

Stationary source emissions - Automatic method for the determination of the methane concentration using flame ionisation detection (FID)

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NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 25140:2010 sisaldab Euroopa standardi EN ISO 25140:2010 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 30.09.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.08.2010.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 25140:2010 consists of the English text of the European standard EN ISO 25140:2010.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 30.09.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 01.08.2010.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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ICS 13.040.40

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English Version

Stationary source emissions - Automatic method for the determination of the methane concentration using flame ionisation detection (FID) (ISO 25140:2010)

Émissions de sources fixes - Méthode automatique pour la détermination de la concentration en méthane par détection à ionisation de flamme (FID) (ISO 25140:2010)

Emissionen aus stationären Quellen - Automatisches Verfahren zur Bestimmung der Methan-Konzentration mit dem Flammenionisationsdetektor (FID) (ISO 25140:2010)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

This document (EN ISO 25140:2010) has been prepared by Technical Committee ISO/TC 146 "Air quality" in collaboration with Technical Committee CEN/TC 264 "Air quality" the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by February 2011, and conflicting national standards shall be withdrawn at the latest by February 2011.

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Endorsement notice

The text of ISO 25140:2010 has been approved by CEN as a EN ISO 25140:2010 without any modification.

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Introduction

Methane (CH₄) is a gas of relevance to the climate (greenhouse gas) and contributes directly to the atmospheric greenhouse effect. The emissions of methane originate from natural and anthropogenic sources. Significant sources are, for example, cattle breeding, cultivation of rice, extraction and transport of natural gas, and landfills. Other important sources contributing to emissions of methane are, for example, composting plants, the use of biogas and natural gas, and biomass firings. This International Standard specifies a method of measurement for the determination of methane emissions from stationary sources.

Stationary source emissions — Automatic method for the determination of the methane concentration using flame ionisation detection (FID)

1 Scope

This International Standard specifies the principle, the essential performance criteria, and quality assurance and quality control procedures for an automatic method for measuring methane in the waste gas of stationary sources using flame ionisation detection. It is applicable to measurements of methane in dry or wet waste gases. The method allows continuous monitoring with permanently installed measuring systems as well as intermittent measurements of methane emissions.

NOTE 1 This International Standard is specific to automatic methods for measuring methane in the waste gas of stationary sources using flame ionisation detection. It supplements the general requirements of other international or national standards on performance testing, QA/QC procedures, and the test report as specified, for example, in EN 15267-3^[7], EN 14181^[5], and EN 15259^[6].

This International Standard does not specify an independent method of measurement.

NOTE 2 An independent method of measurement, e.g. to calibrate or validate permanently installed measuring systems, is specified in ISO 25139^[3].

NOTE 3 In EN 14181^[5], “independent method of measurement” is called “standard reference method (SRM)”.

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 9169:2006, *Air quality — Definition and determination of performance characteristics of an automatic measuring system*

ISO 14956, *Air quality — Evaluation of the suitability of a measurement procedure by comparison with a required measurement uncertainty*

ISO 20988, *Air quality — Guidelines to estimating measurement uncertainty*

3 Terms and definitions

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

3.1

automatic measuring system

AMS

⟨air quality⟩ measuring system interacting with the waste gas under investigation, returning an output signal proportional to the physical unit of the measurand in unattended operation

NOTE 1 Adapted from ISO 9169:2006, 2.1.2.