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Fire detection and alarm systems — Part 16: Sound system control and indicating equipment

Systèmes de détection et d'alarme d'incendie —

*Partie 16: Équipement de contrôle et de signalisation des systèmes
sonores*



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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 7240-16 was prepared by Technical Committee ISO/TC 21, *Equipment for fire protection and fire fighting*, Subcommittee SC 3, *Fire detection and alarm systems*.

This first edition of ISO 7240-16 together with ISO 7240-19 cancels and replaces IEC 60849:1998, which has been technically revised.

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 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)

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- *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 19: Design, installation, commissioning and service of sound systems for emergency purposes*
- *Part 21: Routing equipment*
- *Part 22: Smoke-detection equipment for ducts*
- *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*

A part 26 dealing with oil mist detectors and a part 28 dealing with fire protection control equipment are under development.

Introduction

Sound system control and indicating equipment (s.s.c.i.e.) forms part of a sound system for emergency purposes (s.s.e.p.). An s.s.e.p. operates automatically or manually in a building or structure to alert occupants to a hazard which may require their evacuation in a safe and orderly manner. Equipment to warn occupants is therefore required to function after the hazard has been detected. Fire in a building is a common hazard which is often detected by an automatic fire detection and alarm system. An s.s.e.p. may operate as part of a fire detection and alarm system or may function in conjunction with other emergency detection systems, such as those for storms, earthquakes and bomb threats. The s.s.c.i.e. may be a separate unit or may be physically combined with the fire detection control and indicating equipment (see ISO 7240-2).

This part of ISO 7240 has been prepared by Subcommittee ISO/TC 21/SC 3 and is based on IEC 60849:1998, *Sound systems for emergency purposes*, prepared by the International Electrotechnical Commission IEC/TC 100, *Audio, video and multimedia systems and equipment*.

This part of ISO 7240 follows the format of, and has similar requirements to, ISO 7240-2 and is drafted on the basis of mandatory functions which are to be provided on all s.s.c.i.e. and optional functions (with requirements) which may be provided. Each optional function is included as a separate entity, with its own set of associated requirements, in order for s.s.c.i.e. with different combinations of functions to comply with this part of ISO 7240. It is intended that the options be used for specific applications, as recommended in ISO 7240-19 and the emergency management plan. Other functions associated with an s.s.e.p. may also be provided, even if they are not specified in this part of ISO 7240.

This part of ISO 7240 contains specific tests that subject the equipment 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 the s.s.c.i.e. under such conditions. The performance of the s.s.c.i.e. is assessed from the 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 equipment.