ILNAS

Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN 54-18:2005

Fire detection and fire alarm systems - Part 18: Input/output devices

Systèmes de détection et d'alarme incendie - Partie 18: Dispositifs d'entrée/sortie

Brandmeldeanlagen - Teil 18: Eingangs-/ Ausgangsgeräte

12/2005

National Foreword

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ILNAS-EN 54-18:2005

EUROPEAN STANDARD **EN 54-18**

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2005

ICS 13.220.20

English Version

Fire detection and fire alarm systems - Part 18: Input/output devices

Systèmes de détection et d'alarme incendie - Partie 18: Dispositifs d'entrée/sortie

Brandmeldeanlagen - Teil 18: Eingangs-/Ausgangsgeräte

This European Standard was approved by CEN on 26 October 2005.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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Ref. No. EN 54-18:2005: E

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Foreword

This European Standard (EN 54-18:2005) has been prepared by Technical Committee CEN/TC 72 “Fire detection and fire alarm systems”, the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2006, and conflicting national standards shall be withdrawn at the latest by December 2008.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this European Standard.

EN 54 “Fire detection and fire alarm systems” consists of the following parts:

Part 1: Introduction

Part 2: Control and indicating equipment

Part 3: Fire alarm devices – Sounders

Part 4: Power supply equipment

Part 5: Heat detectors - Point detectors

Part 7: Smoke detectors - Point detectors using scattered light, transmitted light or ionization

Part 10: Flame detectors - Point detectors

Part 11: Manual call points

Part 12: Smoke detectors - Line detectors using an optical light beam

Part 13: Compatibility assessment of system components

Part 14: Guidelines for planning, design, installation, commissioning, use and maintenance

Part 15: Point type multi-sensor fire detectors

Part 16: Voice alarm control and indicating equipment

Part 17: Short-circuit isolators

Part 18: Input/output devices

Part 20: Aspirating smoke detectors

Part 21: Alarm transmission and fault warning routing equipment

Part 22: Line-type heat detectors

Part 23: Fire alarm devices - Visual alarms

Part 24: Components of voice alarm systems – Loudspeakers

Part 25: Components using radio links and system requirements

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

The term input/output devices, used in this European Standard, covers a wide range of different types of devices, which are intended for different applications, and may therefore have different functions. This European Standard does not therefore include detailed functional requirements for the input/output devices but requires that their function is sufficiently specified by the manufacturer and that they function correctly in accordance with the manufacturer's specification.

1 Scope

This European Standard specifies requirements, test methods and performance criteria for input/output devices connected to a transmission path of a fire detection and fire alarm system, used to receive and/or transmit electrical signals to or from the transmission path, necessary for the operation of the fire detection and fire alarm system and/or fire protection system.

An input/output device may be a physically separate device or its function may be integrated into another device in which case this European Standard may be used to assess this function.

Control and indicating equipment, and ancillary control and indicating equipment (e.g. repeater panels and fire brigade panels) are not covered by this European Standard.

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 54-1:1996, *Fire detection and fire alarm systems — Part 1: Introduction*

EN 50130-4:1995, *Alarm systems — Part 4: Electromagnetic compatibility - Product family standard: Immunity requirements for components of fire, intruder and social alarm systems*

EN 60068-1, *Environmental testing — Part 1: General and guidance (IEC 60068-1:1988 + Corrigendum 1988 + A1:1992)*

EN 60068-2-1, *Environmental testing — Part 2: Tests — Tests A: Cold (IEC 60068-2-1:1990)*

EN 60068-2-2, *Basic environmental testing procedures — Part 2: Tests — Tests B: Dry heat (IEC 60068-2-2:1974 + IEC 60068-2-2A:1976)*

EN 60068-2-6, *Environmental testing — Part 2: Tests — Test Fc: Vibration, (sinusoidal) (IEC 60068-2-6:1995 + Corrigendum 1995)*

EN 60068-2-27, *Basic environmental testing procedures — Part 2: Tests — Test Ea and guidance: Shock (IEC 60068-2-27:1987)*

EN 60068-2-30, *Environmental testing — Part 2: Tests — Test Db and guidance: Damp heat, cyclic (12 + 12 hour cycle) (IEC 60068-2-30:1980 + A1:1985)*

EN 60068-2-42, *Environmental testing — Part 2-42: Tests — Test Kc: Sulphur dioxide test for contacts and connections (IEC 60068-2-42:2003)*

EN 60068-2-75, *Environmental testing — Part 2: Tests — Test Eh: Hammer tests (IEC 60068-2-75:1997)*

EN 60068-2-78, *Environmental testing — Part 2-78: Tests — Test Cab: Damp heat, steady state (IEC 60068-2-78:2001)*