BRITISH STANDARD

BS EN
1332-1:2009

Identification card systems — Human-machine interface

Part 1: Design principles for the user interface

ICS 35.240.15

BSI
British Standards

National foreword

This British Standard is the UK implementation of EN 1332-1:2009. It supersedes BS EN 1332-1:1999 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee IST/17, Cards and personal identification.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

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Identification card systems - Human-machine interface - Part 1: Design principles for the user interface

Systèmes de cartes d'identification - Interface homme-machine - Partie 1: Principes de conception pour l'interface utilisateur

Identifikationskartensysteme - Mensch-Maschine-Schnittstelle - Teil 1: Gestaltungsgrundsätze für die Benutzerschnittstelle

This European Standard was approved by CEN on 20 June 2009.

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.

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Foreword

This document (EN 1332-1:2009) has been prepared by Technical Committee CEN/TC 224 “Personal identification, electronic signature and cards and their related systems 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of an identical text or by endorsement, at the latest by January 2010, and conflicting national standards shall be withdrawn at the latest by January 2010.

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 1332-1:1999.

This European Standard is one of a series of standards, under the general title "Identification card systems – Human-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 differenciation 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.

Introduction

Machine readable cards facilitate the provision of a growing variety of services across Europe. The purpose of this standard is to increase the accessibility of these services for the benefit of all users of the system. 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 elderly, people with disabilities, first time users, minors, those not conversant with the local language and/or culture.

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) 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 human-machine interface as PIN presentation are not dealt with in EN 1332.

The EN 1332 standard series has been completed with CEN/TS 15291, *Identification card system – 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

The purpose of this European Standard is to ensure that card-operated devices are accessible and usable by standardising significant components of the user interface.

This European Standard describes principles and guidelines so that people with the widest range of capabilities can use card-based services in any sector. This includes, but is not limited to, purchase of goods and services, leisure, distribution, identification, banking, telecommunications, mass transport, parking, access control. It also provides recommendations for the operational procedures to be followed when users interact with a card-operated device:

— in order to enter a system;

— whilst using a system;

— leaving a system.

In particular, this European Standard will:

— aid the user's interaction with the system through a consistent user interface when entering, using and leaving card-operated devices;

— promote user confidence in card-based systems in general;

— promote efficient use, security and privacy of card-based systems;

— reduce the occurrence and consequences of error when the user enters, uses or leaves the system;

— enable people with different levels of ability and comprehension (e.g. minors, elderly, visually impaired, foreign language, motor impaired, hearing, etc) and different levels of experience (e.g. first-time users) to use card-based systems;

— improve the learnability of new card-based systems through consistency.

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 1332-4, *Identification card systems – Man-machine interface – Part 4: Coding of user requirements for people with special needs*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this standard, the following terms and definitions apply:

3.1.1
automated teller machine
ATM
customer operated device that dispenses and/or accepts cash and/or other services

3.1.2
card-operated device
device operated by a card which is designed to offer some service or goods

3.1.3
cardholder verification method
CVM
method of automatically identifying the cardholder e.g. Personal Identification Number, finger print, voice print

3.1.4
dialogue
interaction between a user and a system to achieve a particular goal
[EN ISO 9241-10:1996]

3.1.5
feedback
system output which a user recognises as a reaction of the system to the user's input

3.1.6
inter-sector use
use in more than one sector and thus not restricted by particular requirements defined in a sector standard

3.1.7
legibility
visual properties of a character or symbol that determine the ease with which it can be measured
[EN 29241-3:1993]

3.1.8
machine readable card
card incorporating a technology such as magnetic stripe, integrated circuit etc, that may be read by a machine

3.1.9
navigate (to)
to progress through a transaction using navigation aids such as Page Up, Page Down, Next Page, Return to Menu, etc.

3.1.10
Personal Identification Number
PIN
code or password the customer possesses for verification of identity
[EN 29564-1:1993]

3.1.11
symbol
either pictogram or icon

3.2 Abbreviations

For the purposes of this standard, the following abbreviations apply:

ATM automated teller machine

CVM cardholder verification method

PIN personal identification number

4 Approach to user interface design

The approach to user interface design is divided into four main components – Goals, Principles, Guidelines and Conformance Testing (which is a separate standard). These components correspond to Sections 5, 6, 7 and 8 respectively. Figure 1 illustrates the relationship between these components. The contents of the Conformance Testing are derived from the user interface Guidelines, which are in turn driven by the Principles and Goals.

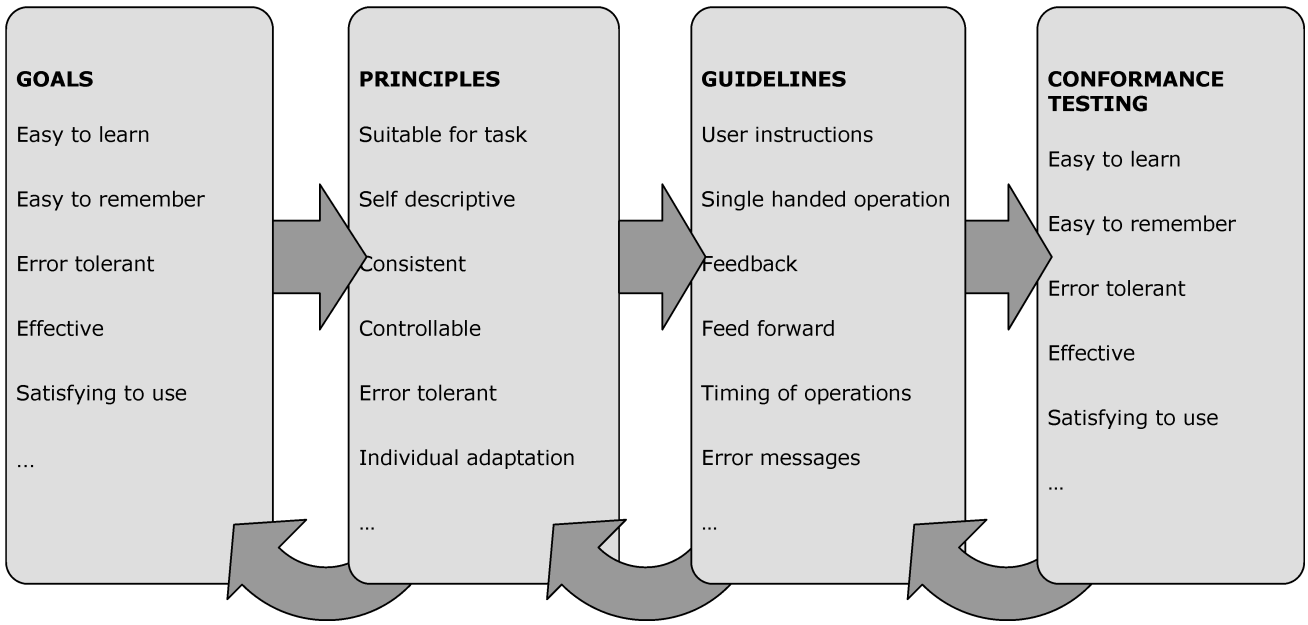


Figure 1 — Relationship between Goals, Principles, Guidelines and Conformance Testing

Note that there is not a 1:1 mapping between Goals and Principles, and Principles and Guidelines. For example, the principle “Consistency” can support most of the Goals. Several Principles can support the same Goal. There can also be a conflict between some Principles – e.g. flexibility versus stability and ease of use.

5 Goals of the user interface

The card-based system’s user interface should be designed so that it is:

- **Easy to learn:** Ensure that users can be quickly acquainted with the system in order to be able to use it from initial contact.
- **Easy to use:** The system shall be transparent and therefore easy to explore and efficient to use.
- **Easy to remember:** The use of the interface shall be easy to remember such that the user is able to return to the system after a period of not using it, without having to re-learn its interface.
- **Error tolerant:** The system shall minimise the potential for errors being made, while reducing the severity of errors if they do occur. Fatal errors shall not be possible.
- **Effective:** The system shall ensure that the desired result can be achieved with a minimum of effort, and that the user never questions the purpose of any part of the user interface.
- **Satisfying to use:** Satisfaction measures the extent to which users are free from discomfort, and their attitudes towards the use of the card operated device.

Goals for the design of a card-based system can be illustrated using the model shown in Figure 2. The model shows the interaction between a human and the machine being used. The process is described below:

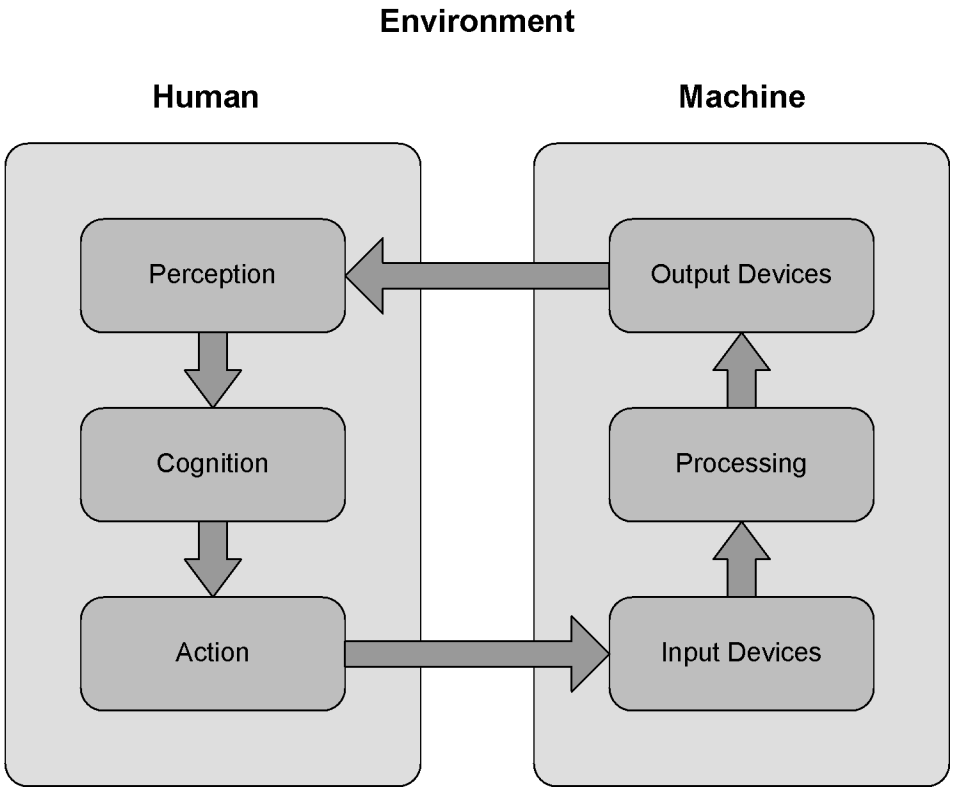


Figure 2 — A simple model for human-machine interaction

1) The user perceives information via one or more of the machine's output devices. For example, the user hears an audible tone representing progress in the transaction.

2) The cognition box represents the user's interpretation of the perceived information. E.g. the user interprets the sound as positive feedback and relates the sound to previous experience – meaning wait.

3) The cognition box is followed by an action, which is detected by one of the machine's input devices. E.g. the user selects a different touch screen button. This input is then processed by the machine and a new output is created.

The model includes the environment as this affects how both the user and machine perform. For example, ambient noise may influence the user's ability to detect audible outputs, and rain may prevent a touch screen correctly detecting user input.

The design of the machine's output devices shall correspond to the user's capabilities and limitations. For example, any audible feedback on a product designed for use by the aged must have the correct audio characteristics for it to be heard by someone with reduced hearing ability. Likewise, the input devices must also be appropriately selected. E.g. a user with reduced motor skills must not be made to use a device like a mouse; a touch screen is probably better.

The user's cognition box relates to the machine's processing box; the user's mental model of how the machine reacts to inputs depends on both the machine's actual behaviour and the user's expectations. The user interface shall therefore aim to present the machine's behaviour as being simple and understandable, as well as congruent with the user's expectations.

6 Principles for user interface design

6.1 General

The principles below (6.2 - 6.13) have been identified to be important for the design of user interfaces that are accessible to all users.

The principles should be applied taking into account user characteristics such as:

- Attention span;
- Limits of short-term memory;
- Sensory abilities (e.g. visually impaired);
- Learning;
- Experience;
- The users' mental model of how the system works.

It is important to see all the principles listed below in relation to each other as they are closely interlinked. Adopting just one or two of the principles will not ensure good user interface design. Implementing the principles must also take into account possible conflicts, such as between security and ease of use. For example, providing speech output can improve ease of use, but it may create problems with regards to security, and may result in a different dialogue.

6.2 Suitable for the task

A user interface is suitable for a task to the extent that it supports the user in the effective and efficient completion of the task. For example, a dialogue should only present the user with those concepts and choices that are directly related to the user’s activities.

6.3 Self descriptive

A dialogue system is self-descriptive to the extent that each dialogue step is immediately comprehensible through a workflow map, feedback and prompts from the system. For example: "Now type in your security code" is presented on the screen and acoustically, whilst the back lighting on the keyboard flashes to indicate where one should key in the security code. Another example are page navigation buttons that describe the pages’ tasks: “Back to destination selection”, “Proceed to checkout”.

6.4 Consistent

A user interface should be consistent with user expectations and intuition, both within and between the way a system operates, allowing the users to improve their skills and predict the effects of their actions. It also allows the user to seek advice from others (e.g. helpdesk). For example, control actions should have the same outcomes throughout the system; control sequences have the same syntax; terms and labels remain the same and display items have a designated location. (E.g. “Cancel” should be consistent throughout.)

6.5 Conforms with user expectations/stereotypes

A user interface conforms with user expectations to the extent that it corresponds to the user's task knowledge, education, experience and commonly accepted conventions. It is recommended that within each sector similar applications should have the same mode/sequence of operation. For example, the colour green is used to indicate “go ahead”/proceed, the colour red is associated with danger/stop.

6.6 Controllable (user in control)

A user interface is controllable to the extent that the user is able to control the interaction until the goal has been reached. For example, the user can choose to quit a dialogue or current operation, or the user should be able to control the time allowed for each part of the operation, where practical and within the constraints of good security.

6.7 Error tolerant/forgiving

A dialogue system is error-tolerant or forgiving if, despite errors in input, the intended result may be achieved with minimal corrective action. Provide warnings of errors and serious consequences and avoid incompatible/ambiguous options. Informative and meaningful error messages and context-related help should lead the card holder forward. It should be possible to re-enter fields or characters. Use of tick boxes and/or radio buttons, and lists of acceptable answers, can help reduce the possibility of mistakes when selecting options.

For example, if an out-of-normal range value is exceeded (e.g. when tipping or withdrawing money, or when ordering tickets), an informative error message is given. The corrective action would be to display the out-of-range value and prompt re-entry of the value.

6.8 Individual adaptation

A user interface is suitable for individual adaptation when the system adapts to users needs, individual preferences and abilities and allows modifications to its interfaces and operations. These modifications may be prompted by the cardholder with their preferences recorded on the card (see EN 1332-4). It should be possible for the user to change preferences. For example, the dialogue system should provide flexibility in use when providing choice in methods of use, language, accommodating right- or left-handed access and providing adaptability to the users' pace. In addition to visual user interfaces, audio user interfaces could be provided for people with visual impairments.

6.9 Privacy and confidentiality at the user interface

A dialogue system provides privacy, safety and confidentiality for the individual so that meaningful information is not accessible to others at the user interface. For example, information (balance, account number) shown on screens or on receipts cannot be seen, heard or obtained by others.

6.10 Simple and easy to use

The user interface shall be simple and easy to use, regardless of the users' experience, knowledge, literacy and language skills or current concentration levels. Information should be arranged consistently with its logical grouping. Provide effective prompting, feedback and feed forward (e.g. feedback should confirm all actions performed by the user). Information provided for initialisation, or first time use of the system, should not be repeated for subsequent use.

6.11 Iterative/user centred design

A user-centred approach to the design should be carried out, which involves the iterative use of a cross-section of potential users at each stage of the design process. Specific methods include task analysis, requirements elicitation and usability testing. Usability testing involves measuring how well test subjects respond in four areas: time, accuracy, recall and subjective response.

6.12 Easily perceptible information

Information is to be adapted to individuals' perceptual and cognitive capabilities so that the user interface effectively communicates necessary information to the user, regardless of ambient conditions or the user’s sensory and cognitive abilities. For example, provide information in several modes (visual, audio, tactile). Ensure maximum legibility of essential information.

6.13 Suitability for learning

A user interface is suitable for learning when it supports and guides the user in learning to use the system. The interface shall allow the user to explore the dialogue steps without negative consequences. Additionally, it shall be obvious to the user that this is possible. For example, a room-booking system could allow the user to 'jump' to any page, non-sequentially, to understand which steps are needed and what the input requirements are.

Other methods to increase learning include: allowing for transferable learning, presentation of workflow maps, displaying meaningful messages and having basic and advanced modes.

7 User interface design guidelines

7.1 User instructions

Unambiguous user instructions, in a choice of selectable languages, should be developed and tested according to ergonomic principles. There should also be a display showing which cards can be used in the device.

7.2 Single handed operation

The system should not require two or more operations to be performed simultaneously, i.e. one-handed operation of the device should be possible.

7.3 Feedback

User selectable feedback should be available whenever the user carries out an action.

7.4 Feed forward

The system shall inform the user as to what will happen as a result of making a control input, before the input is made. The system shall also inform the user as to what the remaining steps of a task are.

Users should be made aware prior to committing an irrevocable action/command – e.g. "money will now be transferred to another account (and cannot be recalled)." Allow time in the sequence to request receipts.

7.5 Timing of operations

All users should be given sufficient time to complete an operation. It is recommended that this be a user defined time (see EN 1332-4). NB Time between actions is also important.

7.6 Error messages

Context specific and Informative error messages should be provided if the user attempts to use the system incorrectly or if a fault occurs.

7.7 Cancellation of operation

Users should be able, at any time, to cancel the current operation and return to the main menu, go back one or several steps without leaving the system, or leave the system and retrieve their card.

7.8 Provision of charges

Details of charges for a service should be provided before a transaction is entered into. When providing such information, sufficient time should be allowed for the user to read it and make a decision. The user should at any point in the transaction be offered the opportunity of cancelling the transaction. Where the cost of a service is time-based a continuous indication of costs should be provided.

7.9 Receipts

A purchasing receipt for the transaction should be made available (not necessarily for each transaction) to be printed at the user's request. For some transactions a receipt may be mandatory, in which case a choice should not be offered.

In general, a receipt should provide:

— confirmation that a transaction has taken place;

— details of the transaction;

— date , time and place of the transaction;

— account details (may be limited by security requirements);

— a unique transaction number or code;

— remaining balance/stored value;

— VAT details (if relevant).

A prompt should be given to the user that a receipt is being prepared and printed.

7.10 Access to information stored on the card

Information stored on the card should be available to the card holder. This includes remaining stored value and expiry date. Where user preference settings are stored on the card, it should be possible to edit/review these in a safe environment. Data stored on the card may be subject to privacy legislation.

7.11 Card capture

Information about what to do if the card is captured should be permanently displayed (e.g. on the cover of the device). In addition, if the card is captured by the device, a message should be given to the user explaining how to retrieve the card. Where possible this message should be printed and should contain the following information:

— confirmation of the capture of the card, with an explanation;

— cards details;

— date and time;

— location;

— reference number;

— contact details.

NOTE The message could be given using audio output as well as displayed visually. In this case, there should be a choice of language and the possibility of repeating the message. Audio output may also conflict with security.

7.12 Leaving the system

The recommended sequence for exiting a system is:

— remove card;

— remove receipt;

— take cash or goods.

A visual/acoustic warning should be given before timing out any of the above actions. The actions should not occur simultaneously, but be sequential.

7.13 Functions to be represented by symbols

Symbols in the form of icons on screens and/or pictograms on the card or terminal should provide for the functions shown in Table 1. Symbols should have a concise accompanying text message. Symbols for 13 functions and accompanying text messages are provided in Annex B.

Symbols should conform with international standards and related documents where relevant; ISO TC 145 keeps a register of approved symbols.

Table 1 — A functional description of symbols used with identification card systems

Function	Description
Entering the system	
Device accepts card	Some (or all) services are card-activated. These services may also be activated by other means, e.g. coin.
In service	Device available for a card-activated service. Not all services are necessarily available.
Insert card	The option of inserting a card into a reader. The symbol should clearly show the orientation of the card ready for insertion, and should cover both short- and long-edge insertion.
Out of service	Device unavailable for card-activated service. Ideally the terminal should provide the location of the nearest available terminal.
Place card	The action of placing a card on, or in close proximity to, a card-reading device. This applies particularly to contactless cards.
Remotely activated	Such as where the card is activated remotely, for example when entering a road-tolling area: or where a card remotely activates a device e.g. an access system to a building. This happens automatically.
Swipe card	The action of swiping a card through a reader. This applies typically to a magnetic stripe card, and should show the orientation and direction of swipe.
Touch screen	Used to indicate that touch screen input is available. When the icon is touched the application is activated.
Unavailability of service	Used to indicate that not all services are available from the device. Such services may be available at a later time, dependent upon the type of service, for example ATM unable to dispense cash.
Using the system	
Abort	At any point in the transaction the user shall be able to abandon the transaction and have their card returned to them. The abort symbol should show this clearly as being different to abandoning the current operation (see cancel).
Balance	Used to retrieve a balance of the card or application. Use of the symbol will be application or sector-specific.
Cancel	Used to cancel the operation in progress.
Clear	Used to erase the previous entry.
Enter	Used to confirm an action.
Enter CVM	Used to indicate that the device is waiting for a cardholder verification method input, e.g. PIN, fingerprint, voice.
Language	Used to indicate that the device supports a number of languages.
Next menu	Used to allow the user to proceed to the next menu and indicate that additional menu screens are available.
Previous menu	Used to allow the user to return to the previous menu screen.
Next screen	Used to allow the user to proceed to the next screen and indicate that further screens of information are available.
Previous screen	Used to allow the user to return to the previous screen.
Receipt required	Used to indicate that the user wants a receipt for the transaction.
Statement	Used to retrieve a statement of the card or application. Use of the symbol will be application or sector specific.
Time-out	Used to indicate that the time allowed for the operation has elapsed. Subsequent action is application specific.
Wait symbol	Used to indicate that the machine is processing. Please wait.

Table 1 *(continued)*	
Leaving the system	
Take card	Used to indicate that the user should remove their card from the reader.
Take goods	Used to indicate that the user should remove their goods from the device.
Take money	Used to indicate that the user should remove their money from the device.
Take receipt	Used to indicate that the user should remove their receipt from the device.

8 Testing for conformance with this standard

Claims of conformance to this standard should be evaluated against checklists covering design principles and guidelines for user interfaces, such as EN ISO 13407 and EN ISO 9241-110.

Annex A
(informative)

Symbols in the form of icons on screens and/or pictograms

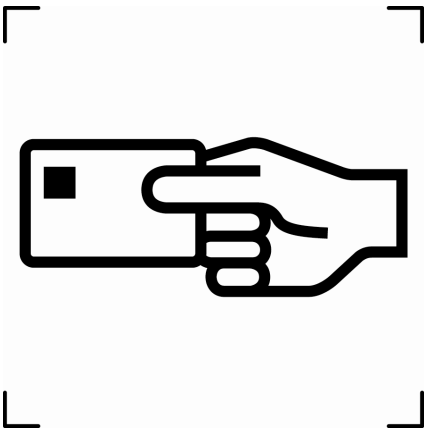


Figure A.1 — Card reading device

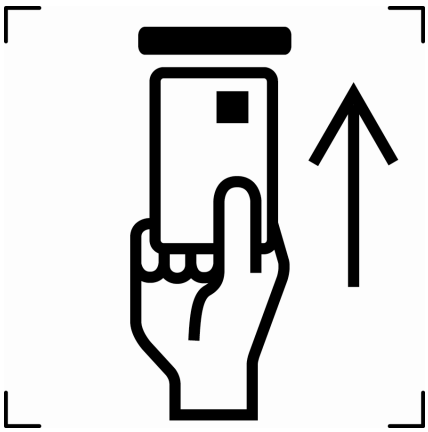


Figure A.2 — Insert card

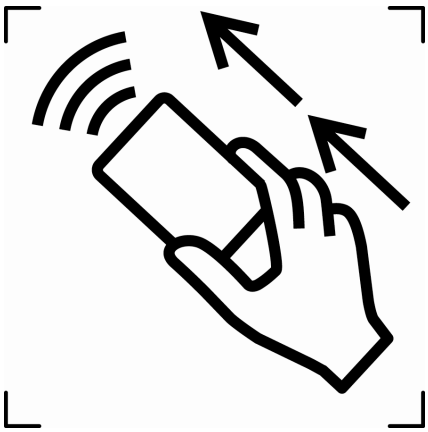


Figure A.3 — Non-contact card, operation

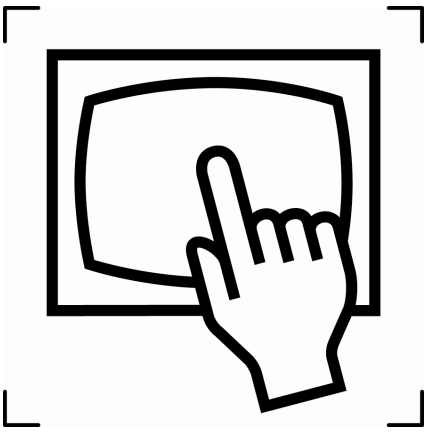


Figure A.4 — Touch screen

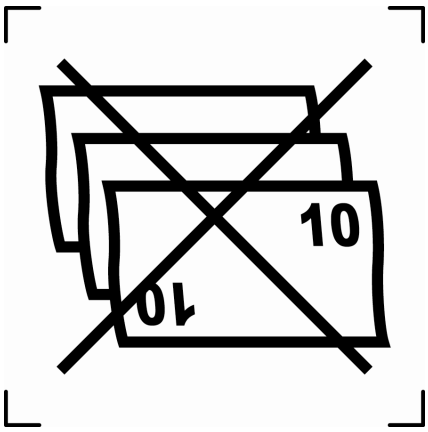


Figure A.5 — Out of service

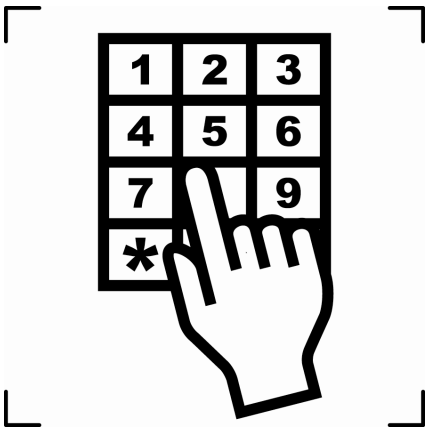


Figure A.6 — Enter PIN code

Figure A.7 — Query: receipt wanted?

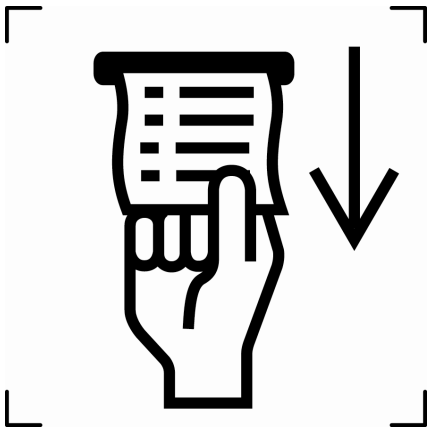


Figure A.8 — Remove receipt

Figure A.9 — Receipt non available

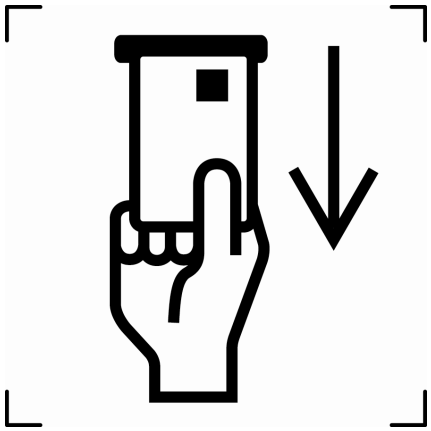


Figure A.10 — Remove card

Figure A.11 — Take cash

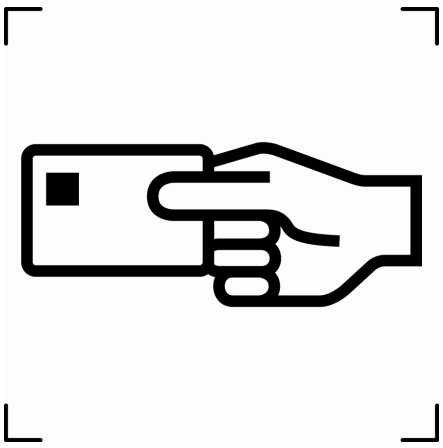
Original symbol 7000-2828

(a = 50 mm)

Real dimensions

Height: 0,55a

Width: 1,24a



Application: To indicate that a card could be required when using this device

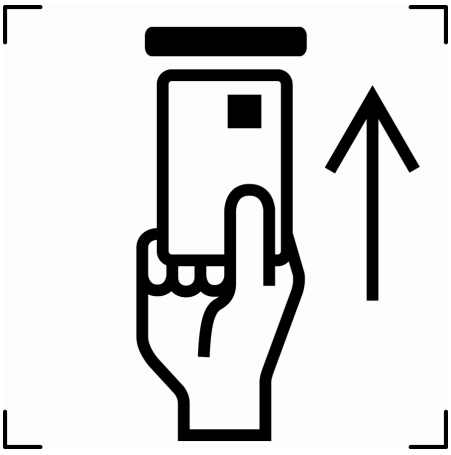
Keywords: Cards accepted

For general information, see IEC 80416-1.

Figure A.12 — Graphical symbol: Identifying a device at a distance that uses cards

Original symbol 7000-2829

(a = 50 mm)
Real dimensions
Height: 1,44a
Width: 0,89a



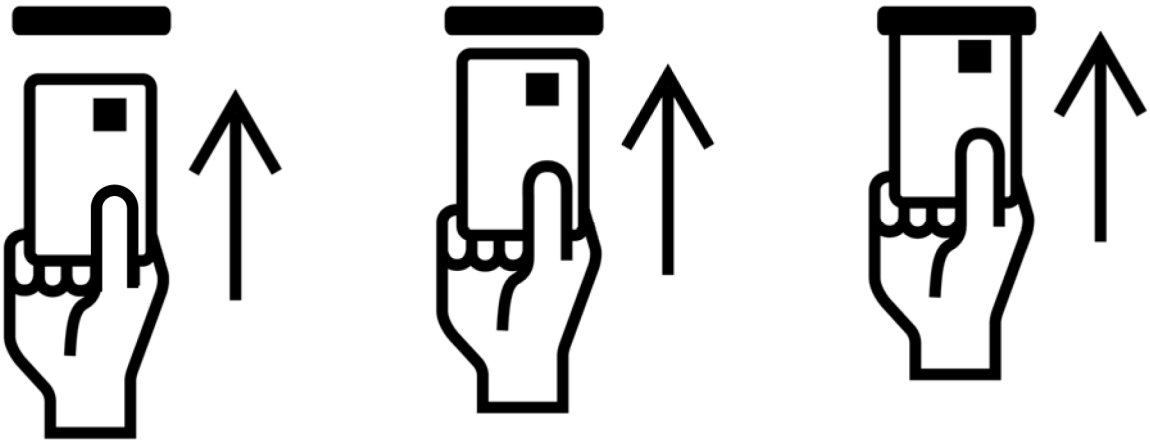
Application: To indicate that the user should insert a card

Keywords: Insert card

Animation: This symbol can be reinforced by an animation of alternate variants symbolized by the following images:

1) The symbol is animated through a rotation of 3 images.

2) The arrow is animated.



Figures A.13 and A.14 — Graphical symbol: Requesting card insertion

Original symbol 7000-2830

(a = 50 mm)
Real dimensions
Height: 1,21a
Width: 1,18a

Application: To indicate that the user should bring the non-contact card closer to the card reader

Keywords: Move card closer

Animation: This symbol can be reinforced by an animation of alternate variants symbolized by the following images:

1) The symbol is animated through a rotation of 3 images.

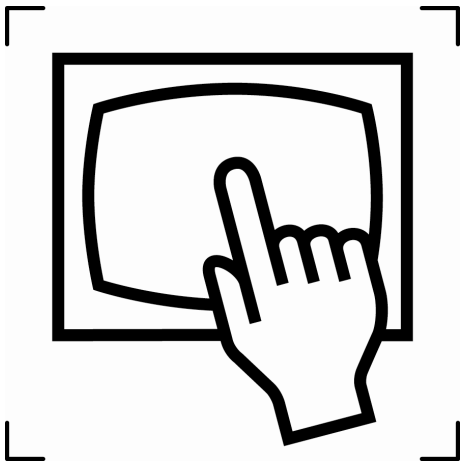
2) The arrow is animated.

For general information, see IEC 80416-1.

Figures A.15 and A.16 — Graphical symbol: Correct action to operate non-contact card

Original symbol 7000-2831

(a = 50 mm)
Real dimensions
Height: 1,09a
Width: 1,03a



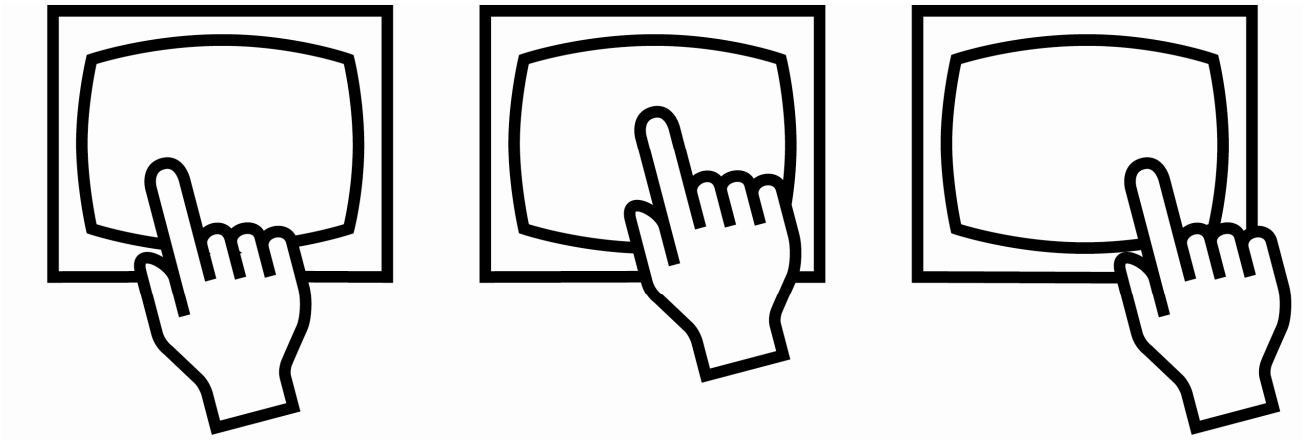
Application: To signify that the screen is a touch screen

Keywords: Touch screen

Animation: This symbol can be reinforced by an animation of alternate variants symbolized by the following images :

The symbol is animated through a rotation of 3 images.

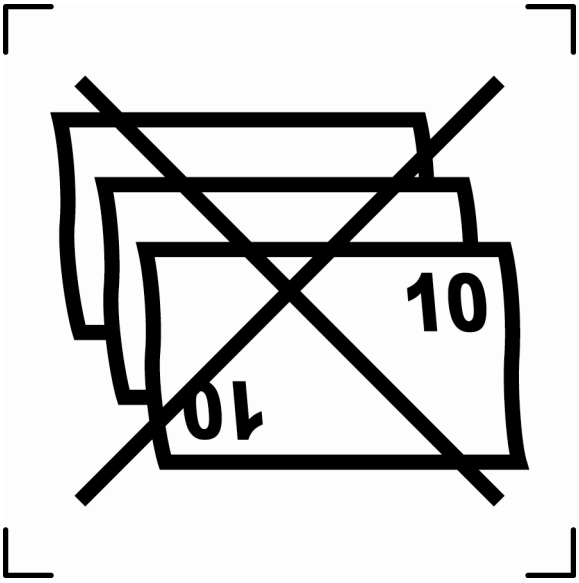
For general information, see IEC 80416-1.



Figures A.17 and A.18 — Graphical symbol: Touch screen

Original symbol 7000-2832

(a = 50 mm)
Real dimensions
Height: 0,81a
Width: 1,04a

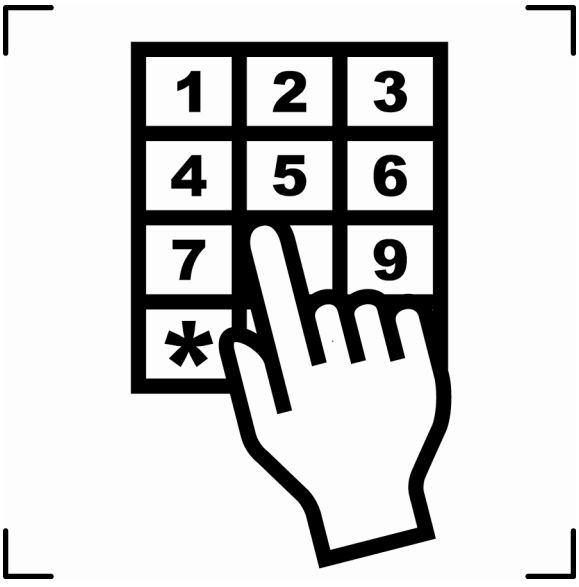


Application: To indicate that the cash machine is out of service
Keywords: Out of order
For general information, see IEC 80416-1.

Figure A.19 — Graphical symbol: Cash machine out of service

Original symbol 7000-2833

(a = 50 mm)
Real dimensions
Height: 1,11a
Width: 1,01a



Application: To prompt the user to enter a number, such as PIN code
Keywords: Enter PIN
For general information, see IEC 80416-1.

Figure A.20 — Graphical symbol: Introduction of PIN code

Original symbol 7000-2834

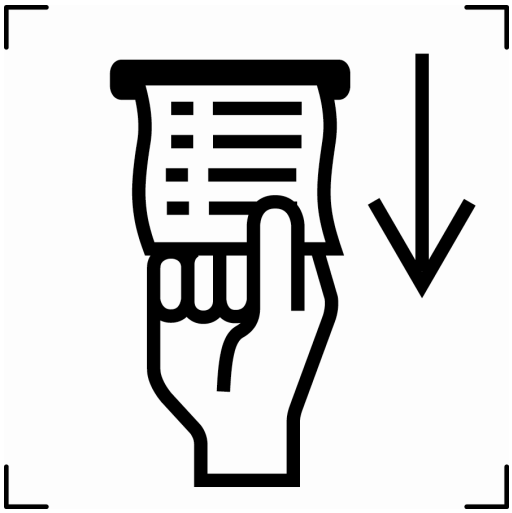
(a = 50 mm)
Real dimensions
Height: 1,29a
Width: 0,87a

Application: To ask the user if a receipt is required
Keywords: Receipt required
For general information, see IEC 80416-1.

Figure A.21 — Graphical symbol: Requesting a receipt

Original symbol 7000-2835

(a = 50 mm)
Real dimensions
Height: 1,33a
Width: 0,89a



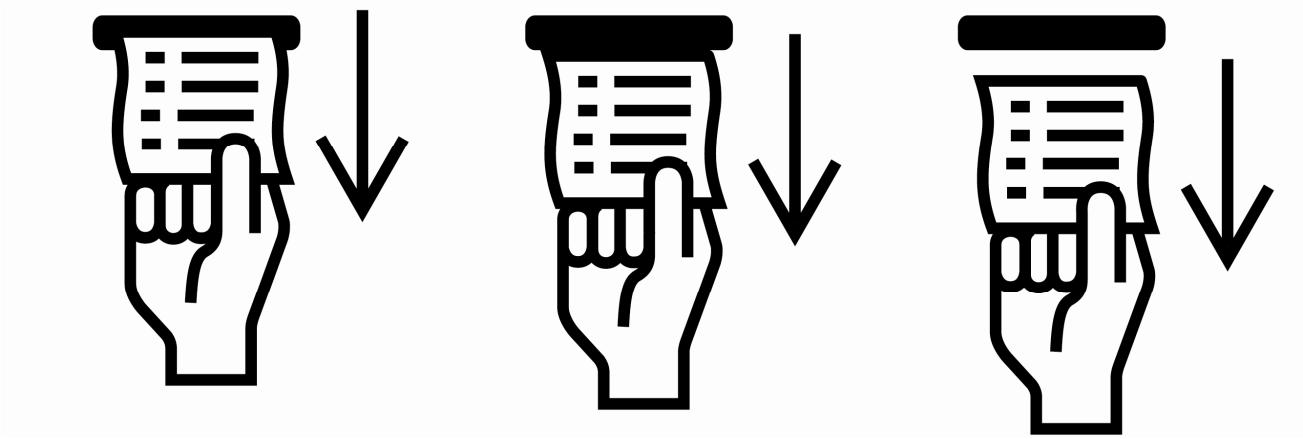
Application: To signify that the user should take the receipt

Keywords: Take receipt

Animation: This symbol can be reinforced by an animation of alternate variants symbolized by the following images:

The symbol is animated through a rotation of 3 images.

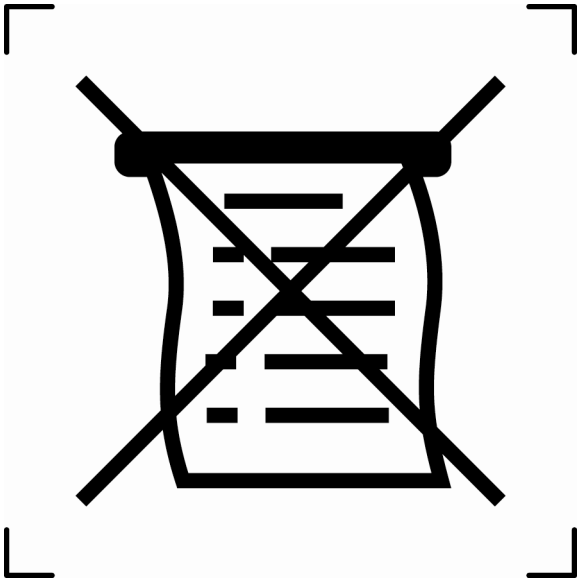
For general information, see IEC 80416-1.



Figures A.22 and A.23 — Graphical symbol: Take receipt

Original symbol 7000-2836

(a = 50 mm)
Real dimensions
Height: 0,70a
Width: 0,73a

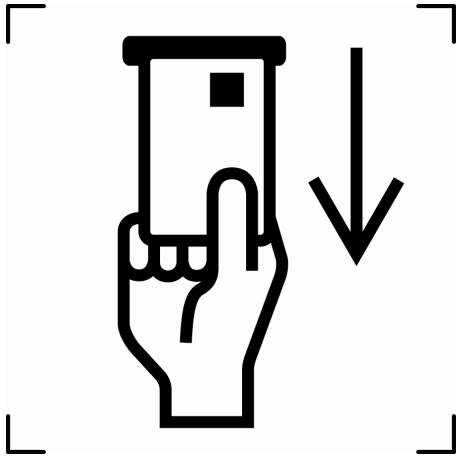


Application: To indicate that no receipt is available
Keywords: Receipt not available
For general information, see IEC 80416-1.

Figure A.24 — Graphical symbol: Receipt not available

Original symbol 7000-2837

(a = 50 mm)
Real dimensions
Height: 1,44a
Width: 0,89a



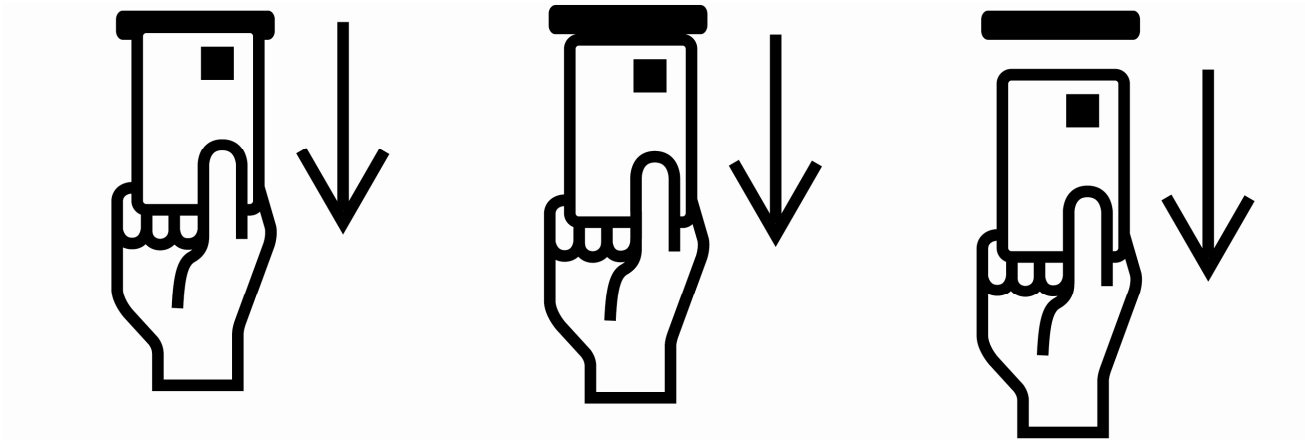
Application: To indicate that the user should remove the card

Keywords: Remove card

Animation: This symbol can be reinforced by an animation of alternate variants symbolized by the following images:

The symbol is animated through a rotation of 3 images.

For general information, see IEC 80416-1.



Figures A.25 and A.26 — Graphical symbol: Removing card

Original symbol 7000-2838

(a = 50 mm)
Real dimensions
Height: 1,27a
Width: 1,14a

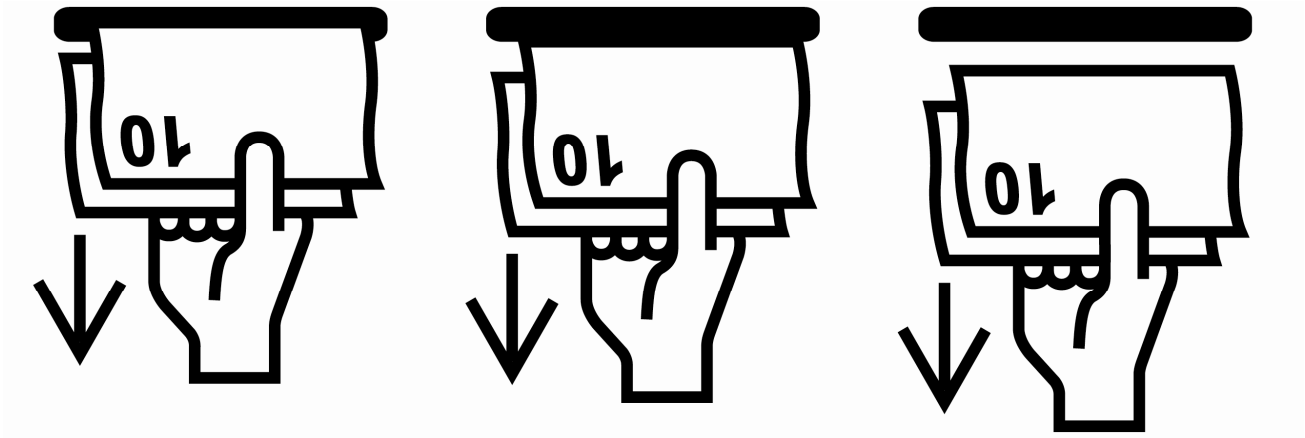
Application: To indicate that the user to take the requested cash

Keywords: Take cash

Animation: This symbol can be reinforced by an animation of alternate variants symbolized by the following images:

The symbol is animated through a rotation of 3 images.

For general information, see IEC 80416-1.



Figures A.27 and A.28 — Graphical symbol: Removing cash

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