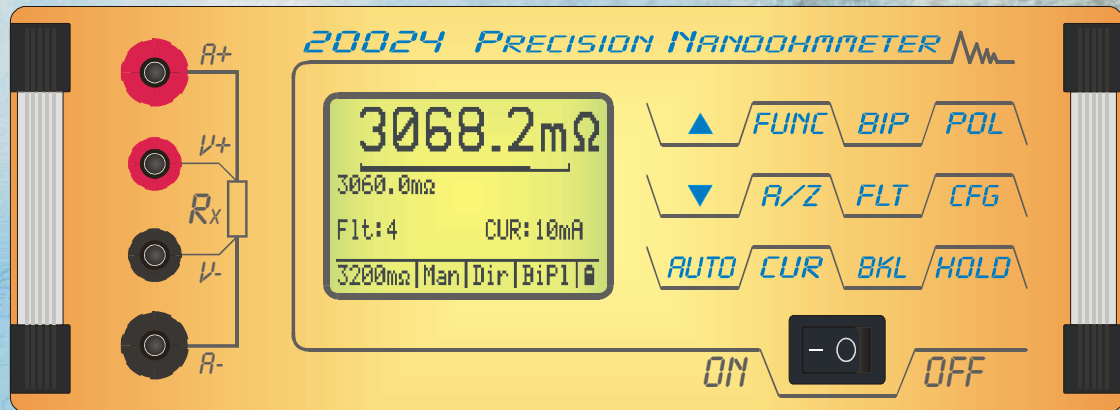


# 20024 Nanoohmmeter



32000 points

320Ω – 1nΩ

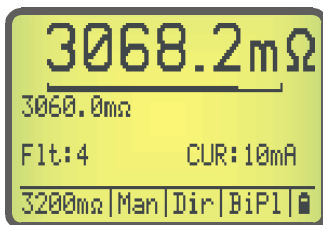
20024 is the absolutely nanoohmmeter with the best compromise between cost, performance and features on the market. Its very small footprint, high autonomy in battery operation which is fitted as standard, the accuracy and features it offers make this device suitable for use both on the field or in production, but especially in the laboratory. It's capable of measuring the resistive elements included between 320Ω and 1 nΩ, even in the presence of inductive components extremely high as in the large line transformers to medium and high voltage.

- ▶ 32000 measuring points / 5 measurements per second
- ▶ 8 ranges from 320 Ohm to 32 uOhm (from 10 mOhm to 1 nOhm of resolution)
- ▶ current measurement can be selected
- ▶ choice of automatic or manual range measurement
- ▶ graphic display
- ▶ bar graph
- ▶ relative measure both absolute and percentage simultaneously of the principal measurement
- ▶ temperature compensation of the measure from 0,0°C to 50,0°C
- ▶ choice of the polarity of measurement
- ▶ automatic measurement in both polarities indicating the average value
- ▶ auto-zero the instrument
- ▶ compensation of test leads
- ▶ measurement hold
- ▶ choice and display the magnitude of the filtering of the measure
- ▶ backlight on/off
- ▶ acoustic signaling of the correct selection
- ▶ line and battery standard operation
- ▶ indication of the state of battery charge
- ▶ save/recall of configuration
- ▶ reading data and setting via optocoupled USB
- ▶ only two commands: one to read all the data and set-up and one to write the new setup

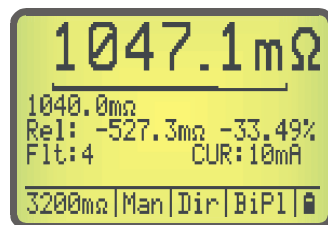
The instrument has a number of measuring points and a resolution that can be found only in laboratory equipment with much higher cost and dimensions, with a speed of measurement, and a stability extraordinary thanks to an analog-digital converter of the latest generation.

Allows to measure absolute and relative percentage, the polarity setting measurement and automatic bipolar measuring, setting the temperature resolution of 0.1°C for the compensation of the measure with temperature according to CEI EN 60228 for measuring the resistance of copper cables, the setting of a filter to improve the stability of the measure on the lower ranges where sensitivity is reached in a voltage of 10nV, the choice between two current of measurement.

As shown in the pictures below all relevant information is always displayed in the 2.8-inch display, along with an indication of the range, status of Auto / Manual, Measuring Direct / Reverse, Bipolar measure, Hold, state of charge battery.



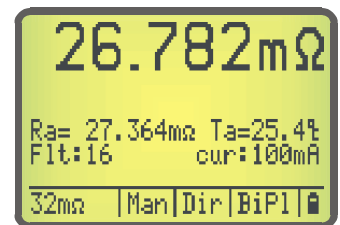
Principal measurement on 3200mΩ range, in bipolar measurement modality.



Principal measurement + relative absolute and percentage measurement.



Setting the room temperature for compensated measurement.



Compensated measurement + measurement to room temperature and set room temperature.

## TECHNICAL DATA

<b>Power supply</b>	line and battery standard supply
<b>Power requirement</b>	15VA
<b>Battery autonomy</b>	from 1 hour to 350 hours depending on the selected range and the state of the backlight
<b>Representation</b>	on backlit graphic display 64x128 pixel 62x44mm
<b>Point of measure</b>	32000
<b>Display refresh rate</b>	5 Hz
<b>Range</b>	32,000μΩ, 320,00μΩ, 3200,0μΩ, 32,000mΩ, 320,00mΩ, 3200,0mΩ, 32,000Ω, 320,00Ω
<b>Range selection</b>	automatic / manual
<b>Resolution</b>	1nΩ, 10nΩ, 100nΩ, 1μΩ, 10μΩ, 100μΩ, 1mΩ, 10mΩ
<b>Measurement accuracy</b> (range 320Ω ÷ 3200μΩ high current)	±(0,05% + 0,001%/°C + 2 dgt)
<b>Measurement accuracy</b> (range 320Ω ÷ 3200μΩ low current)	±(0,06% + 0,001%/°C + 3 dgt)
<b>Measurement accuracy</b> (range da 320μΩ)	±(0,06% + 0,001%/°C + 4 dgt)
<b>Measurement accuracy</b> (range 32μΩ)	±(0,07% + 0,001%/°C + 5 dgt)
<b>Measure current</b>	10A, 1A, 100mA, 10mA, 1mA, 100μA, 10μA
<b>Compensation power cable / Reset</b>	yes
<b>Relative measure</b>	yes, absolute and percentage
<b>Compensation range of the measurement with the temperature (Ta)</b>	from 0,0°C to 50,0°C, step 0,1°C
<b>Compensation coefficient of the temperature</b>	copper, according to CEI EN 60228:2005-10
<b>Filter</b>	average on 1, 2, 4, 8, 16, 32, 64 measures
<b>Max inductive value</b>	35 Henry / 150 ohm
<b>Optocoupled USB connection</b>	with optional USB converter
<b>Weight</b>	4770 gr. approximately
<b>Dimension</b>	243x89x285mm (W x H x D)