

# Australian/New Zealand Standard™

## Explosive atmospheres

### Part 30.1: Electrical resistance trace heating—General and testing requirements



### **AS/NZS 60079.30.1:2007**

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 19 February 2007 and on behalf of the Council of Standards New Zealand on 6 April 2007.  
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The following are represented on Committee EL-014:

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## Explosive atmospheres

### Part 30.1: Electrical resistance trace heating—General and testing requirements

Originated as AS/NZS 62086.1:2002.  
Revised and redesignated as AS/NZS 60079.30.1:2007.

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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 62086.1:2002 and Amendment No.1 (2003).

The objective of this Standard is to specify general and testing requirements for electrical resistance trace heaters for applications in explosive gas atmospheres.

This Standard is identical with, and has been reproduced from IEC 60079-30-1, Ed.1.0 (2007), *Explosive atmospheres – Part 30-1: Electrical resistance trace heating – General and testing requirements*.

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**).

This Standard is part of a series covering electrical resistance trace heating for use in explosive gas atmospheres which comprises the following:

AS/NZS

60079 Explosive atmospheres

60079.30.1 Part 30.1: Electrical resistance trace heating—General and testing requirements  
(this Standard)

60079.30.2 Part 30.2: Electrical resistance trace heating—Application guide for design,  
installation and maintenance

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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## INTRODUCTION

This part of ~~AS/NZS 60079~~~~IEC 60079~~ is intended to provide a comprehensive overview of the essential requirements and testing appropriate to electric surface heating equipment used in explosive gas atmospheres. The requirements of this standard are considered to be the minimum requirements for zone 1 or zone 2. While some of this work already exists in national standards or international standards, this standard has collated much of this existing work and considerably added to it.

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**Australian/New Zealand Standard****Explosive atmospheres**  
**Part 30.1: Electrical resistance trace heating—General and testing requirements**

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**1 Scope**

This part of **AS/NZS 60079**~~IEC 60079~~ specifies general and testing requirements for electrical resistance trace heaters for application in explosive gas atmospheres. The standard covers trace heaters that may comprise either factory- or field- (work-site) assembled units, and which may be series heating cables, parallel heating cables or heating pads and heating panels that have been assembled and/or terminated in accordance with the manufacturer's instructions.

This standard also includes requirements for termination assemblies and control methods used with trace heating. The hazardous areas referred to by this standard are those defined in IEC 60079-10.

Where a requirement of this standard conflicts with a requirement of IEC 60079-0, the requirement of this standard shall take precedence.

**2 Normative references**

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

References to international standards that are struck through in this clause are replaced by references to 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 identified as such.

IEC 60050(151), *International Electrotechnical Vocabulary (IEV) – Part 151: Electrical and magnetic devices*

~~IEC 60079-0:2004, *Electrical apparatus for explosive gas atmospheres – Part 0: General requirements*~~

**AS/NZS 60079.0:2005, *Electrical apparatus for explosive gas atmospheres, Part 0: General requirements* (identical to IEC 60079-0:2004)**

~~IEC 60079-7:2001, *Electrical apparatus for explosive gas atmospheres – Part 7: Increased safety 'e'*~~

**AS/NZS 60079.7:2002, *Electrical apparatus for explosive gas atmospheres, Part 7: Increased safety 'e'* (identical to IEC 60079-7:2001)**