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SOUTH AFRICAN NATIONAL STANDARD

Fire detection and alarm systems for buildings — System design, installation and servicing

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Table of changes

Change No.	Date	Scope
Amdt 1	2007	Amended to update the referenced standards, to revise commentary on sound systems for emergency purposes, and to correct the requirements for spacing and siting of detectors.
Amdt 2	2012	Amended to update referenced standards, to include a category L5 in the category L systems, to modify the recommendations applicable to the exchange of information and definition of responsibilities, to modify the recommendations applicable to system components, to modify the recommendations applicable to system integrity, to modify the recommendations applicable to all detection zones, to modify the recommendations applicable to visual alarm signals, to modify the commentary in the clause on fire alarm warnings for people with impaired hearing, to modify the commentary in the clause on smoke detectors, to add a note to the recommendations for the provision of automatic fire detectors, to add a note to the recommendations for the siting of heat and smoke detectors and to renumber the subsequent notes, to update the tables on limits of ceiling height, to modify the recommendations for standby supplies, to modify the recommendations and commentary for cables, wiring and other interconnections, to delete a note in the recommendations for installation, and to modify the commentary in the clause on the log book.

Acknowledgement

The SABS Standards Division wishes to acknowledge the valuable assistance derived from publications of the British Standards Institute.

Foreword

This South African standard was approved by National Committee SABS SC 21C, *Fire safety – Fixed fire detection and extinguishing systems*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This document was published in October 2012.

This document supersedes SANS 10139:2007 (edition 3.1).

A vertical line in the margin shows where the text has been technically modified by amendment No. 2.

This document is referenced in the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).

This standard is based on BS 5839-1:2002, *Fire detection and alarm systems for buildings – Part 1: Code of practice for system design, installation commissioning and maintenance*. Changes to the original BS 5839-1 are made with the permission of BSI.

Annexes C and D form an integral part of this standard. Annexes A, B, E, F and G are for information only.

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Fire detection and alarm systems for buildings — System design, installation and servicing

1 Scope

This standard provides recommendations for the planning, design, installation, commissioning and maintenance of fire detection and fire alarm systems in and around buildings, other than dwellings. It does not recommend whether or not a fire alarm system should be installed in any given premises. Recommendations for fire detection and alarm systems in dwellings are given in BS 5839-6.

The term fire detection and alarm systems, in the context of this standard, includes systems that range from those comprising only one or two manual call points and sounders to complex networked systems that incorporate a large number of automatic fire detectors, manual call points and sounders, connected to numerous inter-communicating control and indicating panels.

The term also includes systems that are capable of providing signals to initiate the operation of other fire protection systems and equipment (such as fire extinguishing systems, smoke control systems or automatic door release equipment) or safety measures (such as shut down of air handling systems, closing of oil or gas valves, or grounding of lifts). It does not apply to the other systems and equipment themselves, or the ancillary circuits to interface with them. Recommendations for the planning, installation and servicing of facilities for operation of certain fire protection systems by the systems addressed within this standard are given in BS 7273 (all parts).

This standard does not cover systems whose primary function is to extinguish or control 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 (e.g. by use of a pressure or flow switch).

This standard does not cover voice alarm systems. Recommendations for voice alarm systems are given in SANS 7240-16 or SANS 7240-19. **Amdt 1; amdt 2**

This standard does not cover systems combining fire alarm functions with other non-fire related functions. **Amdt 2**

This standard does not cover audible or visual way-guidance systems which are designed to complement fire alarm systems.

Recommendations for fire detection and alarm systems in electronic data processing installations and similar critical electronic equipment rooms are given in SANS 246, which provides recommendations over and above those given in this standard.