Air quality - Evaluation of the suitability of a measurement method by comparison with a stated measurement uncertainty

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 14956:2003 sisaldab Euroopa standardi EN ISO 14956:2002 ingliskeelset teksti. Käesolev dokument on jõustatud 18.02.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 14956:2003 consists of the English text of the European standard EN ISO 14956:2002. This document is endorsed on 18.02.2003 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This International Standard specifies, for the field of air quality measurement procedures, the: - estimation of measurement uncertainly from actual or claimed values of all important performance characteristics of a method under stationary conditions; - assessment of whether or not specified values for these performance characteristics comply with the required quality of a measures value at a stated measurand valu	**Scope:** This International Standard specifies, for the field of air quality measurement procedures, the: - estimation of measurement uncertainly from actual or claimed values of all important performance characteristics of a method under stationary conditions; - assessment of whether or not specified values for these performance characteristics comply with the required quality of a measures value at a stated measurand valu

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Võtmesõnad: air pollution, air quality, determination, drift, mathematical calculations, measuring incertainity, measuring techniques, metrology, pollution control, reference measuring methods, references

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English version

Air quality

Evaluation of the suitability of a measurement procedure by comparison with a required measurement uncertainty
(ISO 14956 : 2002)

Qualité de l'air – Evaluation de l'aptitude à l'emploi d'une procédure de mesurage par comparaison avec une incertitude de mesure requise
(ISO 14956 : 2002)

Luftbeschaffenheit – Beurteilung der Eignung eines Messverfahrens durch Vergleich mit einer geforderten Messunsicherheit (ISO 14956 : 2002)

This European Standard was approved by CEN on 2002-07-28.

CEN 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

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

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CEN

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

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Foreword

International Standard

ISO 14956 : 2002 Air quality – Evaluation of the suitability of a measurement procedure by comparison with a required measurement uncertainty,

which was prepared by ISO/TC 146 'Air quality' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 264 'Air quality', the Secretariat of which is held by DIN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by February 2003 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 14956 : 2002 was approved by CEN as a European Standard without any modification.

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Introduction

A measuring task generally includes information on the required quality of the measurement result, which may be quantified by the measurement uncertainty. The required quality may be specified, e.g. by legislation, by authorities or the parties involved.

The quality of a measurement result strongly depends on the performance of the measuring method used. This International Standard specifies the procedures to determine the measurement uncertainty of an individual measurement result, using relevant performance characteristics of the measuring method, and to verify compliance with the requirements of the measuring task.

A procedure for establishing the uncertainty of the time average of a series of single measurements will be given in a separate International Standard [3].

1 Scope

This International Standard specifies, for the field of air quality measurement procedures, the:

— estimation of measurement uncertainty from actual or claimed values of all important performance characteristics of a method under stationary conditions;

— assessment of whether or not specified values for these performance characteristics comply with the required quality of a measured value at a stated measurand value;

— evaluation of the applicability of the measurement method based on laboratory performance and confirmatory field test;

— establishment of requirements on dynamic behaviour of instruments.

This International Standard is applicable to measurement procedures whose output is a defined time average.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 6879:1995, *Air quality — Performance characteristics and related concepts for air quality measuring methods*

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 6879 and the following apply.

3.1
dynamic condition
⟨of operation⟩ condition where the measurand value or/and the value of an influence quantity is time-dependent

3.2
performance requirement
requirement of the measurement, in terms of standard uncertainty and dynamic behaviour, against which the suitability of the measurement system is being assessed