

Australian/New Zealand Standard™

**Electrical apparatus for explosive gas  
atmospheres**

**Part 0: General requirements**



**Standards Australia**



**STANDARDS  
NEW ZEALAND**  
Pūnaha Aotearoa

## **AS/NZS 60079.0:2000**

---

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL/14, 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 March 2000. It was published on 26 April 2000.

---

The following interests are represented on Committee EL/14:

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  
Australian Institute of Refrigeration Air Conditioning and Heating  
Department of Mineral Resources, N.S.W.  
Department of Mines and Energy, Qld  
Electricity Supply Association of Australia  
Institute of Electrical Inspectors  
Institute of Instrumentation and Control Australia  
Institution of Engineers Australia  
Ministry of Commerce New Zealand  
National Electrical and Communications Association  
New Zealand Association of Marine, Aviation and Power Engineers  
New Zealand Employers and Manufacturers Association  
New Zealand Hazardous Areas Electrical Coordinating Committee  
Regulatory authorities (electrical)  
WorkCover New South Wales

---

### **Keeping Standards up-to-date**

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Australia web site at [www.standards.com.au](http://www.standards.com.au) or Standards New Zealand web site at [www.standard.co.nz](http://www.standard.co.nz) and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

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.

AS/NZS 60079.0:2000

# Australian/New Zealand Standard™

## Electrical apparatus for explosive gas atmospheres

### Part 0: General requirements

First published as AS/NZS 60079.0:2000.

#### **COPYRIGHT**

© Standards Australia/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Jointly published by Standards Australia International Ltd, PO Box 1055, Strathfield, NSW 2135 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 3344 1

## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL/14, Electrical Equipment in Hazardous Areas.

This Standard is identical with and has been reproduced from IEC 60079-0:1998, *Electrical apparatus for explosive gas atmospheres*, Part 0: *General requirements*.

Footnotes have been incorporated into the original text of IEC 60079-0:1998 with the purpose of providing updated information on the specific items/aspects marked with \*.

The objective of this Standard is to provide general requirements for the manufacturers, testing authorities and certification bodies concerned with electrical apparatus for explosive gas atmospheres.

This Standard will run concurrently with AS 2380.1 *Electrical equipment for explosive atmospheres—explosion-protection techniques*, Part 1: *General requirements*, until the AS/NZS 60079 series is complete at which time the AS 2380 series will be withdrawn.

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.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the annex to which they apply. A normative annex is an integral part of a Standard, whereas an informative annex is only for information and guidance.

## CONTENTS

Clause	<i>Page</i>
1 Scope.....	1
2 Normative references.....	2
3 Definitions and symbols.....	4
4 Apparatus grouping and temperature classification.....	7
5 Temperatures.....	7
6 Requirements for all electrical apparatus.....	9
7 Non-metallic enclosures and non-metallic parts of enclosures .....	9
8 Enclosures containing light metals.....	11
9 Fasteners .....	12
10 Interlocking devices .....	13
11 Bushings.....	14
12 Materials used for cementing .....	14
13 Ex components.....	14
14 Connection facilities and terminal compartments.....	15
15 Connection facilities for earthing or bonding conductors.....	15
16 Cable and conduit entries .....	16
17 Supplementary requirements for rotating electrical machines .....	17
18 Supplementary requirements for switchgear .....	18
19 Supplementary requirements for fuses .....	19
20 Supplementary requirements for plugs and sockets.....	19
21 Supplementary requirements for luminaires.....	20
22 Supplementary requirements for caplights, caplamps and handlamps.....	20
23 Type verifications and tests .....	21
24 Routine verifications and tests .....	28
25 Manufacturer's responsibility.....	28
26 Verifications and tests on modified or repaired electrical apparatus.....	28
27 Marking .....	29
Annexes	
A (informative) Subdivision of gases and vapours according to their maximum experimental safe gaps and minimum ignition currents.....	33
B (normative) Ex cable entries.....	41
C (normative) Clauses with which Ex components shall comply.....	47
D (informative) Example of rig for resistance to impact test.....	48

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
  - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-