

Electrical apparatus for explosive gas atmospheres —

Part 26: Construction, test and marking of Group II Category 1 G electrical apparatus

The European Standard EN 60079-26:2004 has the status of a
British Standard

ICS 29.260.20

National foreword

This British Standard is the official English language version of EN 60079-26:2004. It is identical with IEC 60079-26:2004. It supersedes BS EN 50284:1999 which remains current until 1 April 2007 when it will be withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/31, 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 UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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Cross-references

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 17 and a back cover.

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Electrical apparatus for explosive gas atmospheres
Part 26: Construction, test and marking
of Group II Category 1 G electrical apparatus
(IEC 60079-26:2004, modified)

Matériel électrique pour atmosphères
explosives gazeuses
Partie 26: Construction, essais et
marquage des matériels électriques
de Groupe II Catégorie 1 G
(CEI 60079-26:2004, modifiée)

Elektrische Betriebsmittel für
gasexplosionsgefährdete Bereiche
Teil 26: Konstruktion, Prüfung und
Kennzeichnung elektrischer Betriebsmittel
für Gruppe II Kategorie 1 G
(IEC 60079-26:2004, modifiziert)

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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.

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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 31/483/FDIS, future edition 1 of IEC 60079-26, prepared by IEC TC 31, Electrical apparatus for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60079-26 on 2004-04-01.

Directive 94/9/EC requires equipment classification according to categories. Therefore, in all clauses where the text of IEC 60079-26 uses the term "Zone 0 Equipment", or equivalent, this shall be interpreted as referring to equipment of Category 1 G.

To this end, a draft amendment, prepared by the Technical Committee CENELEC TC 31, Electrical apparatus for explosive atmospheres - General requirements, was submitted to the formal vote and was approved by CENELEC for inclusion into EN 60079-26 on 2004-09-22.

This European Standard supersedes EN 50284:1999.

The following dates were fixed:

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|--|-------|------------|
| – latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement | (dop) | 2005-06-01 |
| – latest date by which the national standards conflicting
with the EN have to be withdrawn | (dow) | 2007-04-01 |

Endorsement notice

The text of the International Standard IEC 60079-26:2004 was approved by CENELEC as a European Standard with agreed common modifications as given below.

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ELECTRICAL APPARATUS FOR EXPLOSIVE GAS ATMOSPHERES –

Part 26: Construction, test and marking of Group II Zone 0 electrical apparatus

1 Scope

This part of IEC 60079 specifies the particular requirements for construction, test and marking for electrical apparatus of Group II intended for use in Zone 0 as defined in IEC 60079-10.

This electrical apparatus, within the operational parameters specified by the manufacturer, ensures a very high level of protection that includes rare faults related to the apparatus or two faults occurring independently of each other.

NOTE 1 A malfunction may result from a failure of the component parts of the electrical apparatus 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, should be regarded as occurring together to form a rare fault.

This electrical apparatus is intended for use in Zone 0 hazardous areas, in which explosive gas atmospheres caused by mixtures of air and gases, vapours or mists under normal atmospheric conditions are present continuously, for long periods or frequently.

This standard also applies to apparatus mounted across the boundary between Zone 0 and Zone 1.

EXAMPLE: In the wall of a storage vessel.

This standard also applies to apparatus installed outside Zone 0, but electrically connected to apparatus inside Zone 0 (associated apparatus).

This standard supplements the general requirements in IEC 60079-0 and the requirements of the standardized types of protection, in accordance with the IEC 60079 series, to adapt the level of safety provided by those standards to the very high level of risk in Zone 0.

NOTE 2 In designing apparatus for operation in explosive gas atmospheres under conditions other than the atmospheric conditions given in IEC 60079-0, this standard may be used as a guide. However, additional testing is recommended related specifically to the intended conditions of use. This is particularly important when the types of protection 'Flameproof enclosure' (IEC 60079-1) and 'Intrinsic safety' (IEC 60079-11) are applied.

NOTE 3 The classification of hazardous areas in zones is defined in IEC 60079-10.

NOTE 4 There may be other non-electrical sources of ignition (for example ultrasonic, optical or ionizing radiation) that are not addressed by this standard; these should also be taken into consideration (see, for example, EN 1127-1).