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Standards

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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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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Contents

Page

Foreword.....3

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of an identical text or by endorsement, at the latest by September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.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

ISO
16911-2

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2013-03-01

**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 —*

Partie 2: Systèmes de mesure automatiques



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Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviations	4
4.1 Symbols.....	4
4.2 Abbreviations.....	5
5 Principle	6
5.1 General.....	6
5.2 Importance of minimizing systematic errors.....	6
5.3 Relationship to EN 14181.....	7
6 Type testing, quality assurance level 1 data	7
6.1 Introduction.....	7
6.2 Performance criteria.....	8
6.3 Flow reference material or procedure.....	8
6.4 Quality assurance level 1 calculation.....	9
6.5 Velocity check points and quality assurance level 3.....	9
7 Selection of automated measuring system location	10
7.1 General.....	10
7.2 Selection based upon pre-investigation.....	10
7.3 Selection based upon a predictable flow profile.....	10
7.4 Qualifying the automated measuring system calibration through a type 2 quality assurance level 2 procedure.....	11
7.5 Ports and working platforms.....	11
8 Pre-investigation of flow profile	11
8.1 General.....	11
8.2 Pre-investigation by measurement.....	12
8.3 Pre-investigation by computational fluid dynamics (CFD).....	13
8.4 Automated measuring system selection guide.....	14
8.5 Quality assurance level 2 requirements.....	14
9 Calibration and validation of the automated measuring system (quality assurance level 2 and annual surveillance test)	14
9.1 Selection of calibration method.....	14
9.2 Selection of calibration method, if calculation methods are used.....	15
9.3 Calibration procedure.....	15
9.4 Functional tests.....	15
9.5 Parallel measurements with a standard reference method.....	15
9.6 Wall effects.....	16
9.7 Automated measuring system flow calibration procedure with transit time tracer.....	17
9.8 Data evaluation.....	17
9.9 Calibration function of the automated measuring system and its validity.....	17
9.10 Calculation of variability.....	18
9.11 Test of variability and annual surveillance test of validity of the calibration function.....	18
9.12 Test of R^2	18
9.13 Quality assurance level 2 and annual surveillance test report.....	18
10 Commissioning documentation	19
11 On-going quality assurance during operation (quality assurance level 3)	19
12 Assessment of uncertainty in volume flow rate	19

Annex A (informative) Example of calculation of the calibration function (data from tests in Copenhagen and Wilhelmshaven)	20
Annex B (informative) Flow profile characteristics	32
Annex C (informative) Determination of measuring points and/or paths	37
Annex D (normative) Treatment of a polynomial calibration function	41
Annex E (normative) Values of $k_v(N)$ and $t_{0,95(N-1)}$	42
Annex F (informative) Example of a pre-investigation measurement	43
Annex G (informative) Computational fluid dynamics issues	50
Annex H (informative) The use of time of flight measurement instruments based on modulated laser light	54
Annex I (informative) Relationship between this International Standard and the essential requirements of EU Directives	55
Bibliography	56

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.

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