



NSAI
Standards

Irish Standard
I.S. EN 16750:2017

Fixed firefighting systems - Oxygen reduction systems - Design, installation, planning and maintenance

I.S. EN 16750:2017

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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National Foreword

I.S. EN 16750:2017 is the adopted Irish version of the European Document EN 16750:2017, Fixed firefighting systems - Oxygen reduction systems - Design, installation, planning and maintenance

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EUROPEAN STANDARD

EN 16750

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2017

ICS 13.220.20

English Version

Fixed firefighting systems - Oxygen reduction systems - Design, installation, planning and maintenance

Installations fixes de lutte contre l'incendie - Systèmes
d'appauvrissement en oxygène - Conception,
installation, planification et maintenance

Ortsfeste Löschanlagen - Sauerstoffreduktionsanlagen -
Konstruktion, Einbau, Planung und Instandhaltung

This European Standard was approved by CEN on 9 July 2017.

CEN 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 CEN-CENELEC Management Centre or to any CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Contents	Page
European foreword.....	4
Introduction	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	7
4 System requirements.....	9
4.1 General.....	9
4.2 Personnel safety	9
4.3 Effectiveness and application	9
4.4 Alarm organization and emergency plan	10
5 Design.....	10
5.1 Qualification of the designer.....	10
5.2 Fire protection concept.....	10
5.3 Structural specifications for the protected area.....	10
5.4 Oxygen concentration.....	11
5.5 Oxygen reduction to prevent fire	11
5.6 Safety margins.....	12
5.7 Oxygen reduced air quantity.....	16
5.7.1 Continuous oxygen reduction.....	16
5.7.2 Emergency plan	16
5.7.3 Oxygen reduced air.....	16
5.7.4 Gaseous supply.....	17
5.7.5 Fault signals	17
5.8 Technical areas	17
5.8.1 Technical area for control panel	17
5.8.2 Technical area for reduced oxygen air generation.....	18
6 Distribution pipework	18
6.1 Pipework.....	18
6.2 Pipe supports.....	19
6.3 Components in the pipework.....	19
7 Monitoring the oxygen concentration	19
8 Alarms and notifications	21
9 Control equipment.....	21
9.1 Function.....	21
9.2 Requirements.....	22
9.3 Electrical power supply	22
9.4 Electrical installations.....	22
9.5 Data recording.....	22
10 System operation	23
10.1 Instruction and training of personnel	23
10.2 Inspections	23
10.3 Operations log	23
10.4 Further obligations.....	23

11	Maintenance	23
12	Documentation	24
13	Installation	25
13.1	Qualification of the installer	25
13.2	General specifications, installation	25
Annex A (normative) Ignition thresholds for oxygen reduction using nitrogen in fire prevention		
		26
A.1	Ignition thresholds	26
A.2	Tests to ascertain ignition thresholds of unfamiliar materials	27
A.2.1	Cup burner tests	27
A.2.2	Ignition threshold tests	28
A.2.2.1	General	28
A.2.2.2	Test criteria	29
A.2.2.3	Test documentation	29
Annex B (informative) Information for health and safety – Working in oxygen-reduction atmospheres for reasons of fire prevention		
		31
B.1	General	31
B.2	Principles of occupational health	31
B.3	Risk classes	31
B.4	Basic requirements, planning and installation	32
B.5	Protective measures for all areas with oxygen-reduced atmospheres	33
B.5.1	Structural and technical measures	33
B.5.2	Organizational measures	34
B.6	Risk classes and safety measures	34
Annex C (informative) Existing national regulations for access and working in areas with lower oxygen concentration		
		36
Bibliography		37

EN 16750:2017 (E)

European foreword

This document (EN 16750:2017) has been prepared by Technical Committee CEN/TC 191 “Fixed firefighting systems”, the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2018, and conflicting national standards shall be withdrawn at the latest by March 2018.

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

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Oxygen reduction systems are designed to prevent fires from starting or spreading, by means of the introduction of oxygen reduced air. Oxygen reduction systems are not designed to extinguish fires. The design and installation shall be based on detailed knowledge of the protected area, its occupancy and the materials in question. It is important to suit the fire protection measures to the hazard as a whole.

It is important to emphasize that across the European Union there are several regulatory and legislative limitations for access and working in areas with lower oxygen concentration, so it is important to take these limitations into account. Use of this European Standard can vary based on the national legislation in each country of the European Union.

EN 16750:2017 (E)

1 Scope

This European standard specifies oxygen reduction systems that are used as fire prevention systems by creating an atmosphere in an area which is having a lower permanent oxygen concentration as in ambient conditions. The level of oxygen reduction is defined by the individual risks of these areas (see Annex A). Oxygen reduction is achieved by technical systems which are providing a flux of air containing a reduced concentration of oxygen.

This European standard specifies minimum requirements and defines the specifications governing the design, installation and maintenance of fixed oxygen reduction systems with oxygen reduced air in buildings and industrial production plants. The standard also applies to the extension and modification of existing systems.

This European standard applies to oxygen reduction systems using nitrogen which are designed for continual oxygen reduction in enclosed spaces.

NOTE Nitrogen is today the most suitable gas to be used for oxygen reduction. For other gases this European standard can be used as basis.

This European standard does not apply to oxygen reduction systems that use water mist or combustion gases.

The European standard does not apply to:

- explosion suppression systems;
- explosion prevention systems;
- fire extinguishing systems using gaseous extinguishing agents;
- inertization of portable containers;
- systems in which oxygen levels are reduced for reasons other than fire prevention (e.g. steel processing in the presence of inert gas to avoid the formation of oxide film);
- inerting required during repair work on systems or equipment (e.g. welding) in order to eliminate the risk of fire or explosion.

In addition to the conditions for the actual oxygen reduction system and its individual components this European standard also covers certain structural specifications for the protected area.

The space protected by an oxygen reduction system is a controlled and continuously monitored indoor climate for extended occupation. This standard does not cover unventilated confined spaces that may contain hazardous gases.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 54 (all parts), *Fire detection and fire alarm systems*

EN 12094-1, *Fixed firefighting systems - Components for gas extinguishing systems - Part 1: Requirements and test methods for electrical automatic control and delay devices*

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