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Standards

Irish Standard  
I.S. EN ISO/IEC 80079-34:2011

# Explosive atmospheres -- Part 34: Application of quality systems for equipment manufacture (ISO/IEC 80079 -34:2011 (MOD))

## I.S. EN ISO/IEC 80079-34:2011

*Incorporating amendments/corrigenda issued since publication:*

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**Explosive atmospheres -  
Part 34: Application of quality systems for equipment manufacture  
(ISO/IEC 80079-34:2011, modified)**

Atmosphères explosives -  
Partie 34: Application des systèmes de  
qualité pour la fabrication d'équipements  
(ISO/CEI 80079-34:2011, modifiée)

Explosionsgefährdete Bereiche -  
Teil 34: Anwendung von  
Qualitätsmanagementsystemen für die  
Herstellung von Geräten  
(ISO/IEC 80079-34:2011, modifiziert)

This European Standard was approved by CEN and CENELEC on 25 May 2011.

CEN and 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 CEN-CENELEC Management Centre or to any CEN and CENELEC member.

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## Foreword

The text of ISO/IEC 80079-34:2011 has been prepared by Technical Committee IEC TC 31 "Equipment for explosive atmospheres" of the International Electrotechnical Commission (IEC) and has been taken over as EN ISO/IEC 80079-34:2011 by Technical Committee CEN/TC 305 "Potentially explosive atmospheres – Explosion prevention and protection" the secretariat of which is held by DIN. The enquiry took place at ISO/CEN level (31M/31/CDV, CEN Project = WI 00305114). However, the vote on 31M/45/FDIS took place at IEC/CLC level (agreement between ISO and IEC, see also D130/103), under the responsibility of the Technical Committee CENELEC TC 31 "Electrical apparatus for potentially explosive atmospheres".

The text of document 31M/45/FDIS, future edition 1 of ISO/IEC 80079-34:2010, prepared by Technical Committee IEC TC 31 "Equipment for explosive atmospheres", was submitted to the IEC-CENELEC parallel vote.

A draft amendment, prepared by the Technical Committee CEN TC 305 "Electrical Potentially explosive atmospheres – Explosion prevention and protection", was submitted to the CENELEC formal vote.

The combined texts were approved by CEN and CENELEC as EN ISO/IEC 80079-34 on 2011-05-25.

This document supersedes EN 13980:2002.

The significant changes with respect to EN 13980:2002 are the following:

- references have been changed, especially references to CEN/CENELEC and their publications have been changed to references to international available publications;
- foreword and scope have been adapted to international requirements;
- terminology has been changed and adapted to terminology being more customary in the international standardization (e. g. "notified body" has been modified to "body responsible for verification");
- information relevant to particular types of protection has been amended with
  - Ex t - dust ignition protection by enclosure,
  - gas detectors and
  - flame arresters;
- Annex B has been renamed as "Verification criteria for elements with non-measurable paths used as an integral part of a type of protection";
- B.3 has been modified;
- information relevant to equipment and protective systems according to standards harmonized under Directive 94/9/EC are given in new Annex ZB.

This standard should be read in conjunction with EN ISO 9001:2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an harmonized national standard or by endorsement (dop) 2012-05-25
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2014-05-25

Annex ZB provides information on those aspects that the quality system should address with respect to particular protection laid down in harmonized standards under Directive 94/9/EC, e.g. types of protection for non-electrical equipment or components, equipment according to specific product standards and autonomous protective systems. It does not add to or otherwise change the requirements of this standard.

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.

The State of the Art is included in Annex ZY “*Significant changes between this European Standard and EN 13980:2002*”.

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

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## Annex ZA (normative)

### Normative references to international publications and the 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 60050-426	-	International Electrotechnical Vocabulary - Part 426: Equipment for explosive atmospheres	-	-
IEC 60079-0	-	Explosive atmospheres - Part 0: Equipment - General requirements	EN 60079-0	-
ISO/IEC 17050-1	-	Conformity assessment - Supplier's declaration of conformity - Part 1: General requirements	EN ISO/IEC 17050-1	-
ISO 9000	2005	Quality management systems - Fundamentals and vocabulary	EN ISO 9000	2005
ISO 9001	2008	Quality management systems - Requirements	EN ISO 9001	2008



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**EXPLOSIVE ATMOSPHERES –**

**Part 34: Application of quality systems  
for equipment manufacture**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard ISO/IEC 80079-34 has been prepared by IEC subcommittee 31M: Non-electrical equipment and protective systems for explosive atmospheres, of IEC 31: Equipment for explosive atmospheres.

This publication is published as a double logo standard.

This standard should be read in conjunction with ISO 9001:2008.

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The text of this particular standard is based on the following documents:

FDIS	Report on voting
31M/45/FDIS	31M/48/RVD

Full information on the voting for the approval of this particular standard can be found in the report on voting indicated in the above table. In ISO, the standard has been approved because there were no negative votes out of the eleven votes cast.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 60079 series, under the general title *Explosive atmospheres*, as well as the ISO/IEC 80079 series, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## INTRODUCTION

This International Standard specifies requirements for a quality system that can be used by an organization for the production of equipment and protective systems for explosive atmosphere.

It can also be used by third parties, including certification bodies, to assess the organization's ability to meet conformity assessments system requirements and/or regulatory requirements.

The application of this standard is intended to cover both electrical and non-electrical equipment and protective systems. The detailed content (e.g. annexes) is currently more focused on the established equipment standards for electrical equipment. However, IEC sub-committee 31M has recently been formed with the responsibility for the development of standards for non-electrical equipment. It is anticipated that, where appropriate, these standards, or requirements related to them, will be referenced within this standard in the future.

Manufacturer's quality requirements are an integral part of most certification schemes and as such this Standard has been prepared with the IECEx equipment certification scheme requirements in mind, is intended to support the ATEX scheme requirements for a manufacturer's quality system and can be applied in other national or regional certifications schemes that relate to the manufacture of explosion-protected equipment.

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