



SLOVENSKI STANDARD

SIST EN 60079-17:2003

01-november-2003

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Electrical apparatus for explosive gas atmospheres - Part 17: Inspection and maintenance of electrical installations in hazardous areas (other than mines)

iTeh STANDARD PREVIEW

Elektrische Betriebsmittel für gasexplosionsgefährdete Bereiche - Teil 17: Prüfung und Instandhaltung elektrischer Anlagen in explosionsgefährdeten Bereichen (ausgenommen Grubenbaue)

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Matériel électrique pour atmosphères explosives gazeuses - Partie 17: Recommandations pour l'inspection et l'entretien des installations électriques dans les emplacements dangereux (autres que les mines)

Ta slovenski standard je istoveten z: EN 60079-17:2003

ICS:

29.260.20 Ò\^ dã } ãæ ææã æ Electrical apparatus for
 ^\•] [: ã } æ : l æ ææ explosive atmospheres

SIST EN 60079-17:2003

en,fr,de

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EUROPEAN STANDARD

EN 60079-17

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2003

ICS 29.260.20

Supersedes EN 60079-17:1997

English version

Electrical apparatus for explosive gas atmospheres
Part 17: Inspection and maintenance of electrical installations
in hazardous areas (other than mines)
(IEC 60079-17:2002)

Matériel électrique pour atmosphères
explosives gazeuses
Partie 17: Recommandations
pour l'inspection et l'entretien
des installations électriques
dans les emplacements dangereux
(autres que les mines)
(CEI 60079-17:2002)

Elektrische Betriebsmittel für
gasexplosionsgefährdete Bereiche
Teil 17: Prüfung und Instandhaltung
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(IEC 60079-17:2002)

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This European Standard was approved by CENELEC on 2003-03-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of the International Standard IEC 60079-17:2002, prepared by SC 31J, Classification of hazardous areas and installation requirements, of IEC TC 31, Electrical apparatus for explosive atmospheres, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 60079-17 on 2003-03-01 without any modification.

This European Standard supersedes EN 60079-17:1997.

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) 2004-03-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-03-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, Annex ZA is normative and Annex A is informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60079-17:2002 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 60079-0 + A1	1998 2000	Electrical apparatus for explosive gas atmospheres Part 0: General requirements	-	-
IEC 60079-1	2001	Electrical apparatus for explosive gas atmospheres Part 1: Flameproof enclosures "d"	-	-
IEC 60079-2	2001	Part 2: Pressurized enclosures "p"	-	-
IEC 60079-7	2001	Part 7: Increased safety "e"	-	-
IEC 60079-10	1995	Part 10: Classification of hazardous areas	EN 60079-10 ¹⁾	1996
IEC 60079-11	1999	Part 11: Intrinsic safety "i"	-	-
IEC 60079-14	1996	Part 14: Electrical installations in hazardous areas (other than mines)	EN 60079-14	1997
IEC 60079-15	2001	Part 15: Type of protection "n"	-	-
IEC 60364-6-61	2001 ²⁾	Electrical installations of buildings Part 6-61: Verification - Initial verification	-	-

¹⁾ EN 60079-10:1996 is superseded by EN 60079-10:2003, which is based on IEC 60079-10:2002.

²⁾ IEC 60364-6-61:1986 + A1:1993 + A2:1997, mod. have been harmonized as HD 384.6.61 S2:2003.

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

60079-17

Troisième édition
Third edition
2002-07

**Matériel électrique pour atmosphères
explosives gazeuses –**

**Partie 17:
Recommandations pour l'inspection et
l'entretien des installations électriques
dans les emplacements dangereux
(autres que les mines)**

**Electrical apparatus for explosive
gas atmospheres –**

**Part 17:
Inspection and maintenance of electrical
installations in hazardous areas (other
than mines)**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

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For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL APPARATUS FOR EXPLOSIVE GAS ATMOSPHERES -

Part 17: Inspection and maintenance of electrical installations in hazardous areas (other than mines)

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this technical report may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60079-17 has been prepared by subcommittee 31J: Classification of hazardous areas and installation requirements, of IEC technical committee 31: Electrical apparatus for explosive atmospheres.

This third edition cancels and replaces the second edition, published in 1996, and constitutes a technical revision.

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

FDIS	Report on voting
31J/83/FDIS	31J/85/RVD

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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 3.

Annex A is for information only.

The committee has decided that the contents of the publication will remain unchanged until 2007. At this date, publication will be

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

INTRODUCTION

Electrical installations in hazardous areas possess features specially designed to render them suitable for operation in such atmospheres. It is essential, for reasons of safety in those areas, that, throughout the life of such installations, the integrity of those special features is preserved; they therefore require initial inspection and either

- a) regular periodic inspections thereafter, or
- b) continuous supervision by skilled personnel

in accordance with this standard and, when necessary, maintenance.

NOTE Correct functional operation of hazardous area installations does not mean, and should not be interpreted as meaning, that the integrity of the special features referred to above is preserved.

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ELECTRICAL APPARATUS FOR EXPLOSIVE GAS ATMOSPHERES –

Part 17: Inspection and maintenance of electrical installations in hazardous areas (other than mines)

1 Scope

This part of IEC 60079 is intended to be applied by users, and covers factors directly related to the inspection and maintenance of electrical installations within hazardous areas only. It does not include conventional requirements for electrical installations, nor the testing and certification of electrical apparatus. It does not cover Group I apparatus (applications for mines susceptible to firedamp).

This standard supplements the requirements laid down in IEC 60364-6-61.

2 Normative references

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.

IEC 60079-0:2000, *Electrical apparatus for explosive gas atmospheres – Part 0: General requirements*

IEC 60079-1:2001, *Electrical apparatus for explosive gas atmospheres – Part 1: Flameproof enclosures “d”*

IEC 60079-2:2001, *Electrical apparatus for explosive gas atmospheres – Part 2: Pressurized enclosures “p”*

IEC 60079-7:2001, *Electrical apparatus for explosive gas atmospheres – Part 7: Increased safety “e”*

IEC 60079-10:1995, *Electrical apparatus for explosive gas atmospheres – Part 10: Classification of hazardous areas*

IEC 60079-11:1999, *Electrical apparatus for explosive gas atmospheres – Part 11: Intrinsic safety “i”*

IEC 60079-14:1996, *Electrical apparatus for explosive gas atmospheres – Part 14: Electrical installations in hazardous areas (other than mines)*

IEC 60079-15:2001, *Electrical apparatus for explosive gas atmospheres – Part 15: Type of protection “n”*

IEC 60364-6-61:2001, *Electrical installations of buildings – Part 6-61: Verification – Initial verification*

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3 Definitions

For the purposes of this part of IEC 60079, the following definitions apply.

3.1

explosive atmosphere

mixture with air, under atmospheric conditions, of flammable substances in the form of gas, vapour, mist or dust, in which after ignition, combustion spreads throughout the unconsumed mixture

3.2

explosive gas atmosphere

mixture with air, under atmospheric conditions, of flammable substances in the form of gas or vapour, in which after ignition, combustion spreads throughout the unconsumed mixture

3.3

hazardous area

area in which an explosive gas atmosphere is present, or may be expected to be present, in quantities such as to require special precautions for the construction, installation and use of apparatus

NOTE For the purposes of this standard, an area is a three-dimensional region or space.

3.4

non-hazardous area

area in which an explosive gas atmosphere is not expected to be present in quantities such as to require special precautions for the construction, installation and use of apparatus

3.5

maintenance

combination of any actions carried out to retain an item in, or restore it to, conditions in which it is able to meet the requirements of the relevant specification and perform its required functions

3.6

inspection

action comprising careful scrutiny of an item carried out either without dismantling, or with the addition of partial dismantling as required, supplemented by means such as measurement, in order to arrive at a reliable conclusion as to the condition of an item

3.6.1

visual inspection

inspection which identifies, without the use of access equipment or tools, those defects, such as missing bolts, which will be apparent to the eye

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3.6.2

close inspection

inspection which encompasses those aspects covered by a visual inspection and, in addition, identifies those defects, such as loose bolts, which will be apparent only by the use of access equipment, for example steps, (where necessary), and tools

NOTE Close inspections do not normally require the enclosure to be opened, or the equipment to be de-energized.

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