

Australian Standard[®]

**Automatic fire detection and alarm
systems**

Part 1: Heat detectors

This Australian Standard was prepared by Committee FP/2, Fire Detection, Warning, Control and Intercom Systems. It was approved on behalf of the Council of Standards Australia on 15 November 1996 and published on 5 January 1997.

The following interests are represented on Committee FP/2:

Audio Engineering Society
Australian Building Codes Board
Australian Chamber of Commerce and Industry
Australian Chamber of Manufactures
Australian Electrical and Electronic Manufacturers Association
Australian Fire Authorities Council
Australian Fire Protection Association
CSIRO—Division of Building, Construction and Engineering
Commonwealth Fire Board
Deafness Forum of Australia
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee FP/2 on Fire Detection, Warning, Control and Intercom Systems, to supersede AS 1603.1—1990, *Automatic fire detectors and alarm systems, Part 1: Heat detectors*, and is the result of a consensus among the representatives on the Joint Committee that it be produced as an Australian Standard.

The various components of automatic fire detection and alarm systems are being specified in the AS 1603 series of Standards.

Specifications for the design, installation and maintenance of equipment for fire detection and alarm systems and the testing of actuating devices are given in the following Standards:

AS

- 1670 Automatic fire detection and alarm systems—System design, installation and commissioning
- 1851 Maintenance of fire protection equipment
- 1851.8 Part 8: Automatic fire detection and alarm systems
- 2362 Automatic fire detection and alarm systems—Methods of test for actuating devices

The objective of this Standard is to provide designers and manufacturers of detectors and alarm systems with requirements for the design, construction and performance of heat detectors.

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Australian Standard

Automatic fire detection and alarm systems

Part 1: Heat detectors

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard specifies requirements for the design, construction and performance of heat detectors as used in automatic fire detection and alarm systems.

1.2 APPLICATION This Standard applies to heat detectors intended for installation in accordance with AS 1670, connected to compatible control and indicating equipment (CIE).

1.3 CLASSIFICATION Heat detectors shall be classified as follows:

- (a) Type A—normal temperature duty, incorporating both fixed temperature and rate-of-rise actuation, resetting or non-resetting.
- (b) Type B—normal temperature duty, fixed temperature actuation only, resetting or non-resetting.
- (c) Type C—high temperature duty, incorporating both fixed temperature and rate-of-rise actuation, resetting or non-resetting.
- (d) Type D—high temperature duty, fixed temperature actuation only, resetting or non-resetting.
- (e) Type E—special purpose fixed temperature, where Types A to D are not suitable.

1.4 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

| | |
|---------|------------------------------------------------------------------------------------------|
| 1670 | Automatic fire detection and alarm systems—System design, installation and commissioning |
| 1939 | Degree of protection provided by enclosures for electrical equipment (IP Code) |
| 2362 | Automatic fire detection and alarm systems—Methods of test for actuating devices |
| 2362.1 | Method 1: Heat sensitivity testing of types A, B, C and D heat detectors |
| 2362.2 | Method 2: Heat sensitivity testing of type E heat detectors |
| 2362.3 | Method 3: Rapid temperature rise test |
| 2362.4 | Method 4: Voltage stability test |
| 2362.5 | Method 5: Insulation resistance test |
| 2362.6 | Method 6: Static discharge test |
| 2362.7 | Method 7: Electromagnetic interference test |
| 2362.8 | Method 8: Impulse voltage withstand test |
| 2362.9 | Method 9: High frequency disturbance test |
| 2362.10 | Method 10: Low temperature test |
| 2362.11 | Method 11: Damp heat test |
| 2362.12 | Method 12: Dry heat test |