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Second edition
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Fire detection and alarm systems — Part 12: Line type smoke detectors using a transmitted optical beam

Systèmes de détection d'incendie et d'alarme —

*Partie 12: Détecteurs linéaires de fumée utilisant une transmission
par faisceaux lumineux*



Reference number
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Contents

	Page
Foreword	v
Introduction	vii
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Requirements	3
4.1 Compliance.....	3
4.2 Individual alarm indication.....	3
4.3 Connection of ancillary devices.....	4
4.4 Monitoring of detachable detectors and connections.....	4
4.5 Manufacturer's adjustments.....	4
4.6 On-site adjustment of response threshold value.....	4
4.7 Protection of optical components.....	4
4.8 Limit of compensation.....	5
4.9 Fault signalling.....	5
4.10 Software-controlled detectors.....	5
5 Test methods	6
5.1 General.....	6
5.2 Reproducibility.....	9
5.3 Repeatability.....	10
5.4 Alignment dependence.....	10
5.5 Variation of supply parameters.....	11
5.6 Rapid changes in attenuation.....	12
5.7 Slow changes in attenuation.....	12
5.8 Optical path length dependence.....	13
5.9 Fire sensitivity.....	13
5.10 Stray light.....	15
5.11 Dry heat (operational).....	16
5.12 Cold (operational).....	17
5.13 Damp heat, steady-state (operational).....	19
5.14 Damp heat, steady-state (endurance).....	20
5.15 Vibration, sinusoidal (endurance).....	20
5.16 Electromagnetic compatibility (EMC), immunity tests (operational).....	21
5.17 Sulfur dioxide, SO ₂ , corrosion (endurance).....	22
5.18 Impact (operational).....	23
6 Test report	24
7 Marking	24
8 Data	25
Annex A (informative) Compensation for detector drift	26
Annex B (normative) Bench for response threshold value measurements	31
Annex C (normative) Fire test room	33
Annex D (normative) Smouldering pyrolysis wood fire (TF2)	35
Annex E (normative) Glowing smouldering cotton fire (TF3)	38
Annex F (normative) Flaming plastics (polyurethane) fire (TF4)	40
Annex G (normative) Flaming liquid (<i>n</i>-heptane) fire (TF5)	42
Annex H (normative) Smoke-measuring instruments	43
Annex I (normative) Apparatus for stray light	46

This is a preview of "ISO 7240-12:2014". [Click here to purchase the full version from the ANSI store.](#)

Annex J (informative) Information concerning the construction of the measuring ionization chamber	48
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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.

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 should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 21, *Equipment for fire protection and fire fighting*, Subcommittee SC 3, *Fire detection and fire alarm systems*.

This second edition cancels and replaces the first edition (ISO 7240-12:2006), 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 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*

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- *Part 14: Design, installation, commissioning and service of fire detection and fire alarm systems in and around buildings*
- *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 23: Visual alarm devices*
- *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 29 dealing with video fire detectors is under preparation.

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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 7240-12:2006.

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, including corrosion, vibration, direct impact, indirect shock and electromagnetic interference. Specific tests are intended to assess the performance of the smoke detectors under such conditions.

This part of ISO 7240 is not intended to place any other restrictions on the design and construction of such detectors.