

Australian/New Zealand Standard™

**Caplights for use in mines susceptible
to firedamp**

**Part 1: General requirements—
Construction and testing in relation to
the risk of explosion**



Standards Australia



STANDARDS
NEW ZEALAND
Pūrongo Aotearoa

AS/NZS 62013.1:2001

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The following interests are represented on Committee EL-023:

Australian Chamber of Commerce and Industry
Australian Coal Association
Australian Electrical and Electronic Manufacturers Association
Australian Industry Group
Department of Mineral Resources N.S.W.
Department of Natural Resources and Mines (QLD)
Electrical Apparatus Service Association
Mining Electrical and Mining Mechanical Engineering Society
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-023, Electrical Equipment in Coal Mines.

The objective of this Standard is to provide users, manufacturers and regulatory authorities with an internationally aligned specification for the construction and testing in relation to the risk of explosion of caplights for use in mines susceptible to firedamp.

This Standard is identical with and has been reproduced from IEC 62013-1:1999, *Caplights for use in mines susceptible to firedamp, Part 1: General requirements—Construction and testing in relation to the risk of explosion*.

A reference to an International Standard identified in the Normative References Clause by strikethrough (~~example~~) is replaced by a reference to the Australian or Australian/New Zealand Standard(s) listed immediately thereafter and identified by shading (**example**). Where the struck-through referenced document and the referenced Australian or Australian/New Zealand Standard are identical, this is indicated in parenthesis after the title of the latter. In this Standard, the following print types are used:

- requirements proper: in arial type;
- *test specifications: in italic type;*
- explanatory matter: in smaller arial type.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text ‘this standard’ should read ‘this Australian/New Zealand Standard’.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Caplights for use in mines susceptible to firedamp****Part 1: General requirements—Construction and testing in relation to the risk of explosion****1 Scope**

This part of IEC 62013 specifies requirements for the construction and testing of caplights for use in mines susceptible to firedamp (Group I – electrical apparatus for explosive gas atmospheres as defined in IEC 60079-0). It deals only with the risk of the caplight becoming a source of ignition. The requirements of IEC 60079-0 do not apply unless specified.

This standard is also applicable to caplights intended for use in mines which have become temporarily endangered by an explosive atmosphere of firedamp.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 62013. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 62013 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

References to International Standards that are struck through in this Clause are replaced by references to equivalent Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading. Any Australian or Australian/New Zealand Standard that is identical to the International Standard it replaces is appropriately identified.

IEC 60050(845):1987, *International Electrotechnical Vocabulary (IEV) – Chapter 845: Lighting*

~~IEC 60079-0:1998, *Electrical apparatus for explosive gas atmospheres – Part 0: General requirements*~~

AS/NZS 60079.0:2000, *Electrical apparatus for explosive gas atmospheres, Part 0: General requirements* (identical to IEC 60079-0)

IEC 60079-7:1990, *Electrical apparatus for explosive gas atmospheres – Part 7: Increased safety "e"*

~~IEC 60079-11:1999, *Electrical apparatus for explosive gas atmospheres – Part 11: Intrinsic safety "i"*~~

AS/NZS 60079.11:2000, *Electrical apparatus for explosive gas atmospheres, Part 11: Intrinsic safety "i"* (identical to IEC 60079-11)