

ICS 13.040.40

English Version

**Stationary source emissions - Sampling and determination of  
hydrogen chloride content in ducts and stacks - Infrared  
analytical technique**

Émissions de sources fixes - Prélèvement et détermination  
du chlorure d'hydrogène dans les conduits et les  
cheminées - Technique analytique infrarouge

Emissionen aus stationären Quellen - Probenahme und  
Bestimmung von Chlorwasserstoff in Abgaskanälen und -  
kaminen - Infrarotverfahren

This Technical Specification (CEN/TS) was approved by CEN on 18 September 2012 for provisional application.

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## Foreword

This document (CEN/TS 16429:2013) has been prepared by Technical Committee CEN/TC 264 "Air quality", the secretariat of which is held by DIN.

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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## 1 Scope

This Technical Specification specifies an automatic method for determination of the mass concentration of hydrogen chloride (HCl) in ducts and stacks emitting to atmosphere. It describes the infrared analytical technique, including the sampling and gas conditioning system. The method should fulfil the performance characteristics requirements of this Technical Specification and the expanded uncertainty is less than 20 % relative at the daily Emission Limit Value (ELV).

In order to use an alternative method to this method, it is necessary to demonstrate equivalence according to the Technical Specification CEN/TS 14793. It is necessary that the capability to demonstrate equivalence is officially recognised by the national accreditation body or law.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

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 ISO 14956:2002, *Air quality — Evaluation of the suitability of a measurement procedure by comparison with a required measurement uncertainty (ISO 14956:2002)*

## 3 Terms and definitions

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

### 3.1

#### **adjustment of a measuring system**

set of operations carried out on a measuring system so that it provides prescribed indications corresponding to given values of a quantity to be measured

[SOURCE: VIM 3.11]

### 3.2

#### **ambient temperature**

temperature of the air around the measuring system

### 3.3

#### **drift**

difference between two zero (zero drift) or span readings (span drift) at the beginning and at the end of a measuring period

### 3.4

#### **emission limit value**

ELV

emission limit value according to EU Directives on the basis of 30 min, one hour or one day

### 3.5

#### **influence quantity**

quantity that, in a direct measurement, does not affect the quantity that is actually measured, but affects the measurement result

[SOURCE: VIM 2.52, modified]