SLOVENSKI STANDARD
SIST EN IEC 62884-4:2019

01-oktober-2019

Merilne tehnike za piezoelektrične, dielektrične in elektrostatične oscilatorje - 4. del: Preskusne metode kratkotrajne frekvenčne stabilnosti (IEC 62884-4:2019)

Measurement techniques of piezoelectric, dielectric and electrostatic oscillators - Part 4 : Short-term frequency stability test methods (IEC 62884-4:2019)

Messverfahren für piezoelektrische, dielektrische und elektrostatische Oszillatoren – Teil 4: Prüfverfahren für die Kurzzeit-Frequenzstabilität (IEC 62884-4:2019)

Techniques de mesure des oscillateurs piézoélectriques, diélectriques et électrostatiques - Partie 4: Méthodes d'essai de stabilité à court-terme de la fréquence (IEC 62884-4:2019)

Ta slovenski standard je istoveten z: **EN IEC 62884-4:2019**

ICS:

31.140	Piezoelektrične naprave	Piezoelectric devices

SIST EN IEC 62884-4:2019 **en**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 62884-4

July 2019

ICS 31.140

English Version

Measurement techniques of piezoelectric, dielectric and electrostatic oscillators - Part 4 : Short-term frequency stability test methods (IEC 62884-4:2019)

Techniques de mesure des oscillateurs piézoélectriques, diélectriques et électrostatiques - Partie 4: Méthodes d'essai de stabilité à court-terme de la fréquence
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Messverfahren für piezoelektrische, dielektrische und elektrostatische Oszillatoren - Teil 4: Prüfverfahren für die Kurzzeit-Frequenzstabilität
(IEC 62884-4:2019)

This European Standard was approved by CENELEC on 2019-06-10. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 62884-4:2019 E

European foreword

The text of document 49/1277/CDV, future edition 1 of IEC 62884-4, prepared by IEC/TC 49 "Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62884-4:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-03-10
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-06-10

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62884-4:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60068-1 NOTE Harmonized as EN 60068-1

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60027	series	Letters symbols to be used in electrical technology - Part 1: General	-	series
IEC 60050-561	-	International Electrotechnical Vocabulary - Part 561: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection	-	-
IEC 60469	-	Transitions, pulses and related waveforms - Terms, definitions and algorithms	EN 60469	-
IEC 60617	-	Standard data element types with associated classification scheme for electric components -- Part 4: IEC reference collection fo standard data element types and component classes	-	-
IEC 60679-1	-	Piezoelectric, dielectric and electrostatic oscillators of assessed quality - Part 1 : Generic specification	EN 60679-1	-
IEC 62884-1	-	Measurement techniques of piezoelectric, dielectric and electrostatic oscillators - Part 1: Basic methods for the measurement	EN 62884-1	-
ISO 80000-1	-	Quantities and units -- Part 1: General	EN ISO 80000-1	-

IEC 62884-4

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Measurement techniques of piezoelectric, dielectric and electrostatic oscillators – Part 4: Short-term frequency stability test methods

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FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62884-4 has been prepared by IEC technical committee 49: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection.

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

CDV	Report on voting
49/1277/CDV	49/1292/RVC

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62884 series, published under the general title *Measurement techniques of piezoelectric, dielectric and electrostatic oscillators*, 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 "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

MEASUREMENT TECHNIQUES OF PIEZOELECTRIC, DIELECTRIC AND ELECTROSTATIC OSCILLATORS –

Part 4: Short-term frequency stability test methods

1 Scope

This part of IEC 62884 describes the methods for the measurement and evaluation of the short-term frequency stability tests of piezoelectric, dielectric and electrostatic oscillators. Its purpose is to unify the test and evaluation methods for short-term frequency stability.

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.* Available at www.electropedia.org

IEC 60469, *Transitions, pulses and related waveforms – Terms, definitions and algorithms*

IEC 60617, *Graphical symbols for diagrams,* available at http://std.iec.ch/iec60617

IEC 60679-1, *Piezoelectric, dielectric and electrostatic oscillators of assessed qualify – Part 1: Generic specification*

IEC 62884-1, *Measurement techniques of piezoelectric, dielectric and electrostatic oscillators – Part 1: Basic methods for the measurement*

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

3 Terms and definitions, units and symbols

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60679-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses.

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

3.2 Units and symbols

Units, graphical symbols, letter symbols and terminology shall, wherever possible, be taken from the following standards: