

**ALARMISÜSTEEMID. OSA 4: ELEKTROMAGNETILINE  
ÜHILDUVUS. TOOTEPEREKONNA STANDARD:  
HÄIRINGUTALUVUSE NÕUDED TULEKAHJU-,  
SISSEMURDE- JA KALLALETUNGIALARMISÜSTEEMIDE,  
VIDEOVALVESÜSTEEMIDE,  
JUURDEPÄÄSUKONTROLLISÜSTEEMIDE JA ISIKLIKE  
APPIKUTSESÜSTEEMIDE KOMPONENTIDELE**

**Alarm systems - Part 4: Electromagnetic compatibility -  
Product family standard: Immunity requirements for  
components of fire, intruder, hold up, CCTV, access  
control and social alarm systems**

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

See Eesti standard EVS-EN 50130-4:2011 sisaldab Euroopa standardi EN 50130-4:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 50130-4:2011 consists of the English text of the European standard EN 50130-4:2011.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English version

**Alarm systems -  
Part 4: Electromagnetic compatibility -  
Product family standard: Immunity requirements for components of fire,  
intruder, hold up, CCTV, access control and social alarm systems**

Systèmes d'alarme -  
Partie 4: Compatibilité électromagnétique -  
Norme de famille de produits: Exigences  
relatives à l'immunité des composants des  
systèmes d'alarme de détection d'incendie,  
contre l'intrusion, contre les hold-up, CCTV,  
de contrôle d'accès et d'alarme sociale

Alarmanlagen -  
Teil 4: Elektromagnetische Verträglichkeit -  
Produktfamilienorm: Anforderungen an die  
Störfestigkeit von Anlageteilen für  
Brandmeldeanlagen, Einbruch- und  
Überfallmeldeanlagen, Video-  
Überwachungsanlagen,  
Zutrittskontrollanlagen sowie Personen-  
Hilferufanlagen

This European Standard was approved by CENELEC on 2011-06-13. CENELEC 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 CENELEC member.

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**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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## Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 79, Alarm systems, in cooperation with CEN Technical Committee TC 72, Fire detection and fire alarm systems.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50130-4 on 2011-06-13.

This document supersedes EN 50130-4:1995 + A1:1998 + A2:2003 + corrigendum March 2003.

The main changes with respect to EN 50130-4:1995 are listed below:

- 1) referenced based standards were updated to the latest versions;
- 2) significant changes were made to the test methods and/or requirements for Clauses 8, 9, 10, 11 and to a lesser degree Clause 13;
- 3) the title was corrected to match the scope of the document.

This revision was prepared to bring the procedures up to date with current technical developments, taking account of changes in the basic standards and the experience gained in the use of the standard.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2012-06-13
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2014-06-13

This European Standard is part of the EN 50130 series of standards. This series is intended to give the requirements applicable to alarm systems in general (e.g. the EMC immunity requirements, in this case). The following associated series of European standards are intended to give the other requirements (e.g. performance requirements), which are applicable to the specific types of alarm systems:

- EN 50131 Alarm systems – Intrusion and hold-up systems;
- EN 50132 Alarm systems – CCTV surveillance systems for use in security applications;
- EN 50133 Alarm systems – Access control systems for use in security applications;
- EN 50134 Alarm systems – Social alarm systems;
- EN 50136 Alarm systems – Alarm transmission systems and equipment;
- CLC/TS 50398 Alarm systems – Combined and integrated alarm systems – General requirements;
- EN 54 Fire detection and fire alarm systems.

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 2004/108/EC. See Annex ZZ.

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## 1 Scope

This EMC product-family standard, for immunity requirements, applies to the components of the following alarm systems, intended for use in and around buildings in residential, commercial, light industrial and industrial environments:

- access control systems, for security applications;
- alarm transmission systems <sup>1)</sup>;
- CCTV systems, for security applications;
- fire detection and fire alarm systems;
- hold-up alarm systems;
- intruder alarm systems;
- social alarm systems;

The tests and severities to be used are the same for indoor and outdoor applications of fixed, movable and portable equipment.

The levels do not cover extreme cases, which may occur in any location, but with an extremely low probability of occurrence, or in special locations close to powerful emitters (e.g. radar transmitters).

Equipment within the scope of this standard should be designed in order to operate satisfactorily in the environmental electromagnetic conditions of residential, commercial, light industrial and industrial environments. This implies particularly that it should be able to operate correctly within the conditions fixed by the electromagnetic compatibility levels for the various disturbances on the low voltage public supply system as defined by EN 61000-2-2. The immunity tests in this standard only concern the most critical disturbance phenomena.

For equipment using radio signalling, mains signalling or with connections to the public telephone system, additional requirements, from other standards specific to these signalling media, might apply.

This standard does not specify basic safety requirements, such as protection against electrical shocks, unsafe operation, insulation coordination and related dielectric tests.

This standard does not cover EMC emission requirements. These are covered by other appropriate standards.

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1) Apart from equipment which is part of a public communication network.

## 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 60068-1:1994	Environmental testing – Part 1: General and guidance (IEC 60068-1:1988 + Corr. Oct. 1988 + A1:1992)
EN 61000-4-2:2009	Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test (IEC 61000-4-2:2008)
EN 61000-4-3:2006 + A1:2008 + A2:2010	Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test (IEC 61000-4-3:2006 + A1:2007 + A2:2010)
EN 61000-4-4:2004 + A1:2010	Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test (IEC 61000-4-4:2004 + A1:2010)
EN 61000-4-5:2006	Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test (IEC 61000-4-5:2005)
EN 61000-4-6:2009	Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields (IEC 61000-4-6:2008)
EN 61000-4-11:2004	Electromagnetic compatibility (EMC) – Part 4-11: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests (IEC 61000-4-11:2004)
EN 61000-4-20:2010	Electromagnetic compatibility (EMC) – Part 4-20: Testing and measurement techniques – Emission and immunity testing in transverse electromagnetic (TEM) waveguides (IEC 61000-4-20:2010)
ETSI EN 301 489 (series)	Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services

## 3 Terms, definitions and abbreviations

### 3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1.1

##### **European product performance standard**

European Standard (EN) that specifies the product performance requirements, which may include EMC requirements but is not limited to EMC requirements

EXAMPLES EN 54 series for fire alarm systems, EN 50131 series for intruder alarm systems.

#### 3.1.2

##### **basic EMC standards**

standards giving the description of, and test and measurement methods for an EMC phenomenon, along with details of the test apparatus and test set-up, which may give guidance on the choice of severity but do not give the prescribed limits or criteria for compliance