SVENSK STANDARD SS-EN IEC 62990-2

Fastställd	Utgåva	Sida	Ansvarig kommitté
2021-12-15	1	1 (1+64)	SEK TK 31

Atmosfärer på arbetsplatser – Del 2: Gasdetektorer (gasvarnare) – Vägledning vid val, installation, användning och underhåll av utrustning för detektering av giftiga gaser och ångor

Workplace atmospheres – Part 2: Gas detectors – Selection, installation, use and maintenance of detectors for toxic gases and vapours

Som svensk standard gäller europastandarden EN IEC 62990-2:2021. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 62990-2:2021.

Nationellt förord

Europastandarden EN IEC 62990-2:2021

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 62990-2, First edition, 2021 - Workplace atmospheres - Part 2: Gas detectors - Selection, installation, use and maintenance of detectors for toxic gases and vapours**

utarbetad inom International Electrotechnical Commission, IEC.

ICS 29.260.20

Denna standard är fastställd av SEK Svensk Elstandard,
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Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

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Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

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Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62990-2

July 2021

ICS 29.260.20

English Version

Workplace atmospheres - Part 2: Gas detectors - Selection, installation, use and maintenance of detectors for toxic gases and vapours (IEC 62990-2:2021)

Atmosphères des lieux de travail - Partie 2 : Détecteurs de gaz - Sélection, installation, utilisation et maintenance des détecteurs de gaz et de vapeurs toxiques (IEC 62990-2:2021)

Arbeitsplatzatmosphäre - Teil 2: Gasmessgeräte - Auswahl, Installation, Einsatz und Wartung von Gasmessgeräten für toxische Gase und Dämpfe (IEC 62990-2:2021)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 62990-2:2021 E

SEK Svensk Elstandard SS-EN IEC 62990-2, utg 1:2021

European foreword

The text of document 31/1566/FDIS, future edition 1 of IEC 62990-2, prepared by IEC/TC 31 “Equipment for explosive atmospheres” was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62990-2:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022–04–09
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024–07–09

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users’ national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 62990-2:2021 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60079-10-1	NOTE	Harmonized as EN IEC 60079-10-1
IEC 60079-0	NOTE	Harmonized as EN IEC 60079-0

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60079-29-2	-	Explosive atmospheres - Part 29–2: Gas detectors - Selection, installation, use and maintenance of detectors for flammable gases and oxygen	EN 60079-29-2	-
IEC 62990-1	-	Workplace atmospheres - Part 1: Gas-detectors - Performance requirements of detectors for toxic gases		-

IEC 62990-2

Edition 1.0 2021-06

INTERNATIONAL STANDARD

colour inside

Workplace atmospheres –
Part 2: Gas detectors – Selection, installation, use and maintenance of detectors for toxic gases and vapours

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 29.260.20

ISBN 978-2-8322-9746-9

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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WORKPLACE ATMOSPHERES –

Part 2: Gas detectors – Selection, installation, use and maintenance of detectors for toxic gases and vapours

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62990-2 has been prepared IEC technical committee 31: Equipment for explosive atmospheres and ISO technical committee 146: Air quality, sub-committee 2: Workplace atmospheres.

It is published as a double logo standard.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
31/1566/FDIS	31/1568/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62990, published under the general title *Workplace atmospheres*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

Toxic gas detection equipment can be used whenever there is the possibility of a hazard to life or adverse health effects caused by the accumulation of a toxic gas or vapour. Such equipment can provide a means of reducing the exposure to the hazard by detecting the presence of a toxic gas or vapour and issuing suitable audible or visual warnings. Gas detectors can also be used to initiate precautionary steps (for example, plant shutdown and evacuation).

Performance requirements for gas detection equipment for workplace atmospheres are set out in IEC 62990 series standards.

However performance capability alone cannot ensure that the use of such equipment will properly safeguard life and health where toxic gases and vapours might be present. The level of safety obtained depends heavily upon correct selection, installation, calibration and periodic maintenance of the equipment, combined with knowledge of the limitations of the detection technique required. This cannot be achieved without responsible informed management.

This document has been specifically written to cover all the functions necessary from selection to ongoing maintenance for a successful gas detection operation.

WORKPLACE ATMOSPHERES –

Part 2: Gas detectors – Selection, installation, use and maintenance of detectors for toxic gases and vapours

1 Scope

This document gives guidance on the selection, installation, use and maintenance of electrical equipment used for the measurement of toxic gases and vapours in workplace atmospheres. The primary purpose of such equipment is to ensure safety of personnel and property by providing an indication of the concentration of a toxic gas or vapour and warning of its presence.

This document is applicable to equipment whose purpose is to provide an indication, alarm or other output function to give a warning of the presence of a toxic gas or vapour in the atmosphere and in some cases to initiate automatic or manual protective actions. It is applicable to equipment in which the sensor automatically generates an electrical signal when gas is present.

For the purposes of this document, equipment includes:

a) fixed equipment;

b) transportable equipment, and

c) portable equipment.

This document is intended to cover equipment defined within IEC 62990-1, but can provide useful information for equipment not covered by that document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60079-29-2, *Explosive atmospheres – Part 29-2: Gas detectors – Selection, installation, use and maintenance of detectors for flammable gases and oxygen*

IEC 62990-1, *Workplace atmospheres – Part 1: Gas detectors – Performance requirements of detectors for toxic gases*