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Fire detection and alarm systems —

Part 1: General and definitions
Vocabulary

Systèmes de détection et d'alarme d'incendie —

Partie 1: Vocabulaire

PROOF

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO ~~documents~~document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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

This fourth edition cancels and replaces the third edition (ISO 7240-1:2014), which has been technically revised.

The main changes are as follows:

— ~~—~~the part's title changed to "Vocabulary";

— wording of the scope has been simplified to improve readability;

— ~~—~~editorial corrections have been made to bring the document in line with current ISO drafting rules;

— ~~—~~some definitions (e.g. access level, detachable detector, multipoint detector, zone, etc.) have been changed or added to bring them in line with other parts of ISO 7240 or EN 54-1:2021;

— ~~—~~some terms have been deleted (e.g. alarm, alarm indication, alphanumeric display, combustion gas detector, etc.) because they were used as general meanings or not used in the ISO 7240 series.

A list of all parts in the ISO 7240 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The ISO 7240 series specifies components of fire detection and alarm systems, requirements for their interconnection and installation and the performance, testing, and servicing of parts or of complete systems. It provides:

— signals to organizations having authority to respond to fire alarms, and

— signals to initiate the operation of fire protection equipment and other systems.

A fire detection and alarm system may be activated by automatic detection devices or by manual operation and should fulfil its functions without errors or omissions, including:

— detecting quickly enough to fulfil its intended function,

— reliably transmitting the detection signal to the control and indicating equipment and, if applicable, the fire alarm receiving station,

— translating the detection signal into a clear alarm signal that will attract the attention of occupants in an immediate and unmistakable way,

— remaining insensitive to phenomena other than those which its function is to detect, and

— signalling immediately and clearly any supervised fault that can potentially jeopardize the correct performance of the fire detection and alarm system.

A fire detection and alarm system should not:

— be adversely affected by any other systems whether associated with it, or not.

— be rendered partially or totally inoperative by the fire or the phenomenon which it is designed to detect before the fire or phenomenon has been detected.

The ISO 7240 series applies to fire detection and alarm systems installed in and around buildings. It can be used as a basis for the assessment of systems for other purposes (e.g. mines, ships) but the specific nature of each application should be considered before use. Additional performance and environmental tests can be necessary. It does not preclude the manufacture or use of systems having special characteristics suitable for protection of specific risks against specific hazards.

A fire detection and alarm system is required to function satisfactorily not only in the event of fire, but also during and after exposure to conditions likely to be met in practice such as corrosion, vibration, direct impact, indirect shock, and electromagnetic interference. Some tests specified are intended to assess the performance of system components under such conditions.

The performance of components of fire detection and alarm systems is assessed from the results obtained in the specific tests. The compliance of a component with the relevant part of ISO 7240 does not necessarily ensure that the component will function correctly when connected with another component also conforming to the relevant part of ISO 7240 (e.g. a fire detector with fire detection control and indicating equipment), unless both components have been assessed together as conforming to the requirements for a fire detection and alarm system. Requirements for the assessment of the compatibility of system components are specified in ISO 7240-13. Satisfactory operation of an installed system should be confirmed by testing after completion of the installation (see ISO 7240-14 and ISO 7240-19). The ISO 7240 series is not intended to place any other restrictions on the design and construction of such components.