

AS 3786:2023



Smoke alarms using scattered light, transmitted light or ionization (ISO 12239:2021, MOD)



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The following are represented on Committee FP-002:

- Australasian Fire and Emergency Service Authorities Council
- Australian Building Codes Board
- Australian Chamber of Commerce and Industry
- Australian Industry Group
- Australian Institute of Building Surveyors
- CSIRO
- Deafness Forum of Australia
- Engineers Australia
- Fire Protection Association Australia
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This Standard was issued in draft form for comment as DR AS 3786:2021.

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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 3786:2014.

The objective of this document is to specify requirements, test methods, and performance criteria for smoke alarms that operate using scattered light, transmitted light, or ionization, and are intended for household or similar residential applications.

For the testing of other types of smoke alarms, or smoke alarms working on different principles, this document should be used only for guidance.

This document allows, although it does not require, the inclusion within the smoke alarm of facilities for the following:

- (a) Visual fault condition indication.
- (b) Extended temperature-range operation.
- (c) Interconnection with other similar smoke alarms or accessories.
- (d) Temporary disablement.
- (e) Alarm silencing.
- (f) Signal frequency characteristics.
- (g) Standby power source low condition silence.
- (h) Smoke alarms with voice.
- (i) Smoke alarms using radio frequency links.
- (j) Response to slowly developing fires (drift compensation).

Where such facilities are included, this document specifies applicable requirements.

Smoke alarms with special characteristics and developed for specific risks are not covered by this document. This document does not cover devices intended for incorporation in systems using separate control and indicating equipment. Such systems are specified in parts of the AS ISO 7240 series.

The major changes in this edition are as follows:

- (i) Recognition of both interconnectable and non-interconnectable devices.
- (ii) Recognition of smoke alarms that are detachable from a mounting base.
- (iii) Recognition of the existence and use of combination and multi-criteria smoke alarms.
- (iv) New response threshold table defining sensitivity in bands 1 and 2.
- (v) External power supplies including residential control and indicating equipment.
- (vi) Updated requirements for protection against the ingress of foreign bodies.
- (vii) New temporary disablement facility.
- (viii) Introduces requirements for smoke alarms using radio frequency interconnection.
- (ix) Introduces response to slowly developing fires (drift compensation).
- (x) Data clause revised and renamed "Hardware documentation".

This document is an adoption with national modifications, and has been reproduced from, ISO 12239:2021, *Smoke alarms using scattered light, transmitted light or ionization*. The modifications are additional requirements and are set out in Appendix ZZ, which has been added at the end of the source text.

Appendix ZZ lists the modifications to ISO 12239:2021 for the application of this document in Australia.

As this document has been reproduced from an International Standard, a full point substitutes for a comma when referring to a decimal marker.

Australian Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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