
**Stationary source emissions — Manual
method for the determination of the
methane concentration using gas
chromatography**

*Émissions de sources fixes — Méthode manuelle pour la détermination
de la concentration en méthane par chromatographie en phase
gazeuse*



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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 25139 was prepared by Technical Committee ISO/TC 146, *Air quality*, Subcommittee SC 1, *Stationary source emissions*.

Introduction

Methane (CH_4) 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 sources and those due to human activity. 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.

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Stationary source emissions — Manual method for the determination of the methane concentration using gas chromatography

1 Scope

This International Standard specifies a manual method for the determination of the concentration of methane emissions from stationary sources.

This International Standard specifies an independent method of measurement, which is validated for mass concentrations up to 1 500 mg/m³.

NOTE 1 An independent method of measurement is used for such purposes as calibration or validation of permanently installed measuring systems.

NOTE 2 An “independent method of measurement” is termed “standard reference method (SRM)” in EN 14181^[5].

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

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

3 Terms and definitions

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

3.1

reference gas

⟨air quality⟩ gas of known, reliable and stable composition

NOTE In the context of this International Standard, a reference gas is used to calibrate the gas chromatograph.

3.2

interferent

interfering substance

⟨air quality⟩ substance present in the air mass under investigation, other than the measurand, that affects the response

[ISO 9169:2006, 2.1.12]