AS/NZS 60079.26:2015
IEC 60079-26 Ed.3.0 (2014)

AS/NZS 60079.26:2015

Australian/New Zealand Standard™

Explosive atmospheres

Part 26: Equipment with Equipment Protection Level (EPL) Ga

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 20 October 2015 and on behalf of the Council of Standards New Zealand on 22 October 2015.
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The following are represented on Committee EL-014:

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Australian/New Zealand Standard™

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Part 26: Equipment with Equipment Protection Level (EPL) Ga

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-014, Equipment for Explosive Atmospheres, to supersede AS/NZS 60079.26:2007.

The objective of this Standard is to set out the requirements for construction, test and marking for electrical equipment that provides Equipment Protection Level (EPL) Ga when single standardised Types of Protection (e.g. Ex 'ia', Ex 'ma', Ex 'da') cannot be applied. This Standard also applies to equipment mounted across a boundary where different Equipment Protection Levels may be required.

This Standard is identical with, and has been reproduced from IEC 60079-26 Ed.3.0 (2014), *Explosive atmospheres,* Part *26: Equipment with Equipment Protection Level (EPL) Ga.* Changes to the Standard introduced by this edition are listed in the IEC Foreword.

This Standard is to be read in conjunction with AS/NZS 60079.0, *Explosive atmospheres*, Part 0: *Equipment—General requirements*.

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

(a) In the source text 'this part of IEC 60079' should read 'this Australian/New Zealand Standard'.

(b) 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		AS/NZS	
60079	Explosive atmospheres	60079	Explosive atmospheres
60079-0	Part 0: General requirements	60079.0	Part 0: General requirements
60079-1	Part 1: Equipment protection by flameproof enclosures "d"	60079.1	Part 1: Equipment protection by flameproof enclosures 'd'
60079-11	Part 11: Equipment protection by intrinsic safety "i"	60079.11	Part 11: Equipment protection by intrinsic safety 'i'
60529	Degrees of protection provided by enclosures (IP Code)	60529	Degrees of protection provided by enclosures (IP Code)
60695	Fire hazard testing	60695	Fire hazard testing
60695-11-10	Part 11-10: Test flames—50 W horizontal and vertical flame test methods	60695.11.10	Part 11-10: Test flames—50 W horizontal and vertical flame test methods

CONTENTS

IEC FOREWORD

This edition includes the following significant changes with respect to the previous edition:

		Type		
Changes	**Clause**	**Minor and editorial changes**	**Extension**	**Major technical changes**
Notes deleted	1	X		
Reference to associated apparatus deleted	1	X		
Additional normative references included	3	X		
Requirements against mechanical and electrostatic ignition hazards deleted (now covered in IEC 60079-0)	4.1	X		
Requirement for separation element detailed regarding external influences	4.1.3.2	X		
Intrinsic safety Ex ia as single type of protection including associated apparatus deleted (now covered by EPL)	4.2.2 (ed.2)	X		
Encapsulation Ex ma as single type of protection deleted (now covered by EPL)	4.2.3 (ed.2)	X		
Conditions a) and b) linked with an “and” , therefore requirement of “flameproof joint” deleted in following clause. Both requirements already covered by separation elements and standardised process connections.	4.3	X		
Process connection requires a sufficiently tight joint: IP66 added alternatively to IP67	4.3		X	
Requirement for isolated conductive components deleted (now covered in IEC 60079-0)	4.4 (ed.2)	X		
Requirements for non-conductive enclosures deleted (now covered in IEC 60079-0)	4.5 (ed.2)	X		
Test of partition walls according to 4.1.3.2 b) is specified in more detail	5.2			C1
Marking example for associated apparatus deleted	6.2 b)	X		
Note 3 with an additional example added	6.2	X		
Specification of material of partition wall required in instructions (also required in 4.1.3.2)	7	X		
Alternative risk assessment method deleted (is now generally introduced)	AnnexA (ed.2)	X		

NOTE The technical changes referred to include the significance of technical changes in the revised IEC Standard, but they do not form an exhaustive list of all modifications from the previous version.

Explanation of the types of changes:

A) Definitions

1) Minor and editorial changes:

- Clarification
- Decrease of technical requirements
- Minor technical change
- Editorial corrections

These are changes which modify requirements in an editorial or a minor technical way. They include changes of the wording to clarify technical requirements without any technical change, or a reduction in level of existing requirement.

2) Extension: Addition of technical options

These are changes which add new or modify existing technical requirements, in a way that new options are given, but without increasing requirements for equipment that was fully compliant with the previous standard.Therefore, these will not have to be considered for products in conformity with the preceding edition.

3) Major technical changes:

- addition of technical requirements
- increase of technical requirements

These are changes to technical requirements (addition, increase of the level or removal) made in a way that a product in conformity with the preceding edition will not always be able to fulfil the requirements given in the later edition. These changes have to be considered for products in conformity with the preceding edition. For these changes additional information is provided in Clause B below.

NOTE These changes represent current technological knowledge. However, these changes should not normally have an influence on equipment already placed on the market.

B) Information about the background of 'Major technical changes'

C1: Introduction of type tests for separation elements according to "4.1.3.2 b)"

AUSTRALIAN/NEW ZEALAND STANDARD

Explosive atmospheres

Part 26:
Equipment with Equipment Protection Level (EPL) Ga

1 Scope

This part of IEC 60079 specifies alternative requirements for construction, test and marking for electrical equipment that provides Equipment Protection Level (EPL) Ga when single standardised Types of Protection (e.g. Ex “ia” , Ex “ma”, Ex “da”) cannot be applied. This standard also applies to equipment mounted across a boundary where different Equipment Protection Levels may be required.

EXAMPLE: Equipment installed in the wall of a storage vessel containing Zone 0 (requiring EPL Ga) inside an area defined as Zone 1 (requiring EPL Gb).

This electrical equipment, within the operational parameters specified by the manufacturer, ensures a very high Level of Protection that includes rare malfunctions related to the equipment or two malfunctions occurring independently of each other.

NOTE A malfunction may result from a failure of the component parts of the electrical equipment or from anticipated externally applied influences. Two independent malfunctions which may occur more frequently and which, separately, would not create an ignition hazard but which, in combination, could create a potential ignition hazard, are regarded as occurring together to form a rare malfunction.

This standard supplements and modifies the general requirements of IEC 60079-0. Where a requirement of this standard conflicts with a requirement of IEC 60079-0, the requirement of this standard takes precedence.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60079-0, *Explosive atmospheres – Part 0: Equipment – General requirements*

IEC 60079-1, *Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures "d"*

IEC 60079-11, *Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"*

IEC 60695-11-10, *Fire hazard testing – Part 11-10: Test flames – 50 W horizontal and vertical flame test methods*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

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