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## Explosiv atmosfär – Del 31: Utrustning i utförande med dammskyddande kapsling "t"

*Explosive atmospheres –  
Part 31: Equipment dust ignition protection by enclosure "t"*

Som svensk standard gäller europastandarden EN 60079-31:2009. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60079-31:2009.

### Nationellt förord

Europastandarden EN 60079-31:2009

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60079-31, First edition, 2008 - Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"**

jämte

### Corrigendum, March 2009

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 61241-1, utgåva 1, 2007, gäller ej fr o m 2012-10-01.

### *Standarder underlättar utvecklingen och höjer elsäkerheten*

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

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Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

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Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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English version

**Explosive atmospheres -  
Part 31: Equipment dust ignition protection by enclosure "t"  
(IEC 60079-31:2008 + corrigendum 2009)**

Atmosphères explosives -  
Partie 31: Protection du matériel  
contre l'inflammation des poussières  
par enveloppe "t"  
(CEI 60079-31:2008 + corrigendum 2009)

Explosionsfähige Atmosphäre -  
Teil 31: Geräte-Staubexplosionsschutz  
durch Gehäuse "t"  
(IEC 60079-31:2008 + Corrigendum 2009)

This European Standard was approved by CENELEC on 2009-10-01. 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, Bulgaria, 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: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 31/765/FDIS, future edition 1 of IEC 60079-31, prepared by IEC TC 31, Equipment for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60079-31 on 2009-10-01.

This European Standard supersedes EN 61241-1:2004 + corrigendum December 2006.

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) 2010-07-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2012-10-01

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.

CENELEC/TC 31 as the responsible committee has concluded that this edition of EN 60079-31 does not contain substantial changes regarding the ESRs.

The State of the Art is included in Annex ZY "*Significant changes between this European Standard and EN 61241-1:2004*".

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

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## Endorsement notice

The text of the International Standard IEC 60079-31:2008 + corrigendum March 2009 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

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 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 60034-1	- <sup>1)</sup>	Rotating electrical machines - Part 1: Rating and performance	EN 60034-1	2004 <sup>2)</sup>
IEC 60079-0	- <sup>1)</sup>	Explosive atmospheres - Part 0: Equipment - General requirements	EN 60079-0	2009 <sup>2)</sup>
IEC 60079-7	- <sup>1)</sup>	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"	EN 60079-7	2007 <sup>2)</sup>
IEC 60127	Series	Miniature fuses	EN 60127	Series
IEC 60691	- <sup>1)</sup>	Thermal-links - Requirements and application guide	EN 60691	2003 <sup>2)</sup>
ISO 965-1	- <sup>1)</sup>	ISO general-purpose metric screw threads - Tolerances - Part 1: Principles and basic data	-	-
ISO 965-3	- <sup>1)</sup>	ISO general-purpose metric screw threads - Tolerances - Part 3: Deviations for constructional threads	-	-

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

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

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## EXPLOSIVE ATMOSPHERES –

### Part 31: Equipment dust ignition protection by enclosure "t"

#### 1 Scope

This part of IEC 60079 is applicable to electrical equipment protected by enclosure and surface temperature limitation for use in explosive dust atmospheres. It specifies requirements for design, construction and testing of electrical equipment.

This standard supplements and modifies the general requirements of IEC 60079-0. Where a requirement of this standard conflicts with a requirement of IEC 60079-0, the requirement of this standard shall take precedence.

This standard does not apply to dusts of explosives, which do not require atmospheric oxygen for combustion, or to pyrophoric substances.

This standard does not apply to electrical equipment intended for use in underground parts of mines as well as those parts of surface installations of such mines endangered by firedamp and/or combustible dust.

This standard does not take account of any risk due to an emission of flammable or toxic gas from the dust.

NOTE 1 The application of electrical equipment in atmospheres, which may contain combustible dust as well as explosive gas, whether simultaneously or separately, may require additional protective measures.

NOTE 2 Where the equipment has to meet other environmental conditions, for example, protection against ingress of water and resistance to corrosion, additional methods of protection may be necessary. The method used should not adversely affect the integrity of the enclosure.

#### 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 60034-1, *Rotating electrical machines – Part 1: Rating and performance*

IEC 60079-0, *Explosive atmospheres – Part 0: Equipment – General requirements*

IEC 60079-7, *Explosive atmospheres – Part 7: Equipment protection by increased safety "e"*

IEC 60127 series, *Miniature fuses*

IEC 60691, *Thermal-links – Requirements and application guide*

ISO 965-1, *ISO general-purpose metric screw threads – Tolerances – Part 1: Principles and basic data*

ISO 965-3, *ISO general-purpose metric screw threads – Tolerances – Part 3: Deviation for constructional screw threads*