Irish Standard
I.S. EN ISO 16911-2:2013

Stationary source emissions - Manual and automatic determination of velocity and volume flow rate in ducts - Part 2: Automated measuring systems (ISO 16911-2:2013)

I.S. EN ISO 16911-2:2013

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EUROPEAN STANDARD

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English Version

Stationary source emissions - Manual and automatic determination of velocity and volume flow rate in ducts - Part 2: Automated measuring systems (ISO 16911-2:2013)

Émissions de sources fixes - Détermination manuelle et automatique de la vitesse et du débit-volume d'écoulement dans les conduits - Partie 2: Systèmes de mesure automatiques (ISO 16911-2:2013)

Emissionen aus stationären Quellen - Manuelle und automatische Bestimmung der Geschwindigkeit und des Volumenstroms in Abgaskanälen - Teil 2: Kontinuierliche Messverfahren (ISO 16911-2:2013)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN ISO 16911-2:2013) has been prepared by Technical Committee CEN/TC 264 “Air quality", the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 146 "Air quality".

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of an identical text or by endorsement, at the latest by September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.

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.

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INTERNATIONAL STANDARD

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Stationary source emissions — Manual and automatic determination of velocity and volume flow rate in ducts —

Part 2: Automated measuring systems

Émissions de sources fixes — Détermination manuelle et automatique de la vitesse et du débit-volume d'écoulement dans les conduits —

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 16911-2 was prepared by the European Committee for Standardization (CEN) in collaboration with ISO Technical Committee TC 146, *Air quality*, Subcommittee SC 1, *Stationary source emissions*.

ISO 16911 consists of the following parts, under the general title *Stationary source emissions — Manual and automatic determination of velocity and volume flow rate in ducts*:

— *Part 1: Manual reference method*

— *Part 2: Automated measuring systems*

Introduction

EN ISO 16911-2 describes the quality assurance (QA) procedures related to automated measuring systems (AMSs) for the determination of the volume flow rate of flue gas with a total uncertainty that accords with the requirements of Commission Decision of 2007-07-18.[4]

The calibration and validation of flow AMSs are performed by parallel measurements with the reference manual method described in EN ISO 16911-1.

The purpose of EN ISO 16911-2 is to secure flow monitoring with a minimized uncertainty for use according to EU Directive 2000/76/EC,[1] EU Directive 2001/80/EC,[2] and EU Directive 2010/75/EU.[5]

The purpose of EN ISO 16911-2 is also to secure flow monitoring with an overall uncertainty equal to or less than stipulated in Commission Decision of 2007-07-18[4] and establishing guidelines for the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC.[3]

Stationary source emissions — Manual and automatic determination of velocity and volume flow rate in ducts —

Part 2: Automated measuring systems

1 Scope

EN ISO 16911-2 describes specific requirements for automated measuring system (AMS) flow monitoring. It is partly derived from EN 14181 which is the general document on the quality assurance of AMSs and is applicable in conjunction with that document.

EN ISO 16911-2 specifies conditions and criteria for the choice, mounting, commissioning and calibration of AMSs used for determining the volume flow rate from a source in ducted gaseous streams. EN ISO 16911-2 is applicable by correlation with the manual reference methods described in EN ISO 16911-1.

EN ISO 16911-2 is primarily developed for monitoring emissions from waste incinerators and large combustion plants. From a technical point of view, it can be applied to other processes for which flow rate measurement is required with a defined and minimized uncertainty.

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

EN ISO 16911-1:2013, *Stationary source emissions — Manual and automatic determination of velocity and volume flow rate in ducts — Part 1 Manual reference method*

EN 14181:2004, *Stationary source emissions — Quality assurance of automated measuring systems*

EN 15267-3:2007, *Air quality — Certification of automated measuring systems — Part 3: Performance criteria and test procedures for automated measuring systems for monitoring emissions from stationary sources*

EN 15259, *Air quality — Measurement of stationary source emissions — Requirements for measurement sections and sites and for the measurement objective, plan and report*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14181 and the following apply.

3.1
automated measuring system
AMS
measuring system permanently installed on site for continuous monitoring of flow

Note 1 to entry: An AMS is a monitoring technology which is traceable to a reference method.