



# SLOVENSKI STANDARD

## SIST EN 1332-5:2006

01-junij-2006

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G]ghYa ]'n'XYbh]Z\_UW'g\_ ]a ]'Xc\_ i a Ybh]'!Ja Ygb]\_ ' `cj Y\_!ghc^!) "XY. 'FY]Yz] g]a Vc`]'nUfUh`]\_cj Ub^'i dcfUWY'bU]XYbh]Z\_UW'g\_ ]\_ 'Uf]WU `8!%

Identification card systems - Man-machine interface - Part 5: Raised tactile symbols for differentiation of application on ID-1 cards

Identifikationskartensysteme - Schnittstelle Mensch-Maschine - Teil 5: Erhöhte Tastsymbole auf ID-1-Karten zur Unterscheidung von Anwendungen

Systemes de cartes d'identification - Interface homme-machine - Partie 5 : Symboles tactiles en relief pour la différenciation des applications des cartes ID-1

**Ta slovenski standard je istoveten z: EN 1332-5:2006**

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**ICS:**

35.240.15	Identifikacijske kartice in sorodne naprave	Identification cards and related devices
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**SIST EN 1332-5:2006**

**en**

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EUROPEAN STANDARD

EN 1332-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2006

ICS 35.240.15

English Version

## Identification card systems - Man-machine interface - Part 5: Raised tactile symbols for differentiation of application on ID-1 cards

Systèmes de cartes d'identification - Interface homme-machine - Partie 5 : Symboles tactiles en relief pour la différenciation des applications des cartes ID-1

Identifikationskartensysteme - Schnittstelle Mensch-Maschine - Teil 5: Erhöhte Tastsymbole auf ID-1-Karten zur Unterscheidung von Anwendungen

This European Standard was approved by CEN on 23 January 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.

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## Foreword

This European Standard (EN 1332-5:2006) has been prepared by Technical Committee CEN/TC 224 "Machine-readable cards, related device interfaces and operations", 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 September 2006, and conflicting national standards shall be withdrawn at the latest by September 2006.

This European Standard consists of the following parts, under the general title "Identification Card Systems - Man-Machine Interface":

- 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, 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 1332-5:2006 (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, those not conversant with the local language.

EN 1332 specifies:

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

The contents of EN 1332 are generically based, not sector specific, and cover card operated equipment. 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.

## 1 Scope

The scenario addressed by this European Standard is one where the cardholder operates the card accepting equipment (e.g. a cash dispenser, ticket machine, vending machine, mass transportation).

It is assumed that the card is a card conforming to ISO/IEC 7810.

Increasing use is being made of machine readable plastic cards. However, some potential user groups such as people who are elderly, disabled, blind or visually impaired could have difficulty in using existing card layouts to distinguish between cards with different functions such as a bank, telephone, pre-payment or social security card.

This standard addresses the needs of users who have difficulty reading non-embossed information on plastic cards, including persons with special needs, for example older people, minors, disabled people, visually impaired people, those with learning difficulties, first time users, and those not conversant with the local language.

The aim of this standard is to specify the design principles necessary for raised tactile symbols to be incorporated into machine readable cards. This proposed standard, in Clause 6, specifies the form, dimensions and location of tactile identifiers for application with ID-1 cards which do not contain other raised symbols. For cards which already contain raised symbols, an alternative system is specified in Clause 7.

It is the responsibility of the card issuer to decide which raised symbols to add to identify applications.

The alternative system, as specified in Clause 7, should only be used when the system specified in Clause 6 is not suitable (e.g. when the card already contains embossing). Symbols that comply with Clause 7 should be negotiated between cardholder and issuer.

Raised symbols could be introduced in multi applications cards only if issuer can assure that each of these applications will still be active during the card life cycle.

Annex A specifies the procedure for assigning symbols according to this standard.

Raised symbols should only be used on a card after insuring that they will not interfere with the operation of the card (e.g. antenna for contactless card).

## 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.

ISO/IEC 7810 *Identification cards - Physical characteristics*

ISO/IEC 7811-1 *Identification cards - Recording technique - Part 1: Embossing*

## 3 Terms and definitions

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

### 3.1

#### **ID-1 (Identification card)**

card identifying its holder and the issuer which may carry data required as input for the intended use of the card and for transactions based thereon

**EN 1332-5:2006 (E)****3.2****back**

face of the card that does not have raised symbols

**3.3****front**

face of the card which may carry raised symbols

**3.4****machine readable cards**

cards incorporating a technology such as a magnetic stripe or integrated circuit that may be read by a machine

**3.5****raised tactile symbols**

symbols in relief from the front surface of a card regardless of method of producing the symbols

**3.6****cross-sectional profile**

shape of the outer surface of the symbol in cross-sectional view

**4 Abbreviations**

ID-1 Card conforming to ISO/IEC 7810 card type ID-1

**5 Requirements for standard raised tactile symbols**

The following are the most desirable requirements to take into account for realisation of raised symbols specified in the standard that will act as tactile discriminators on ID-1 cards.

- clearly distinguishable by touch: the raised tactile symbols should be easy to feel and recognise by users including elderly, blind and visually impaired people;
- clearly visible: the tactile symbols shall be easy to see and recognise by users who are not blind;
- consistent position: the tactile symbols shall be positioned such that the card can be visually or tactually read with ease;
- user testing: the tactile symbols should be selected on the basis of user testing to verify that the design meets the requirements of the intended user groups;
- compliance with existing standards: a standard for common tactile symbols for ID-1 cards shall comply in all respects with existing standards for such cards;
- machine reading compatibility: the tactile symbols should not interfere with the functioning of existing card reading technologies, e.g. embossing, magnetic stripes, integrated circuit cards (Figure 1) and antennas;
- mechanical compatibility: the tactile symbols should be designed and positioned so that they will not interfere with the proper working of the mechanical card reading technologies, e.g. card feeding machines (Figure 1).



## 6 Dimensions of visually and tactually readable raised tactile symbols

These symbols are not intended to be machine readable.

**Table 1 - Symbol set: Simplified alphanumeric, capital characters and symbols**

Sector identifier Position 1 (A)		Function/Application Positions 2–4 (B-D)	
Symbol	Meaning	Symbol	Meaning
Fig 6	Financial services	Fig 13	Social security
Fig 7	Utilities	Fig 14	Information
Fig 8	Telecommunications	Fig 15	Credit
Fig 9	Health/medical	Fig 16	Debit
Fig 10	Transport	Fig 17	Purse
Fig 11	Retail	Fig 18	Personal identification
Fig 12	Other	Fig 19	Access
		Fig 20	Loyalty/membership
		Fig 21	Other

Most of the symbols may be reused in various rotations (90°, 180° or 270°) to describe other functions. The most easily distinguished symbols (aside from 'O') incorporate straight lines with angles of more than 45°.

**Symbol to denote absence:** A single dot, 'o', placed in the centre of the area reserved for raised symbols shall denote an absence of a specific character.

**Symbol spacing:** The symbol spacing shall be 5 mm ± 0,1 mm (Figure 2).

**Symbol height:** Maximum height at the plane card surface for the raised symbols, encompassing centreline skew and character misalignment shall be 13 mm ± 0,1 mm (Figure 2).

**Symbol width:** Maximum width at the plane card surface for the raised symbols shall be 7 mm ± 0,1 mm (Figure 2).

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**Relief height of symbol:** The height of raised symbols shall be:

(a) Between 0,45 mm and 0,48 mm.

Or (b) Within range 0,3 mm to 0,45 mm where the radius of curvature of the top edge of the cross-sectional profile is less than 0,05 mm (Figure 5).

**Coding system:** A maximum of four adjacent symbols shall be positioned in the raised symbols area (Figures 1 and 2).

The symbol positioned right justified on the front face of the card should describe the generic function of the card: financial services, utilities, telecommunications, etc. Each subsequent symbol to the left of the first symbol (position A in Figure 2) should indicate the specific function of the card. In the event that a card is multifunctional, emphasis should be placed upon use of the sector identifiers. Future categories of card function are permitted by the use of rotated versions of symbols prescribed in this European Standard. When one or more of the four raised symbol positions are not required to contain a tactile symbol, a 'o' should be raised to denote the absence of any other symbol.

## 7 Alternative symbols for cards with embossing

The preferred symbols are specified in Clause 6; this clause only applies to cards which already have raised symbols in the name and address area (see Figure 3).

Three braille characters with up to 6 dots per character; the choice of characters to be left to the issuer in consultation with the cardholder. The raised symbol pattern is not limited to braille characters. For the purpose of this standard, the braille-like dot dimensions are (see Figure 4):

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**Table 2**

Dimension	Distance in mm
a	2.3 ± 0.1
b	2.3 ± 0.1
c	6.1 ± 0.1

The height of the raised symbols to be in accordance with ISO/IEC 7811-1.

## 8 Testing for conformance with this standard

The provision of tactile symbols does not require specialist measurement procedures to test for card conformance with this standard.

## 9 Labelling and packaging

No special labelling or packaging is required by this standard.

NOTE Diagrams are not drawn to scale.

All dimensions in millimetres

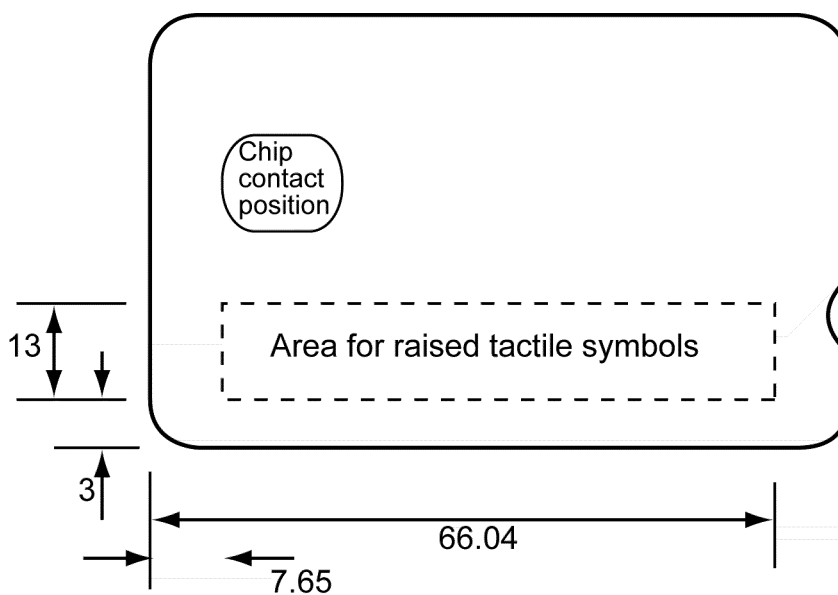


Figure 1 – Area for raised tactile symbols

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All dimensions in millimetres

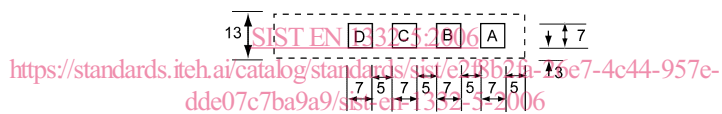


Figure 2 – Details of raised tactile symbols