

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

Electrical apparatus for the detection and
measurement of combustible gases - Performance
requirements for Group II apparatus indicating up to
100 % (v/v) gas

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50058:2001 sisaldab Euroopa standardi EN 50058:1998 ingliskeelset teksti.

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Descriptors: Electrical apparatus, explosive atmosphere, explosive atmosphere other than mines, detector, measuring apparatus, flammable gas, combustible gas, characteristic

English version

**Electrical apparatus for the detection
and measurement of combustible gases
Performance requirements for Group II apparatus
indicating up to 100 % (v/v) gas**

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

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

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CENELEC

European Committee for Electrotechnical Standardization
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Foreword

This European Standard has been prepared by the CENELEC Subcommittee 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 atmospheres.

The text of the draft was approved by CENELEC as EN 50058 on 1990-12-10. The CENELEC Technical Board approved the publication of a new edition on 1998-04-01 (D95/079).

This European Standard replaces EN 50058:1991.

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with the EN have to be withdrawn (dow) 1999-01-01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 II (as defined in EN 50054) portable, transportable and fixed apparatus for the detection and measurement of combustible gas or vapour concentrations with air. The apparatus, or parts thereof, may be installed or used in potentially explosive atmospheres, other than mines susceptible to firedamp (i.e. Group I). The general requirements and test methods applicable to the apparatus covered by this European Standard are specified in EN 50054.

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

NOTE 1: Apparatus covered by this European Standard will normally be intended to operate in volume ratios greater than 100 % LEL.

NOTE 2: Although apparatus of the types covered by this European Standard may be suitable for detecting a wide range of combustible gases, particular gases (e.g. methane or propane) are specified in EN 50054 as the components of the test gases for the purpose of practical convenience. The performance requirements specified in this European Standard must therefore be regarded with caution when the apparatus is used to detect other combustible gases, as some parameters - such as time of response - will be modified.

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

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)

5.3.1 Calibration curve

Each of the three indications (after correction using the manufacturer's calibration curves, if necessary) obtained from these true volume ratios shall not differ from these volume ratios by more than ± 5 % of the measuring range or ± 10 % of the indication, whichever is greater.