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## HIGH-SPEED SECONDARY MEASURING TRANSDUCER FOR CAPACITIVE SENSORS WITH GROUNDED ELECTRODES

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### Authors

**P.I. Borshchov\*, A.S. Levitskyi\*\***

Institute of Electrodynamics National Academy of Sciences of Ukraine,  
pr. Peremohy, 56, Kyiv, 03057, Ukraine,  
e-mail: pavbor2010@gmail.com

\* ORCID ID : <http://orcid.org/0000-0003-1363-9252>

\*\* ORCID ID : <http://orcid.org/0000-0002-0146-9498>

### Abstract

*A new compensation bridge measuring transducer is proposed for operation with capacitive sensors having grounded electrodes. Two variants of its construction are described: with analog and with analog-digital balancing of charges on sensor capacitors. The advantages of the converter with analog-digital balancing are noted: compactness and improved speed. The research results of the error from the nonlinearity of the conversion characteristic of the experimental sample of the device are given. It is shown that the proposed converter provides a combination of high accuracy with a high conversion rate of informative parameters of capacitive sensors with grounded electrodes. References 9, figures 3, table 1.*

**Key words:** capacitive sensor, grounded electrode, compensation bridge measuring transducer, increase speed.

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