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Utrustning för detektering och mätning av brännbara gaser – Vägledning vid val, installation, användning och underhåll

Guide for selection, installation, use and maintenance of apparatus for the detection and measurement of combustible gases or oxygen

Som svensk standard gäller europastandarden EN 50073:1999. Den svenska standarden innehåller den officiella engelska språkversionen av EN 50073:1999.

ICS 13.200; 19.080

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English version

Guide for selection, installation, use and maintenance of apparatus for the detection and measurement of combustible gases or oxygen

Guide de sélection, d'installation, d'utilisation et de maintenance des appareils de détection et de mesure de gaz combustible ou d'oxygène

Leitfaden für Auswahl, Installation, Einsatz und Wartung von Geräten für das Aufspüren und die Messung brennbarer Gase oder von Sauerstoff

This European Standard was approved by CENELEC on 1998-10-01. CENELEC 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 Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

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Foreword

This 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 atmospheres.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50073 on 1998-10-01.

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) 1999-10-01
 - latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1999-10-01
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1 Scope

This document gives guidance on the selection, installation, use and maintenance of electrically operated Group II¹ apparatus intended for use in industrial and commercial safety applications for the detection and measurement of:

- combustible gases, as described in EN 50054, EN 50057, EN 50058
or
- oxygen as described in EN 50104.

This guide is a compilation of practical knowledge to assist the user. Combustible gas detection apparatus, fixed, transportable or portable, may be used whenever there is the possibility of a risk to life or property caused by the accumulation of a combustible gas-air mixture. Such apparatus can provide a means of reducing the risk by detecting the presence of the combustible gas and issuing suitable audible or visual warnings. It may also be used to initiate specific safety precautions (e.g. plant shutdown, evacuation, operation of fire extinguishing procedures).

It is applicable to all new permanent installations and, where reasonably practicable, to existing permanent installations. It is also applicable to temporary installations, whether new or existing.

This Guide is not intended, but may provide useful information, for the following :

- apparatus intended for the measurement of oxygen deficiency which may affect human health,
- apparatus intended only for the detection of non-combustible toxic² gases;
- apparatus of laboratory or scientific type intended only for analysis or measurement purposes;
- apparatus intended for underground mining applications;
- apparatus intended only for process control applications;

This Guide does not apply to the following:

- apparatus for the detection of explosives;
- apparatus intended for the detection of a potentially combustible atmosphere resulting from dust or mist in air;
- open path apparatus not used for point measurement.

2 Normative references

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

EN 50014	1997	Electrical apparatus for potentially explosive atmospheres General requirements
EN 50015	1998	Electrical apparatus for potentially explosive atmospheres Oil immersion 'o'
EN 50016	1995	Electrical apparatus for potentially explosive atmospheres Pressurized apparatus 'p'

¹ Group II apparatus are suitable for places with potentially explosive atmospheres, other than mines susceptible to firedamp, see clause 4.3.

² For the purpose of this guide, 'toxic' covers 'toxic', 'very toxic' and 'harmful' gases and vapours.