AS/NZS 60079.5:2000
IEC 60079-5:1997
(Incorporating Amendment No. 1)

Australian/New Zealand Standard™

Electrical apparatus for explosive gas atmospheres

Part 5: Powder filling ‘q’

STANDARDS AUSTRALIA

STANDARDS NEW ZEALAND
Paerewa Aotearoa

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-014, Electrical Equipment in Hazardous Areas. It was approved on behalf of the Council of Standards Australia on 15 March 2000 and on behalf of the Council of Standards New Zealand on 20 Mach 2000. It was published on 26 April 2000.

The following are represented on Committee EL-014:

Association of Consulting Engineers Australia
Auckland Regional Chamber of Commerce
Australian Association of Certification Bodies
Australian Chamber of Commerce and Industry
Australian Coal Association
Australian Electrical and Electronic Manufacturers Association
Australian Gas Association
Australian Industry Group
Australian Institute of Petroleum
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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 99150.

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Part 5: Powder filling ‘q’

First published as AS/NZS 60079.5:2000.
Reissued and incorporating Amendment No. 1 (April 2004)

Jointly published by Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 3342 5

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-014, Electrical Equipment in Hazardous Areas.

This Standard incorporates Amendment No. 1 (April 2004) (which is identical to and has been reproduced from IEC 60079-5:1997, Amd 1:2003). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

This Standard is identical with and has been reproduced from IEC 60079-5:1997, *Electrical apparatus for explosive gas atmospheres,* Part 5: *Powder filling "q".*

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The objective of this Standard is to set out requirements for the construction and testing of electrical apparatus (also parts of electrical apparatus, enclosures and Ex components) using the protection technique of powder filling.

In January 1997, the IEC commenced numbering its Standards from 60000 by adding 60000 to the number of each existing Standard. This coordinates IEC numbering with ISO numbering. During the transition period an IEC Standard might be identified by its new number or its old number (for example, IEC 60050 or IEC 50).

A reference to an International Standard identified in the normative references clause by strikethrough (~~example~~) is replaced by a reference to the identical Australian or Australian/New Zealand Standard(s) listed immediately thereafter and identified by shading (example).

As this Standard is reproduced from an International Standard a full point should be substituted for a comma when referring to a decimal marker.

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1 Scope

This part of AS/NZS 60079 contains the specific requirements for the construction, testing and marking of electrical apparatus, parts of electrical apparatus and Ex components in the type of protection powder filling ‘q’, intended for use in potentially explosive atmospheres of gas, vapour and mist.

NOTE – Powder-filled electrical apparatus and Ex components may contain electronic circuits, transformers, protection fuses, relays, intrinsically safe electrical apparatus, associated electrical apparatus, switches, etc.

This standard supplements IEC 60079-0, the requirements of which apply to powder-filled electrical apparatus.

This standard applies to electrical apparatus, parts of electrical apparatus and Ex components with:

– a rated current less than or equal to 16 A;
– a rated power consumption less than or equal to 1 000 VA, intended to be connected to a supply not exceeding 1 000 V.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of AS/NZS 60079. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of AS/NZS 60079 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. 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 identical Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading.

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

AS/NZS 60079.0, *Electrical apparatus for explosive gas atmospheres*–Part 0: *General requirements* (identical to IEC 60079-0:1998)

IEC 60079-1:2001, *Electrical apparatus for explosive gas atmospheres—Part 1: Flameproof enclosures “d”*

IEC 60079-7, *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”*