



BSI Standards Publication

Explosive atmospheres

Part 29-1: Gas detectors — Performance requirements
of detectors for flammable gases

This is a preview of "BS EN 60079-29-1:201...". Click here to purchase the full version from the ANSI store.

National foreword

This British Standard is the UK implementation of EN 60079-29-1:2016+A11:2022. It is derived from IEC 60079-29-1:2016+A1:2020. It supersedes BS EN 60079-29-1:2016+A1:2022, which will be withdrawn on 29 September 2023.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by **A1** **A1**.

The CENELEC common modifications have been implemented at the appropriate places in the text. The start and finish of each common modification is indicated in the text by tags **C** **C**.

The UK participation in its preparation was entrusted to Technical Committee EXL/31, Equipment for explosive atmospheres.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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For the Great Britain market (England, Scotland and Wales), if UK Government has designated this publication for conformity with UKCA marking (or similar) legislation, it may contain an additional National Annex. Where such a National Annex exists, it shows the correlation between this publication and the relevant UK legislation. If there is no National Annex of this kind, the relevant Annex ZA or ZZ in the body of the European text will indicate the relationship to UK regulation applicable in Great Britain. References to EU legislation may need to be read in accordance with the UK designation and the applicable UK law. Further information on designated standards can be found at www.bsigroup.com/standardsandregulation.

For the Northern Ireland market, UK law will continue to implement relevant EU law subject to periodic confirmation. Therefore

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Annex ZA/ZZ in the European text, and references to EU legislation, are still valid for this market.

UK Government is responsible for legislation. For information on legislation and policies relating to that legislation, consult the relevant pages of www.gov.uk.

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

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Amendments/corrigenda issued since publication

Date	Text affected
31 July 2022	Implementation of IEC amendment A1:2022
30 November 2022	Implementation of CENELEC amendment A11:2022

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English Version

Explosive atmospheres - Part 29-1: Gas detectors - Performance requirements of detectors for flammable gases (IEC 60079-29-1:2016/A1:2020)

Atmosphères explosives - Partie 29-1: Détecteurs de gaz -
Exigences d'aptitude à la fonction des détecteurs de gaz
inflammables
(IEC 60079-29-1:2016 , modifiée)

Explosionsfähige Atmosphäre - Teil 29-1: Gasmessgeräte -
Anforderungen an das Betriebsverhalten von Geräten für
die Messung brennbarer Gase
(IEC 60079-29-1:2016 , modifiziert)

This European Standard was approved by CENELEC on 2016-09-19. 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

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European foreword

The text of document 31/1257/FDIS, future edition 2 of IEC 60079-29-1, prepared by IEC/TC 31 "Equipment for explosive atmospheres" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60079-29-1:2016.

A draft amendment, which covers common modifications to IEC 60079-29-1 (31/1257/FDIS), 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 CLC/TC 31 "Electrical apparatus for potentially explosive atmospheres" and approved by CENELEC.

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) 2017-06-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-12-23

This document supersedes EN 60079-29-1:2007.

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.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60079-29-1:2016 are prefixed "Z".

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For the relationship with EU Directive see informative Annex ZZ, which is an integral part of this document.

Endorsement notice

The text of the International Standard IEC 60079-29-1:2016 was approved by CENELEC as a European Standard with agreed common modifications.

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The text of document 31/1525/FDIS, future IEC 60079-29-1/A1, prepared by IEC/TC 31 "Equipment for explosive atmospheres" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60079-29-1:2016/A1:2022.

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) 2022-11-13
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-05-13

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.

This document is read in conjunction with EN 60079-29-1:2016/A11:2022.

This document has been prepared under a Standardization Request given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For the relationship with EU Directive(s) / Regulation(s), see informative Annex ZZ, included in this document.

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 60079-29-1:2016/A1:2020 was approved by CENELEC as a European Standard without any modification.

European foreword to amendment A11

This document (EN 60079-29-1:2016/A11:2022) has been prepared by CLC/TC 31 "Electrical apparatus for potentially explosive atmospheres".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-11-13
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2025-05-13

This document is to be read in conjunction with EN 60079-29-1:2016/A1:2022.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of EN 60079-29-1:2016/A1:2022.

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

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EN 60079-29-1:2016+A11:2022 (E)

A11 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
-	-	Electromagnetic compatibility - Electrical apparatus for the detection and measurement of combustible gases, toxic gases or oxygen	EN 50270	2015
-	-	Electrical apparatus for the detection and measurement of combustible gases, toxic gases or oxygen - Requirements and tests for apparatus using software and/or digital technologies	EN 50271	2018
IEC 60050-426	2020 ¹	International Electrotechnical Vocabulary - Part 426: Explosive atmospheres	-	-
IEC 60068-2-6	-	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	2008
IEC 60079-0	-	Explosive atmospheres - Part 0: Equipment - General requirements	EN IEC 60079-0 +AC	2018 2020
IEC 60079-20-1	-	Explosive atmospheres - Part 20-1: Material characteristics for gas and vapour classification - Test methods and data	EN 60079-20-1	2010

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¹ Dated as no European equivalent exists. **A11**

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(informative)

Relationship between this European Standard and the essential requirements of Directive 2014/34/EU [2014 OJ L96] aimed to be covered

This European Standard has been prepared under a Commission's standardization request [M/BC/CEN/92/46] to provide one voluntary means of conforming to essential requirements of *Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres* [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZ.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZZ.1 – Correspondence between this European Standard and Annex II of Directive 2014/34/EU [2014 OJ L96]

Essential Requirements of Directive 2014/34/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
1.5.5 - 1.5.7	whole standard except 4.2.9 and 5.4.23	
1.5.8	4.2.9, 5.4.23	

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

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