SLOVENSKI STANDARD
SIST EN 50133-2-1:2001

01-februar-2001

Alarmni sistemi - Sistemi za nadzor dostopa za uporabo v aplikacijah varovanja - 2 -1. del: Splošne zahteve za sestavne dele

Alarm systems - Access control systems for use in security applications -- Part 2-1: General requirements for components

Alarmanlagen - Zutrittskontrollanlagen für Sicherungsanwendungen -- Teil 2-1: Allgemeine Anforderungen an Anlageteile

Systèmes d'alarme - Systèmes de contrôle d'accès à usage dans les applications de sécurité -- Partie 2-1: Exigences générales concernant les composants

Ta slovenski standard je istoveten z: **EN 50133-2-1:2000**

ICS:

13.320	Alarmni in opozorilni sistemi	Alarm and warning systems

SIST EN 50133-2-1:2001 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50133-2-1

September 2000

ICS 13.320

English version

Alarm systems - Access control systems for use in security applications Part 2-1: General requirements for components

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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.

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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Ref. No. EN 50133-2-1:2000 E

Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 79, Alarm systems.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50133-2-1 on 2000-01-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national endorsement (dop) 2001-01-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2003-01-01

This part 2-1 is to be used in conjunction with EN 50133-1:1996.

Contents

Introduction

This European standard has been established :

- to be a reference for the certification of products belonging to an access control system designed to conform to EN 50133-1.

- to collect in one document all the general requirements for component(s) of an access control system as defined in the diagram shown in EN 50133-1 section 4.2.

This standard may be complemented by other standards dealing with more specific requirements for individual components.

In this standard, the expressions "environmental class" and "equipment class" are used respectively, instead of group and equipment category, which are used in EN 50133-1, in order to be in accordance with EN 50130-5.

The word component has the similar meaning to the word equipment used in EN 50133-1.

1 Scope

This standard provides general requirements for the components for an automated access control system as shown in subclause 4.2. of EN 50133-1.

This standard does not define component functionality as this is detailed in EN 50133-1.

2 Normative references

This standard incorporates, by dated or undated reference, provision from other publications. These normative references are cited at the appropriate place in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 50102	1995	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)
EN 50130-5	1998	Alarm systems - Part 5 : Environmental test methods
EN 50133-1	1996	Alarm systems - Access control systems for use in security applications - Part 1 : System requirements
EN 60529	1991	Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)

3 Definitions

For the purposes of this standard, the definitions listed in EN 50133-1 apply together with the following :

component: Device forming part of the access control system and carrying at least one function described in EN 50133-1.

4 Requirements

4.1 General

The manufacturer shall describe the functions embodied within the component(s) submitted for certification and shall fulfil the appropriate functional requirements as detailed in EN 50133-1.

4.2 Electrical safety

The component shall comply with requirements included in subclause 5.4.3 of EN 50133-1.

4.3 Electromagnetic compatibility

The component shall comply with requirements included in subclause 5.4.2 of EN 50133-1.

4.4 Environmental

4.4.1 *Environmental test requirements*

The components used in an access control system shall conform to the environmental tests listed below from EN 50130-5 and from EN 50133-1.

Details of equipment class (fixed, movable, portable) and environmental class (I, II, III, IV) shall be included in the manufacturer's documentation.

4.4.1.1 *Dry heat, operational test*

The test is described in EN 50130-5, clause 8.

4.4.1.2 *Cold, operational test*

The test is described in EN 50130-5, clause 10.

4.4.1.3 *Water, operational test*

The test is described in EN 50130-5, clause 16.

4.4.1.4 *Impact, operational test*

(applicable only to recognition equipment and access point interface)

The test is described in EN 50130-5, clause 20.

4.4.1.5 *Vibration, sinusoidal endurance test*

The test is described in EN 50130-5, clause 23.

4.4.1.6 *Supply voltage variations, operational test*

The test is described in EN 50133-1, subclause 5.4.1.6.

The word voltage in this clause means the supply voltage which is provided to the component.

4.4.1.7 *Supply voltage dips and interruptions, operational test*

The test is described in EN 50133-1, subclause 5.4.1.7.

4.5 Power supply

For each component of an access control system, the outputs and inputs of the power supply shall be protected against short circuit.

Requirements pertaining to subclause 5.2.1.d of EN 50133-1 concerning power disconnection only apply when power is provided by the main distribution network.

NOTE : If a power supply is provided with a secondary source of power, failure of the mains should be annunciated.

4.6 Housings

4.6.1.1 *Opening*

It shall not be possible to open components or to remove components from their mounting without the use of tools (e.g. screwdriver, keys).

4.6.2 *Adjustments*

Adjustment points (switches, potentiometers) shall be located inside the housing of the component.

The adjustment settings, which require the use of equipment (portable programmer) shall fulfil the requirements of subclause 5.2.4 of EN 50133-1 in respect of programmability protection.

4.6.3 *Cable outlets*

Where the construction of the housing does not provide for concealed cable entry (rear entry) this shall be clearly stated in the product documentation.

4.7 Documentation

The manufacturer shall provide the following information:

- the function of the components according to the diagram of an access control system (figure 1 and list of subclause 4.1of EN 50133-1) ;
- security classification (recognition and access class) if applicable (see EN 50133-1, subclause 5.1) ;
- environmental class and equipment class ;
- electrical specifications (power supply, inputs, outputs) ;
- installation , commissioning , maintenance and operating instructions ;
- operating temperature and humidity range ;
- IP and IK Codes ;
- document listing all the information needed for document checking as specified in EN 50133-1, subclause 6.2.1.

4.8 Marking/Identification

Each access control system component shall be labelled.

As a minimum , the label shall give the following information :

- the name of the organisation responsible for the conformity of the product (e.g. the manufacturer, importer) ;
- the product type ;
- the manufacturing reference ;
- all markings required by other standards or directives.

The marking shall be readable, fixed and durable. It may be fixed either to the inside or outside of the components. If the marking cannot be applied to the component, it shall be fixed on the outside of the packaging.

The marking is not required on the token.

5 Specific requirements

5.1 Access point interface

The access point interface shall be housed within a container equipped with tamper detection which operates when the container is opened by the normal means.

The access point interface shall be housed within a container providing means for concealed cable outlets or means allowing the monitoring of interconnections. This requirement does not apply if the manufacturer's literature clearly states that the product is not suitable for use on the lower security side or non-secure side of an access controlled area.

The housing of the access point interface shall meet at least IP 3X, according to EN 60529.

Depending on the environmental class of equipment, this requirement becomes:

- Environmental classes I, II — IP 30
- Environmental class III — IP 32
- Environmental class IV — IP 34

5.2 Recognition equipment

If it is possible to grant access by simple manipulation, (for example: test button, maintenance facility, short circuit) the container of the recognition equipment shall be equipped with tamper detection which operates when the container is opened by normal means.

The recognition equipment shall provide means for concealed cable outlets or means allowing the monitoring of interconnections. This requirement does not apply if the manufacturer's literature clearly states that the product is not suitable for use on the lower security side or non-secure side of an access controlled area.

With the exception of the normal opening used for the token or biometric reading, the housing of the recognition equipment shall meet at least IP 3X according to EN 60529.