

Australian Standard<sup>®</sup>

**Fire detection, warning, control and  
intercom systems—Control and  
indicating equipment**

**Part 9: Requirements for wire-free alarm  
zone circuits**



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 26 October 2006.

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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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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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Originated as AS 4428.9—1996.  
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## PREFACE

This Standard was prepared by the Standards Australia Committee FP-002; Fire Detection, Warning, Control and Intercom Systems; to supersede AS 4428.9-1996, *Fire detection, warning, control and intercom systems—Control and indicating equipment, Part 9: Requirements for wire-free alarm zone circuits*.

*This Standard incorporates Amendment No. 1 (August 2007). 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.*

This Standard is referenced in AS 1670.1, *Fire detection, warning, control and intercom systems—System design, installation and commissioning, Part 1: Fire*.

The objective of this Standard is to assist in ensuring that wire-free alarm zone circuits forming part of a system complying with AS 1670.1 function as they were intended within the control and indicating equipment.

This revision has rationalized the requirements for non-alarm conditions, e.g. fault and tamper conditions on transmitters. This may extend the battery life of transmitters, which is an important consideration for wire-free systems.

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## STANDARDS AUSTRALIA

## Australian Standard

**Fire detection, warning, control and intercom systems—Control and indicating equipment**

## Part 9: Requirements for wire-free alarm zone circuits

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard sets out requirements for the design, construction and performance of components forming wire-free alarm zone circuits.

**1.2 APPLICATION**

The requirements of this Standard apply to those components that enable wire-free communication between individual actuating devices and control and indicating equipment (CIE) forming part of a system complying with AS 1670.1 and operating under a class licence defined by the statutory authority responsible for the allocation of relevant parts of the spectrum appropriate to the Radiocommunication Act 1992.

**1.3 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

AS

|        |   |
|--------|---|
| 1670   | Fire detection, warning, control and intercom systems—System design, installation and commissioning |
| 1670.1 | Part 1: Fire  |
| 2484   | Fire—Glossary of terms  |
| 2484.2 | Part 2: Fire protection and firefighting equipment  |
| 2706   | Numerical values—Rounding and interpretation of limiting values                                     |
| 3786   | Smoke alarms  |
| 12239  | Fire detection and alarm systems—Smoke alarms   |

**1.4 DEFINITIONS**

For the purpose of this Standard the definitions given in AS 2484.2 and those below apply.

**1.4.1 Wire-free system**

A system employing electromagnetic radiation to transmit signals between actuating devices and control and indicating equipment (CIE) of a fire detection and alarm system.

**1.4.2 Supervisory transmission**

A signal transmitted periodically to confirm the presence of an actuating device in the system.