AS ISO 7240.11:2018

Australian STANDARD

# Fire detection and alarm systems

# Part 11: Manual Call Points



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AS ISO 7240.11:2018

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# Part 11: Manual Call Points

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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 7240.11—2008, *Fire detection and alarm systems, Part 11: Manual call points (ISO 7240-11:2005, MOD).*

The objective of this Standard is to specify the requirements, test methods and performance criteria for manual call points in fire detection and alarm systems in and around buildings (refer to AS ISO 7240-1). It takes into account indoor and outdoor conditions, the appearance and operation of the manual call points for type A "direct operation" and type B "indirect operation", and covers those which are simple mechanical switches, those which are fitted with simple electronic components (e.g. resistors, diodes) and those which contain active electronic components and which work with the control and indicating equipment for signalling and identifying, for example, an address or location.

This Standard does not cover manual call points for special applications, for example manual call points that are intrinsically safe or for use in hazardous conditions, if such applications require additional or other requirements or tests than those given in this Standard.

This Standard is identical with, and has been reproduced from, ISO 7240-11:2011, *Fire detection and alarm systems — Part 11: Manual call points*. As this document has been reproduced from an International Standard, the following applies:

(a) In the source text "this part of ISO 7240" should read "this Australian Standard".

(b) 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.

# Contents

# Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 7240-11 was prepared by Technical Committee ISO/TC 21, *Equipment for fire protection and fire fighting*, Subcommittee SC 3, *Fire detection and alarm systems*.

This second edition cancels and replaces the first edition (ISO 7240-11:2005), which has been technically revised. It also incorporates the Amendment ISO 7240-11:2005/Amd.1:2009.

ISO 7240 consists of the following parts, under the general title *Fire detection and alarm systems*:

— *Part 1: General and definitions*

— *Part 2: Control and indicating equipment*

— *Part 3: Audible alarm devices*

— *Part 4: Power supply equipment*

— *Part 5: Point-type heat detectors*

— *Part 6: Carbon monoxide fire detectors using electro-chemical cells*

— *Part 7: Point-type smoke detectors using scattered light, transmitted light or ionization*

— *Part 8: Carbon monoxide fire detectors using an electro-chemical cell in combination with a heat sensor*

— *Part 9: Test fires for fire detectors* [Technical Specification]

— *Part 10: Point-type flame detectors*

— *Part 11: Manual call points*

— *Part 12: Line type smoke detectors using a transmitted optical beam*

— *Part 13: Compatibility assessment of system components*

— *Part 14: Guidelines for drafting codes of practice for design, installation and use of fire detection and fire alarm systems in and around buildings* [Technical Report]

— *Part 15: Point type fire detectors using scattered light, transmitted light or ionization sensors in combination with a heat sensor*

— *Part 16: Sound system control and indicating equipment*

— *Part 17: Short-circuit isolators*

— *Part 18: Input/output devices*

— *Part 19: Design, installation, commissioning and service of sound systems for emergency purposes*

— *Part 20: Aspirating smoke detectors*

— *Part 21: Routing equipment*

— *Part 22: Smoke-detection equipment for ducts*

— *Part 24: Sound-system loudspeakers*

— *Part 25: Components using radio transmission paths*

— *Part 27: Point-type fire detectors using a scattered-light, transmitted-light or ionization smoke sensor, an electrochemical-cell carbon-monoxide sensor and a heat sensor*

— *Part 28: Fire protection control equipment*

A part 23 dealing with visual alarm devices and a part 29 dealing with video fire detectors are under development.

# Introduction

This part of ISO 7240 has been prepared by ISO/TC 21/SC 3, the secretariat of which is held by SA and is based on ISO 7240-11:2005.

This part of ISO 7240 has been drafted on the basis of appearance and functions that should be provided on all manual call points for use in fire detection and fire alarm systems. The colours, dimensions, shapes and methods of operation are based on recognized operating principles that give confidence and recognition to the user when operating in genuine fire alarm situations.

The purpose of a manual call point is to enable a person discovering a fire to initiate the operation of a fire alarm system so that appropriate measures can be taken.

It is important for manual call points to be recognizable and simple to use, without the requirement to read elaborate instructions so that anyone discovering a fire is able to use the manual call point without previous familiarity with it.

The intention of this part of ISO 7240 is to specify requirements for operation and reliability. The methods of operation of the manual call points covered are as follows:

— type A: direct operation (single action);

— type B: indirect operation (double action).

Both types require the breaking or the visible displacement by change of the position of a frangible element forming part of the front face, which is considered as the most suitable method for general application and which acts as a deterrent to the misuse of the device.

Importance has been placed on identifying the manual call point, the method by which it is activated and an indication to the user that the initiation of an alarm has been given.

The resulting part of ISO 7340 takes into account national variances in custom and practice and language in bringing together common elements that contribute towards a standard device for use throughout the world.

The performance of manual call points is assessed from results obtained in specific tests. This part of ISO 7240 is not intended to place any other restrictions on the design and construction of such manual call points.

# Australian Standard®

## Fire detection and alarm systems

## Part 11: Manual Call Points

## 1 Scope

This part of ISO 7240 specifies the requirements, test methods and performance criteria for manual call points in fire detection and alarm systems in and around buildings (see ISO 7240-1). It takes into account indoor and outdoor conditions, the appearance and operation of the manual call points for type A "direct operation" and type B "indirect operation", and covers those which are simple mechanical switches, those which are fitted with simple electronic components (e.g. resistors, diodes) and those which contain active electronic components and which work with the control and indicating equipment for signalling and identifying, for example, an address or location.

This part of ISO 7240 does not cover manual call points for special applications, for example manual call points that are intrinsically safe or for use in hazardous conditions, if such applications require additional or other requirements or tests than those given in this part of ISO 7240.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 209, *Aluminium and aluminium alloys — Chemical composition*

ISO 3098-0:1997, *Technical product documentation — Lettering — Part 0: General requirements*

ISO 3864-1, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings*

ISO 7240-1, *Fire detection and alarm systems — Part 1: General and definition*

ISO 7240-2, *Fire detection and alarm systems — Part 2: Control and indicating equipment*

IEC 60068-1, *Environmental testing — Part 1: General and guidance*

IEC 60068-2-1, *Environmental testing — Part 2-1: Tests — Test A: Cold*

IEC 60068-2-2, *Environmental testing — Part 2-2: Tests — Test B: Dry heat*

IEC 60068-2-5, *Environmental testing — Part 2-5: Tests — Test Sa: Simulated solar radiation at ground level and guidance for solar radiation testing*

IEC 60068-2-6, *Environmental testing — Part 2-6: Tests — Test Fc: Vibration (sinusoidal)*

IEC 60068-2-18, *Environmental testing — Part 2-18: Tests — Test R and guidance: Water*

IEC 60068-2-27, *Environmental testing — Part 2-27: Tests — Test Ea and guidance: Shock*

IEC 60068-2-30, *Environmental testing — Part 2-30: Tests — Test Db: Damp heat, cyclic (12 h + 12 h cycle)*

IEC 60068-2-42, *Environmental testing — Part 2-42: Tests — Test Kc: Sulphur dioxide test for contacts and connections*

IEC 60068-2-78, *Environmental testing — Part 2-78: Tests — Test Cab: Damp heat, steady state*

EN 894-3, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 3: Control actuators*