BS EN 60079-17:2014



BSI Standards Publication

Explosive atmospheres

Part 17: Electrical installations inspection and maintenance

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National foreword

This British Standard is the UK implementation of EN 60079-17:2014. It is identical to IEC 60079-17:2013. It supersedes BS EN 60079-17:2007 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee EXL/31, Equipment for explosive atmospheres, to Sub-committee EXL/31/3, Codes of practice.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2014.
Published by BSI Standards Limited 2014

ISBN 978 0 580 80125 9
ICS 13.230; 29.260.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 March 2014.

Amendments/corrigenda issued since publication

Date	Text affected

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60079-17

March 2014

ICS 29.260.20

Supersedes EN 60079-17:2007

English version

Explosive atmospheres - Part 17: Electrical installations inspection and maintenance

(IEC 60079-17:2013)

Atmosphères explosives - Partie 17: Inspection et entretien des installations électriques (CEI 60079-17:2013)

Explosionsgefährdete Bereiche - Teil 17: Prüfung und Instandhaltung elektrischer Anlagen (IEC 60079-17:2013)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
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Ref. No. EN 60079-17:2014 E

Foreword

The text of document 31J/224/FDIS, future edition 5 of IEC 60079-17, prepared by SC 31J, Classification of hazardous areas and installation requirements, of IEC TC 31, Equipment for explosive atmospheres, was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60079-17:2014.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2014-09-24
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2016-12-24

This document supersedes EN 60079-17:2007.

EN 60079-17:2014 includes the following significant technical changes with respect to EN 60079-17:2007:

- Equipment specific inspection tables for luminaires, heating systems and motors have been added into Annex A to supplement the general protection concept tables.

- Document has been updated to complement the changes made to EN 60079-14 for initial inspection.

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

Endorsement notice

The text of the International Standard IEC 60079-17:2013 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60079-5	NOTE	Harmonised as EN 60079-5.
IEC 60079-6	NOTE	Harmonised as EN 60079-6.
IEC 60079-18	NOTE	Harmonised as EN 60079-18.
IEC 60079-26	NOTE	Harmonised as EN 60079-26.
IEC 60079-28	NOTE	Harmonised as EN 60079-28.
IEC 60204-1	NOTE	Harmonised as EN 60204-1.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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.

Publication	Year	Title	EN/HD	Year
IEC 60079-0	-	Explosive atmospheres - Part 0: Equipment - General requirements	EN 60079-0	
IEC 60079-1	-	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"	EN 60079-1	-
IEC 60079-2	-	Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"	EN 60079-2	-
IEC 60079-7		Explosive atmospheres - Part 7: Equipment protection by increased safety "e"	EN 60079-7	
IEC 60079-10-1	-	Explosive atmospheres - Part 10-1: Classification of areas - Explosive gas atmospheres	EN 60079-10-1	-
IEC 60079-10-2	-	Explosive atmospheres - Part 10-2: Classification of areas - Combustible dust atmospheres	EN 60079-10-2	-
IEC 60079-11		Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"	EN 60079-11	-
IEC 60079-14	-	Explosive atmospheres - Part 14: Electrical installations design, selection and erection	EN 60079-14	-
IEC 60079-15	-	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"	EN 60079-15	-
IEC 60079-19	-	Explosive atmospheres - Part 19: Equipment repair, overhaul and reclamation	EN 60079-19	-
IEC 60079-31	-	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"	EN 60079-31	-
IEC 60364-6	-	Low voltage electrical installations - Part 6: Verification	HD 60364-6	-
IEC 61241-4	-	Electrical apparatus for use in the presence of combustible dust - Part 4: Type of protection 'pD'	EN 61241-4	-

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INTRODUCTION

Electrical installations in hazardous areas possess features specially designed to render them suitable for operations in such atmospheres. It is essential for reasons of safety in those areas that, throughout the life of such installations, the integrity of those special features is preserved. This standard provides the details for initial inspection and on-going inspections as either;

a) regular periodic inspections thereafter, or,

b) continuous supervision by skilled personnel.

When necessary, maintenance may also be needed.

Correct functional operation of hazardous area installations does not mean, and should not be interpreted as meaning, that the integrity of the special features referred to above is preserved.

Inspections are carried out in accordance with this standard, however for older installations the details for the equipment and installations requirements should be referenced to the standards applied at the date of the installation.

NOTE Standards applied at the date of installation may not have been IEC standards.

EXPLOSIVE ATMOSPHERES –

Part 17: Electrical installations inspection and maintenance

1 Scope

This part of the IEC 60079 series applies to users and covers factors directly related to the inspection and maintenance of electrical installations within hazardous areas only, where the hazard may be caused by flammable gases, vapours, mists, dusts, fibres or flyings.

It does not include:

- other fundamental installation and inspection requirements for electrical installations;
- the verification of electrical equipment;
- the repair and reclamation of explosion protected equipment (see IEC 60079-19).

This standard supplements the requirements of IEC 60364-6.

In the case of dusts, fibres or flyings the level of housekeeping may influence the inspection and maintenance requirements.

This standard is intended to be applied where there can be a risk due to the presence of explosive gas or dust mixtures with air or combustible dust layers under normal atmospheric conditions. It does not apply to:

- underground mining areas,
- dusts of explosives that do not require atmospheric oxygen for combustion,
- pyrophoric substances.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

IEC 60079-1, *Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures "d"*

IEC 60079-2, *Explosive atmospheres – Part 2: Equipment protection by pressurized enclosures "p"*

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

IEC 60079-10-1, *Explosive atmospheres – Part 10-1: Classification of areas – Explosive gas atmospheres*

IEC 60079-10-2, *Explosive atmospheres – Part 10-2: Classification of areas – Combustible dust atmospheres*