

Australian Standard™

**Automatic fire detection and alarm
systems**

Part 7: Optical beam smoke 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 18 October 1996 and published on 5 December 1996.

The following interests are represented on Committee FP-002:

Audio Engineering Society
Australian Building Codes Board
Australian Chamber of Commerce and Industry
Australian Chamber of Manufactures
Australian Construction Services —Department of Administrative Services
Australian Electrical and Electronic Manufacturers Association
Australian Fire Authorities Council
Australian Fire Protection Association
Building Owners and Managers Association of Australia
CSIRO—Division of Building, Construction and Engineering
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee FP-002, Fire Detection, Warning, Control and Intercom Systems. The objective of this Standard is to augment the existing AS 1603 series of product Standards which has, until now, not made an allowance for optical beam smoke detectors.

This Standard incorporates Amendment No. 1 (December 2001). 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 the result of a consensus among representatives on the Joint Committee to produce it as an Australian Standard.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	4
1.2 APPLICATION	4
1.3 REFERENCED DOCUMENTS.....	4
1.4 CLASSIFICATION	5
1.5 DEFINITIONS.....	5
1.6 INTERPRETATION OF SPECIFIED LIMITING VALUES.....	6
1.7 NEW DESIGNS AND INNOVATIONS	6
SECTION 2 FUNCTIONS	
2.1 GENERAL.....	7
2.2 SENSITIVITY ADJUSTMENTS	7
2.3 MEANS OF ALIGNMENT	7
2.4 RESET FACILITY (OPTIONAL).....	7
SECTION 3 DESIGN AND CONSTRUCTION	
3.1 GENERAL.....	8
3.2 MATERIALS AND COMPONENTS.....	8
3.3 ELECTRICAL	8
3.4 CONNECTING FACILITIES.....	9
3.5 INDICATING FACILITIES	9
3.6 LIGHT SOURCES.....	9
3.7 ENCLOSURES.....	9
3.8 MOUNTING FACILITIES.....	9
SECTION 4 PRODUCT MARKING.....	10
SECTION 5 ASSESSMENT OF COMPLIANCE	
5.1 CRITERIA OF ASSESSMENT AND TEST SCHEDULE	11
5.2 FUNCTIONAL ASSESSMENT	11
5.3 ENDURANCE ASSESSMENT.....	13
5.4 REPORT.....	15
APPENDICES	
A NORMAL OPERATION TEST.....	17
B MAXIMUM RANGE TEST	19
C CONTROL OF ALIGNMENT TEST	20
D FIRE TEST	22
E VISIBLE LIGHT REJECTION TEST	23
F LONG-TERM STABILITY TEST.....	25
G COMPENSATION TESTS.....	26

STANDARDS AUSTRALIA

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Part 7: Optical beam smoke detectors

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

A1 | This Standard specifies the minimum design and performance requirements and methods of test for optical beam smoke detectors (beam detectors) used in automatic fire detection and alarm systems. These detectors generate a fire alarm signal when smoke from a fire partly obscures the light path between the beam emitter and beam receiver units.

1.2 APPLICATION

This Standard applies to optical beam smoke detectors intended for installation in accordance with AS 1670, and connected to compatible control and indicating equipment.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1670	Automatic fire detection and alarm systems—System design, installation and commissioning
2362	Automatic fire detection and alarm systems—Methods of test for actuating devices
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
2362.13	Method 13: Corrosion test
2362.15	Method 15: Vibration test
2362.16	Method 16: Impact test
2362.17	Method 17: Sensitivity test
2362.19	Method 19: Dust test
2362.25	Method 25: Indicator visibility test
2484	Fire—Glossary of terms
2484.2	Part 2: Fire protection and firefighting equipment
2546	Printed boards
A1 2546.3	Part 3: Design and use
2706	Numerical values—Rounding and interpretation of limiting values
3100	Approval and test specification—General requirements for electrical equipment