



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 61241-0:2006

ICS 29.260.20

**ELECTRICAL APPARATUS FOR USE IN
THE PRESENCE OF COMBUSTIBLE DUST
-- PART 0: GENERAL REQUIREMENTS (IEC
61241-0:2004 (MOD) + CORRIGENDUM
NOV. 2005 (EQV))**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61241-0

December 2006

ICS 29.260.20

Partly supersedes EN 50281-1-1:1998 + A1:2002

English version

Electrical apparatus for use in the presence of combustible dust
Part 0: General requirements
(IEC 61241-0:2004, modified + corrigendum Nov. 2005)

Matériels électriques pour utilisation
en présence de poussières combustibles
Partie 0: Exigences générales
(CEI 61241-0:2004, modifiée +
corrigendum nov. 2005)

Elektrische Betriebsmittel zur Verwendung
in Bereichen mit brennbarem Staub
Teil 0: Allgemeine Anforderungen
(IEC 61241-0:2004, modifiziert +
Corrigendum Nov. 2005)

This European Standard was approved by CENELEC on 2005-09-13. 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, 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

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

Foreword

The text of document 31H/173/FDIS, future edition 1 of IEC 61241-0, prepared by SC 31H, Apparatus for use in the presence of combustible dust, of IEC TC 31, Equipment for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote.

A draft amendment, prepared by the Technical Committee CENELEC TC 31, Electrical apparatus for explosive atmospheres - General requirements, containing some common modifications to the text of document 31H/173/FDIS, was submitted to the formal vote.

The two texts were combined and approved by CENELEC as EN 61241-0 on 2005-09-13.

This standard, and the other parts within this series, was developed to align protection methods associated with electrical apparatus for use in the presence of combustible dust and those similar protection methods associated with the EN 60079 series of standards, where possible.

This European Standard, together with EN 61241-1:2004, supersedes EN 50281-1-1:1998 + corrigendum August 1999 + A1:2002.

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) 2007-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2008-10-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 94/9/EC. See Annex ZZ.

NOTE 1 Other EC Directives may be applicable.

NOTE 2 Subclauses, notes and annexes that are additional to those in IEC 61241-0 are prefixed with the letter Z.

Annexes ZA, ZB and ZZ have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61241-0:2004, with its corrigendum November 2005, was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

1 Scope

Add after the first paragraph:

This Part 0 of EN 61241 covers Category 1D, 2D and 3D apparatus.

Only in cases specifically mentioned, the requirements differ for Categories 1D, 2D and 3D.

In all cases where apparatus are involved, the references to zones shall be read

Zone 20	Category 1D
Zone 21	Category 2D or Category 1D
Zone 22	Category 3D or Category 1D or 2D

2 Normative references

Add:

See also Annex ZB.

3 Terms and definitions

Add:

3.21

category

within an equipment group, a category is the classification according to the required level of protection

NOTE The categories are defined as given in Annex ZA.

4 Construction

4.2 Principles for design and testing of apparatus for use in Zone 20

Replace by:

4.2 Void

Add:

4.21 Mechanical strength of apparatus

The apparatus shall be subjected to the tests of 23.4.2. Guards relied upon to provide protection from impact shall be removable only by the use of a tool and shall remain in place for the required impact tests.

6 Enclosure material

6.1 Non-metallic enclosures and non-metallic parts of enclosures

Replace the text by:

The following requirements apply to non-metallic enclosures and non-metallic parts of enclosures on which the type of protection depends. In addition, the requirements of 23.4.7 shall apply for Category 1D or Category 2D apparatus.

For Category 3D electrical apparatus the requirements of 23.4.7 shall also apply, but with the modifications given in 23.4.7.3 for the Category 3D apparatus.

6.1.5 Electrostatic charges

Add:

If there is danger that plastic enclosures or plastic parts of enclosures can be charged to a dangerous level in normal operation, also Category 3D electrical apparatus shall be designed in line with 6.1.5.1 and 6.1.5.2.

Enclosures designed not in line with 6.1.5.1 and 6.1.5.2 shall be clearly marked and the restriction in use stated.

6.2.1 Composition

Add:

For Category 3D electrical apparatus no restrictions shall be observed except for fans, fan hoods, and ventilating screens. These parts shall comply with the requirements for Category 2D.

10 Materials used for cementing

10.2 Thermal stability

Add:

For Category 3D electrical apparatus, the thermal stability shall be considered adequate if the lower limiting value of temperature for the material are below or equal to the lowest working temperature specified for the material, and the continuous operating temperature (COT) is at least 10 K above the maximum service temperature.

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