



SLOVENSKI STANDARD

SIST EN 1332-3:2020

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SIST EN 1332-3:2008

Sistemi z identifikacijskimi karticami - Uporabniški vmesnik - 3. del: Tipkovnice

Identification card systems - User Interface — Part 3: Key pads

Identifikationskartensysteme - Schnittstelle Mensch - Maschine - Teil 3: Tastenfelder

Systemes de cartes d'identification — Interface utilisateur — Partie 3 : Claviers

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Ta slovenski standard je istoveten z: **EN 1332-3:2020**

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ICS:

35.240.15	Identifikacijske kartice. Čipne kartice. Biometrija	Identification cards. Chip cards. Biometrics
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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1332-3

July 2020

ICS 35.240.15

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English Version

Identification card systems - User Interface - Part 3: Key pads

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

Identifikationskartensysteme - Schnittstelle Mensch - Maschine - Teil 3: Tastenfelder

This European Standard was approved by CEN on 8 June 2020.

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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-CENELEC Management Centre has the same status as the official versions.

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 1332-3:2020) has been prepared by Technical Committee CEN/TC 224 “Personal identification and related personal devices with secure element, systems, operations and privacy in a multi sectorial environment”, 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 January 2021, and conflicting national standards shall be withdrawn at the latest by January 2021.

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

This document supersedes EN 1332-3:2008.

The main changes compared to the previous edition are listed below:

- inclusion of touch sensitive devices;
- differentiation between stationary and non-stationary devices;
- clarification on some issues;
- general updating of text to modern situations.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 1332-3:2020 (E)**Introduction**

Machine readable cards facilitate the provision of a growing variety of services across Europe. The purpose of the EN 1332 series 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.

The EN 1332 series addresses the needs of the widest possible range of users, for example the aged, minors, people with disabilities, those with learning difficulties, first time users and those not conversant with the local language.

The EN 1332 series 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 the EN 1332 series are generically based, not sector specific, and cover card operated devices. It is recognized that the equipment can also be operated by other means, such as the insertion of notes and coins, but the scope of this document 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 the EN 1332 series.

The EN 1332 series 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 document covers the ergonomic layout and usability of keypads. The keypad consists of numeric, command and function keys and alphanumeric characters. On the basis that keypad layout impacts performance (keying speed, and errors), this document aims to:

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

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

This document applies to all identification card systems with a numeric keypad for use by the public for stationary or non-stationary devices. This document also covers keypads on touch sensitive devices.

2 Normative references (standards.iteh.ai)

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp/ui>

3.1

command key

“cancel”, “enter” or “clear” key

Note 1 to entry: These keys are described in Table 1.

3.2

disability

any restriction or lack of ability (resulting from an impairment) to perform an activity in the manner or within the range considered normal for a human being

Note 1 to entry: Disability can be temporary.

[SOURCE: EN ISO/IEC 24751-2:2008(en), 3.15]

EN 1332-3:2020 (E)**3.3****function key**

key that either has a dedicated function (hard key) or a variable function which depends on the mode of operation (soft key)

Note 1 to entry: See Table A.1 in Annex A for examples of function keys.

3.4**graphical symbol**

visually perceptible figure with a particular meaning used to transmit information independently of language

[SOURCE: ISO 7001:2007(en), 3.1]

3.5**key legend**

text or graphical symbol on the key to explain visually the use of the key

3.6**keypad**

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

Note 1 to entry: Keypads can be physical mechanical or touch sensitive.

3.7**non-stationary device**

small, compact, lightweight input device which is movable to a position that the user needs

3.8**numeric key**

key on a keyboard that contains the characters 0 to 9

3.9**personal identification number**

PIN

code or password that the customer possesses for verification of identity

3.10**sans serif typeface**

font family derived from Antiqua in which the line strength is almost uniform and which does not have serifs

3.11**serif**

small line attached to the end of a stroke in a letter

Note 1 to entry: Also called foot.

3.12**stationary device**

input device that is fixed to a specific location and that is not portable, but may be adjustable, e.g. in height

3.13**tactile**

feelable by touch

3.14**tactile identifier**

raised dot on the “5” key to facilitate orientation

3.15**tactile symbol**

graphical symbol on the key to explain tactually the use of the key

3.16**touch sensitive device**

input device that produces a position and selection input signal from a finger touching, lifting off or moving across a display

[SOURCE: ISO/TS 9241-411:2012, 3.20]

4 Sections of the device**4.1 General**

There may be three sections of the device:

- keypad, covering:
 - numeric section optionally including alphabetic characters,
 - command key section,
 - function key section,
- card feeder and contactless point,
- protection shield.

The input area (keypad) shall be at the bottom of the device, clearly distinguished from a display or an information area.

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.

The “5” key shall be identified by a tactile identifier.

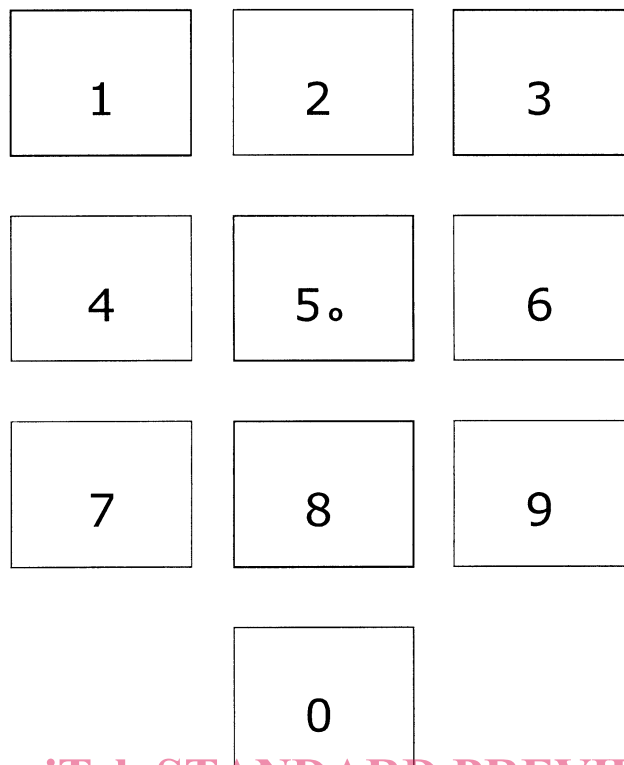
NOTE 1 This is to assist blind and visually impaired people.

The tactile identifier shall be a raised dot.

The raised dot shall be raised at least 0,7 mm and its position shall not interfere with the legibility of the key legend.

Other tactile identifiers or raised numerals shall not be present on the numeric keys.

For all numeric keys the colour shall not be green, red, yellow.



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Figure 1 — Arrangement of numeric key on keypad

NOTE 2 Figure 1 is not to scale.

[SIST EN 1332-3:2020](https://standards.itih.ai/catalog/standards/sist/d567fc3b-0c33-42fc-9137-4fddee44d540/sist-en-1332-3-2020)

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4.3 Alphabetic characters

Alphabetic characters shall only be used if they are essential for performance of the task.

If used, they shall not interfere with the legibility of the key legend.

If alphabetic characters are required then they shall be placed on the numeric keys as specified in Figure 2.

NOTE 1 Keys 1 and 0 contain no alphabetic characters.

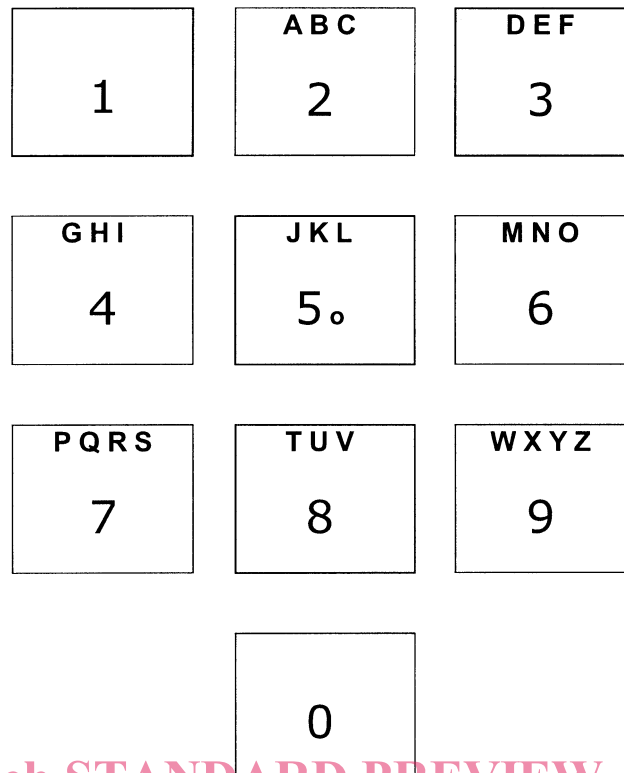


Figure 2 — Placement of Latin alphabetic characters on the numeric keys

NOTE 2 Figure 2 is not to scale. [SIST EN 1332-3:2020
https://standards.iteh.ai/catalog/standards/sist/d567fc3b-0c33-42fc-9137-4f1de44d540/sist-en-1332-3-2020](https://standards.iteh.ai/catalog/standards/sist/d567fc3b-0c33-42fc-9137-4f1de44d540/sist-en-1332-3-2020)

NOTE 3 In some circumstances it could be more appropriate to place the alphabetic characters on the casing instead on the key top.

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

4.4 Command keys

4.4.1 General

The keys “cancel” and “enter” shall be present on a keypad as a minimum. The command key “clear” may also be present.

The functional description and design of the command keys is mandatory as according to Table 1.