



SLOVENSKI STANDARD
SIST EN 1332-3:2008

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SIST EN 1332-3:2004

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Identification card systems - Man-machine interface - Part 3: Key pads

Identifikationskartensysteme - Schnittstelle Mensch-Maschine - Teil 3: Tastenfelder

(standards.iteh.ai)

Systèmes de cartes d'identification - Interface homme-machine - Partie 3: Claviers

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ICS:

35.240.15	Identifikacijske kartice in sorodne naprave	Identification cards and related devices
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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1332-3

August 2008

ICS 35.240.15

Supersedes EN 1332-3:1999

English Version

Identification card systems - Man-machine interface - Part 3: Keypads

Systèmes de cartes d'identification - Interface homme-
machine - Partie 3: Claviers

Identifikationskartensysteme - Schnittstelle Mensch-
Maschine - Teil 3: Tastenfelder

This European Standard was approved by CEN on 18 July 2008.

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 CEN Management Centre 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 CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, 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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 1332-3:2008) has been prepared by Technical Committee CEN/TC 224 "Identification card systems", the secretariat of which is held by AFNOR.

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 February 2009, and conflicting national standards shall be withdrawn at the latest by February 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1332-3:1999.

This European Standard is one of a series of standards, under the general title "Identification card systems — Man-machine interface" and the different parts are the following:

- *Part 1 : Design principles for the user interface*
- *Part 2 : Dimensions and location of a tactile identifier for ID-1 cards*
- *Part 3 : Keypads*
- *Part 4 : Coding of user requirements for people with special needs*
- *Part 5 : Raised tactile symbols for differentiation of application on ID-1 cards*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, 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 the United Kingdom.

EN 1332-3:2008 (E)**Introduction**

Machine readable cards facilitate the provision of a growing variety of services across Europe. The purpose of EN 1332 is to increase the accessibility of these services for the benefit of consumers. This will be achieved by facilitating the inter-sector and cross-border interoperability of machine readable cards and to do so with the maximum possible degree of user-friendliness.

EN 1332 addresses the needs of all users, including people with special needs, for example the aged, minors, the disabled, the visually impaired, those with learning difficulties, first time users and those not conversant with the local language.

EN 1332 specifies:

- a) design principles for the user interface (including symbols) to be incorporated into the design of card operated devices, but not the machine operations associated with the selection and delivery of goods or services ;
- b) tactile identifiers incorporated into the design of machine readable cards ;
- c) standard layout for the keypads of card operated devices ;
- d) coding of user requirements for people with special needs ;
- e) tactile markings for differentiating cards by application.

The contents of EN 1332 are generically based, not sector specific, and cover card operated devices. It is recognised that the equipment may also be operated by other means, such as the insertion of notes and coins, but the scope of this standard has been, as indicated, narrowly defined.

Issues relating to such consumer concerns at the man-machine interface as PIN presentation are not dealt with in EN 1332.

The EN 1332 standard has been completed with CEN/TS 15291 – Guidance on design for accessible card-activated devices. This technical specification provides guidance for the design and location of card-activated devices and the immediate environment to facilitate access for the users.

1 Scope

This European Standard covers the ergonomic layout and usability of keypads. The keypad may consist of numeric, command, function and alphanumeric keys. On the basis that keypad layout impacts performance (keying speed and errors), this European Standard aims to:

- enhance usability;
- ensure ease of use through consistency;
- increase customer confidence;
- reduce customer error;
- improve operating time;
- ensure ergonomic data entry.

This European Standard specifies the arrangement, the number and location of numeric, function and command keys, including placement of alphabetic characters on numeric keys. Design recommendations are also provided.

This standard applies to all identification card systems equipped with a numeric keypad for use by the public. Personal card reading devices, such as mobile phones, are outside the scope of this standard.

This standard does not cover virtual numeric keypad on screens for PIN entry.

2 Normative references

[SIST EN 1332-3:2008](https://standards.iteh.ai/catalog/standards/sist/49d48254-fd96-4e5d-a65d-6ae913bd7618/sist-en-1332-3-2008)

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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 1332-1, *Identification card systems — Man-machine interface — Part 1: Design principles for the user interface*

3 Definitions

For the purposes of this document, the following definitions apply:

3.1

ergonomics

scientific discipline concerned with the understanding of interactions among human and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance

[ISO 6385:2004]

3.2

Personal Identification Number

PIN

code or password the customer possesses for verification of identity

EN 1332-3:2008 (E)**3.3****alphanumeric keyboard**

input device with many keys that includes both the letters of the alphabet and numerical digits

3.4**graphic symbol**

image used to represent an object or idea

NOTE Often placed on a key or button to signify a particular system function.

3.5**numeric keys**

keys on a keyboard that contain the characters 0 to 9

3.6**function keys**

set of keys in addition to the alphanumeric and command keys

NOTE They may either have a dedicated function (hard key) or a variable function which depends on the mode of operation (soft key).

3.7**command keys**

keys used in conjunction with numeric keys

NOTE These keys ("cancel", "enter" and "clear") are described in Table 1.

3.8**disability**

restriction or lack of ability to perform an activity in the manner or within the range considered normal for a human being

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NOTE Disability may be temporary. [6ae913bd7618/sist-en-1332-3-2008](https://standards.iteh.ai/catalog/standards/sist/49d48254-fd96-4e5d-a65d-6ae913bd7618/sist-en-1332-3-2008)

3.9**keypad**

arrangement of numeric, command and, where required, function and/or alphanumeric keys laid out in a specific manner

4 Sections of the keypad**4.1 General**

There may be three sections of the keypad:

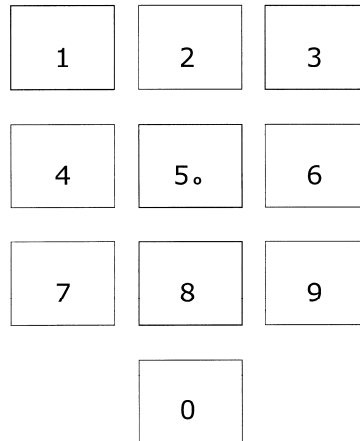
- numeric section optionally including alphabetic characters;
- command key section;
- function key section.

4.2 Numeric keys

All keypads shall provide for the entry of the decimal numeric characters 0 to 9.

The arrangement of numeric keys shall be according to Figure 1.

To assist blind and visually impaired people, the "5" key shall be identified by a suitable tactile identifier. This should be a raised dot, preferably on the key. The raised dot should be at least 0.3 mm high and its position shall not interfere with the legibility of the key legend. Other tactile identifiers or raised numerals should not be present on the numeric keys as this may be confused with function keys by blind or visually impaired people.



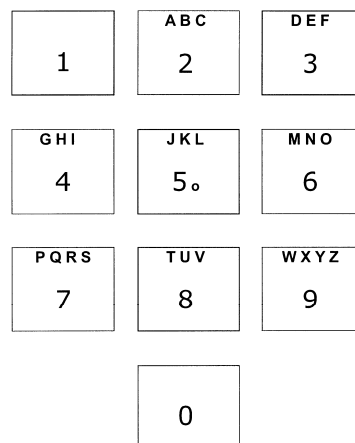
NOTE Figure 1 is not to scale.

Figure 1 — Arrangement of numeric keys on keypad

4.3 Placement of alphabetic characters on numeric keys

Avoid alphabetic characters unless they are essential for performance of the task. If alphabetic characters are present keys should reflect the local language where the device is located. If the placement of alphabetic characters is required then they shall be placed on the numeric keys as specified on Figure 2.

NOTE Keys 1 and 0 contain no alphabetic characters.



NOTE 1 Figure 2 is not to scale.

NOTE 2 In some circumstances it may be more appropriate to place the alphabetic characters on the casing instead on the key top.

NOTE 3 There are other alphabetic characters which may also be present on the key surface.

Figure 2 — Placement of Latin alphabetic characters on the numeric keys