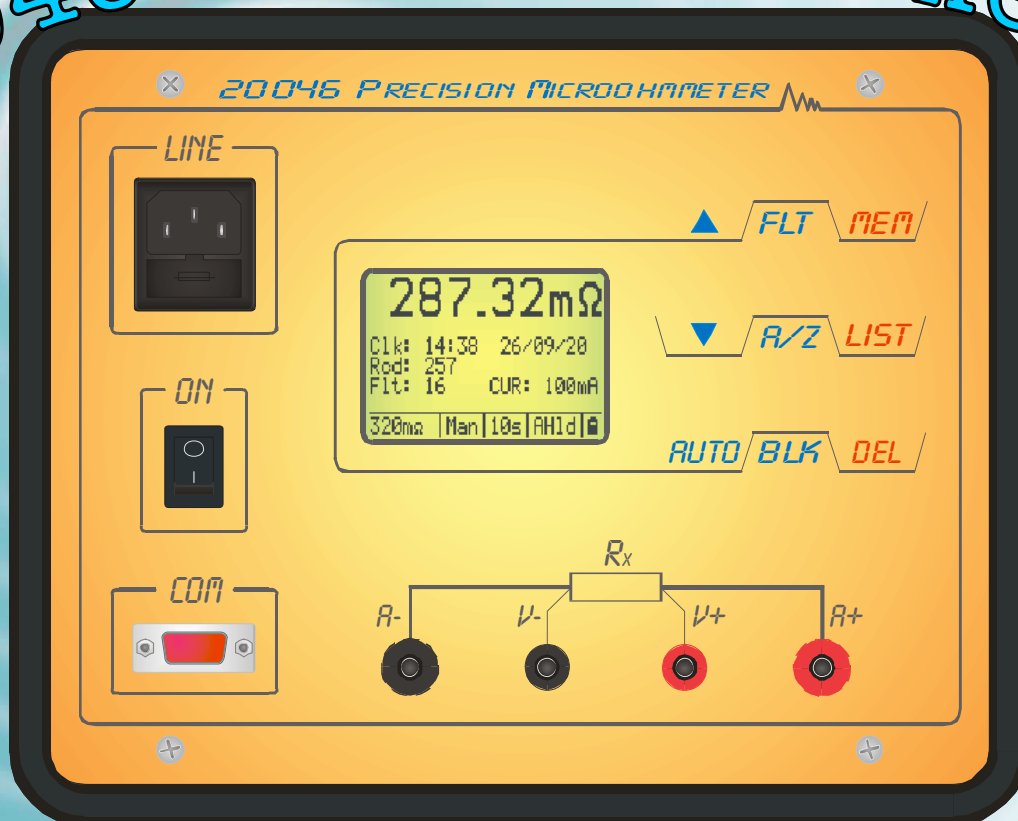


20046 Microohmmeter



32000 points

10nΩ – 3200Ω

20046 is a microohmmeter designed specifically for use in the field: it is in fact equipped with a sturdy, watertight plastic container and can operate on a battery (which it is equipped with as standard) ensuring considerable operating autonomy. The extremely small dimensions, the characteristics of precision, measurement points, functionality and portability that it offers make this device unique.

It is able to measure resistive elements between 3200Ω and 10nΩ, even in the presence of extremely high inductive components such as in large medium and high voltage line transformers.

Remarkable is the possibility of saving up to 1000 measurements in the non-volatile memory and automatically saving the measurement at selectable intervals in order to easily obtain graphics.

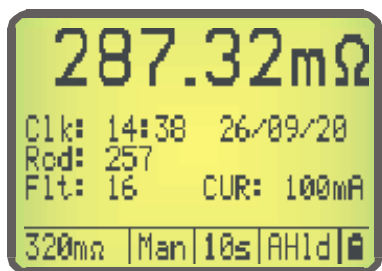
- ▶ 32000 measuring points / 4 measurements per second
- ▶ 8 ranges from 3200Ω to 320μΩ (from 100mΩ to 10nΩ of resolution)
- ▶ choice of automatic or manual range measurement
- ▶ saving up to 1000 measurements, each with date and time up to one second of resolution
- ▶ possibility of saving/automatically recording the measurement every 1-2-5-10-30-60 seconds
- ▶ graphic display
- ▶ auto-zeroing the instrument
- ▶ compensation of test leads
- ▶ choice and display of the extent of measurement filtering
- ▶ backlight on/off
- ▶ acoustic signaling of the correct selection
- ▶ line and battery standard operation
- ▶ indication of the state of battery charge
- ▶ reading of data and measurements saved in non-volatile memory via optically isolated USB connection using the dedicated SW **20046 Remote Viewer** that can be interfaced with Excel
- ▶ recording, visualization on a graph, saving of data acquired automatically or manually through the SW **Recorder 20000**, which can be interfaced with Excel, connected with optically isolated USB
- ▶ transfer from instrument to PC of 1000 measurements saved in 3.7seconds

The instrument replaces the predecessor 20022 by extending the measurement range above with the range of 3200Ω, with a resolution of 0.1Ω, adding, in the lower range, the range of 320μΩ which offers a resolution of 0.01μΩ, resolution available only on a few laboratory instruments.

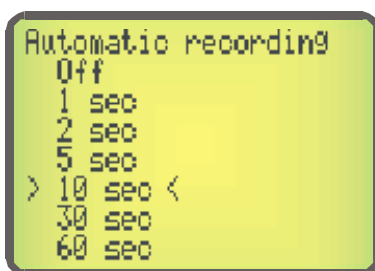
A further performance concerns the possibility to save up to 1000 measurements together with date and time with a resolution of 1 second and to start an automatic data recording with selectable sampling intervals of 1-2-5-10-30-60 seconds . Thanks to SW 20046 Remote Viewer and Recorder 20000 it is possible to download the data saved in the non-volatile memory and send them directly to an Excel sheet as well as synchronize, with a simple button, the instrument clock to the PC system clock.

The ability to set the desired filter to improve the stability of the measurement, perform auto-zeroing or compensation of the current cables and the activation or not of the backlight remains unchanged.

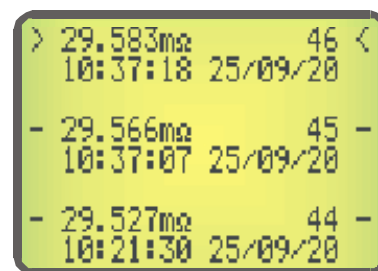
As visible in the images below, all useful information is always displayed on the 2.8-inch display, together with the indication of the range, the status of Automatic / Manual, battery charge status, time and date as well as the number of saved measurements.



Main measurement on 320mΩ range, in manual mode
Instrument clock: 14:38 26/09/20
Number of records saved: 257
Filter = 16



In this window it is possible to deactivate / activate automatic recording, with selectable saving intervals from 1 second to 60 seconds, reaching the maximum recording time of 16 hours and 40 minutes.



Display of a part of the measurements saved between the 44th and 46th records, with indication of the date and time up to the resolution of the second.

TECHNICAL DATA

Power supply	line and battery standard supply
Power requirement	15VA
Battery autonomy	from 1 hour to 200 hours depending on the selected range and the state of the backlight
Representation	on backlighted graphic display 64x128 pixel 62x44mm
Point of measure	32000
Display refresh rate	4 Hz
Range	320,00μΩ, 3200,0μΩ, 32,000mΩ, 320,00mΩ, 3200,0mΩ, 32,000Ω, 320,00Ω, 3200,0Ω
Range selection	automatic / manual
Resolution	10nΩ, 100nΩ, 1μΩ, 10μΩ, 100μΩ, 1mΩ, 10mΩ, 100mΩ
Measurement accuracy (ranges 3200Ω ÷ 3200μΩ)	±(0,05%+ 2 digit)
Measurement accuracy (range 320μΩ)	±(0,06%+ 3 digit)
Measure current	10A, 1A, 100mA, 10mA, 1mA, 100μA, 10μA
Compensation power cable / Reset	yes
Filter	1, 2, 4, 8, 16, 32, 64 misure
Number of records that can be saved in non-volatile data memory	1000
Automatic saving / recording	yes, it can be activated with selectable saving times of 1-2-5-10-30-60s
Type of data saved in the List	measurement, date and time with 1 second resolution
Retention time of the saved data	about 10 years, with new battery
Optocoupled USB connection	with optional USB converter
Weight	4850 gr. approximately
Dimension	265x245x170mm (W x H x D)