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STN	**Výbušné atmosféry. Časť 26: Zariadenia s úrovňou ochrany (EPL) Ga.**	**STN EN 60079-26** 33 2320

Explosive atmospheres - Part 26: Equipment with Equipment Protection Level (EPL) Ga

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/15

Obsahuje: EN 60079-26:2015, IEC 60079-26:2014

Oznámením tejto normy sa od 02.12.2017 ruší
STN EN 60079-26 (33 2320) z decembra 2007

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60079-26

January 2015

ICS 29.260.20

Supersedes EN 60079-26:2007

English Version

Explosive atmospheres - Part 26: Equipment with Equipment Protection Level (EPL) Ga (IEC 60079-26:2014)

Atmosphères explosives - Partie 26: Matériel d'un niveau de protection du matériel (EPL) Ga (IEC 60079-26:2014)

Explosionsgefährdete Bereiche - Teil 26: Betriebsmittel mit Geräteschutzniveau (EPL) Ga (IEC 60079-26:2014)

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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.

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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

Ref. No. EN 60079-26:2015 E

Foreword

The text of document 31/1146/FDIS, future edition 3 of IEC 60079-26, prepared by IEC/TC 31 "Equipment for explosive atmospheres" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60079-26:2015.

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)	2015-09-02
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-12-02

This document supersedes EN 60079-26:2007.

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.

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 this document.

Endorsement notice

The text of the International Standard IEC 60079-26:2014 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 60079-7	NOTE	Harmonized as EN 60079-7.
IEC 60079-14	NOTE	Harmonized as EN 60079-14.
IEC 60079-18	NOTE	Harmonized as EN 60079-18.

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

Publication	Year	Title	EN/HD	Year
IEC 60079-0	-	Explosive atmospheres - Part 0: Equipment - General requirements	-	-
IEC 60079-1	-	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"	EN 60079-1	-
IEC 60079-11	-	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"	EN 60079-11	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	EN 60529	-
IEC 60695-11-10	-	Fire hazard testing - Part 11-10: Test flames - 50 W horizontal and vertical flame test methods	EN 60695-11-10	-

Annex ZZ
(informative)

Coverage of Essential Requirements of EU Directives

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers only the following essential requirements out of those given in Annex II of the EU Directive 94/9/EC:

- ER 1.0.1 (partly), 1.0.2 (partly), ER 1.0.3 to ER 1.0.6
- ER 1.1.1, ER 1.1.2
- ER 1.2.1, ER 1.2.3, ER 1.2.5 (partly), ER 1.2.8, ER 1.2.9
- ER 1.3.1 (partly), ER 1.3.3, ER 1.3.4
- ER 1.4.1, ER 1.4.2
- ER 2.1.1
- ER 2.1.1.1, ER 2.1.1.2 (partly)

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive[s] concerned.

WARNING: Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

Annex ZY
(informative)

Significant changes between this European Standard and EN 60079-26:2007

This European Standard supersedes EN 60079-26:2007.

The significant changes with respect to EN 60079-26:2007 are as listed below.

		Type		
Changes	Clause	Minor and editorial changes	Extension	Major technical changes
Notes deleted	1	X		
Reference to associated apparatus deleted	1	X		
Additional normative references included	3	X		
Requirements against mechanical and electrostatic ignition hazards deleted (now covered in EN 60079-0)	4.1	X		
Requirement for separation element detailed regarding external influences	4.1.3.2	X		
Intrinsic safety Ex ia as single type of protection including associated apparatus deleted (now covered by EPL)	4.2.2 (ed.2)	X		
Encapsulation Ex ma as single type of protection deleted (now covered by EPL)	4.2.3 (ed.2)	X		
Conditions a) and b) linked with an “and”, therefore requirement of “flameproof joint” deleted in following clause. Both requirements already covered by separation elements and standardised process connections.	4.3	X		
Process connection requires a sufficiently tight joint: IP66 added alternatively to IP67	4.3		X	
Requirement for isolated conductive components deleted (now covered in EN 60079-0)	4.4 (ed.2)	X		
Requirements for non-conductive enclosures deleted (now covered in EN 60079-0)	4.5 (ed.2)	X		
Test of partition walls according to 4.1.3.2 b) is specified in more detail	5.2			C1
Marking example for associated apparatus deleted	6.2 b)	X		
Note 3 with an additional example added	6.2	X		
Specification of material of partition wall required in instructions (also required in 4.1.3.2)	7	X		
Alternative risk assessment method deleted (is now generally introduced)	Annex A (ed.2)	X		

NOTE The technical changes referred to include the significance of technical changes in the revised EN standard, but they do not form an exhaustive list of all modifications from the previous version. More guidance may be found by referring to the Redline Version of the standard.

Explanations:

A) Definitions

1) Minor and editorial changes:

- clarification
- decrease of technical requirements
- minor technical change
- editorial corrections

These are changes which modify requirements in an editorial or a minor technical way. They include changes of the wording to clarify technical requirements without any technical change, or a reduction in level of existing requirement.

2) Extension: Addition of technical options

These are changes which add new or modify existing technical requirements, in a way that new options are given, but without increasing requirements for equipment that was fully compliant with the previous standard. Therefore, these will not have to be considered for products in conformity with the preceding edition.

3) Major technical change:

- addition of technical requirements
- increase of technical requirements

These are changes to technical requirements (addition, increase of the level or removal) made in a way that a product in conformity with the preceding edition will not always be able to fulfil the requirements given in the later edition. These changes have to be considered for products in conformity with the preceding edition. For these changes additional information is provided in Clause B) below.

NOTE: These changes represent current technological knowledge. However, these changes should not normally have an influence on equipment already placed on the market.

B) Information about the background of 'Major Technical Changes'

C1 – Introduction of type tests for separation elements according to "4.1.3.2 b)"

IEC 60079-26

Edition 3.0 2014-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga

Atmosphères explosives – Partie 26: Matériel d'un niveau de protection du matériel (EPL) Ga

IEC 60079-26:2014-10(en-fr)

IEC 60079-26

Edition 3.0 2014-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Explosive atmospheres –
Part 26: Equipment with Equipment Protection Level (EPL) Ga

Atmosphères explosives –
Partie 26: Matériel d'un niveau de protection du matériel (EPL) Ga

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EXPLOSIVE ATMOSPHERES –

Part 26: Equipment with Equipment Protection Level (EPL) Ga

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

International Standard IEC 60079-26 has been prepared by IEC technical committee 31: Equipment for explosive atmospheres.

This third edition cancels and replaces the second edition published in 2006 and constitutes a technical revision.

This edition includes the following significant changes with respect to the previous edition:

		Type		
Changes	**Clause**	**Minor and editorial changes**	**Extension**	**Major technical changes**
Notes deleted	1	X		
Reference to associated apparatus deleted	1	X		
Additional normative references included	3	X		
Requirements against mechanical and electrostatic ignition hazards deleted (now covered in IEC 60079-0)	4.1	X		
Requirement for separation element detailed regarding external influences	4.1.3.2	X		
Intrinsic safety Ex ia as single type of protection including associated apparatus deleted (now covered by EPL)	4.2.2 (ed.2)	X		
Encapsulation Ex ma as single type of protection deleted (now covered by EPL)	4.2.3 (ed.2)	X		
Conditions a) and b) linked with an “and” , therefore requirement of “flameproof joint” deleted in following clause. Both requirements already covered by separation elements and standardised process connections.	4.3	X		
Process connection requires a sufficiently tight joint: IP66 added alternatively to IP67	4.3		X	
Requirement for isolated conductive components deleted (now covered in IEC 60079-0)	4.4 (ed.2)	X		
Requirements for non-conductive enclosures deleted (now covered in IEC 60079-0)	4.5 (ed.2)	X		
Test of partition walls according to 4.1.3.2 b) is specified in more detail	5.2			C1
Marking example for associated apparatus deleted	6.2 b)	X		
Note 3 with an additional example added	6.2	X		
Specification of material of partition wall required in instructions (also required in 4.1.3.2)	7	X		
Alternative risk assessment method deleted (is now generally introduced)	AnnexA (ed.2)	X		

NOTE The technical changes referred to include the significance of technical changes in the revised IEC Standard, but they do not form an exhaustive list of all modifications from the previous version.

Explanation of the types of changes:

A) Definitions

1) Minor and editorial changes:

- Clarification
- Decrease of technical requirements
- Minor technical change
- Editorial corrections

These are changes which modify requirements in an editorial or a minor technical way. They include changes of the wording to clarify technical requirements without any technical change, or a reduction in level of existing requirement.

2) Extension: Addition of technical options

These are changes which add new or modify existing technical requirements, in a way that new options are given, but without increasing requirements for equipment that was fully compliant with the previous standard.Therefore, these will not have to be considered for products in conformity with the preceding edition.

3) Major technical changes:

- addition of technical requirements
- increase of technical requirements

These are changes to technical requirements (addition, increase of the level or removal) made in a way that a product in conformity with the preceding edition will not always be able to fulfil the requirements given in the later edition. These changes have to be considered for products in conformity with the preceding edition. For these changes additional information is provided in Clause B below.

NOTE These changes represent current technological knowledge. However, these changes should not normally have an influence on equipment already placed on the market.

B) Information about the background of 'Major technical changes'

C1: Introduction of type tests for separation elements according to "4.1.3.2 b)"

The text of this standard is based on the following documents:

FDIS	Report on voting
31/1146/FDIS	31/1155/RVD

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

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

A list of all parts in the IEC 60079 series, published under the general title *Explosive atmospheres*, can be found on the IEC website.

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

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

EXPLOSIVE ATMOSPHERES –

Part 26: Equipment with Equipment Protection Level (EPL) Ga

1 Scope

This part of IEC 60079 specifies alternative requirements for construction, test and marking for electrical equipment that provides Equipment Protection Level (EPL) Ga when single standardised Types of Protection (e.g. Ex “ia” , Ex “ma”, Ex “da”) cannot be applied. This standard also applies to equipment mounted across a boundary where different Equipment Protection Levels may be required.

EXAMPLE: Equipment installed in the wall of a storage vessel containing Zone 0 (requiring EPL Ga) inside an area defined as Zone 1 (requiring EPL Gb).

This electrical equipment, within the operational parameters specified by the manufacturer, ensures a very high Level of Protection that includes rare malfunctions related to the equipment or two malfunctions occurring independently of each other.

NOTE A malfunction may result from a failure of the component parts of the electrical equipment or from anticipated externally applied influences. Two independent malfunctions which may occur more frequently and which, separately, would not create an ignition hazard but which, in combination, could create a potential ignition hazard, are regarded as occurring together to form a rare malfunction.

This standard supplements and modifies the general requirements of IEC 60079-0. Where a requirement of this standard conflicts with a requirement of IEC 60079-0, the requirement of this standard takes precedence.

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.

IEC 60079-0, *Explosive atmospheres – Part 0: Equipment – General requirements*

IEC 60079-1, *Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures "d"*

IEC 60079-11, *Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"*

IEC 60695-11-10, *Fire hazard testing – Part 11-10: Test flames – 50 W horizontal and vertical flame test methods*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*