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Edition 2.0 2023-09
REDLINE VERSION

TECHNICAL SPECIFICATION

colour inside

Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection – Glossary – Part 5: Piezoelectric sensors



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PIEZOELECTRIC, DIELECTRIC AND ELECTROSTATIC DEVICES AND ASSOCIATED MATERIALS FOR FREQUENCY CONTROL, SELECTION AND DETECTION – GLOSSARY –

Part 5: Piezoelectric sensors

FOREWORD

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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC TS 61944-5:2019. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

IEC TS 61944-5 has been prepared by IEC technical committee 49: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection. It is a Technical Specification.

This second edition cancels and replaces the first edition published in 2019. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) New terms and definitions have been added from IEC 63041-1:2021 and IEC 63041-3:2020.

The text of this Technical Specification is based on the following documents:

Draft	Report on voting
49/1421/DTS	49/1439/RVDTS

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Technical Specification is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 61994 series, published under the general title *Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection – Glossary*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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PIEZOELECTRIC, DIELECTRIC AND ELECTROSTATIC DEVICES AND ASSOCIATED MATERIALS FOR FREQUENCY CONTROL, SELECTION AND DETECTION – GLOSSARY –

Part 5: Piezoelectric sensors

1 Scope

This part of IEC 61994 gives the terms and definitions for sensors representing the state of the art, which are intended for manufacturing piezoelectric elements, cells, modules and the systems.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at https://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp

3.1
delay line type sensor element
piezoelectric sensor component using a delay line of ~~surface acoustic wave (~~ SAW~~)~~ transversal filter type

[SOURCE: ~~IEC 63041-1:2017, 3.2.3, modified – The phrase has been rewritten in an easy-to-understand manner using a well-known term~~ IEC 63041-1:2021, 3.1.3, modified – "surface acoustic wave (SAW) transversal filter type" of the definition has been replaced by "SAW transversal filter type".]

~~**3.2**~~
~~**non-acoustic type sensor element**~~
~~piezoelectric sensor component using the electrical charge induced by a quasi-static force, torque or the like~~

~~[SOURCE: IEC 63041-1:2017, 3.2.4, modified – Note 1 to entry has been deleted.]~~

3.2
differential sensor
piezoelectric sensor element that can detect physical quantities from a differential change in resonance frequencies or delays of two independent and same micro-acoustic structures assembled on the same or different piezoelectric plates

Note 1 to entry: The differential sensor is a general term for sensors of the above type.