СЕВАСТОПОЛЬСКИЙ
ГОСУДАРСТВЕННЫЙ
УНИВЕРСИТЕТ

Multimeter

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Agenda

1. Multimeter — It is…
2. What are Multimeters?
3. Basic measurement modes
4. Additional functions
5. Main working areas of the multimeter

Multimeter — It is...

A multimeter is a digital multi-function measuring instrument, also called a universal tester. With it, you can learn the values of resistance, voltage and current on the circuit. In addition, you can check the integrity of the electrical circuit and many radio components, such as transistors or diodes. Functionally, the multimeter replaces several measuring devices: voltmeter, ammeter, ohmmeter.

What are Multimeters?

DIGITAL

Modern multimeter. Shows more accurate readings in contrast to analog. It has more advanced features (for example, such as "temperature measurement"). The disadvantage is the lack of battery life without a third-party power source.

ANALOG

An older view of the multimeter. differs from digital in lower measurement accuracy and the ability to use without a third-party power source.

Basic measurement modes

ACV - measurement of alternating voltage

DCV - DC voltage measurement.

DCA - measurement of direct current.

Ω - measurement of electrical resistance.

Additional functions

Some multimeters also have the following functions:

AC current measurement.

Calling is a measurement of electrical resistance with an audible (sometimes light) signaling of a low resistance circuit (usually less than 50 ohms).

Diode Test - Check the integrity of semiconductor diodes and determine their polarity.

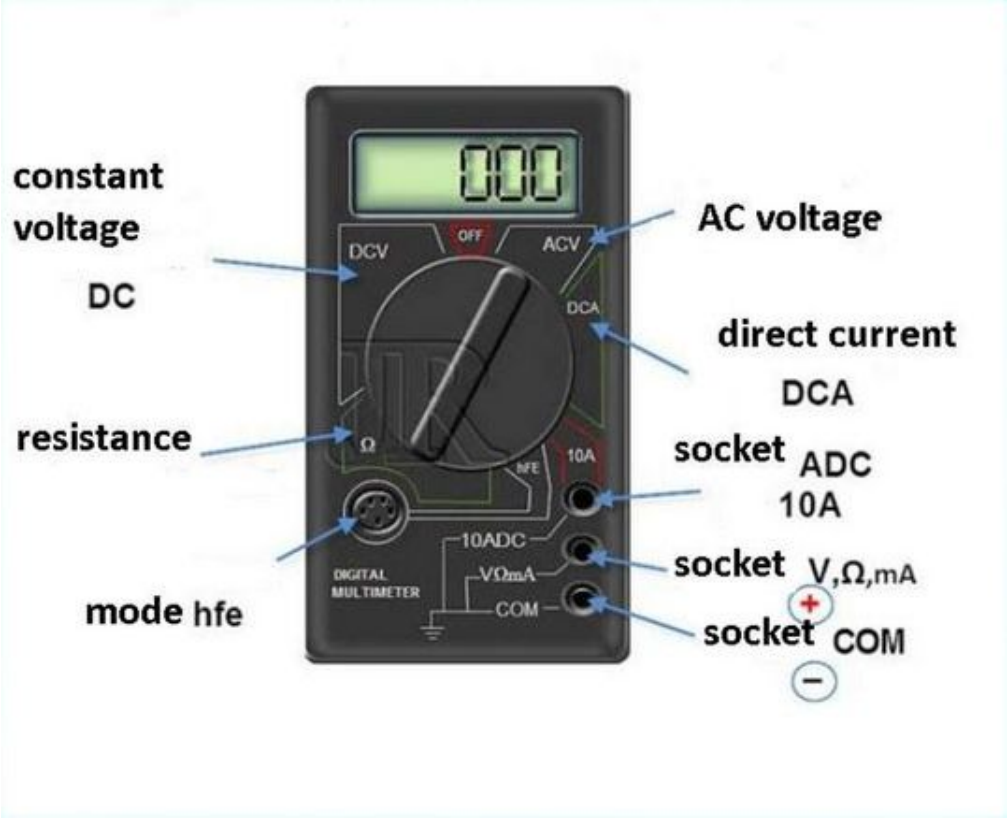
Voltage frequency measurement.

High resistance measurement (typically up to hundreds of megohms; external power required).

High current measurement (using plug-in / built-in current clamps).

Display backlight

Main working areas of the multimeter



Conclusion

Multimeters do not have high accuracy of measurements, but are quite reliable in operation. Therefore, digital and analog multimeters are gaining popularity and are widely used.

Thanks you for attention!