Regression Analysis of the Frequency of the Output Voltages of the Comparator in the Composition of Strain Gauges Measuring Converter

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This report expounds a regression analysis of research of non-linearity of the output frequency at amending the output voltages of the comparator in the composition of the strain gauges measuring converter. The output data is obtained as a result of the modeling equation of the conversion in MATLAB in inequality in the output voltages from 0 to 20% and in bilaterally amendment of the load on the strain gauges. The coefficients of determination of the three regression models are determined. An assessment of the adequacy of the regression models using the criterion of Fisher at different loads of the converter is made. The significance of the coefficients of the models and the coefficients of regression by the criterion of Student are determined, and the corresponding conclusions are made.

References

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