
**CHARACTERISTICS AND DISADVANTAGES OF ELECTRICAL
MEASUREMENTS**

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Abstract. *Measuring technique is a field of science and technology that deals with the study and development of methods and means of recording quantities representing the properties and conditions of production processes, the properties and conditions of the inspected objects. Methods of measuring the weight of objects and scales were known several thousand years before Christ. Measuring methods are widely used in the measurement of time, distance, area and angles, in construction works. Even in ancient times, more accurate measurements were made. For example, the angle of refraction of light and the meridians of the Earth were determined in those times.*

Key words: *electrical measurement, standard, meter, inch.*

Introduction. Measurement means experimentally finding the values of physical quantities with the help of special technical means. In general, measurements are carried out with the help of a technical tool with a standardized metrology description, that is, a measuring instrument. O'A, in turn, is a measurement, and measurement is its own 8 are divided into categories groups such as gauges, measuring devices, measuring information system and measuring devices. A measuring tool designed to reproduce physical quantities of a given size is called a "measurement". Measurements are made with fixed and variable values. A variable-value measurement allows you to obtain the numerical value of a given

quantity in certain intervals. A coil with a resistance of 0.1 Ohm is a constant value measurement. For example, a capacitor with variable capacitance, which allows for different capacitances, is a variable value measurement. A device designed to compare the quantity being measured with a unit of measurement or scale is called a measuring instrument. Tools used in practical measurements are called working tools. Instruments designed to test and calibrate instruments are called sample instruments. Standard measurements, which are made with precision at the highest level of science and technology, are called standards. Standards are divided into used and state standards. State standards of basic units serve only to verify the standards used. State standards are used in the verification of standard measurements and devices. It is stored in the offices of the State Standards Committee of Measurement and Measuring Instruments.



Electrical conductivity measuring device

A measurement unit is a measurement condition in which the measurement result is expressed in the specified unit and the measurement error is known with a given probability. Accuracy of measurement is the quality of measurement that reflects the closeness of measurement results to the actual values of the measured quantity. One of the main branches of measuring technique is electrical measuring technique. Scientific research and measuring instruments mainly depend on the production and use of electrical measuring instruments transmitted by means of

electrical signals (signals). The activity of a person in the field of scientific production is embodied in it. Measurement of physical quantities using electrical measuring devices is called electrical measurement. It is currently widely used in the measurement of electrical and non-electrical quantities. The reason for this is that when using this method, it is possible to make electrical measurements remotely with high accuracy and sensitivity. In fact, in order to constantly monitor the working condition of the devices, to take into account the electrical parameters and values of the consumers, various electrical measuring devices are connected to the electrical circuits. These devices, in turn, measure current, voltage, resistance, power, current, power consumption, etc.

Summary. In the above-mentioned article, we mentioned several things about the advantages and disadvantages of electrical measurements, units of measurement, and errors in measurement.

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