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## Electroacoustic Transducers for Diagnostic Automatic Systems

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Piezoelectric transducers are widely used in electroacoustics, hydroacoustics, measuring technology, nondestructive control, medical diagnostics, automatic control and other fields of science and technology.

Cylindrical piezoelectric elements are often used in the manufacturing of piezoelectric transducers.

A new connection scheme of the cylindrical piezoelectric transducer was proposed by the authors (see Fig. 1). It consists of piezoelectric element 1, electrodes 2 – 9, generator 10 and inductances 11, 12.

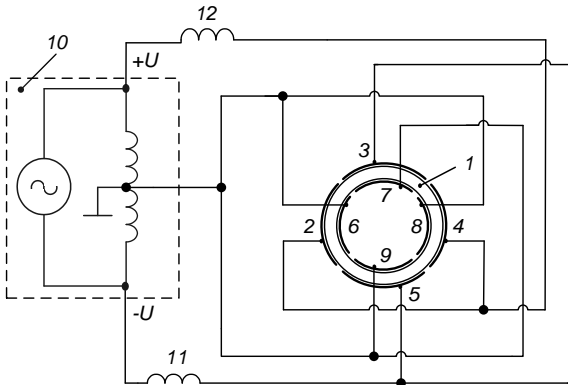


Figure 1 – Cylindrical piezoelectric transducer

Using the proposed scheme allowed to increase the level of output sound pressure of the transducer by about 12 dB compared with the prototype. Received information can be used in electroacoustic transducers designing.

1. Patent of Ukraine, IPC H04R 17/00. Electroacoustic transducer / C.V. Bazilo, Yu.A. Petrushko and others, No. 2015 12707, 22.12.2015.