



SLOVENSKI STANDARD
SIST EN 61205:2002
01-september-2002

Ultrasonics - Dental descaler systems - Measurement and declaration of the output characteristics (IEC 61205:1993)

Ultrasonics - Dental descaler systems - Measurement and declaration of the output characteristics

Ultraschall - Zahnreinigersysteme - Messung und Deklaration der Ausgangskennwerte

iTeh STANDARD PREVIEW

Ultrasons - Systèmes de détartreurs dentaires - Mesure et déclaration des caractéristiques de sortie

[SIST EN 61205:2002](https://standards.iteh.ai/catalog/standards/sist/472c3f01-75c2-49db-a95d-41a0dc4d65/sist-en-61205-2002)

Ta slovenski standard je istoveten z: EN 61205:1994

ICS:

11.060.25	Z[à[c @ ã } ã • d ~ { ^ } ã	Dental instruments
17.140.50	Elektroakustika	Electroacoustics

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EUROPEAN STANDARD

EN 61205

NORME EUROPEENNE

EUROPÄISCHE NORM

January 1994

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IEC/TC 21

Descriptors: Ultrasound, dental descaler, output characteristics,
measurement

ENGLISH VERSION

Ultrasonics - Dental descaler systems
Measurement and declaration of the output
characteristics
(IEC 1205:1993)

Ultrasons - Systèmes de
détartreurs dentaires - Mesure
et déclaration des
caractéristiques de sortie
(CEI 1205:1993)

Ultraschall - Zahnreinigersysteme
Messung und Deklaration der
Ausgangskennwerte
(IEC 1205:1993)

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This European Standard was approved by CENELEC on 1993-12-08.
CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations
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Up-to-date lists and bibliographical references concerning such national standards
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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 Central Secretariat
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CENELEC members are the national electrotechnical committees of Austria, Belgium,
Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg,
Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B-1050 Brussels

FOREWORD

The text of document 87(CO)26, as prepared by IEC Technical Committee 87: Ultrasonics, was submitted to the IEC-CENELEC parallel vote in March 1993.

The reference document was approved by CENELEC as EN 61205 on 8 December 1993.

The following dates were fixed:

- latest date of publication of
an identical national standard (dop) 1994-12-01
- latest date of withdrawal of
conflicting national standards (dow) 1994-12-01

Annexes designated "normative" are part of the body of the standard. Annexes designated "informative" are given only for information. In this standard, annexes A and B are informative and annex ZA is normative.

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ENDORSEMENT NOTICE

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The text of the International Standard IEC 1205:1993 was approved by CENELEC as a European Standard without any modification.

ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD
WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

NOTE : When the international publication has been modified by CENELEC common modifications, indicated by (mod), the relevant EN/HD applies.

IEC Publication	Date	Title	EN/HD	Date
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782	1984	Measurements of ultrasonic magnetostrictive transducers	-	-

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NORME
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Première édition
First edition
1993-12

**Ultrasons – Systèmes de détartrés dentaires –
Mesure et déclaration des caractéristiques
de sortie**

STANDARD PREVIEW
**Ultrasonics – Dental descaler systems –
Measurement and declaration of the
output characteristics**

[SIST EN 61205:2002](https://standards.iteh.ai/catalog/standards/sist/472c3f01-75c2-49db-a95d-41a6dcd4df65/sist-en-61205-2002)

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ULTRASONICS – DENTAL DESCALER SYSTEMS –
Measurement and declaration of the output characteristics**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

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International Standard IEC 1205 has been prepared by IEC technical committee 87: Ultrasonics.

The text of this standard is based on the following documents:

DIS	Report on Voting
87(CO)26	87(CO)32

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

Annexes A and B are for information only.

INTRODUCTION

Ultrasonic dental descalers are widely used for removing plaque and calculus from teeth. Although the mode of action of these devices has not been well characterized, the cleaning efficiency of ultrasonic dental descalers depends on the vibration amplitude. The purpose of this International Standard is to define standard methods of measurement and specification of the essential vibration characteristics of ultrasonic dental descalers. Questions of safety and biological effects of the output are not treated in this standard.

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ULTRASONICS – DENTAL DESCALER SYSTEMS – Measurement and declaration of the output characteristics

1 Scope

This International Standard specifies:

- essential non-thermal output characteristics of ultrasonic dental descalers;
- methods of measurement of the output performance of ultrasonic dental descalers;
- characteristics to be declared by the manufacturers of ultrasonic dental descalers.

2 Normative reference

The following normative reference contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

[SIST EN 61205:2002](https://standards.iteh.ai/catalog/standards/sist/472c3f01-75c2-49db-a95d-41a6dcd4df65/sist-en-61205-2002)

<https://standards.iteh.ai/catalog/standards/sist/472c3f01-75c2-49db-a95d-41a6dcd4df65/sist-en-61205-2002>

IEC 782: 1984, *Measurements of ultrasonic magnetostrictive transducers*

3 Definitions of output characteristics

For the purposes of this International Standard, the following definitions apply.

3.1 half-excursion force: Force with which the tip must contact a glass slide so as to reduce the **primary tip vibration excursion** to 50 % of the value it has when the contact force is $0,15 \text{ N} \pm 0,02 \text{ N}$.

3.2 primary tip vibration excursion: Peak-to-peak displacement of the applicator in the direction of maximum amplitude, at a point on the applicator not more than 1 mm from its tip.

3.3 tip vibration frequency: Fundamental frequency at which the tip of the applicator oscillates.