BRITISH STANDARD

BS EN 60079-17:1997
IEC 60079-17: 1996

# Electrical apparatus for explosive gas atmospheres —

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



The European Standard EN 60079-17:1997 has the status of a British Standard

ICS 29.260.20

# National foreword

This British Standard is the English language version of EN 60079-17:1997. It is identical with IEC 60079-17:1996.

The UK participation in its preparation was entrusted by Technical Committee GEL/31, Electrical apparatus for explosive atmospheres, to Subcommittee GEL/31/11, Code of practice for electrical apparatus for explosive atmospheres, which has the responsibility to:

— aid enquirers to understand the text;

— present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;

— monitor related international and European developments and promulgate them in the UK.

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

From 1 January 1997, all IEC publications have the number 60000 added to the old number. For instance, IEC 27-1 has been renumbered as IEC 60027-1. For a period of time during the change over from one numbering system to the other, publications may contain identifiers from both systems.

**Cross-references**

Attention is drawn to the fact that CEN and CENELEC Standards normally include an annex which lists normative references to international publications with their corresponding European publications. The British Standards which implement these international or European publications may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

**Summary of pages**

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 14 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

**Amendments issued since publication**

| Amd. No. | Date | Comments |
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This British Standard, having been prepared under the direction of the Electrotechnical Sector Board, was published under the authority of the Standards Board and comes into effect on 15 October 1997



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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN 60079-17

August 1997

ICS 29.260.20

English version

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

(IEC 60079-17:1996)

Matériel électrique pour atmosphères explosives gazeuses
Partie 17: Inspection et entretien des installations électriques dans les emplacements dangereux (autres que les mines)
(CEI 60079-17:1996)

Elektrische Betriebsmittel für gasexplosionsgefährdete Bereiche
Teil 17: Prüfung und Instandhaltung elektrischer Anlagen in explosionsgefährdeten Bereichen (ausgenommen Grubenbaue)
(IEC 60079-17:1996)

This European Standard was approved by CENELEC on 1997-03-11. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, 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**



Ref. No. EN 60079-17:1997 E

## Foreword

The text of document 31J/49/FDIS, future edition 2 of IEC 60079-17, prepared by SC 31J, Classification of hazardous areas and installation requirements, of IEC TC 31, Electrical apparatus for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60079-17 on 1997-03-11.

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) 1998-03-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1999-12-01

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 60079-17:1996 was approved by CENELEC as a European Standard without any modification.

## Contents

## Introduction

Electrical installations in hazardous areas possess features specially designed to render them suitable for operations 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:

1) regular periodic inspections thereafter; or

2) continuous supervision by skilled personnel and, when necessary, maintenance.

NOTE 1 In some countries, "skilled personnel" may be interpreted as a "responsible engineer".
NOTE 2 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.

## 1 Scope

This International Standard 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). It does not cover the alternative of "Continuous supervision by skilled personnel".

This standard supplements the requirements laid down in IEC 364-6-61.

## 2 Normative references

The following normative documents contain provisions which, through reference in the text, constitute provisions of this part of IEC 79. At the time of publication, the editions were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 79 are encouraged to investigate the possibility of applying the most recent editions of the normative documents listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 79-0:1983, *Electrical apparatus for explosive gas atmospheres — Part 0: General requirements.*

IEC 79-1:1990, *Electrical apparatus for explosive gas atmospheres — Part 1: Construction and verification test of flameproof enclosures of electrical apparatus.*

IEC 79-2:1983, *Electrical apparatus for explosive gas atmospheres — Part 2: Electrical apparatus — Type of protection "p".*

IEC 79-7:1990, *Electrical apparatus for explosive gas atmospheres — Part 7: Increased safety "e".*

IEC 79-10:1995, *Electrical apparatus for explosive gas atmospheres — Part 10: Classification of hazardous areas.*

IEC 79-11:1991, *Electrical apparatus for explosive gas atmospheres — Part 11: Intrinsic safety "i".*

IEC 79-14:1996, *Electrical apparatus for explosive gas atmospheres — Part 14: Electrical installations in hazardous areas (other than mines).*

IEC 79-15:1987, *Electrical apparatus for explosive gas atmospheres — Part 15: Electrical apparatus with type of protection "n".*

IEC 364, *Electrical installations of buildings.*

IEC 364-6-61:1986, *Electrical installation of buildings — Part 6: Verification — Chapter 61: Initial verification.*

Amendment 1 (1993)

## 3 Definitions

For the purpose of this part of IEC 79, the following definitions apply:

**3.1**
**maintenance**

a 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

**3.2 Inspection**

An 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.

**3.2.1**
**visual inspection**

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

**3.2.2**
**close inspection**

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