

Akustika. Mehhanismide ja seadmete poolt tekitatud müra. Insenertehniline meetod mürataseme koormuse määramiseks töökohtadel ja teistes spetsiifilistes kohtades

Acoustics - Noise emitted by machinery and equipment - Engineering method for the determination of emission sound pressure levels in situ at the work station and at other specified positions using sound intensity

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 11205:2009 sisaldab Euroopa standardi EN ISO 11205:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.10.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 12.08.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 11205:2009 consists of the English text of the European standard EN ISO 11205:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.10.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 12.08.2009.

The standard is available from Estonian standardisation organisation.

ICS 17.140.01

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English Version

Acoustics - Noise emitted by machinery and equipment -
Engineering method for the determination of emission sound
pressure levels in situ at the work station and at other specified
positions using sound intensity (ISO 11205:2003)

Acoustique - Bruits émis par les machines et les
équipements - Méthode d'expertise pour la détermination
par intensimétrie des niveaux de pression acoustique
d'émission in situ au poste de travail et en d'autres
positions spécifiées (ISO 11205:2003)

Akustik - Geräuschabstrahlung von Maschinen und
Geräten - Verfahren der Genauigkeitsklasse 2 zur
Bestimmung von Emissions-Schalldruckpegeln am
Arbeitsplatz und an anderen festgelegten Orten unter
Einsatzbedingungen aus Schallintensitätsmessungen (ISO
11205:2003)

This European Standard was approved by CEN on 27 July 2009.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

The text of ISO 11205:2003 has been prepared by Technical Committee ISO/TC 43 "Acoustics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 11205:2009 by Technical Committee CEN/TC 211 "Acoustics" the secretariat of which is held by DS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2010, and conflicting national standards shall be withdrawn at the latest by February 2010.

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

This document supersedes EN ISO 11205:2003.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of E Directives.

For relationship with E Directives, see informative Annexes ZA and ZB, which are integral parts of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of ISO 11205:2003 has been approved by CEN as a EN ISO 11205:2009 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 98/37/EC, amended by 98/79/EC on machinery.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING - Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

Annex ZB (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 2006/42/EC on machinery.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

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Acoustics — Noise emitted by machinery and equipment — Engineering method for the determination of emission sound pressure levels *in situ* at the work station and at other specified positions using sound intensity

1 Scope

This International Standard specifies an engineering method (grade 2 accuracy) to determine the emission sound pressure level of machines *in situ*, at the work station or at other specified positions, using sound intensity. It is an alternative to ISO 11201, ISO 11202 and ISO 11204 for *in situ* measurements. It is applicable to all kinds of test environments provided that the requirements on background noise and field indicators are fulfilled.

This International Standard is applicable to equipment emitting stationary broadband noise. The noise can differ between operational cycles and can be with or without discrete frequency or narrow band components.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 7574-1, *Acoustics — Statistical methods for determining and verifying stated noise emission values of machinery and equipment — Part 1: General considerations and definitions*

ISO 12001, *Acoustics — Noise emitted by machinery and equipment — Rules for the drafting and presentation of a noise test code*

IEC 60942:2003, *Electroacoustics — Sound calibrators*

IEC 61043:2003, *Electroacoustics — Instruments for the measurement of sound intensity — Measurements with pairs of pressure sensing microphones*

3 Terms and definitions

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

3.1 sound intensity

\bar{I}

time-averaged instantaneous flow of sound energy per unit of area and per unit time in the direction of the local instantaneous acoustic particle velocity in a temporally stationary sound field

$$\bar{I} = \lim_{T \rightarrow \infty} \frac{1}{T} \int_0^T p(t) \bar{u}(t) dt$$