

AMERICAN NATIONAL STANDARD

ANSI/ISA-60079-15 (12.12.02)-2012

Supersedes ANSI/ISA-60079-15 (12.12.02)-2009

**Explosive atmospheres –
Part 15: Equipment protection
by type of protection "n" (Edition 4)**

Approved 15 February 2013

Commitment for Amendments

This standard is issued jointly by ISA and Underwriters Laboratories Incorporated (UL). Comments or proposals for revisions on any part of the standard may be submitted to ISA or UL at any time. Revisions to this standard will be made only after processing according to the standards development procedures of ISA and UL. ***ISA and UL will issue revisions to this standard by means of a new edition or revised or additional pages bearing their date of issue.***

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The most recent designation of ANSI/ISA-60079-15 and ANSI/UL 60079-15 as an American National Standard occurred on 15 February 2013.

This ANSI/UL Standard for Safety, which consists of the fourth edition, is under continuous maintenance, whereby each revision is ANSI approved upon publication. Comments or proposals for revisions on any part of the standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at <http://csds.ul.com>.

ISA
ANSI/ISA-60079-15
Fourth Edition

Underwriters Laboratories Inc.
ANSI/UL 60079-15
Fourth Edition



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General Notes

This is the common ISA and UL standard for Explosive atmospheres – Part 15: Equipment protection by type of protection "n". It is the fourth edition of ANSI/ISA-60079-15 (superceding ANSI/ISA-60079-15 (12.12.02)-2009 and the fourth edition of ANSI/UL 60079-15.

ANSI/ISA-60079-15 and ANSI/UL 60079-15 contain identical requirements, and identical publication dates. The presentation and format of the standards material may differ between the two published standards.

This common standard was prepared by the International Society of Automation (ISA) and Underwriters Laboratories Inc. (UL).

Although the intended primary application of this standard is stated in its scope, it is important to note that it remains the responsibility of the users of the standard to judge its suitability for their particular purpose.

Level of harmonization

This standard adopts the IEC text with deviations.

The requirements are presented in different formats. The ISA version of the standard illustrates the national differences from the IEC text through the use of legislative text (strike-out and underline). The UL version of the standard illustrates national differences immediately following the IEC text. National differences between the UL version and the ISA version shall be word for word except for editorial changes.

Interpretations

The interpretation by the SDO of an identical or equivalent standard shall be based on the literal text to determine compliance with the standard in accordance with the procedural rules of the SDO. If more than one interpretation of the literal text has been identified, a revision shall be proposed as soon as possible to each of the SDOs to more accurately reflect the intent.

UL Effective Date

The effective dates for these new, revised or deleted requirements are being determined.

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Preface (ISA)

This ISA standard is based on the 4th edition of IEC Publication 60079-15. It is the intention of the ISA12 Committee to develop an ANSI Standard that is harmonized with IEC 60079-15 to the fullest extent possible. This preface is included for informational purposes and is not part of ANSI/ISA-60079-15. The document is a modification of the IEC document and includes U.S. deviations encompassing both additions and deletions of information. The significant changes with respect to the previous edition are listed below:

- addition of equipment protection levels;
- removal of the requirements for energy-limited “nL” and associated energy limited apparatus “[nL]”;
- removal of the requirements for encapsulated devices “nC”;
- requirements for electrical connections expanded and clarified
- requirements for luminaire ballasts expanded and clarified;
- requirements for evaluation and testing of motor rotors clarified;
- 15 kV limit for equipment protection by type of protection “n” added;
- spacing requirement for voltages above 10 kV modified;
- requirements for restricted breathing enclosures modified;
- modification to requirements for motor rotors and stators;
- addition of Annex A (informative);
- undated references to IEC 60079-0 included.

The standards referenced within this document may contain provisions which, through reference in this text, constitute requirements of this document. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this document are encouraged to investigate the possibility of applying the most recent editions of the standards indicated within this document. Members of IEC and ISO maintain registers of currently valid International Standards. ANSI maintains registers of currently valid U.S. National Standards.

This document has been prepared as part of the service of the International Society of Automation (ISA) toward a goal of uniformity in the field of instrumentation. To be of real value, this document should not be static but should be subject to periodic review. Toward this end, the Society welcomes all comments and criticisms and asks that they be addressed to the Secretary, Standards and Practices Board; ISA; 67 Alexander Drive; P. O. Box 12277; Research Triangle Park, NC 27709; Telephone (919) 549-8411; Fax (919) 549-8288; E-mail: standards@isa.org.

The ISA Standards and Practices Department is aware of the growing need for attention to the metric system of units in general, and the International System of Units (SI) in particular, in the preparation of instrumentation standards. The Department is further aware of the benefits to USA users of ISA standards of incorporating suitable references to the SI (and the metric system) in their business and professional dealings with other countries. Toward this end, this Department will endeavour to introduce SI-acceptable metric units in all new and revised standards, recommended practices, and technical reports to the greatest extent possible. IEEE/ASTM SI 10, *American National Standard for Metric Practice*, and future revisions, will be the reference guide for definitions, symbols, abbreviations, and conversion factors.

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