

# **RESULTS OF RESEARCHES OF METROLOGICAL CHARACTERISTICS OF ANALOG TEMPERATURE SENSORS**

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The method of metrological certification of an analog semiconductor temperature sensor KY-013 is proposed. A laboratory setup for experimental studies of the metrological characteristics of analog temperature sensors has been implemented. The type and parameters of the simplified parametric equation, which is obtained on the basis of the Steinhart-Hart equation for the analog temperature sensor KY-013, are established. The magnitudes of the parameters of the equation are obtained by the Levenberg-Maquardt method. When conducting experimental studies, it was found that in the temperature range from 10 to 40°C regulated for greenhouse production, the use of a KY-013 sensor will provide an absolute measurement error of no more than  $\pm 0.20^{\circ}\text{C}$ .

**Keywords :** *temperature, semiconductor thermistor, graduation, meter, error.*