Australian/New Zealand Standard™

Explosive atmospheres

Part 33: Equipment protection by special protection 's'





AS/NZS 60079.33:2012

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-014, Equipment for Explosive Atmospheres. It was approved on behalf of the Council of Standards Australia on 14 November 2012 and on behalf of the Council of Standards New Zealand on 29 October 2012.

This Standard was published on 30 November 2012.

The following are represented on Committee EL-014:

Auckland Regional Chamber of Commerce

Australian Chamber of Commerce and Industry

Australian Coal Association

Australian Industry Group

Australian Institute of Petroleum

Australian Institute of Refrigeration Air Conditioning and Heating

Australian Petroleum Production and Exploration Association

Australian Pipeline Industry Association

Aviation and Marine Engineers Association

Bureau of Steel Manufacturers of Australia

Department of Natural Resources and Mines, Old

Electrical Compliance Testing Association

Electrical Contractors Association of New Zealand

Electrical Regulatory Authorities Council

Energy Networks Association

Engineers Australia

Environmental Protection Authority New Zealand

Institute of Electrical Inspectors

Institute of Instrumentation, Control & Automation Australia

Institution of Professional Engineers New Zealand

Mining Electrical and Mining Mechanical Engineering Society

Ministry of Economic Development New Zealand

National Electrical and Communications Association

New Zealand Employers and Manufacturers Association (Central)

NSW Department of Trade and Investment, Regional Infrastructure and Services

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 Standards may also be withdrawn.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 Web Shop at www.saiglobal.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

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 or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR AS/NZS IEC 60079.33.

AS/NZS 60079.33:2012

Australian/New Zealand Standard™

Explosive atmospheres

Part 33: Equipment protection by special protection 's'

First published as AS/NZS 60079.33:2012.

COPYRIGHT

© Standards Australia Limited/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, unless otherwise permitted under the Copyright Act 1968 (Australia) or the Copyright Act 1994 (New Zealand).

Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, Private Bag 2439, Wellington 6140

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-014, Equipment for Explosive Atmospheres.

The objective of this Standard is to provide requirements and the specific methodology for the assessment, testing and marking of electrical equipment, parts of electrical equipment and Ex components with special protection 's'.

This Standard is identical with, and has been reproduced from IEC 60079-33, Ed.1.0 (2012), Explosive atmospheres: Part 33: Equipment protection by special protection 's'.

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

- (a) Its number appears on the cover and title page while the International Standard number appears only on the cover.
- (b) In the source text 'this part of IEC 60079' should read 'this Australian/New Zealand Standard'.
- (c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		Australian/New Zealand Standard		
IEC 61508 (all parts)	Functional safety of electrical/electronic/programmable electronic safety-related systems	AS 61508 (all parts)	Functional safety of electrical/electronic/programmable electronic safety-related systems	
62061	Safety of machinery—Functional safety of safety-related electrical, electronic and programmable electronic control systems	62061	Safety of machinery—Functional safety of safety-related electrical, electronic and programmable electronic control systems	
IEC		AS IEC		
61511 (all parts)	Functional safety—Safety instrumented systems for the process industry sector	61511 (all parts)	Functional safety—Safety instrumented systems for the process industry sector	
IEC		AS/NZS		
60079 60079-0	Explosive atmospheres Part 0: Equipment—General requirements	60079 60079.0	Explosive atmospheres Part 0: Equipment—General requirements	
60079-29-1	Part 29-1: Gas detectors— Performance requirements of detectors for flammable gases	60079.29.1	Part 29.1: Gas detectors— Performance requirements of detectors for flammable gases	
60079-29-2	Part 29-2: Gas detectors— Selection, installation, use and maintenance of detectors for flammable gases and oxygen	60079.29.2		

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

CONTENTS

1	Scop	e	9			
2	Norm	ormative references				
3	Term	is and definitions	. 10			
4	Gene	eral	. 11			
	4.1	Application				
	4.2	Equipment group and temperature classification				
	4.3	Level of protection (equipment protection level (EPL))				
	4.4	Manufacturer's justification				
	4.5	Verification				
5	Indep	pendent verifier	. 12			
	5.1	General	. 12			
	5.2	Competence	. 12			
	5.3	Duties	. 13			
	5.4	Acceptance	. 13			
	5.5	Independence	. 13			
6	Desig	gn and construction	. 13			
	6.1	Principles of an integrated approach to explosion safety	. 13			
	6.2	Design and construction				
	6.3	Overloading of equipment	. 14			
	6.4	Potential ignition sources	. 14			
		6.4.1 Hazards arising from different ignition sources	. 14			
		6.4.2 Hazards arising from overheating	. 14			
		6.4.3 Hazards arising from pressure compensation operations	. 14			
	6.5	Requirements in respect of safety-related devices				
7	Appli	cation of equipment protection levels (EPL)	. 15			
	7.1	Equipment with EPL Ma	. 15			
	7.2	Equipment with EPL Mb	. 15			
	7.3	Equipment with EPL Ga				
	7.4	Equipment with EPL Gb				
	7.5	Equipment with EPL Gc				
	7.6	Equipment with EPL Da				
	7.7	Equipment with EPL Db				
	7.8	Equipment with EPL Dc				
8		aration of assessment and test specification				
	8.1	General				
	8.2	Assessment and test specification				
	8.3	Assessment and testing				
_	8.4	Reporting results of the assessment and test specification				
9	Igniti	on hazard assessment				
	9.1	General				
	9.2	Protective measures				
	9.3	Explanation of the ignition hazard assessment procedure				
4.0	9.4	Examples of ignition hazard assessment				
10	Appli	cation of special protection "s"	. 20			



The is a new provider i arenade and chare publication at the limit below	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation