MR5-200C MICRO-OHMMETER

featuring continuous measurement current up to 200 A

High precision resistance meters

Micro-Ohmmeters

The MICRO-OHMMETER MR5-200C is used to determine electric resistances on very low - resistance objects (e. g. bus bars, any connectors) while using a very high, continous flowing measurement current. The MR5-200C is able to generate a stable 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^{-8}Ω). 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 high measurement current of the MR5-200C can be generated constantly over longer periods.

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 with one second time gap.

Features, Accessories

- **Useful Range 20 µΩ – 2 Ω (within specified uncertainty)**
- **Max. resolution 0.1 µΩ = 100 Nanoohm**
- **Display 4 digits**
- **Measuring current 1 .. 200 A, continous**
- **Interface RS232C, USB-B**
- **Built-in thermal printer**
- **Cables included: Standard 5m 2x current- (25mm²), 2x sense-, ground-, line- and RS232/ USB-cable (PC)**
- **Factory calibration certificate**
- **Rugged, robust mobile case**
- **XFER PC software included!**

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Made in Germany

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

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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 µΩ (test current: up to 200 A). 0-1.999 mΩ (test current: up to 200 A). 0-19.99 mΩ (test current: up to 100 A). 0-199.9 mΩ (test current: up to 20 A). 0-1999 mΩ (test current: up to 2 A).
READING RESOLUTION	0.1 µΩ for R < 200 µΩ. 1 µΩ for R < 2000 µΩ. 10 µΩ for R < 20 mΩ.
OUTPUT VOLTAGE	4..5 Vdc @ all currents.
DISPLAY	4 digits result, current and time LCD 9mm character height with backlight
TOTAL RESISTANCE	max. 20 mΩ @ 200A. max. 40 mΩ @ 100A.
MEASUREMENT PRINCIPLE	Four-terminal due to Kelvin
THERMAL PROTECTION	Protects the instrument from overheating.
CONTINUOUS OPERATION TIME	At 200 A this device should not be used continously for more than 30 minutes (overheat protected). At 100 A the measuring time is unlimited.
BASIS ACCURACY	± 0.3 % of reading ± 0.1 % of Range.
CURRENT FLOW DURATION	The duration (time) for steady current flow can be easily set to 1,2,5,10,20s.. ....up to 600s or unlimited (o.h.protected).
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 - 47~63Hz / 127~370VDC
OPERATING TEMPERATURE	-5°C to 50°C.
STORAGE TEMPERATURE	-40°C to 85°C.
HUMIDITY RANGE	10~95 % of RH (non condensing).
EQUIPMENT WEIGHT	Approx. 9.5 kg. (without cables)
DIMENSIONS	410W x 330D x 180H mm.
PRINTER	Thermal printer

All technical datas are evaluated with 5 m Standard Measuring Cables, 100 µΩ test resistance, 230V line source, at 23°C room temperature.

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

The C-Version uses continuous measuring current, the P-Version offers only a current duration of one second maximal.
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.	3 s at 200 A
Battery operation	no	yes
Max. Measurements	no limit	100 @ 200A battery only
Weight	9.5 kg	10.5 kg
Inductive objects	only small loads	no inductive loads

All other technical datas and features are identical.

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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