AS 7240.10—2007

Australian Standard®

Fire detection and alarm systems

Part 10: Point-type flame detectors

This Australian Standard® was prepared by Committee FP-002, Fire Detection, Warning, Control and Intercom Systems. It was approved on behalf of the Council of Standards Australia on 19 March 2007.
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The following are represented on Committee FP-002:

- Audio Engineering Society
- Australasian Fire Authorities Council
- Australian Building Codes Board
- Australian Chamber of Commerce and Industry
- Australian Electrical and Electronic Manufacturers Association
- Australian Industry Group
- Australian Institute of Building Surveyors
- CSIRO Manufacturing and Infrastructure Technology
- Deafness Forum of Australia
- Department of Defence (Australia)
- Fire Protection Association Australia
- Fire Protection Association Australia
- Institute of Security Executives
- National Electrical and Communications Association
- Property Council of Australia

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through public comment period.

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PREFACE

This Standard was prepared by the Standards Australia Committee FP-002, Fire Detection, Warning, Control and Intercom Systems.

This Standard is identical with and has been reproduced from ISO 7240-10:2007, *Fire detection and alarm systems*, Part 10: *Point type flame detectors*. Committee FP-002 intends to review the applicability of this Standard for referencing in AS 1670.1, *Fire Detection, warning, control and intercom systems,* Part 1: *System design, installation and commissioning—Fire*.

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 International Standard' should read 'this Australian Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

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

References to International Standard or other Publication		*Australian/New Zealand Standard*	
IEC		AS	
60068	Environmental testing	60068	Environmental testing
60068-1	General and guidance	60068.1	General and guidance
60068-2-1	Tests. Test A: Cold	60068.2.1	Tests—Test A: Cold
60068-2-2	Tests. Test B: Dry heat	60068.2.2	Tests—Test B: Dry heat
60068-2-6	Tests. Test Fc: Vibration (sinusoidal)	60068.2.6	Tests—Test Fc: Vibration (sinusoidal)
60068-2-27	Test methods. Tests Ea and guidance: Shock	60068.2.27	Test—Tests Ea and guidance: Shock
60068-2-30	Tests—Test Db and guidance: Damp heat, cyclic (12 + 12 hour cycle)	60068.2.30	Tests—Test Db and guidance: Damp heat, cyclic (12 + 12-hour cycle)
60068-2-42	Tests. Test Kc: Sulphur dioxide test for contacts and connections	60068.2.42	Tests—Test Kc: Sulphur dioxide test for contacts and connections
60068-2-52	Tests—Test Kb: Salt mist, cyclic (sodium, chloride solution)	60068.2.52	Tests—Test Kb: Salt mist, cyclic (sodium chloride solution)
60068-2-78	Tests—Test Cab: Damp heat, steady state	60068.2.78	Tests—Test Cab: Damp heat, steady state
		AS/NZS	
61000-4-2	Testing and measurement techniques—Electrostatic discharge immunity test	61000.4.2	Testing and measurement techniques—Electrostatic discharge immunity test
61000-4-4	Testing and measurement techniques—Electrical fast transient/burst immunity test	61000.4.4	Testing and measurement techniques—Electrical fast transient/burst immunity test
61000-4-5	Testing and measurement techniques—Surge immunity test	61000.4.5	Testing and measurement techniques—Surge immunity test

61000-4-6	Testing and measurement techniques—Immunity to conducted disturbances, induced by radio-frequency fields	61000.4.6	Testing and measurement techniques—Immunity to conducted disturbances, induced by radio-frequency fields

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

INTRODUCTION

This part of ISO 7240 is based on a European Standard EN 54-10, prepared by the European Committee for Standardization CEN/TC 72 "*Fire detection and fire alarm systems"*, together with ISO/DIS 19292, prepared by Technical Committee ISO/TC 8, *Ships and marine technology,* Subcommittee SC 1, *Lifesaving and fire protection*.

A fire detection and fire alarm system is required to function satisfactorily, not only in the event of a fire, but also during and after exposure to conditions likely to be met in practice, such as corrosion, vibration, direct impact, indirect shock and electromagnetic interference. Some tests specified are intended to assess the performance of the fire detectors under such conditions.

The performance of flame detectors is assessed from results obtained in specific tests. This part of ISO 7240 is not intended to place any other restrictions on the design and construction of such flame detectors.

NOTES

STANDARDS AUSTRALIA

Australian Standard

Fire detection and alarm systems
Part 10: Point-type flame detectors

1 Scope

This part of ISO 7240 specifies requirements, test methods and performance criteria for point-type, resettable flame detectors that operate using radiation from a flame for use in fire detection systems installed in buildings. Additional requirements for flame detectors for use in marine applications are specified in Annex A.

This part of ISO 7240 does not cover flame detectors working on different principles from those described in this document (although this part of ISO 7240 can be used as guidance in assessing such products).

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.

ISO 209-1, *Wrought aluminium and aluminium alloys — Chemical composition and forms of products — Part 1: Chemical composition*

ISO 7240-1, *Fire detection and alarm systems — Part 1: General and definitions*

IEC 60064, *Tungsten filament lamps for domestic and similar general lighting purposes — Performance requirements*

IEC 60068-1, *Environmental testing — Part 1: General and guidance*

IEC 60068-2-1, *Environmental testing — Part 2: Tests. Tests A: Cold*

IEC 60068-2-2, *Environmental testing — Part 2: Tests: Tests B: Dry heat*

IEC 60068-2-6, *Environmental testing — Part 2: Tests — Test Fc: Vibration (sinusoidal)*

IEC 60068-2-27, *Environmental testing — Part 2: Tests. Test Ea and guidance: Shock*

IEC 60068-2-30, *Environmental testing — Part 2: Tests. Test Db and guidance: Damp heat, cyclic (12 + 12-hour cycle)*

IEC 60068-2-42, *Environmental testing — Part 2: Tests. Test Kc: Sulphur dioxide test for contacts and connections*

IEC 60068-2-52, *Environmental testing —- Part 2: Tests — Test Kb: Salt mist, cyclic (sodium, chloride solution)*

IEC 60068-2-78, *Environmental testing — Part 2-78 — Tests — Test Cab: Damp heat, steady state*

