for calibration check.  
**Connectors:** 4mm safety socket.

### ENVIRONMENTAL

**Operating Temperature:** -20°C to 70°C (-4°F to 158°F).  
**Humidity:** 0 to 97% RH non-condensing.  
**Isolation:** 2kV rms for 1 minute (input / output to ground).  
**Surge Withstand Transient:** To IEC 801-5. 5kV, 1.2/50 $\mu$ Sec, 0.5 joule.  
Common Mode: Severity level class 4.  
Series Mode: Severity level class 3.  
**RF Immunity:** To IEC 801-3 level 3.  
10V/m 26-1000MHz.  
**Emissions:** To EN50081-1: 1992.

### GENERAL SYSTEM

Back-lit 3½ digit LCD for readout of  $\mu\Omega$  or Amps.  
Current On lamp indication (red).  
Unit Armed lamp indication (green).  
Trigger In (volt free contact) for Dynamic Micro-Ohm Test (SA100 / SA100R / SA100RS required) and Trigger Out (15V logic).  
Intermittent audible during continuous operation.  
Typical full charge performance: 100A for 35 minutes.  
'Operate' push button for Pulse mode or Continuous with stop mode of operation.

### MECHANICAL DETAILS

**Case:** Reinforced aluminium, 370mm wide x 185mm deep x 350mm high.  
**Weight:** <10kg.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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