## 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

Commonwealth Fire Board

Deafness Forum of Australia

Department of Defence

Fire Protection Industry Association of Australia

Insurance Council of Australia

National Electrical Contractors Association of Australia

New Zealand Fire Equipment Association

New Zealand Fire Protection Association

Telstra Corporation

### Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Australia web site at <a href="https://www.standards.com.au">www.standards.com.au</a> and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Australian Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.com.au, or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

This Standard was issued in draft form for comment as DR 95441.

AS 1603.7—1996 (Incorporating Amendment No. 1)

## Australian Standard™

# Automatic fire detection and alarm systems

Part 7: Optical beam smoke detectors

First published as AS 1603.7—1996. Reissued incorporating Amendment No. 1 (December 2001).

### **COPYRIGHT**

© Standards Australia International

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia International Ltd GPO Box 5420, Sydney, NSW 2001, Australia ISBN 0 7337 0812 9

### **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

		Page
SECTION	ON 1 SCOPE AND GENERAL	
1.1	SCOPE	4
1.2	APPLICATION	
1.3	REFERENCED DOCUMENTS	
1.4	CLASSIFICATION	
1.5	DEFINITIONS	
1.6	INTERPRETATION OF SPECIFIED LIMITING VALUES	6
1.7	NEW DESIGNS AND INNOVATIONS	6
SECTION	ON 2 FUNCTIONS	
2.1	GENERAL	7
2.2	SENSITIVITY ADJUSTMENTS	7
2.3	MEANS OF ALIGNMENT	
2.4	RESET FACILITY (OPTIONAL)	7
SECTION	ON 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	ON 4 PRODUCT MARKING	10
SECTION	ON 5 ASSESSMENT OF COMPLIANCE	
5.1	CRITERIA OF ASSESSMENT AND TEST SCHEDULE	11
5.2	FUNCTIONAL ASSESSMENT	11
5.3	ENDURANCE ASSESSMENT	
5.4	REPORT	15
APPEN	IDICES	
A	NORMAL OPERATION TEST	17
В	MAXIMUM RANGE TEST	
C	CONTROL OF ALIGNMENT TEST	
D	FIRE TEST	
Ē	VISIBLE LIGHT REJECTION TEST	
F	LONG-TERM STABILITY TEST	
C	COMPENS ATION TESTS	26



	This is a free preview.	Purchase the e	entire publication	at the link below:
--	-------------------------	----------------	--------------------	--------------------

**Product Page** 

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation