AS 7240.13—2006
ISO 7240-13:2005
(Incorporating Amendment No. 1)

Australian Standard®

Fire detection and alarm systems

Part 13: Compatibility assessment of system components

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 8 November 2005.
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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 Government Analytical Laboratories, Scientific Services Laboratory
- Australian Industry Group
- Australian Institute of Building Surveyors
- Deafness Forum of Australia
- Department of Defence (Australia)
- Fire Protection Association Australia
- Institute of Security Executives
- National Electrical and Communications Association
- Property Council of Australia

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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 7240-13:2005, *Fire detection and alarm systems*, Part 13: *Compatibility assessment of system components*.

A1 *This Standard incorporates Amendment No. 1 (October 2006). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.*

The objective of this Standard is to specify requirements related to compatibility and connectability assessment methods and tests for the system components.

Variations to ISO 7240-13:2005 are indicated at the appropriate places throughout this Standard. Strikethrough (~~example~~) identifies ISO text, tables and figures, which, for the purposes of this Australian Standard, are deleted. Where text, tables or figures are added, each is set in its proper place and identified by shading (example). Added figures are not themselves shaded, but are identified by a shaded border.

A1 The term 'relevant equipment Standard' as used in Clause 1. Scope is limited to any equipment Standard referenced in AS 1670.1 and AS 1670.4.

Annex ZA (Informative) has been added to provide further information on theoretical analysis.

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 ISO 7240' should read 'this part of AS 7240'.

(c) A full point substitutes 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.

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INTRODUCTION

The fire detection function is to detect at the earliest practicable moment, and to give signals and indications so that appropriate action can be taken.

The fire alarm function is at least to give audible and/or visible signals to the occupants of a building who may be at risk from fire.

A fire detection and alarm system combines the functions of detection and alarm in a single system and typically consists of a number of inter-linked components including automatic fire detectors, manual call points and alarm sounders. These components are connected to control and indicating equipment by means of one or more transmission paths. All system components, including the control and indicating equipment, are also directly or indirectly connected to a power supply.

ISO 7240-1 provides additional information about the components performing those functions that are listed in Annex A of this part of ISO 7240.

A fire protection and/or building management systems or remote fault and fire alarm monitoring stations that are linked to a fire detection and alarm system, are not considered part of the fire detection and alarm system.

All the components constituting the fire detection and alarm system need to be compatible or connectable and requirements relating to the performance of the overall system need to be fulfilled.

Differentiation is made between components classified as components type 1 and other components classified as components type 2.

This part of ISO 7240 recognizes that it is not practical to assess the compatibility or connectability of components in all possible configurations. Methods of assessment are specified to reach an acceptable degree of confidence within pre-determined operational and environmental conditions.

National application guidelines (also known as codes of practice) also contain system requirements. Suppliers of components shall ensure that they

— meet the requirements of this part of ISO 7240;

— meet the requirements of the relevant part of ISO 7240; and

— meet the requirements of the application guidelines of the countries where the components are intended to be placed on the market.

System requirements are also included for those fire detection and alarm systems which are linked to fire protection and/or other systems (for example: building management systems).

NOTES

STANDARDS AUSTRALIA

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Any table, figure or text of the international standard that is struck through is not part of this standard. Any Australian/New Zealand table, figure or text that is added is part of this standard and is identified by shading.

1 Scope

A1

~~This part of ISO 7240 specifies the requirements for compatibility and connectability assessment of system components that either comply with the requirements of ISO 7240 or with a manufacturer's specification where there is no ISO 7240 International Standard. This part of ISO 7240 includes only system requirements when these are necessary for compatibility assessment.~~

This part of ISO 7240 specifies the requirements for compatibility and connectability assessment of system components that either comply with the requirements of the ISO 7240, AS 4428, or AS 1603 suites, or with a manufacturer's specification where there is no relevant equipment Standard.

This part of ISO 7240 also specifies requirements for the integrity of the fire detection and fire alarm system when connected to other systems.

This part of ISO 7240 does not specify the manner in which the system is designed, installed and used in any particular application.

This part of ISO 7240 is applicable to systems where the components are connected to control-and-indicating equipment (c.i.e.) and where the components are interconnected by electrical wires. For fire detection and fire alarm systems using other means of interconnection (for example optical fibre or radio frequency links), this part of ISO 7240 may be used as guidance.

NOTE Other International Standards are expected to cover the requirements of the other systems to which the fire detection and fire alarm system may be connected.

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.

A1

AS 1603, *Automatic fire detection and alarm systems*

AS 1670.1, *Fire detection, warning, control and intercom systems — System design, installation and commissioning — Fire*

AS 1670.4, Fire detection, warning, control and intercom systems — System design, installation and commissioning — Sound systems and intercom systems for emergency purposes

AS 4428.1, *Fire detection, warning, control and intercom systems — Control and indicating equipment,* Part 1*: Fire*

