



SLOVENSKI STANDARD

SIST EN 60079-13:2011

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Eksplozivne atmosfere - 13. del: Zaščita opreme z zaprtimi prostori z nadtlakom "p" (IEC 60079-13:2010)

Explosive atmospheres - Part 13: Equipment protected by pressurized rooms p (IEC 60079-13:2010)

Explosionsfähige Atmosphäre - Teil 13: Geräteschutz durch überdruckgekapselte Räume (IEC 60079-13:2010)

Atmosphères explosives - Partie 13: Protection du matériel par salle à surpression interne p (CEI 60079-13:2010)

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29.260.20	Električni aparati za eksplozivna ozračja	Electrical apparatus for explosive atmospheres
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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60079-13

December 2010

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English version

**Explosive atmospheres -
Part 13: Equipment protection by pressurized room "p"
(IEC 60079-13:2010)**

Atmosphères explosives -
Partie 13: Protection du matériel par salle
à surpression interne "p"
(CEI 60079-13:2010)

Explosionsfähige Atmosphäre -
Teil 13: Geräteschutz durch
überdruckgekapselte Räume
(IEC 60079-13:2010)

This European Standard was approved by CENELEC on 2010-12-01. 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 Central Secretariat 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 Central Secretariat 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

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Foreword

The text of document 31/878/FDIS, future edition 1 of IEC 60079-13, prepared by IEC TC 31, Equipment for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60079-13 on 2010-12-01.

This part of EN 60079 is to be read in conjunction with EN 60079-0.

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

The following dates were fixed:

- | | | |
|--|-------|------------|
| – latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2011-09-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2013-12-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60079-13:2010 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 60079-17	NOTE	Harmonized as EN 60079-17. https://standards.iteh.ai/catalog/standards/sist/8be075a2-0b3f-45a4-bb79-12b1443e62cd/sist-en-60079-13-2011
IEC 60079-20-1	NOTE	Harmonized as EN 60079-20-1.
IEC 60079-29 series	NOTE	Harmonized in EN 60079-29 series (partially modified).
IEC 60529	NOTE	Harmonized as EN 60529.
IEC 61285	NOTE	Harmonized as EN 61285.
IEC 61511 series	NOTE	Harmonized in EN 61511 series (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-426	-	International Electrotechnical Vocabulary - Part 426: Equipment for explosive atmospheres	-	-
IEC 60079-0	-	Explosive atmospheres - Part 0: Equipment - General requirements	EN 60079-0	-
IEC 60079-2	-	Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"	EN 60079-2	-
IEC 60079-10-1	-	Explosive atmospheres - Part 10-1: Classification of areas - Explosive gas atmospheres	EN 60079-10-1	-
IEC 60695-11-10	-	Fire hazard testing - Part 11-10: Test flames - 50 W horizontal and vertical flame test methods	EN 60695-11-10	-

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IEC 60079-13

Edition 1.0 2010-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Explosive atmospheres –
Part 13: Equipment protection by pressurized room “p”

Atmosphères explosives –
Partie 13: Protection du matériel par salle à surpression interne « p »

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

EXPLOSIVE ATMOSPHERES –**Part 13: Equipment protection by pressurized room “p”**

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, 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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International Standard IEC 60079-13 has been prepared by IEC technical committee 31: Equipment for explosive atmospheres.

This first edition of this part of IEC 60079 cancels and replaces the original technical report issued in 1982. It constitutes a technical revision and now has the status of an International Standard.

The significant technical changes with respect to the previous edition are listed below:

- Addition of types of protection px, py, pz and pv based upon whether external area is classified as Zone 1, Zone 2 or non-hazardous and whether internal electrical equipment is ignition capable or not.
- Addition of requirements related to Group III dusts.
- Addition of equipment protection levels (EPL).
- Expansion of requirements for various types of doors to prevent the entrance of a flammable atmosphere.
- Allowance for air intake located in a Zone 2 under specific conditions.

- Addition of negligible release conditions and negligible release containment system, as well as conditions and containment for limited release and unlimited release.

This part of IEC 60079 is to be read in conjunction with IEC 60079-0.

The text of this part of IEC 60079 is based on the following documents:

FDIS	Report on voting
31/878/FDIS	31/891/RVD

Full information on the voting for the approval of this part of IEC 60079 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.

The list of all parts of IEC 60079 series, 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.

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EXPLOSIVE ATMOSPHERES –

Part 13: Equipment protection by pressurized room “p”

1 Scope

This part of IEC 60079 gives requirements for the design, construction, assessment and testing and marking of rooms protected by pressurization in:

- a room located in an explosive gas atmosphere or explosive dust atmosphere hazardous area that does not include an internal source of a flammable substance;
- a room located in an explosive gas atmosphere or explosive dust atmosphere hazardous area that includes an internal source of a flammable substance;
- a room located in a non-hazardous area that includes an internal source of a flammable substance.

NOTE If ventilation is used and pressurization is not used, then this part of IEC 60079 does not apply. The situation is covered by the requirements of IEC 60079-10-1.

A room may be a single room, multiple rooms, a complete building or a room contained within a building and includes inlet and outlet ducts. This part of IEC 60079 also includes requirements for associated equipment, safety devices and controls necessary to ensure that pressurization is established and maintained.

This part of IEC 60079 covers rooms or buildings that are constructed or assembled on site, which may be either on land or off-shore, designed to facilitate the entry of personnel and primarily intended for installation by an end-user and verification on site. The room may be located in an explosive gas atmosphere or a explosive dust atmosphere requiring equipment protection levels (EPL) Gb, Db, Gc or Dc.

This part of IEC 60079 does not specify the methods that may be required to ensure adequate air quality for personnel with regard to toxicity and temperature within the room.

NOTE 1 Whilst the scope of this part of IEC 60079 does not address toxicity it is vital that proper consideration is given to this aspect to ensure the safety of personnel. National regulations and requirements should be observed in this regard.

NOTE 2 There is a related standard IEC60079-2 (Equipment protection by pressurized enclosure) covering the different conditions encountered when using the pressurization technique.

NOTE 3 Maintenance needs are contained in Annex B until they are included IEC 60079-17.

NOTE 4 For the purposes of this part of IEC 60079, the terms "lower flammable limit (LFL)" and "lower explosive limit (LEL)" are deemed to be synonymous, and likewise the terms "upper flammable limit (UFL)" and "upper explosive limit (UEL)" are deemed to be synonymous. For ease of reference, the two abbreviations LFL and UFL may be used hereinafter to denote these two sets of terms. It should be recognized that particular authorities having jurisdiction may have overriding requirements that dictate the use of one of these sets of terms and not the other.

This part of IEC 60079 supplements and modifies the general requirements of IEC 60079-0, except as indicated in Table 1. Where a requirement of this standard conflicts with a requirement of IEC 60079-0, the requirement of this standard takes precedence.