Abstract

The master's dissertation on the topic "Research of the measuring transducer of pressure" consists of an introduction, 3 chapters, conclusions, a list of literature and applications. The explanatory note consists of 98 pages, 40 figures, 24 tables, a list of references from 18 titles and 1 application.

This topic is relevant, because the use of measuring transducers of pressure includes a variety of industries: food, medical, petroleum and many others. Constantly increasing requirements for measuring pressure transducers have set a number of tasks to ensure the accuracy and reliability of their operation in difficult operating conditions, therefore their research is an important issue for obtaining accurate results of pressure measurement.

The purpose of the master's thesis research is to conduct an analysis of existing pressure measurement methods used in measuring pressure transducers, to develop a structural and electrical scheme, and to study the temperature error that occurs in measuring pressure transducers in which the phenomenon of a tensor effect is used. The mathematical model of the measuring pressure transducer is created. The static and dynamic characteristics of the converter using modern software are investigated.

The object of the study is the static and dynamic characteristics of the measuring pressure transducer.

Subject of research - measuring pressure transducer.

The scientific novelty of the results obtained is to systematize the methods of measuring pressure. In conducting a study of temperature error and methods of combating it. The analysis of static and dynamic characteristics is carried out.

Key words: *measuring pressure transducer, strain gauge, bridge measuring circuit, elastic element.*