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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

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- **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.

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EUROPEAN STANDARD

EN IEC 62990-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

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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)

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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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-07-09

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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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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		-



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INTERNATIONAL STANDARD



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

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	7
3 Terms and definitions	7
4 Properties and detection of toxic gases and vapours	13
4.1 Properties and detection	13
4.2 The difference between detecting gases and vapours	14
4.3 Effects of water vapour on detection	17
4.4 Effects of temperature and pressure on detection	17
4.5 Effects of corrosion on detection.....	17
4.6 Detection by oxygen deficiency measurement.....	17
5 Measurement tasks	18
5.1 General.....	18
5.2 Exposure measurement (health monitoring)	18
5.3 General gas detection (safety monitoring).....	19
6 Selection of equipment	20
6.1 General.....	20
6.2 Performance and electrical tests	21
6.3 Indication range, measuring range and uncertainty of measurement	21
6.4 Selectivity requirements.....	22
6.5 The influence of environmental conditions	23
6.6 The influence of electromagnetic interference	23
6.7 Time of response and time of recovery	24
6.8 Time to alarm.....	25
6.9 Data logging	25
6.10 Instruction manual	26
7 Design and installation of fixed toxic gas detection equipment.....	26
7.1 General.....	26
7.2 Basic considerations for the installation of fixed systems	27
7.3 Location of detection points	28
7.4 Access for calibration and maintenance	33
7.5 Additional considerations for sample lines.....	33
7.6 Summary of considerations for the location of sensors or sampling points	34
7.7 Installation of sensors	35
7.8 Integrity and safety of fixed systems	35
7.9 Commissioning	36
7.10 Operating instructions, plans and records	37
8 Operation of toxic gas detection equipment	38
8.1 Alarm setting.....	38
8.2 Operation of portable equipment	39
8.3 Operation of transportable and fixed equipment	43
8.4 Sample lines and sampling probes.....	45
8.5 Accessories	45
9 Maintenance and calibration	46
9.1 General.....	46

9.2	Sensor	46
9.3	Flow systems of aspirated equipment.....	46
9.4	Readout devices	47
9.5	Alarms	47
9.6	Maintenance	47
9.7	Calibration	48
9.8	Operation test	49
9.9	Records	50
10	Training.....	50
10.1	General.....	50
10.2	Operator training.....	50
10.3	Maintenance and calibration training.....	51
Annex A	(informative) Commonly used measurement principles.....	52
A.1	General.....	52
A.2	Chemiluminescence	52
A.3	Colorimetry	53
A.4	Electrochemical	54
A.5	Flame-ionization	55
A.6	Gas chromatography.....	55
A.7	Infrared photometry	56
A.8	Ion mobility spectrometry	57
A.9	Mass spectrometry.....	58
A.10	Photo-ionization	59
A.11	Semiconductor	60
A.12	Ultra-violet/visible photometry	61
Bibliography	62
Figure 1	– Relationship between indication range and measuring range (See 6.3.1)	11
Figure 2	– Example of zero uncertainty	11
Figure 3	– Example of warm-up time in clean air.....	12
Figure 4	– Relationship between indication range and measuring range	22
Figure 5	– Gas response curves for test gas volume fractions of 40 ppm and 100 ppm	24
Figure 6	– Time to alarm at 25 ppm set point for test gas volume fractions of 40 ppm and 100 ppm.....	25
Table A.1	– Chemiluminescence	52
Table A.2	– Colorimetry	53
Table A.3	– Electrochemical	54
Table A.4	– Flame-ionization	55
Table A.5	– Infrared photometry.....	56
Table A.6	– Ion mobility spectrometry	57
Table A.7	– Mass spectrometry.....	58
Table A.8	– Photo-ionization (PID).....	59
Table A.9	– Semiconductor	60
Table A.10	– Ultra-violet/visible photometry	61

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

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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.

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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*