

Elektriseadmed põlevate gaaside avastamiseks ja mõõtmiseks. Jõudlusnõuded rühma I seadistele, mis näitavad õhus kuni 100 % (v/v) metaani

Electrical apparatus for the detection and measurement of combustible gases - Performance requirements for Group I apparatus indicating up to 100 % (v/v) methane in air

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50056:2001 sisaldab Euroopa standardi EN 50056:1998 ingliskeelset teksti.

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Descriptors: Electrical apparatus, explosive atmosphere, mine susceptible to firedamp, detector, measuring apparatus, flammable gas, combustible gas, characteristic

English version

**Electrical apparatus for the detection and measurement
of combustible gases
Performance requirements for Group I apparatus indicating
up to 100 % (v/v) methane in air**

Appareils électriques de détection et de
mesure des gaz combustibles
Règles de performances des appareils
du Groupe I pouvant indiquer jusqu'à
100 % (v/v) de méthane dans l'air

Elektrische Geräte für das Aufspüren
und die Messung brennbarer Gase
Anforderungen an das Betriebsverhalten
von Geräten der Gruppe I mit einem
Meßbereich bis zu 100 % (V/V) Methan
in Luft

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

This second edition, of the European Standard was prepared by SC 31-9, Electrical apparatus for the detection and measurement of combustible gases to be used in industrial and commercial potentially explosive atmospheres, of Technical Committee CENELEC TC 31, Electrical apparatus for explosive atmosphere, on the basis of EN 50056:1991, its amendment A1:1995 and a second amendment.

This second amendment was approved by CENELEC on 1996-12-09 for incorporation into a new edition of EN 50056.

This European Standard replaces EN 50056:1991 + A1:1995.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 1999-01-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1999-01-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and covers essential requirements of EC Directive 94/9/EC.

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1 Scope

1.1 This European Standard specifies performance requirements for Group I (as defined in EN 50054) portable, transportable and fixed apparatus for the detection and measurement of methane concentrations in mine air. The apparatus, or parts thereof, are intended for use in mines susceptible to firedamp and shall meet the general requirements and test methods specified in EN 50054.

1.2 This European Standard is restricted to apparatus intended for the detection and measurement of volume ratios of methane in air from 0 % (v/v) up to 100 % (v/v).

NOTE: Apparatus covered by this European Standard will normally be intended to operate in volume ratios greater than 5 % (v/v).

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to the European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 50054	1998	Electrical apparatus for the detection and measurement of combustible gases General requirements and test methods.
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3 Definitions

For the purposes of this European Standard, the definitions given in EN 50054 apply.

4 General requirements

The apparatus shall comply with the general requirements specified in clause 4 of EN 50054.

5 Performance requirements

5.1 General

The normal conditions for test are specified in subclause 5.3 of EN 50054. Compliance shall be determined in accordance with the test methods specified in subclause 5.4 of EN 50054.

5.2 Unpowered storage

After being submitted to the conditions specified in subclause 5.4.2 of EN 50054, the apparatus shall meet the requirements specified in 5.3 to 5.25 of this European Standard.

5.3 Calibration curve (not applicable to alarm-only apparatus)

Each of the three indications (after correction using the manufacturer's calibration curve, if necessary) obtained for each of the four gas volume ratios shall not differ from these volume ratios by more than ± 3 % (v/v) methane or ± 5 % of the indication, whichever is the greater.

5.4 Drift (continuous duty apparatus)

The medium term variation shall not exceed ± 3 % (v/v) methane or ± 5 % of the indication, whichever is the greater, in air and in the standard test gas.

5.5 Drift (spot reading apparatus)

The variation of the indication shall not exceed ± 3 % (v/v) methane or ± 5 % of the indication, whichever is the greater, in air and in the standard test gas.