Australian Standard®

Intruder alarm systems

Part 3: Detection devices for internal use

This Australian Standard was prepared by Committee EL/31, Intruder Alarm Equipment and Installations. It was approved on behalf of the Council of Standards Australia on 4 October 1990 and published on 28 March 1991.

The following interests are represented on Committee EL/31:

Association of Burglary Insurance Surveyors Australasia
Australian Electrical and Electronic Manufacturers Association
Australian Security Industry Association
Building Owners and Managers Association of Australia
Confederation of Australian Industry
Department of Administrative Services — Australian Construction Services
Department of Defence
Insurance Council of Australia
Metal Trades Industry Association of Australia
N.S.W Police Department
N.S.W Public Works Department
Tasmania Police
Telecom Australia
Victoria Police
Victorian Security Institute

This Standard was issued in draft form for comment as DR 89094.

Australian Standard®

Intruder alarm systems

Part 3: Detection devices for internal use

First published as AS 2201.3—1985.
Second edition 1991.

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140
ISBN 0 7262 6627 3

PREFACE

This Standard was prepared by the Standards Australia Committee on Intruder Alarm Equipment and Installations.

This Standard is Part 3 of a three-part Standard, the parts of which are as follows:

Part 1: *Systems Installed in Client's Premises*

Part 2: *Central Stations and Signalling Links*

Part 3: *Detection Devices for Internal Use* (this part)

This Standard is basically the same as AS 2201.3 — 1985 but incorporates changes to make it suitable for quality assurance certification on detection devices. It details the minimum performance requirements of a variety of detection devices together with their associated test methods. Only commonly used detectors are included and closed-circuit television and the external type of detectors have been excluded. Equipment which can comply with these requirements can be considered to be of high quality and thus help to reduce the high false alarm rate currently being experienced. The test methods have been selected for the worst conditions and these conditions should be avoided in practice.

It should be noted that the requirements and test methods specified may be different and more onerous than those specified in International Standards such as Underwriters Laboratories Standard for Safety, UL 639, Intrusion-detection units, and International Electrotechnical Commission Standard, IEC 839, Alarm systems. It is the intention of the Committee to bring this Standard into line with such International Standards (IEC 839-2, Part 2: *Requirements for intruder alarm systems*, is still under consideration) with the publication of a new edition at a later date.

CONTENTS

STANDARDS AUSTRALIA

Australian Standard
Intruder alarm systems

Part 3: Detection devices for internal use

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard specifies requirements for the performance of detection devices intended for use in intruder alarm systems.

1.2 APPLICATION Detectors shall comply, as appropriate, with the relevant requirements of the following Sections:

(a) Section 2 — General requirements for detectors.

(b) Section 3 — Additional general requirements for movement detectors.

(c) Section 4 — Specific requirements for particular types of detectors.

In addition, the general test requirements given in Appendix A apply to the tests detailed in Appendices B to L.

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

AS
1259 Sound level meters

2201 Intruder alarm systems
2201.1 Part 1: Systems installed in client's premises

2362 Automatic fire detection and alarm systems — Methods of test for actuating devices
2362.7 Method 7: Electromagnetic interference test

2546 Printed boards
2546.1 Part 1: General requirements and test methods

2772 Maximum exposure levels — Radiofrequency radiation — 300 kHz to 300 GHz

3300 Approval and test specification — General requirements for household and similar electrical appliances

1.4 DEFINITIONS For the purpose of this Standard, the definitions listed in AS 2201.1 and the following apply:

1.4.1 Acoustic detector — a detection device designed to initiate an alarm condition in response to airborne sounds or airborne vibrations.

1.4.2 Beam interruption detector — a detection device designed to initiate an alarm condition when a beam of radiation between a transmitter and a receiver is interrupted.

1.4.3 Capacitive touch detector — a detection device designed to initiate an alarm condition in response to the touch of an intruder on a specified object.

1.4.4 Detection range — the greatest distance at floor level in a specified direction from the reference point, at which the standard target moving in the direction of greatest sensitivity at a specified velocity in the standard test environment, will cause the detector to generate an alarm condition.

1.4.5 Doppler ultrasonic movement detector — a detection device designed to initiate an alarm condition in response to Doppler frequency effect provided by the reflection of ultrasonic waves from a moving intruder.

1.4.6 Doppler microwave movement detector — a detection device designed to initiate an alarm condition in response to Doppler frequency effect provided by the reflection of microwaves from a moving intruder.

1.4.7 Electromechanical detector — a closed/open/changeover circuit device designed to initiate an alarm condition when the circuit arrangement is changed, and does not require power for its operation.

1.4.8 Foil — a detection device consisting of metallic foil affixed to a surface and designed to initiate an alarm condition when the foil is broken.

1.4.9 Movement detector — a detection device designed to initiate an alarm condition in response to an intruder moving within a defined area.