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# INTERNATIONAL STANDARD

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**Piezoelectric sensors -  
Part 3: Physical sensors**

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FOREWORD

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IEC 63041-3 has been prepared by IEC technical committee TC 49: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection. It is an International Standard.

This second edition cancels and replaces the first edition published in 2020. This edition constitutes a technical revision.

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

- a) Some terms in Clause 3 have been updated to be consistent with [IEC TS 61994-5:2023 \[1\]](#).

The text of International Standard is based on the following documents:

Draft	Report on voting
49/1526/FDIS	49/1530/RVD

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 International Standard 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 [http://www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at <http://www.iec.ch/publications>.

A list of all parts in the IEC 63041 series, published under the general title *Piezoelectric sensors*, 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](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

## 1 Scope

This part of IEC 63041 is applicable to piezoelectric physical sensors mainly used in the field of process control, wireless monitoring, dynamics, thermodynamics, vacuum engineering, and environmental sciences. This document provides users with technical guidelines as well as basic knowledge of common physical sensors.

Piezoelectric sensors covered herein are those applied to the detection and measurement of physical quantities such as force, pressure, torque, viscosity, temperature, film thickness, acceleration, vibration, and tilt angle.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60027 (all parts), *Letter symbols to be used in electrical technology*

IEC 60050–561, *International electrotechnical vocabulary – Part 561: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection*

IEC 60617:2012, *Graphical symbols for diagrams*

IEC 63041-1, *Piezoelectric sensors - Part 1: Generic specifications*

IEC 63041-2, *Piezoelectric sensors - Part 2: Chemical and biochemical sensors*

ISO 80000–1, *Quantities and units – Part 1: General*

## Bibliography

- [1] IEC TS 61994-5:2023, *Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection - Glossary - Part 5: Piezoelectric sensors*
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