

MR5-200P MICRO-OHMMETER

featuring high measurement current up to 200 A

High precision
resistance meters

Micro-Ohmmeters



The MICRO-OHMMETER MR5-200P is used to determine electric resistances on very low - resistance objects (e. g. bus bars, any connectors) while using a very high measurement current. The MR5-200P is able to generate a maximum current up to 200 A.

Under normal conditions, the electric resistance can be determined using a much lower current. For example, our MICRO-OHMMETER MR300C-A has a 10A measurement current with a resolution of 10nΩ (10⁻⁸Ω!). However, faulty connections can not be found this way, as a high current is needed to determine the dissipation causing unstable or rising measurement values on bad connections. To perform this a constant high measurement current in the MR5-200P will be generated max. 3 seconds as suggested in QVA-Z10-31-00 testing standard.

Although line powered the MR5-200P is battery buffered. Therefore a limited count of measurements without active line source are possible.

Additionally, the measurement values can be send to any PC based spreadsheet program e.g. EXCEL[®] using the integrated interface. Time based sending is also supported, e.g. when evaluating the dissipation, measurement values are sent via interface.

Features, Accessories

- Useful Range 20 µΩ – 2 Ω (within specified uncertainty)
- Max. resolution 100 Nanoohm
- Display 4 digits
- Measuring current 1 .. 200 A
- Current duration max. 3 s @ 200 A
- Interface RS232C, USB-B
- Built-in thermal printer
- Cables included: STD 5m 2x current- (25mm²), 2x sense-, ground-, line- and RS232/USB-cable (PC)
- Factory calibration certificate
- Rugged, robust mobile case

Made in Germany

SCHUETZ MESSTECHNIK GMBH, Rheinstrasse 7a, D-14513 Teltow - GERMANY -

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TEST CURRENT	max. 200A (True DC). Increment 1 A. Adjustable and presetable from 0 to 100%
RESISTANCE RANGES	0-199.9 $\mu\Omega$ (test current: up to 200 A). 0-1.999 m Ω (test current: up to 200 A). 0-19.99 m Ω (test current: up to 100 A). 0-199.9 m Ω (test current: up to 20 A). 0-1999 m Ω (test current: up to 2 A).
READING RESOLUTION	0.1 $\mu\Omega$ for R < 200 $\mu\Omega$. 1 $\mu\Omega$ for R < 2000 $\mu\Omega$. 10 $\mu\Omega$ for R < 20 m Ω .
OUTPUT VOLTAGE	4..5 Vdc @ all currents.
DISPLAY	4 digits result, current and time LCD 9mm character height with backlight
TOTAL RESISTANCE	max. 20 m Ω @ 200A. max. 40 m Ω @ 100A.
MEASUREMENT PRINCIPLE	Four-terminal due to Kelvin
THERMAL PROTECTION	Protects the instrument from overheating.
BASIS ACCURACY	$\pm 0.3\%$ of reading $\pm 0.1\%$ of Range.
CURRENT FLOW DURATION	The Duration (time) for current flow is limited to 3 s at 200A! At lower currents measuring time can be increased (e.g. 30 s at 10 A).
ADVANCED FEATURES	Digital direct reading of resistance, current, measuring time and updated every second.
BUILT-IN MEMORY	Storage of 1000 test readings.
INTERFACE	RS232 @ 2400, 4800, 9600 baud., USB-B
ENVIRONMENTAL PROTECTIONS	IP54 (with closed lid).
SAFETY CLASS	Meets the requirements of IEC 61010-1:1990, IEC 61010-1:1992 amendment 2.
POWER SUPPLY	90~264 VAC / 47..63 Hz single phase.
OPERATING TEMPERATURE	0°C to 45°C (Battery limited).
STORAGE TEMPERATURE	-10°C to 55°C (Battery limited).
HUMIDITY RANGE	95 % of RH (non condensing).
EQUIPMENT WEIGHT	Approx. 12 kg.
DIMENSIONS	410W x 330D x 180H mm.
PRINTER	Thermal printer

All technical datas are evaluated with 5 m Standard Measuring Cables, 100 $\mu\Omega$ test resistance, battery source, at 23°C room temperature.

This instrument can be delivered as MR5-200C version too. There are two main differences between the MR5-200C and the MR5-200P:

The P-Version offers only short current pulses with a series of measurements in a predefined total time. In the same time the C-Version uses continuous current flow instead.

On the other hand the P-Version can be used for short time measurements without line connection, the C-Version needs line source for all operation modes.

	MR5-200C	MR5-200P
Current flow	up to 1 h cont.	max. 3 s at 200A
Battery operation	no	yes
Max. Measurements	no limit	100 (500ms pulse) @ 200A
Weigh	9.5 kg	10.5 kg
Inductive objects	only small loads	no inductive loads



Questions?

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Here you will get technical assistance as well as complete information regarding features, prices, shipment and reselling.

www.ohmmeter.de

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