



**NSAI**  
Standards

Irish Standard  
I.S. 3218:2013

# Fire detection and alarm systems for buildings - System design, installation, commissioning, servicing and maintenance

## I.S. 3218:2013

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

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**DECLARATION**  
OF  
SPECIFICATION  
ENTITLED  
FIRE DETECTION AND ALARM SYSTEMS FOR BUILDINGS –  
SYSTEM DESIGN, INSTALLATION, COMMISSIONING, SERVICING  
AND MAINTENANCE  
AS  
THE IRISH STANDARD SPECIFICATION FOR  
FIRE DETECTION AND ALARM SYSTEMS FOR BUILDINGS –  
SYSTEM DESIGN, INSTALLATION, COMMISSIONING, SERVICING  
AND MAINTENANCE

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NSAI in exercise of the power conferred by section 16 (5) of the National Standards Authority of Ireland Act, 1996 (No. 28 of 1996) and with the consent of the Minister for Jobs, Enterprise and Innovation, hereby declare as follows:

1. This instrument may be cited as the Standard Specification (Fire detection and alarm systems for buildings – System design, installation, commissioning, servicing and maintenance) Declaration, 2013.

2. (1) The Specification set forth in the Schedule to this declaration is hereby declared to be the standard specification for Fire detection and alarm systems for buildings – System design, installation, commissioning, servicing and maintenance.

(2) The said standard specification may be cited as Irish Standard 3218:2013 or as I.S. 3218:2013.

3. (1) The Standard Specification (Fire detection and alarm systems for buildings – System design, installation, servicing and maintenance) Declaration 2009 is hereby revoked.

(2) Reference in any other standard specification to the Instrument hereby revoked and to Irish Standard 3218:2009 thereby prescribed, shall be construed, respectively, as references to this Instrument and to Irish Standard 3218:2013.

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## Foreword

The aim of this Standard is to promote wider understanding of the different types of fire detection and alarm systems and modes of operation which may be employed. It also aims to encourage uniformity of application, based on providing enhanced safety to persons in the event of an outbreak of fire and having due regard to the hazard level and degree of familiarity and alertness of occupants within particular buildings.

Fire detection and alarm systems are an integral part of the overall protection of the building.

The contents of this Standard should therefore be considered by all disciplines involved in the design process.

This Standard has been prepared with the assistance of the National Standards Authority of Ireland Fire Safety Standards Committee (FSSC), representation on which includes the Association of Consulting Engineers of Ireland (ACEI), the Chief Fire Officers Association (CFOA), the Irish Insurance Federation (IIF), major users represented by the Office of Public Works (OPW), the Health Services Executive (HSE), the Institution of Fire Engineers (IFE), the Irish fire industry represented by the Fire Engineering Systems Association (FESA) and the Fire Industry Association of Ireland (FIAI) and Fire Alarm Manufacturers.

Compliance with an Irish Standard does not of itself confer immunity from legal obligations. Special risks or hazards should be identified in the initial risk assessment and any specific standards applying to these should be agreed amongst the parties.

When it has been determined that a fire detection and alarm system is required, then in the absence of any other regulatory requirement, this standard is suitable.

It is expected that users of this Standard are competent, and should have sufficient training, experience and knowledge appropriate to the nature of the work to be undertaken (see definition, **competent person**).

Such persons should be able to demonstrate their competence to the satisfaction of the Client/User, and are advised to consider third party Certification, which may be coupled with assessment of a quality system such as one in accordance with I.S. EN ISO 9001.

There are a number of Annexes to this Standard. These Annexes are referred to as either Normative or Informative Annexes. Normative Annexes are mandatory for compliance with this Standard whereas Informative Annexes are for information only.

**IMPORTANT — For transition arrangements from I.S. 3218:1989 & I.S. 3218:2009 to I.S. 3218:2013, see Clause 4.**

**I.S. 3218:2013**

## **Schedule**

# **Fire Detection and Alarm Systems for Buildings - System Design, Installation, Commissioning, Servicing and Maintenance**

## **1 Scope**

This Standard provides requirements and recommendations for the planning, design, installation, commissioning, servicing and maintenance of fire detection and alarm systems in premises including those used for residential/domestic purposes. The Standard does not recommend whether or not a fire alarm system should be installed in any given building (see Building Regulations, Technical Guidance Document B). When it has been determined that a Fire Detection and Alarm System (FDAS) is required, this standard is suitable.

The systems covered in this Standard are referred to as Fire Detection and Alarm Systems (FDAS). The Standard covers systems ranging from simple installations with one or two manual call points, up to complex installations with automatic detectors, manual call points, control and indicating equipment, communication with the public fire service, etc. It also covers the provision of signals to initiate, in the event of a fire, the operation of ancillary services (see 6.16) and other precautions and actions, but it does not cover the ancillary services themselves.

Consultation with the appropriate Fire Authority is advised before undertaking the design or installation.

This Standard does not cover systems combining fire alarm functions with other non-fire related functions, although some guidance on such integrated systems is given in Annex G.

This Standard does not cover systems whose primary function is to extinguish or control the fire, such as sprinkler or automatic extinguishing systems, even though they might have a secondary alarm function. It does, however, cover the use of a signal from an automatic extinguishing system as one initiating element of a fire alarm system.

Recommendations for fire protection for electronic equipment installations are given in BS 6266.

## **2 Normative References**

This Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references subsequent amendments to or revisions of any of these publications apply to this Irish Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

I.S. 3217:2013, *Emergency Lighting*

I.S. EN 54-2:1999/A1:2006, *Fire detection and Fire Alarm Systems – Part 2: Control and Indicating Equipment*

I.S. EN 54-4, *Fire Detection and Fire Alarm Systems – Part 4: Power Supply Equipment*

I.S. EN 54-5:2000/A1:2002, *Fire detection and Fire Alarm Systems – Part 5: Heat Detectors – Point Detectors*

I.S. EN 54-7:2000/A2:2006, *Fire detection and Fire Alarm Systems – Part 7: Smoke Detectors – Point Detectors using scattered light, transmitted light or ionization*

I.S. EN 54-10, *Fire Detection and Fire Alarm Systems – Part 10: Flame Detectors – Point Detectors*

I.S. EN 54-11:2001/A1:2006, *Fire detection and Fire Alarm Systems – Part 11: Manual Call Points*



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