

**BS EN 60079-10-1:2015**

*Incorporating corrigendum December 2016*



**BSI Standards Publication**

# **Explosive atmospheres**

Part 10-1: Classification of areas —  
Explosive gas atmospheres

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## National foreword

This British Standard is the UK implementation of EN 60079-10-1:2015. It is identical to IEC 60079-10-1:2015, incorporating corrigendum November 2015. It supersedes BS EN 60079-10-1:2009 which is withdrawn. IEC corrigendum November 2015 corrects Equation B.6.

BSI, as a member of CENELEC, is obliged to publish EN 60079-10-1 as a British Standard. However, attention is drawn to the fact that during the document's development, the UK committee voted against its approval as a European Standard.

The UK Committee has some concerns that the methodologies in the Informative Annexes C and D for determining zone type and extents have not been appropriately validated as required in Section 5.2., and suggest users consider the below issues when working with this standard:

- The ventilation rate (volume of air per unit time) relative to the release rate of the flammable substance is the most important factor that determines the ability of a release in an enclosure to become dilute. The 'ventilation velocity' has only a secondary effect: the UK Committee's view is that this is not adequately reflected in the standard.
- The extent of flammable gas or vapour from its point of release is dependent on the material being released, the release conditions (e.g. hole size and pressure) and the environment into which it is being released (e.g. ventilation rate or weather conditions). Various scientifically based approaches exist for determining these zone extents, including industry specific standards and dispersion models.
- EN 60079-10-1 places no limitations on a Zone 2 NE classification. However the UK committee believes a Zone 2 NE classification would only be applicable for a source pressure less than 10 barg which is the limit accepted in other industry based guidance.
- For assessment of pool evaporation from volatile hydrocarbons, other standards and sources of information need to be used to cross-check the results to ensure that risks are reduced to as low as reasonably practicable.

The UK Committee will revisit these issues during the next revision cycle of this standard, rather than publishing a national annex as previously stated.

The UK participation in its preparation was entrusted by Technical Committee EXL/31, Equipment for explosive atmospheres, to Subcommittee EXL/31/3, Codes of practice.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 March 2016.

**Amendments/corrigenda issued since publication**

Date	Text affected
31 December 2016	National foreword updated

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English Version

Explosive atmospheres - Part 10-1: Classification of areas -  
Explosive gas atmospheres  
(IEC 60079-10-1:2015 + COR1:2015)

Atmosphères explosives - Partie 10-1: Classement des  
emplacements - Atmosphères explosives gazeuses  
(IEC 60079-10-1:2015 + COR1:2015)

Explosionsgefährdete Bereiche - Teil 10-1: Einteilung der  
Bereiche - Gasexplosionsgefährdete Bereiche  
(IEC 60079-10-1:2015 + COR1:2015)

This European Standard was approved by CENELEC on 2015-10-13. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

## European foreword

The text of document 31J/253/FDIS, future edition 2 of IEC 60079-10-1, prepared by SC 31J "Classification of hazardous areas and installation requirements", of IEC/TC 31 "Equipment for explosive atmospheres" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60079-10-1:2015.

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) 2016-07-13
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-10-13

This document supersedes EN 60079-10-1:2009.

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

## Endorsement notice

The text of the International Standard IEC 60079-10-1:2015 + COR1:2015 <sup>1)</sup> 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 60079-10-2	NOTE	Harmonized as EN 60079-10-2.
IEC 61285:2004	NOTE	Harmonized as EN 61285:2004 (not modified).
IEC 60079-20-1	NOTE	Harmonized as EN 60079-20-1.

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1) COR1:2015 applies to English version only.

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE 1 When 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60079-0	-	Explosive atmospheres - Part 0: Equipment - General requirements	EN 60079-0	-
IEC 60079-14	-	Explosive atmospheres - Part 14: Electrical installations design, selection and erection	EN 60079-14	-

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