



MM600

**Micro-Ohm Meter
Self Powered 600A 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** MM600 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 high current pulsed output (typically 600A DC) allows for testing of the latest arcing and main contacts that require 500-600A to determine the difference between them, as well as to see if they are able to carry such a current.

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 (**DRM / DCRM**) 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:** Limited to 750A DC, typically 600A DC, dependant on loop impedance.
- No-Load Voltage:** 10V DC maximum.
- Operation:** Pulse with 1 second duration.
- Safety:** Re-settable thermal / magnetic circuit breaker.
- Connectors:** Heavy duty wing-nut.

MEASUREMENT INPUT

- Range:** 0 to 199.9 $\mu\Omega$ or 1999 $\mu\Omega$.
- Resolution:** 0.1 or 10 $\mu\Omega$ (range selected).
- Accuracy:** 1% of reading +/- 1 digit.
- Voltage Sense:** 1 x voltage input from contact / joint.
- Connectors:** 4mm safety socket.

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.

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).
'Operate' push button for 600A pulse mode of operation.
Rotary Mode selector switch for Off / 199.9 $\mu\Omega$ / 1999 $\mu\Omega$.
LED indicators: Fault, Over Current, Battery Low and Charging.
Multipurpose accessory socket for in-car charging, remote meter, power out, trigger in and trigger out.



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).
<100VA load.
- Burden:** <100VA load.

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 μ 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.

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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