



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 54-21:2006

ICS 13.220.20

**FIRE DETECTION AND FIRE ALARM
SYSTEMS - PART 21: ALARM TRANSMISSION
AND FAULT WARNING ROUTING EQUIPMENT**

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English Version

Fire detection and fire alarm systems - Part 21: Alarm transmission and fault warning routing equipment

Systèmes de détection et d'alarme incendie - Partie 21 :
Dispositif de transmission de l'alarme feu et du signal de
dérangement

Brandmeldeanlagen - Teil 21: Übertragungseinrichtungen
für Brand- und Störungsmeldungen

This European Standard was approved by CEN on 27 April 2006.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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EN 54-21:2006 (E)

Foreword

This document (EN 54-21:2006) 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of an identical text or by endorsement, at the latest by November 2006, and conflicting national standards shall be withdrawn at the latest by May 2009.

This document 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 document.

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 ionisation,
- 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 detectors using a combination of detected fire phenomena,
- 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EN 54-21:2006 (E)

1 Scope

This European Standard specifies requirements, test methods and performance criteria against which the effectiveness and reliability of routing equipment capable of transmitting fire alarm and/or fault warning signals for use with fire detection and fire alarm systems installed in buildings can be assessed (see EN 54-1). The routing equipment is designed to allow the system to function in accordance with the requirements of this European Standard. It also provides for the evaluation of conformity of the equipment to the requirements of this standard.

2 Normative references

The following referenced documents are indispensable for the application of this document. 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 54-2:1997, *Fire detection and fire alarm systems — Part 2: Control and indicating equipment*

EN 54-4:1997, *Fire detection and fire alarm systems — Part 4: Power supply equipment*

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

EN 50136-1-1:1998, *Alarm systems — Alarm transmission systems and equipment — Part 1-1: General requirements for alarm transmission systems*

EN 50136-2-1:1998, *Alarm systems — Alarm transmission systems and equipment — Part 2-1: General requirements for alarm transmission equipment*

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

EN 60068-2-47, *Environmental testing - Part 2-47: Test Mounting of specimens for vibration, impact and similar dynamic tests (IEC 60068-2-47:2005)*

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)*

EN 60529:1991, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

EN 60721-3-3:1995, *Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 3: Stationary use at weatherprotected locations (IEC 60721-3-3:1994)*

EN ISO 9001:2000, *Quality management systems — Requirements (ISO 9001:2000)*.

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