



National Standards Authority of Ireland

IRISH STANDARD

**I.S. EN 61241-18:2004**

ICS 29.260.20

**ELECTRICAL APPARATUS FOR USE IN THE  
PRESENCE OF COMBUSTIBLE DUST PART  
18: PROTECTION BY ENCAPSULATION "MD"  
(IEC 61241-18:2004)**

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EUROPEAN STANDARD

**EN 61241-18**

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2004

ICS 29.260.20

English version

**Electrical apparatus for use in the presence of combustible dust**  
**Part 18: Protection by encapsulation "mD"**  
(IEC 61241-18:2004)

Matériels électriques pour utilisation en  
présence de poussières combustibles  
Partie 18: Protection par encapsulage  
"mD"  
(CEI 61241-18:2004)

Elektrische Betriebsmittel zur Verwendung  
in Bereichen mit brennbarem Staub  
Teil 1: Schutz durch Vergusskapselung  
"mD"  
(IEC 61241-18:2004)

This European Standard was approved by CENELEC on 2004-10-01. 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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 document 31H/176/FDIS, future edition 1 of IEC 61241-18, prepared by SC 31H, Apparatus for use in the presence of combustible dust, of IEC TC 31, Electrical apparatus for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61241-18 on 2004-10-01.

This standard is to be used in conjunction with EN 61241-0 \*).

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) | 2005-07-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn   | (dow) | 2007-10-01 |

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(s). See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61241-18:2004 was approved by CENELEC as a European Standard without any modification.

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\*) In preparation.

## 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 Where 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 60079-7	2001	Electrical apparatus for explosive gas atmospheres Part 7: Increased safety "e"	EN 60079-7	2003
IEC 60079-11	1999	Part 11: Intrinsic safety "i"	-	-
IEC 60086-1	- <sup>1)</sup>	Primary batteries Part 1: General	EN 60086-1	2001 <sup>2)</sup>
IEC 60127	Series	Miniature fuses	EN 60127	Series
IEC 60243-1	- <sup>1)</sup>	Electrical strength of insulating materials - Test methods Part 1: Tests at power frequencies	EN 60243-1	1998 <sup>2)</sup>
IEC 60285	1993	Alkaline secondary cells and batteries - Sealed nickel-cadmium cylindrical rechargeable single cells	EN 60285 <sup>3)</sup>	1994
IEC 60622	- <sup>1)</sup>	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Sealed nickel-cadmium prismatic rechargeable single cells	EN 60622	2003 <sup>2)</sup>
IEC 60664-1	1992	Insulation coordination for equipment within low-voltage systems Part 1: Principles, requirements and tests		
+ A1	2000			
+ A2	2002		EN 60664-1	2003
IEC 60691	- <sup>1)</sup>	Thermal-links - Requirements and application guide	EN 60691	2003 <sup>2)</sup>
IEC 61150	- <sup>1)</sup>	Alkaline secondary cells and batteries - Sealed nickel-cadmium rechargeable monobloc batteries in button cell design	EN 61150	1993 <sup>2)</sup>

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<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

<sup>3)</sup> EN 60285 is superseded by EN 61951-1:2003 which is based on IEC 61951-1:2003.

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61241-0	- <sup>1)</sup>	Electrical apparatus for use in the presence of combustible dust Part 0: General requirements	-	-
IEC 61241-1	- <sup>1)</sup>	Electrical apparatus for use in the presence of combustible dust Part 1: Protection by enclosures "tD"	EN 61241-1	2004 <sup>2)</sup>
IEC 61241-11	- <sup>4)</sup>	Part 11: Intrinsically safe apparatus 'iD'	-	-
IEC 61436	1998	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Sealed nickel-metal hydride rechargeable single cells	EN 61436 <sup>5)</sup>	1998
IEC 61558-2-6	- <sup>1)</sup>	Safety of power transformers, power supply units and similar Part 2-6: Particular requirements for safety isolating transformers for general use	EN 61558-2-6	1997 <sup>2)</sup>
IEC 61960-1	- <sup>1)</sup>	Secondary lithium cells and batteries for portable applications Part 1: Secondary lithium cells	EN 61960-1	2001 <sup>2)</sup>
IEC 62326-4-1	- <sup>1)</sup>	Printed boards Part 4: Rigid multilayer printed boards with interlayer connections - Sectional specification -- Section 1: Capability Detail Specification - Performance levels A, B and C	EN 62326-4-1	1997 <sup>2)</sup>
ISO 62	1999	Plastics - Determination of water absorption	EN ISO 62	1999
ANSI/UL 248-1	1995	Standard for low-voltage fuses Part 1: General requirements	-	-
ANSI/UL 746B	2000	Polymeric Materials - Long-Term Property Evaluations	-	-

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<sup>4)</sup> To be published.

<sup>5)</sup> EN 61436 is superseded to EN 61951-2:2000, which is based on IEC 61951-2:2003.

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