

Australian Standard[®]

Fire sprinkler systems

**Part 1.4: Components—Valve
monitors**

This Australian Standard was prepared by Committee FP/4, Automatic Sprinkler Installations. It was approved on behalf of the Council of Standards Australia on 22 October 1993 and published on 17 January 1994.

The following interests are represented on Committee FP/4:

Australian Assembly of Fire Authorities
Australian Chamber of Commerce and Industry
Australian Fire Protection Association
Australian Uniform Building Regulations Coordinating Council
Australian Water and Sewerage Authorities
Board of Works, Melbourne
Commonwealth Fire Board
CSIRO, Division of Building, Construction & Engineering
Department of Administration Services—Australian Construction Services
Department of Defence (Commonwealth)
Fire Protection Industry Association of Australia
Institution of Engineers, Australia
Insurance Council of Australia
Telecom Australia
The Association of Consulting Engineers, Australia

Review of Australian Standards. To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

This Standard was issued in draft form for comment as DR 91298.

Australian Standard[®]

Fire sprinkler systems

**Part 1.4: Components—Valve
monitors**

First published as AS 4118.1.4— 1994.

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 8721 0

PREFACE

This Standard was prepared by the Standards Australia Committee on Automatic Sprinkler Installations.

The Standard sets out requirements for establishing compliance with limits of design, performance, security and durability for sprinkler and hydrant valve monitors.

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.

© Copyright — STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	4
1.2 REFERENCED DOCUMENTS	4
1.3 DEFINITIONS	5
SECTION 2 MATERIAL AND DESIGN REQUIREMENTS	
2.1 SCOPE OF SECTION	6
2.2 DESIGN AND CONSTRUCTION	6
2.3 MATERIALS AND COMPONENTS	6
2.4 CONNECTING FACILITIES	7
2.5 INTERNAL WIRING	7
2.6 CONTACTS	7
2.7 CONNECTION OF MULTIPLE MONITORS	7
SECTION 3 PERFORMANCE REQUIREMENTS	
3.1 SCOPE OF SECTION	8
3.2 TAMPER RESISTANCE REQUIREMENTS	8
3.3 NORMAL OPERATION	8
3.4 ELECTRICAL REQUIREMENTS	8
3.5 ENVIRONMENTAL REQUIREMENTS	8
3.6 VIBRATION, IMPACT AND ENDURANCE REQUIREMENTS	9
SECTION 4 PRODUCT MARKING AND INFORMATION	
4.1 SCOPE OF SECTION	10
4.2 MARKING	10
4.3 INFORMATION	10
4.4 POINT OF SALE INFORMATION	10
SECTION 5 ASSESSMENT FOR COMPLIANCE	
5.1 SCOPE OF SECTION	11
5.2 TEST SCHEDULE AND CRITERIA OF ACCEPTANCE	11
5.3 REPORTING	11
APPENDICES	
A TAMPER RESISTANCE EVALUATION	13
B NORMAL OPERATION TEST	14
C ENDURANCE TEST	15

STANDARDS AUSTRALIA

Australian Standard
Fire sprinkler systems

Part 1.4: Components—Valve monitors

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard specifies the requirements for valve monitors for mounting on stop valves for automatic fire sprinkler systems, designed and installed in compliance with AS 2118, and fire hydrant systems designed and installed in compliance with AS 2419, to monitor the set position of the valves. If the state of a valve is changed or an attempt is made to subvert the operation of the monitor it will initiate an alarm signal.

NOTE: The alarm signal is generally initiated and then transmitted via the supervisory equipment to a fire control station or a monitoring station.

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

AS

1099	Basic environmental testing procedures for electrotechnology
1099.2Ka	Part 2: Salt mist
2118	SAA Code for Automatic Fire Sprinkler Systems
2201	Intruder alarm systems
2201.2	Part 2: Central stations
2362	Automatic fire detection and alarm systems—Methods of test for actuating devices
2362.4	Part 4: Voltage stability test
2362.5	Part 5: Insulation resistance test
2362.6	Part 6: Static discharge test
2362.7	Part 7: Electromagnetic interference test
2362.8	Part 8: Impulse voltage withstand test
2362.9	Part 9: High frequency disturbance test
2362.10	Part 10: Low temperature test
2362.11	Part 11: Lamp heat test
2362.12	Part 12: Dry heat test
2362.13	Part 13: Corrosion test
2362.15	Part 15: Vibration test
2362.16	Part 16: Impact test
2362.19	Part 19: Dust test
2500	Electrical equipment for explosive atmospheres—Explosion-protection techniques
2419	Fire hydrant installations
3000	SAA Wiring Rules
3013	Electrical installations—Wiring systems for specific applications
3100	Approval and test specification—General requirements for electrical equipment
3121	Approval and test specification—Insulating mouldings