

**Performance of portable leak detectors and of room monitors for halogenated refrigerants**

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## EESTI STANDARDI EESSÕNA

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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ICS 23.040.99, 71.100.45

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## English Version

## Performance of portable leak detectors and of room monitors for halogenated refrigerants

Performances des détecteurs de fuite portables et des contrôleurs d'ambiance de fluides frigorigènes halogénés

Leistung von mobilen Leckdetektoren und Raumüberwachungsgeräten für halogenierte Kältemittel

This European Standard was approved by CEN on 19 November 2011.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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## Foreword

This document (EN 14624:2012) has been prepared by Technical Committee CEN/TC "Refrigerating systems, safety and environmental requirements", 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of an identical text or by endorsement, at the latest by July 2012, and conflicting national standards shall be withdrawn at the latest by July 2012.

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.

This document supersedes EN 14624:2005.

The following changes have been made during revision:

- a) Clause 3 "Terms and definitions" has been revised;
- b) Clause 11 "Performance tests" has been completely revised;
- c) Annex B "Correlation between test gas concentration and leakage rate" has been modified;
- d) Annex C "Guideline for monitoring a machinery room or space for gas leaks" has been included.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

The purpose of this European Standard is to qualify the performance of portable sniffing leak detectors and room monitors for halogenated refrigerants. These leak detectors are designed for the detection of CFC, HCFC, HFC and PFC halogenated gases, and their detection limit is checked with a calibration leak or calibration gas.

## 2 Normative references

Not applicable.

## 3 Terms and definitions

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

### 3.1

#### **chloro-fluoro-carbon (CFC)**

fully halogenated halocarbon composed only of chlorine, fluorine and carbon

NOTE The hydrogen is completely substituted.

### 3.2

#### **hydro-chloro-fluoro-carbon (HCFC)**

partly halogenated halocarbon composed only of hydrogen, chlorine, fluorine and carbon

### 3.3

#### **hydro-fluoro-carbon (HFC)**

partly fluorinated halocarbon composed only of hydrogen, fluorine and carbon

### 3.4

#### **perfluoro-carbon (PFC)**

fully fluorinated halocarbon composed only of fluorine and carbon

NOTE The hydrogen is completely substituted.

### 3.5

#### **gas concentration**

ratio in weight or in volume of a given gas to the total weight or volume of the gas mixture

NOTE 1 The concentration is dimensionless and is designated either with ppm (m/m) = parts per million (mass) or ppm (V/V) = parts per million (volume).

NOTE 2 ppm: statement of concentration for gases; parts per million expressed in volume per volume ratio.

### 3.6

#### **leakage rate**

gas flow through a fissure, an orifice or aperture of specified size

NOTE 1 The usual leakage rate unit is gram per year (g/a), see Annex A (informative).

NOTE 2 The gas flow channels are some micrometers of diameter and have a large length/diameter ratio.