

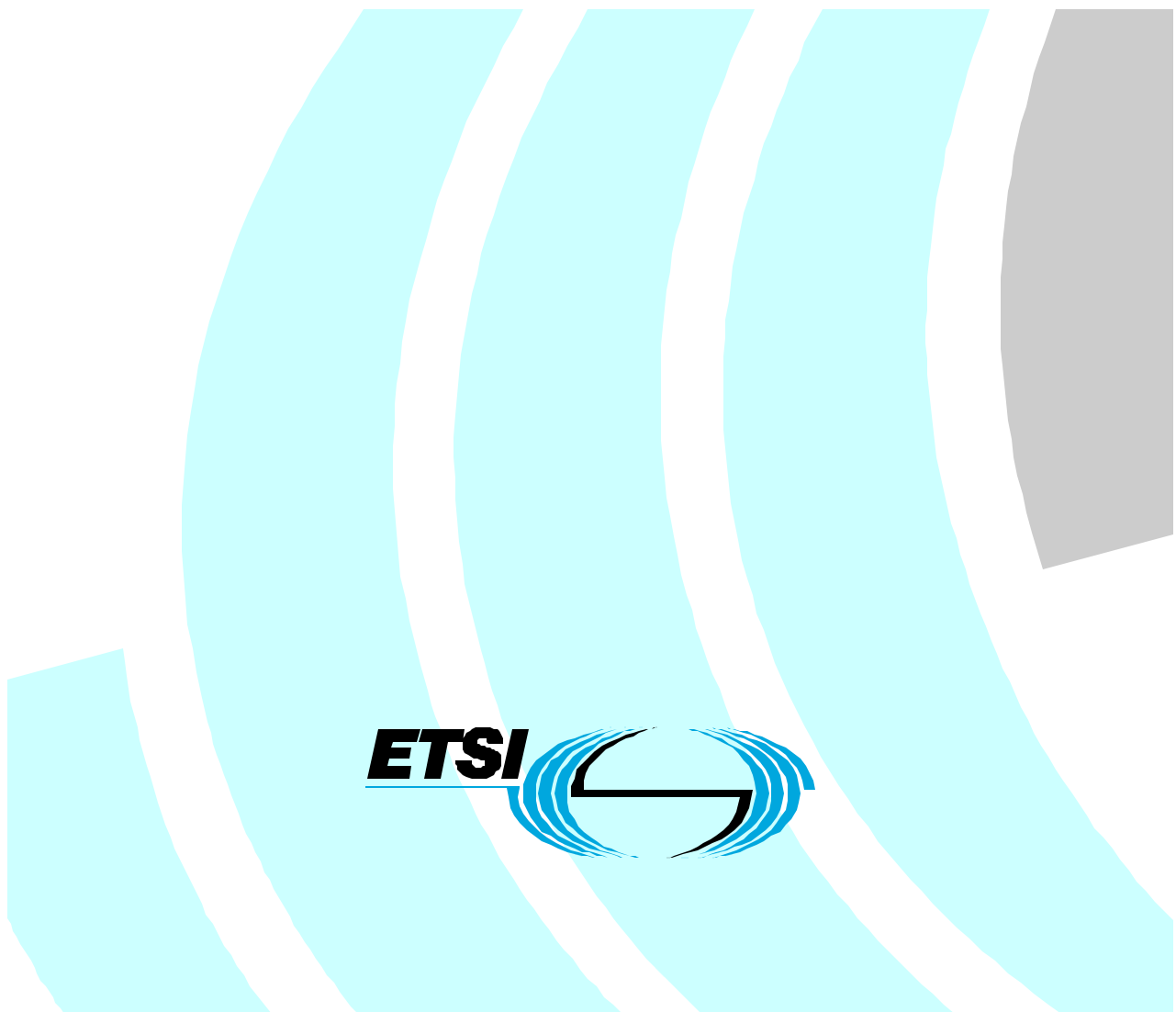
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*LAST PUBLIC DRAFT ETSI Standard, for comments*

**Human Factors (HF);  
User Interfaces;  
Character repertoires, ordering and assignments  
to the 12-key telephone keypad (European languages)**

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Reference

DES/HF-00026

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Keywords

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**ETSI**

650 Route des Lucioles  
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

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## Foreword

This ETSI Standard (ES) is *a final draft for public comments, before approval, under development* by ETSI Technical Committee Human Factors (HF), Specialist Task Force (STF) 20. In June 2003, the final draft will be submitted for ETSI TC HF approval, followed by the ETSI standards Membership Approval Procedure.

The work is conducted in collaboration with the industry. The present document is based upon consultation and consensus, aiming at a quick uptake and the widest possible support in product implementations to come.

Intended users of this ETSI Standard (ES) are the interaction designers and other developers of ICT (Information and Communication Technologies) devices and services, addressing devices with a 12 key keypad (as defined in ITU-T Recommendation E.161 [4] and ETSI ETS 300 640 [1]) and a display (e.g., a mobile telephone).

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## Introduction

*This is the latest public draft version, also available at <http://portal.etsi.org/STFs/HF/STF202.asp> (open access to all). We strongly encourage comments, on the present draft by May 16, 2003. Please email them to [hf\\_keys@list.etsi.fr](mailto:hf_keys@list.etsi.fr).*

**NOTE:** *Correct rendering of all letters in the tables of the present document may require that the font 'Arial Unicode MS' is installed. Furthermore, when printing this document, attention must be paid to the set of printer fonts supported by the printer, as certain fonts in the printed document can be different to how they are displayed on the screen. In the final (published) version, this problem will be taken care of.*

Devices with telecommunication functionality represent the largest consumer product segment in the world. Telecommunication, converging with information processing and intersecting with mobility and internet technology, is leading to the development of new interactive applications and services, offering global access.

Cultural and linguistic diversity is one of the key strengths of Europe. However, in ICT, it raises issues that need to be considered and solved in order not to limit access to services, their availability and usability, on the basic as well as more advanced levels.

Users must be provided with easy access to communication devices and services. Easy, correct and efficient text input, search and retrieval via the telephone keypad is a basic user requirement. Finding the characters necessary to enter a name in the phonebook, search for a name, write an SMS message or log on to a mobile internet portal are most common, basic procedures. These cannot be easily performed in a correct and consistent way, as different manufacturers apply different character entry mapping and ordering. This varies sometimes even between devices and applications - coming from the same manufacturer!

The only standard available today, addressing assignment of characters to the 12-key telephone keypad, is limited to the assignment of the basic 26 Latin letters (a to z). Language-specific letters (e.g., ü, é, å, ä, ö) as well as other characters (e.g., the Euro sign) are not addressed. The lack of addressing such typically European issues has led to diverse and inconsistent solutions for European languages, obviously creating barriers to basic communication access in (e)Europe.

This work takes into account work previously performed in ETSI, ITU-T, CEN/TC304 and ISO/IEC JTC1, adapting its results to be optimised for devices and services used and accessed through the 12-key telephone keypad, thereby focusing on telecommunication devices.

The languages fully addressed by the present document – i.e. with letter repertoires and keypad assignments specified – are the languages of the European Union (EU) member states as of 2003 (also covering the official languages of the European Union as of 2003 [9], [12]); the official languages of the near-term EU enlargement candidate countries, and the official languages of the EFTA countries and Russian.

Other languages are not fully addressed. In anticipation of future expansions, however, the language-independent Latin- and Cyrillic-script repertoires and keypad assignments specified in the document include also letters needed to cover the remaining European official languages.

The work is aligned with the European Commission's initiative *eEurope*, a program for accelerated uptake and inclusive deployment of new, important, consumer-oriented technologies ([http://europa.eu.int/information\\_society/eeurope](http://europa.eu.int/information_society/eeurope)).

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# 1 Scope

The present document specifies the assignment of graphic characters (letters, digits and special characters) to standard 12-key telephone keypads on ICT devices with a telephony functionality.

This ETSI Standard (ES) applies to public or private, fixed or mobile network terminals, without an alphanumeric keyboard but providing a 12-key keypad in either hardware form (e.g. as push button keys) or software form (e.g. as soft keys on a visual display). The ES also applies to network-based services accessed through such devices.

The present document complements ETS 300 640 [1] by additionally including European language -specific letters (Latin, Greek and Cyrillic scripts) and other common characters (e.g. the Euro sign and punctuation marks).

The present document specifies solutions for both language -independent and language -specific keypad assignments, mapped to the 12 -key telephone keypad. The document also provides common and language -specific information on character repertoires and ordering.

The present document is fully applicable to the languages of the European Union (EU) member states as of 2003 (also covering the official languages of the European Union as of 2003 [9], [ 12]) and those of near-term enlargement candidate countries and, additionally, to the official languages of the EFTA countries and Russian.

In anticipation of future expansions, the language-independent repertoires and keypad assignments specified in the present document also include letters needed in the remaining European official languages. Future revisions of the present document may include the letters of other languages and other characters.

The names of the languages used in the present document are aligned with those used in ISO/IEC standards for language codes.

This ETSI Standard does not cover implementation related issues , e.g. specifics of predictive text input.

---

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

[1] ETSI ETS 300 640: "Human Factors (HF); Assignment of alphabetic letters to digits on standard telephone keypad arrays "Human Factors (HF); Assignment of alphabetic letters to digits on standard telephone keypad arrays".

[2] ETSI ES 201 930: "Human Factors (HF); Specification of user requirements for use in ETSI deliverables "Human Factors (HF); Specification of user requirements for use in ETSI deliverables".

[3] ETSI EG 202 116: "Human Factors (HF); Guidelines for ICT products and services; "Design for All".

[4] ITU-T Recommendation E.161 (02/01): "Arrangement of digits, letters and symbols on telephones and other devices that can be used for gaining access to a telephone network".

[5] ETSI ETR 116: "Human Factors (HF); Human factors guidelines for ISDN Terminal equipment design "Human Factors (HF); Human factors guidelines for ISDN Terminal equipment design".

[6] ETSI EG 202 048: "Human Factors (HF); Guidelines on the multimodality of icons, symbols and pictograms".

- [7] ETSI EG 201 013: "Human Factors (HF); Definitions, abbreviations and symbols "Human Factors (HF); Definitions, abbreviations and symbols".
- [8] ISO/IEC 10646-1:2000: "Information technology - Universal Multiple-Octet Character Set (UCS); Part 1: Architecture and Basic Multilingual Plane".
- [9] Information and Communication Unit at European Commission's Translation Service, and <http://europa.eu.int/comm/enlargement/index.htm> (EU Enlargement web page, 2002).
- [10] ETSI TR 102 068: "Human Factors (HF); Requirements for assistive technology devices in ICT".
- [11] ETSI TS 100 900: "Digital cellular telecommunications system (Phase 2+); Alphabets and language-specific information (same as GSM 03.38 version 7.2.0 Release 1998)".
- [12] EEC Council: Regulation No 1 of 1958 determining the languages to be used by the European Economic Community; Treaty establishing the European Community (Official Journal 017 , 06/10/1958 p. 0385 - 0386, 31958, R0001, April 15, 1958) (<http://europa.eu.int/smartapi/cgi/sga-doc?smartapi!celexapi!prod!CELEXnumdoc&lg=en&numdoc=31958R0001&model=guichett>).
- [13] ETSI ETR 095: "Human Factors (HF); Guide for usability evaluations of telecommunications systems and services".
- [14] ISO/IEC 8859-5:1999: "Information technology - 8-bit single-byte coded graphic character sets - Part 5: Latin/Cyrillic alphabet".
- [15] ISO/IEC 6937:2001: "Information technology - Coded graphic character set for text communication - Latin alphabet".
- [16] ENV 13710: "European Ordering Rules - Ordering of characters from the Latin, Greek and Cyrillic scripts".
- [17] ISO/IEC 8859-7: "Information technology - 8-bit single-byte coded graphic character sets - Part 7: Latin/Greek alphabet".
- [18] ISO/IEC 6429:1992: "Information technology – Control functions for coded character sets".

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## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in EG 201 013 [7] and the following apply:

**12-key keypad:** see standard telephone keypad array

**alphanumeric character:** see character

**alphanumeric keyboard:** see standard telephone keypad array

**carriage return (CR):** a format effector that moves the active position to the first character position on the same line

**character:** member of a set of elements used for the organization, control, or representation of data, see [17]

NOTE 1: Characters are the smallest component of written language with a semantic value. They can be divided into control characters (like e.g. 'line feed') and graphic (i.e. printable) characters.

NOTE 2: The present document addresses graphic characters, divided into letters, diacritical marks, punctuation marks, currency symbols and various other types of symbols. It also addresses control functions, although not specifying the corresponding control characters.

**character repertoire:** a specified set of characters

**cognitive impairment:** limitation, permanent or transient, in a person's mental capacities



**communication impairment:** difficulties in using speech, resulting from damage to structures involved, disorders of brain language processing, early childhood deafness, problems of muscular control, or co-ordination or other causes

**control character:** a control function the coded representation of which consists of a single bit combination [ISO/IEC 6429]

**control function:** an action that affects the recording, processing, transmission, or interpretation of data, and that has a coded representation consisting of one or more octets [ISO/IEC 10646-1]

**design for all:** design of products to be usable by all people, to the greatest extent possible, without the need for specialized adoption

**diacritical mark:** any of a number of graphical structures placed over, under or next to a letter which does not significantly modify the shape of the letter itself, changing the meaning or pronunciation or some other feature of the letter

**dialogue:** series of exchanges between the user and a system. It is two-way, and takes place across the man-machine interface. It may be Command or Interactive (see the appropriate definitions). Phases in a dialogue may be identified for descriptive purposes, such as connection and access, authentication and security (optional), control and navigation through the system, exchange of information, and closing or exit from the system.

**digit:** one of the characters 0 1 2 3 4 5 6 7 8 9

**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

**function:** abstract concept of a particular piece of functionality in a device or service

**graphic character:** a character, other than a control function, that has a visual representation normally handwritten, printed, or displayed

**ICT devices and services:** devices or services for processing information and/or supporting communication, which has an interface to communicate with a user.

**impairment:** any reduction or loss of psychological, physiological or anatomical function or structure of a user (environmental included)

**letter:** character used to represent in writing, alone or in combination, sounds or sequences of sounds of a natural language

**line feed (LF):** a format effector that advances the active position to the same character position on the next line. (The definition then continues to describe the use of LF for the concept "New line", requiring "agreement between sender and recipient of data")

**menu:** a menu offers a user a list of choices from which a selection can be made. A menu dialogue offers a user a series of lists of choices from which a series of selections can be made. The result from any one selection may be another menu

**people with special needs:** older people and people with impairments, disabilities or handicaps who need special services or equipment to meet their needs

**repertoire:** see **character repertoire**

**standard telephone keypad array:** Standard 4 x 3 array for the numeric keys 0-9 and the symbol keys star (\*) and square (#). See ITU-T Recommendation E.161 [4].

**terminal:** physical device which interfaces with a telecommunications network, and hence to a service provider, to enable access to a telecommunications service. A terminal also provides an interface to the user to enable the interchange of control actions and information between the user and the terminal, network or service provider

**type A letter:** letter essential for a language

**type B letter:** letter commonly used in writing a language, but not essential for it, e.g. for foreign-origin words and/or for spelling of some names in the country/countries where the language is used

**usability:** effectiveness, efficiency and satisfaction with which specified users can achieve specified goals (tasks) in a particular environment, see ETR 095 [13]. In telecommunications, usability should also include the concepts of learnability and flexibility; and reference to the interaction of more than one user (the A and B parties) with each other and with the terminals and the telecommunications system, see ETR 116 [5]

**user:** person who uses a telecommunications terminal to gain access to and control of a telecommunications service. The user may or may not be the person who has subscribed to the provision of the service. Also, the user may or may not be a person with an impairment, e.g. elderly or disabled persons

**user interface:** physical interface through which a user communicates with a telecommunications terminal or via a terminal to a telecommunications service. The communication is bi-directional in real time and the interface includes both control and display elements

**user requirements:** requirements made by users, based on their needs and capabilities, on a telecommunication service (e.g. the UPT service) and any of its supporting components, terminals and interfaces, in order to make use of this service in the easiest, safest, most efficient and most secure way

## 3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

CEN	European Committee for Standardization
ETSI	European Telecommunications Standards Institute
GSM	Global System for Mobile telecommunication
ICT	Information and (Tele) Communication Technologies
IEC	International Electrotechnical Committee
ISO	International Organization for Standardization
ITU-T	International Telecommunications Union - Telecommunication Standardization Sector
MMI	Man-Machine Interface

---

## 4 User requirements

Intended *users* of the present document, and those implementing it, are the interaction designers and other developers of ICT devices and services, designing user interfaces deploying text input and output, applied to 12-key keypad arrays provided in hardware form (e.g. as push button keys) or software form (e.g. as soft keys on a visual display) and telecommunication network-based services accessed through such devices.

Intended *end users* mentioned in the present document are the consumers (end users) of the ICT devices and services mentioned above, ranging from first time to experienced advanced users, who can produce tactile stimuli in the form of a key press and perceive written text.

The end users' main goal is to efficiently use ICT devices and services under circumstances intended by these.

The deployment of the present document will enable users to reapply knowledge and previous experience between different ICT devices and services using a 12-key standard keypad array and a display. Control of common functions such as entering of characters and retrieval of text in a certain order will be simplified.

In the mean time, well-established services which rely on alpha mnemonics (e.g. '800 DOCTOR' rather than '800 362867') will not be influenced as the present document only complements ETS 300 640 [1].

For certain end users with special needs, the present document will prove helpful due to consistent implementations (same character always found in the same position). For certain disabilities, e.g. in the case of temporary or permanent difficulties caused by cognitive problems or the lack of necessary level of proficiency in the respective language and other communication impairments such as: visual impairments, the inability to produce distinctive tactile stimuli or difficulties in handling, distinguishing and understanding textual information, the present document is not expected to have any positive or negative impact.

For detailed guidance, including specifics of user impairments and resulting handicaps, possible solutions on access-for-all achievable through assistive technologies, design for all and multi-modal interfaces, see 'Human Factors (HF); Requirements for Assistive Technology Devices in ICT' [11], 'Human Factors: Design for all: guidelines for ICT products and services' [3] and 'Study of multi-modality of Icons, Symbols and Pictograms' [6].

Uniformity in the basic interactive elements increases the transference of learning between devices and services and improves the overall usability of the entire interactive environment. Such transference becomes even more important in a world of ubiquitous devices and services.

The ETSI standard form found in ES 201 930 [2], 'Form describing User Requirements in ETSI deliverables', has been used as a reference while specifying the user requirements.

Guiding principles during the development of the ordering and assignments of the alphanumeric characters have been:

- Consistent and harmonised across different devices and services
- Easy to learn and remember
- As natural as possible, matching previously acquired knowledge
- Redundancy (multiple solutions possible to reach desired input)

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## 5 Principles of use and compliance

This clause explains and summarizes the principles of use of the present document in order to comply to it, when implemented in devices and services.

### 5.1 Letters

For the application of the present document for input of letters, the following rules apply:

- 1) The language-independent Latin-script table specifies the minimum set of letters required for covering all the Latin-script languages of the language-specific tables. Implementation of this table is strongly recommended. The recommendation becomes mandatory if no language-specific tables are implemented. Every implementation of this table shall contain all characters of the table.
- 2) The language-independent Cyrillic-script table specifies the set of letters as in ISO/IEC 8859-5 [14], consequently containing all letters needed for Cyrillic-alphabet European languages. This table shall be implemented if Cyrillic languages are supported.
- 3) The language independent Greek-script table specifies the set of letters as in ISO/IEC 8859-7 [17], and shall be implemented if the Greek language is supported.
- 4) The language-specific tables specify the minimum set of letters required for the respective languages. If language-specific tables are implemented in a device or service, the implementation shall contain all letters listed in these tables.
- 5) Complete language-independent and language-specific letter tables may be used in any combination.
- 6) The order of the letters in the tables shall be followed when alphabetical ordering is applied.

### 5.2 Other characters

For the implementation of the table of special characters, the following rules apply:

- 1) The language-independent table of digits and special characters shall be implemented in full in a device complying with this document.
- 2) This document does not specify language-specific tables of digits and special characters.
- 3) Ordering shall be done with special characters ordered before digits before letters.

NOTE: It is recommended to follow the ordering in the language-independent table of digits and special characters when ordering is applied to special characters.

## 5.3 Keypad assignment for letters

For the assignment of letters to keys of the 12-key telephone keypad, the following rules apply:

- 1) If a character is assigned to a key of the 12-key telephone keypad, it shall be assigned to the key specified in the respective table.
- 2) A character may be additionally assigned to one or several other keys (such a redundant assignment is not specified in the present document). Additional characters shall only be added following those specified for the respective key(s) in the keypad assignment table.
- 3) If several characters are added to a keypad assignment table, the order between these characters shall follow the ordering rules of the respective keypad assignment table, where applicable.
- 4) Complete language-independent and language-specific keypad assignment tables may be used in any combination.
- 5) The Greek-script repertoire and the Cyrillic-script repertoires shall only be assigned together with the minimum Latin-script repertoire. (There is no Greek-script or Cyrillic-script repertoire without the minimum Latin-script repertoire).
- 6) Additional characters, not covered by the present document, may be assigned to one or several keys, at the end of the lists.
- 7) Only the assignment of small letters is specified. Capital letters shall be assigned to the same keys as the corresponding small letters. The method and user procedure for switching between small and capital letters is not specified in the present document.

## 5.4 Keypad assignment for other characters

For the keypad assignment of other (special) characters, the following rules apply:

- 1) The full set of special characters specified in the present document (in Table 60) must be supported.
- 2) In addition, other characters may also be supported.
- 3) The order of appearance specified in Table 60 is only a recommendation, valid for a language-independent implementation.
- 4) Alternative orders of appearance of special characters are allowed.
- 5) Language-specific orders of appearance are also allowed (e.g. having the inverted question mark and the inverted exclamation mark used in Spanish higher up, in the list for a Spanish-language implementation).
- 6) The full set of special characters must be accessible via one single entry point. It is recommended that this entry point is the "1" key.
- 7) In addition, a device may use different other keys to access different sets of special characters and/or digits. In this case, Rule 1 and Rule 6 must still be followed. Thereby, the possibility to implement language-specific keypad assignments of special characters and digits is made possible.

## 5.5 Control functions

For text handling, not only graphic (printable) characters are needed, but also various kinds of text formatting functions. Such functions are outside the scope of this standard, but the need for them is recognized.

Of particular interest is the "generate new line" function, moving the cursor to the first position of the subsequent line. In ICT devices, that function is generally implemented as a combination of the functions "line feed" and "carriage return", invoked by the control characters LF and CR, bit combinations 00/10 and 00/13 according to ISO/IEC 6429, see [18] (i.e. U+000A and U+000D in the identification scheme used in this standard for graphic characters).

Compliance with the present document does not require implementation of such formatting functions. Consequently, their invoking control characters are not made part of the specified normative character repertoires and the functions are

not specifically assigned to any key of the 12-key keypad. It is, however, recommended that the "New line" function is implemented and made easily accessible. Annex A (informative), clause A.3 provides further details and guidance on this matter.

---

## 6 Character repertoires and ordering

### 6.1 General

In Clause 6, character repertoires and character ordering are specified. In the present document, characters are divided into letters, digits and special characters. Letters are categorised as language-independent and language-specific. Digits and special characters are considered as language-independent only. Special characters and digits, as defined in 6.3, are ordered before letters, as defined in 6.2.

As the present document specifies the *minimum* repertoires and the ordering of their characters, additional characters can be inserted in the repertoires in specific implementations.

### 6.2 Letter repertoires and ordering

#### 6.2.1 General

The present document applies to three character scripts: Latin, Greek and Cyrillic.

The tables in this clause contain the following information:

- **Letter:** Representation of the letter.
- **GSM 03.38 7-bit coding:** The coding assigned to each letter in the ETSI standard TS 100 900 "Digital cellular telecommunications system (Phase 2+); Alphabets and language-specific information", see [11].
- **ISO/IEC 6937 coding:** The coding assigned to each letter in the standard ISO/IEC 6937 "Information technology – Coded graphic character set for text communication – Latin alphabet", see [15].
- **ISO/IEC 10646 identifier:** The unique four-digit-form identifier for each letter according to the standard ISO/IEC 10646-1 "Information technology – Universal Multiple Octet Character Set (UCS)", see [8].
- **ISO/IEC 10646 name:** The unique name of each letter according to the standard ISO/IEC 10646-1 "Information technology – Universal Multiple-Octet Character Set (UCS)", see [8].
- **Usage type** (applies to the language-specific tables only): A classification of each letter according to the following:
  - Type A: Letter essential for the language
  - Type B: Letter commonly used in writing the language, but not essential for it, e.g. for foreign-origin words and/or spelling of some names in the country/countries where the language is used

Additional information on the issue of letter types can be found in Annex A (Informative).

The language-specific tables contain some blank lines, to avoid ambiguities in the *Notes* column. They do not have any other significance.

## 6.2.2 Language-independent letter repertoires and ordering

## 6.2.2.1 Latin-script language-independent letter repertoire and ordering

Table 1: Latin-script language-independent alphabet

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name
a	6/01	06/01	U+0061	LATIN SMALL LETTER A
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A
á	—	12/02 06/01	U+00E1	LATIN SMALL LETTER A WITH ACUTE
À	—	12/02 04/01	U+00C1	LATIN CAPITAL LETTER A WITH ACUTE
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE
ɑ	—	12/06 06/01	U+0103	LATIN SMALL LETTER A WITH BREVE
Α	—	12/06 04/01	U+0102	LATIN CAPITAL LETTER A WITH BREVE
â	—	12/03 06/01	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX
À	—	12/03 04/01	U+00C2	LATIN CAPITAL LETTER A WITH CIRCUMFLEX
å	0/15	12/10 06/01	U+00E5	LATIN SMALL LETTER A WITH RING ABOVE
Å	0/14	12/10 04/01	U+00C5	LATIN CAPITAL LETTER A WITH RING ABOVE
ä	7/11	12/08 06/01	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS
Ä	5/11	12/08 04/01	U+00C4	LATIN CAPITAL LETTER A WITH DIAERESIS
ã	—	12/04 06/01	U+00E3	LATIN SMALL LETTER A WITH TILDE
À	—	12/04 04/01	U+00C3	LATIN CAPITAL LETTER A WITH TILDE
ɑ	—	12/14 06/01	U+0105	LATIN SMALL LETTER A WITH OGONEK
Α	—	12/14 04/01	U+0104	LATIN CAPITAL LETTER A WITH OGONEK
ɑ	—	12/05 06/01	U+0101	LATIN SMALL LETTER A WITH MACRON
Α	—	12/05 04/01	U+0100	LATIN CAPITAL LETTER A WITH MACRON
æ	1/13	15/01	U+00E6	LATIN SMALL LETTER AE
Æ	1/12	14/01	U+00C6	LATIN CAPITAL LETTER AE
b	6/02	06/02	U+0062	LATIN SMALL LETTER B
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B
c	6/03	06/03	U+0063	LATIN SMALL LETTER C
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C
c	—	12/02 06/03	U+0107	LATIN SMALL LETTER C WITH ACUTE
C	—	12/02 04/03	U+0106	LATIN CAPITAL LETTER C WITH ACUTE
c	—	12/15 06/03	U+010D	LATIN SMALL LETTER C WITH CARON
C	—	12/15 04/03	U+010C	LATIN CAPITAL LETTER C WITH CARON
c	—	12/07 06/03	U+010B	LATIN SMALL LETTER C WITH DOT ABOVE
C	—	12/07 04/03	U+010A	LATIN CAPITAL LETTER C WITH DOT ABOVE
ç	0/09	12/11 06/03	U+00E7	LATIN SMALL LETTER C WITH CEDILLA
Ç	—	12/11 04/03	U+00C7	LATIN CAPITAL LETTER C WITH CEDILLA
d	6/04	06/04	U+0064	LATIN SMALL LETTER D
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D
d	—	12/15 06/04	U+010F	LATIN SMALL LETTER D WITH CARON
D	—	12/15 04/04	U+010E	LATIN CAPITAL LETTER D WITH CARON
d	—	15/02	U+0111	LATIN SMALL LETTER D WITH STROKE
Ð	—	14/02	U+0110	LATIN CAPITAL LETTER D WITH STROKE
ð	—	15/03	U+00F0	LATIN SMALL LETTER ETH
Ð	—	—	U+00D0	LATIN CAPITAL LETTER ETH
e	6/05	06/05	U+0065	LATIN SMALL LETTER E
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE
è	0/04	12/01 06/05	U+00E8	LATIN SMALL LETTER E WITH GRAVE
È	—	12/01 04/05	U+00C8	LATIN CAPITAL LETTER E WITH GRAVE
ê	—	12/03 06/05	U+00EA	LATIN SMALL LETTER E WITH CIRCUMFLEX
Ê	—	12/03 04/05	U+00CA	LATIN CAPITAL LETTER E WITH CIRCUMFLEX
e	—	12/15 06/05	U+011B	LATIN SMALL LETTER E WITH CARON
E	—	12/15 04/05	U+011A	LATIN CAPITAL LETTER E WITH CARON
ë	—	12/08 06/05	U+00EB	LATIN SMALL LETTER E WITH DIAERESIS
Ë	—	12/08 04/05	U+00CB	LATIN CAPITAL LETTER E WITH DIAERESIS
e	—	12/14 06/05	U+0119	LATIN SMALL LETTER E WITH OGONEK

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name
E	—	12/14 04/05	U+0118	LATIN CAPITAL LETTER E WITH OGONEK
e	—	12/05 06/05	U+0113	LATIN SMALL LETTER E WITH MACRON
Ē	—	12/05 04/05	U+0112	LATIN CAPITAL LETTER E WITH MACRON
f	6/06	06/06	U+0066	LATIN SMALL LETTER F
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F
g	6/07	06/07	U+0067	LATIN SMALL LETTER G
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G
g̃	—	12/06 06/07	U+011F	LATIN SMALL LETTER G WITH BREVE
Ĝ	—	12/06 04/07	U+011E	LATIN CAPITAL LETTER G WITH BREVE
ĝ	—	—	U+01E7	LATIN SMALL LETTER G WITH CARON
Ĝ	—	—	U+01E6	LATIN CAPITAL LETTER G WITH CARON
g̣	—	12/07 06/07	U+0121	LATIN SMALL LETTER G WITH DOT ABOVE
Ĝ	—	12/07 04/07	U+0120	LATIN CAPITAL LETTER G WITH DOT ABOVE
ĝ̣	—	12/11 06/07	U+0123	LATIN SMALL LETTER G WITH CEDILLA
Ĝ	—	12/11 04/07	U+0122	LATIN CAPITAL LETTER G WITH CEDILLA
—	—	—	U+01E5	LATIN SMALL LETTER G WITH STROKE
—	—	—	U+01E4	LATIN CAPITAL LETTER G WITH STROKE
h	6/08	06/08	U+0068	LATIN SMALL LETTER H
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H
h̄	—	15/04	U+0127	LATIN SMALL LETTER H WITH STROKE
H̄	—	14/04	U+0126	LATIN CAPITAL LETTER H WITH STROKE
i	6/09	06/09	U+0069	LATIN SMALL LETTER I
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I
í	—	12/02 06/09	U+00ED	LATIN SMALL LETTER I WITH ACUTE
Í	—	12/02 04/09	U+00CD	LATIN CAPITAL LETTER I WITH ACUTE
ì	—	12/01 06/09	U+00EC	LATIN SMALL LETTER I WITH GRAVE
Ì	—	12/01 04/09	U+00CC	LATIN CAPITAL LETTER I WITH GRAVE
î	—	12/03 06/09	U+00EE	LATIN SMALL LETTER I WITH CIRCUMFLEX
Î	—	12/03 04/09	U+00CE	LATIN CAPITAL LETTER I WITH CIRCUMFLEX
ï	—	12/08 06/09	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS
Ï	—	12/08 04/09	U+00CF	LATIN CAPITAL LETTER I WITH DIAERESIS
İ	—	12/07 04/09	U+0130	LATIN CAPITAL LETTER I WITH DOT ABOVE
ı	—	12/14 06/09	U+012F	LATIN SMALL LETTER I WITH OGONEK
Ī	—	12/14 04/09	U+012E	LATIN CAPITAL LETTER I WITH OGONEK
ï̄	—	12/05 06/09	U+012B	LATIN SMALL LETTER I WITH MACRON
Ī	—	12/05 04/09	U+012A	LATIN CAPITAL LETTER I WITH MACRON
ı̇	—	15/05	U+0131	LATIN SMALL DOTLESS LETTER I
j	6/10	06/10	U+006A	LATIN SMALL LETTER J
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J
k	6/11	06/11	U+006B	LATIN SMALL LETTER K
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K
—	—	—	U+01E9	LATIN SMALL LETTER K WITH CARON
—	—	—	U+01E8	LATIN CAPITAL LETTER K WITH CARON
ḳ	—	12/11 06/11	U+0137	LATIN SMALL LETTER K WITH CEDILLA
Ḳ	—	12/11 04/11	U+0136	LATIN CAPITAL LETTER K WITH CEDILLA
l	6/12	06/12	U+006C	LATIN SMALL LETTER L
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L
ł	6/12	12/02 06/12	U+013A	LATIN SMALL LETTER L WITH ACUTE
L̄	4/12	12/02 04/12	U+0139	LATIN CAPITAL LETTER L WITH ACUTE
l̂	6/12	12/15 06/12	U+013E	LATIN SMALL LETTER L WITH CARON
L̂	4/12	12/15 04/12	U+013D	LATIN CAPITAL LETTER L WITH CARON
ł̣	—	12/11 06/12	U+013C	LATIN SMALL LETTER L WITH CEDILLA
Ḷ	—	12/11 04/12	U+013B	LATIN CAPITAL LETTER L WITH CEDILLA
ł̄	—	15/08	U+0142	LATIN SMALL LETTER L WITH STROKE
L̄	—	14/08	U+0141	LATIN CAPITAL LETTER L WITH STROKE
m	6/13	06/13	U+006D	LATIN SMALL LETTER M
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M
n	6/14	06/14	U+006E	LATIN SMALL LETTER N
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N
n̄	—	12/02 06/14	U+0144	LATIN SMALL LETTER N WITH ACUTE
N̄	—	12/02 04/14	U+0143	LATIN CAPITAL LETTER N WITH ACUTE
n̂	—	12/15 06/14	U+0148	LATIN SMALL LETTER N WITH CARON

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name
N	—	12/15 04/14	U+0147	LATIN CAPITAL LETTER N WITH CARON
ñ	7/13	12/04 06/14	U+00F1	LATIN SMALL LETTER N WITH TILDE
N	5/13	12/04 04/14	U+00D1	LATIN CAPITAL LETTER N WITH TILDE
n	—	12/11 06/14	U+0146	LATIN SMALL LETTER N WITH CEDILLA
N	—	12/11 04/14	U+0145	LATIN CAPITAL LETTER N WITH CEDILLA
?	—	15/14	U+014B	LATIN SMALL LETTER ENG
?	—	14/14	U+014A	LATIN CAPITAL LETTER ENG
o	6/15	06/15	U+006F	LATIN SMALL LETTER O
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE
Ó	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE
ò	0/08	12/01 06/15	U+00F2	LATIN SMALL LETTER O WITH GRAVE
Ò	—	12/01 04/15	U+00D2	LATIN CAPITAL LETTER O WITH GRAVE
ô	—	12/03 06/15	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX
Ô	—	12/03 04/15	U+00D4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX
ö	7/12	12/08 06/15	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
Ö	5/12	12/08 04/15	U+00D6	LATIN CAPITAL LETTER O WITH DIAERESIS
o	—	12/13 06/15	U+0151	LATIN SMALL LETTER O WITH DOUBLE ACUTE
O	—	12/13 04/15	U+0150	LATIN CAPITAL LETTER O WITH DOUBLE ACUTE
õ	—	12/04 06/15	U+00F5	LATIN SMALL LETTER O WITH TILDE
Õ	—	12/04 04/15	U+00D5	LATIN CAPITAL LETTER O WITH TILDE
o	—	12/05 06/15	U+014D	LATIN SMALL LETTER O WITH MACRON
Ō	—	12/05 04/15	U+014C	LATIN CAPITAL LETTER O WITH MACRON
ø	0/12	15/09	U+00F8	LATIN SMALL LETTER O WITH STROKE
Ø	0/11	14/09	U+00D8	LATIN CAPITAL LETTER O WITH STROKE
œ	—	15/10	U+0153	LATIN SMALL LIGATURE OE
Œ	—	14/10	U+0152	LATIN CAPITAL LIGATURE OE
p	7/00	07/00	U+0070	LATIN SMALL LETTER P
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q
r	7/02	07/02	U+0072	LATIN SMALL LETTER R
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R
r	—	12/02 07/02	U+0155	LATIN SMALL LETTER R WITH ACUTE
R	—	12/02 05/02	U+0154	LATIN CAPITAL LETTER R WITH ACUTE
r	—	12/15 07/02	U+0159	LATIN SMALL LETTER R WITH CARON
R	—	12/15 05/02	U+0158	LATIN CAPITAL LETTER R WITH CARON
r	—	12/11 07/02	U+0157	LATIN SMALL LETTER R WITH CEDILLA
R	—	12/11 05/02	U+0156	LATIN CAPITAL LETTER R WITH CEDILLA
s	7/03	07/03	U+0073	LATIN SMALL LETTER S
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S
s	—	12/02 07/03	U+015B	LATIN SMALL LETTER S WITH ACUTE
S	—	12/02 05/03	U+015A	LATIN CAPITAL LETTER S WITH ACUTE
š	—	12/15 07/03	U+0161	LATIN SMALL LETTER S WITH CARON
Š	—	12/15 05/03	U+0160	LATIN CAPITAL LETTER S WITH CARON
s	—	12/11 07/03	U+015F	LATIN SMALL LETTER S WITH CEDILLA
S	—	12/11 05/03	U+015E	LATIN CAPITAL LETTER S WITH CEDILLA
s	—	12/11 07/03	U+0219	LATIN SMALL LETTER S WITH COMMA BELOW
S	—	12/11 05/03	U+0218	LATIN CAPITAL LETTER S WITH COMMA BELOW
ß	1/14	15/11	U+00DF	LATIN SMALL LETTER SHARP S
t	7/04	07/04	U+0074	LATIN SMALL LETTER T
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T
t	—	12/15 07/04	U+0165	LATIN SMALL LETTER T WITH CARON
T	—	12/15 05/04	U+0164	LATIN CAPITAL LETTER T WITH CARON
t	—	12/11 07/04	U+021B	LATIN SMALL LETTER T WITH COMMA BELOW
T	—	12/11 05/04	U+021A	LATIN CAPITAL LETTER T WITH COMMA BELOW
t	—	15/13	U+0167	LATIN SMALL LETTER T WITH STROKE
T	—	14/13	U+0166	LATIN CAPITAL LETTER T WITH STROKE
u	7/05	07/05	U+0075	LATIN SMALL LETTER U
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U
ú	—	12/02 07/05	U+00FA	LATIN SMALL LETTER U WITH ACUTE
Ú	—	12/02 05/05	U+00DA	LATIN CAPITAL LETTER U WITH ACUTE



Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name
ù	0/06	12/01 07/05	U+00F9	LATIN SMALL LETTER U WITH GRAVE
Û	—	12/01 05/05	U+00D9	LATIN CAPITAL LETTER U WITH GRAVE
û	—	12/03 07/05	U+00FB	LATIN SMALL LETTER U WITH CIRCUMFLEX
Û	—	12/03 05/05	U+00DB	LATIN CAPITAL LETTER U WITH CIRCUMFLEX
u	—	12/10 07/05	U+0075	LATIN SMALL LETTER U WITH RING ABOVE
U	—	12/10 05/05	U+0055	LATIN CAPITAL LETTER U WITH RING ABOVE
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
Û	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS
u	—	12/13 07/05	U+0171	LATIN SMALL LETTER U WITH DOUBLE ACUTE
U	—	12/13 05/05	U+0170	LATIN CAPITAL LETTER U WITH DOUBLE ACUTE
u	—	12/14 07/05	U+0173	LATIN SMALL LETTER U WITH OGONEK
U	—	12/14 05/05	U+0172	LATIN CAPITAL LETTER U WITH OGONEK
u	—	12/05 07/05	U+016B	LATIN SMALL LETTER U WITH MACRON
U	—	12/05 05/05	U+016A	LATIN CAPITAL LETTER U WITH MACRON
v	7/06	07/06	U+0076	LATIN SMALL LETTER V
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V
w	7/07	07/07	U+0077	LATIN SMALL LETTER W
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W
w	—	12/03 07/07	U+0175	LATIN SMALL LETTER W WITH CIRCUMFLEX
W	—	12/03 05/07	U+0174	LATIN CAPITAL LETTER W WITH CIRCUMFLEX
x	7/08	07/08	U+0078	LATIN SMALL LETTER X
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y
ý	—	12/02 07/09	U+00FD	LATIN SMALL LETTER Y WITH ACUTE
Y	—	12/02 05/09	U+00DD	LATIN CAPITAL LETTER Y WITH ACUTE
y	—	12/03 07/09	U+0177	LATIN SMALL LETTER Y WITH CIRCUMFLEX
Y	—	12/03 05/09	U+0176	LATIN CAPITAL LETTER Y WITH CIRCUMFLEX
ÿ	—	12/08 07/09	U+00FF	LATIN SMALL LETTER Y WITH DIAERESIS
Y	—	12/08 05/09	U+0178	LATIN CAPITAL LETTER Y WITH DIAERESIS
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z
z	—	12/02 07/10	U+017A	LATIN SMALL LETTER Z WITH ACUTE
Z	—	12/02 05/10	U+0179	LATIN CAPITAL LETTER Z WITH ACUTE
ž	—	12/15 07/10	U+017E	LATIN SMALL LETTER Z WITH CARON
Z	—	12/15 05/10	U+017D	LATIN CAPITAL LETTER Z WITH CARON
z	—	12/07 07/10	U+017C	LATIN SMALL LETTER Z WITH DOT ABOVE
Z	—	12/07 05/10	U+017B	LATIN CAPITAL LETTER Z WITH DOT ABOVE
	—	—	U+0292	LATIN SMALL LETTER EZH
	—	—	U+01B7	LATIN CAPITAL LETTER EZH
	—	—	U+01EF	LATIN SMALL LETTER EZH WITH CARON
	—	—	U+01EE	LATIN CAPITAL LETTER EZH WITH CARON
þ	—	15/12	U+00FE	LATIN SMALL LETTER THORN
Þ	—	14/12	U+00DE	LATIN CAPITAL LETTER THORN

NOTE: This table includes the letters of the Latin-alphabet languages specified in the Scope of the present document, listed in order according to ENV 13710, see [18].

### 6.2.2.2 Greek-script letter repertoire and ordering

The Greek-script letter repertoire consists of the Greek-script alphabet in Table 2 below and the Minimum Latin-script subset in Table 4.

**Table 2: Greek alphabet**

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name
a	—	—	U+03B1	GREEK SMALL LETTER ALPHA
?	—	—	U+0391	GREEK CAPITAL LETTER ALPHA
?	—	—	U+03AC	GREEK SMALL LETTER ALPHA WITH TONOS
?	—	—	U+0386	GREEK CAPITAL LETTER ALPHA WITH TONOS
β	—	—	U+03B2	GREEK SMALL LETTER BETA
?	—	—	U+0392	GREEK CAPITAL LETTER BETA
?	—	—	U+03B3	GREEK SMALL LETTER GAMMA
Γ	1/03	—	U+0393	GREEK CAPITAL LETTER GAMMA
d	—	—	U+03B4	GREEK SMALL LETTER DELTA
?	1/00	—	U+0394	GREEK CAPITAL LETTER DELTA
e	—	—	U+03B5	GREEK SMALL LETTER EPSILON
?	—	—	U+0395	GREEK CAPITAL LETTER EPSILON
?	—	—	U+03AD	GREEK SMALL LETTER EPSILON WITH TONOS
?	—	—	U+0388	GREEK CAPITAL LETTER EPSILON WITH TONOS
?	—	—	U+03B6	GREEK SMALL LETTER ZETA
?	—	—	U+0396	GREEK CAPITAL LETTER ZETA
?	—	—	U+03B7	GREEK SMALL LETTER ETA
?	—	—	U+0397	GREEK CAPITAL LETTER ETA
?	—	—	U+03AE	GREEK SMALL LETTER ETA WITH TONOS
?	—	—	U+0389	GREEK CAPITAL LETTER ETA WITH TONOS
?	—	—	U+03B8	GREEK SMALL LETTER THETA
Τ	1/09	—	U+0398	GREEK CAPITAL LETTER THETA
?	—	—	U+03B9	GREEK SMALL LETTER IOTA
?	—	—	U+0399	GREEK CAPITAL LETTER IOTA
?	—	—	U+03AF	GREEK SMALL LETTER IOTA WITH TONOS
?	—	—	U+038A	GREEK CAPITAL LETTER IOTA WITH TONOS
?	—	—	U+03CA	GREEK SMALL LETTER IOTA WITH DIALYTICA
?	—	—	U+03AA	GREEK CAPITAL LETTER IOTA WITH DIALYTICA
?	—	—	U+0390	GREEK SMALL LETTER IOTA WITH DIALYTICA AND TONOS
?	—	—	U+03BA	GREEK SMALL LETTER KAPPA
?	—	—	U+039A	GREEK CAPITAL LETTER KAPPA
?	—	—	U+03BB	GREEK SMALL LETTER LAMDA
?	1/04	—	U+039B	GREEK CAPITAL LETTER LAMDA
μ	—	—	U+03BC	GREEK SMALL LETTER MU
?	—	—	U+039C	GREEK CAPITAL LETTER MU
?	—	—	U+03BD	GREEK SMALL LETTER NU
?	—	—	U+039D	GREEK CAPITAL LETTER NU
?	—	—	U+03BE	GREEK SMALL LETTER XI
?	1/10	—	U+039E	GREEK CAPITAL LETTER XI
?	—	—	U+03BF	GREEK SMALL LETTER OMICRON
?	—	—	U+039F	GREEK CAPITAL LETTER OMICRON
?	—	—	U+03CC	GREEK SMALL LETTER OMICRON WITH TONOS
?	—	—	U+038C	GREEK CAPITAL LETTER OMICRON WITH TONOS
ρ	—	—	U+03C0	GREEK SMALL LETTER PI
?	1/06	—	U+03A0	GREEK CAPITAL LETTER PI
?	—	—	U+03C1	GREEK SMALL LETTER RHO
?	—	—	U+03A1	GREEK CAPITAL LETTER RHO
σ	—	—	U+03C3	GREEK SMALL LETTER SIGMA
?	—	—	U+03C2	GREEK SMALL LETTER FINAL SIGMA
Σ	1/08	—	U+03A3	GREEK CAPITAL LETTER SIGMA
τ	—	—	U+03C4	GREEK SMALL LETTER TAU
?	—	—	U+03A4	GREEK CAPITAL LETTER TAU
?	—	—	U+03C5	GREEK SMALL LETTER UPSILON

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name
?	—	—	U+03A5	GREEK CAPITAL LETTER UPSILON
?	—	—	U+03CD	GREEK SMALL LETTER UPSILON WITH TONOS
?	—	—	U+038E	GREEK CAPITAL LETTER UPSILON WITH TONOS
?	—	—	U+03CB	GREEK SMALL LETTER UPSILON WITH DIALYTICA
?	—	—	U+03AB	GREEK CAPITAL LETTER UPSILON WITH DIALYTICA
?	—	—	U+003B0	GREEK SMALL LETTER UPSILON WITH DIALYTICA AND TONOS
f	—	—	U+03C6	GREEK SMALL LETTER PHI
F	1/02	—	U+03A6	GREEK CAPITAL LETTER PHI
?	—	—	U+03C7	GREEK SMALL LETTER CHI
?	—	—	U+03A7	GREEK CAPITAL LETTER CHI
?	—	—	U+03C8	GREEK SMALL LETTER PSI
?	1/07	—	U+03A8	GREEK CAPITAL LETTER PSI
?	—	—	U+03C9	GREEK SMALL LETTER OMEGA
O	1/05	—	U+03A9	GREEK CAPITAL LETTER OMEGA
?	—	—	U+03CE	GREEK SMALL LETTER OMEGA WITH TONOS
?	—	—	U+038F	GREEK CAPITAL LETTER OMEGA WITH TONOS

NOTE: All the above characters are of usage type A.

### 6.2.2.3 Cyrillic-script language-independent letter repertoire and ordering

The Cyrillic-script language-independent letter repertoire consists of the Cyrillic-script alphabet in table 2 and the Minimum Latin-script subset in table 4.

**Table 3: Cyrillic-script language-independent repertoire**

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name
?	—	—	U+0430	CYRILLIC SMALL LETTER A
?	—	—	U+0410	CYRILLIC CAPITAL LETTER A
?	—	—	U+0431	CYRILLIC SMALL LETTER BE
?	—	—	U+0411	CYRILLIC CAPITAL LETTER BE
?	—	—	U+0432	CYRILLIC SMALL LETTER VE
?	—	—	U+0412	CYRILLIC CAPITAL LETTER VE
?	—	—	U+0433	CYRILLIC SMALL LETTER GHE
?	—	—	U+0413	CYRILLIC CAPITAL LETTER GHE
?	—	—	U+0453	CYRILLIC SMALL LETTER GJE
?	—	—	U+0403	CYRILLIC CAPITAL LETTER GJE
?	—	—	U+0434	CYRILLIC SMALL LETTER DE
?	—	—	U+0414	CYRILLIC CAPITAL LETTER DE
?	—	—	U+0452	CYRILLIC SMALL LETTER DJE
?	—	—	U+0402	CYRILLIC CAPITAL LETTER DJE
?	—	—	U+0435	CYRILLIC SMALL LETTER IE
?	—	—	U+0415	CYRILLIC CAPITAL LETTER IE
?	—	—	U+0451	CYRILLIC SMALL LETTER IO
?	—	—	U+0401	CYRILLIC CAPITAL LETTER IO
?	—	—	U+0454	CYRILLIC SMALL LETTER UKRAINIA N IE
?	—	—	U+0404	CYRILLIC CAPITAL LETTER UKRAINIAN IE
?	—	—	U+0436	CYRILLIC SMALL LETTER ZHE
?	—	—	U+0416	CYRILLIC CAPITAL LETTER ZHE
?	—	—	U+0437	CYRILLIC SMALL LETTER ZE
?	—	—	U+0417	CYRILLIC CAPITAL LETTER ZE
?	—	—	U+0455	CYRILLIC SMALL LETTER DZE
?	—	—	U+0405	CYRILLIC CAPITAL LETTER DZE
?	—	—	U+0438	CYRILLIC SMALL LETTER I
?	—	—	U+0418	CYRILLIC CAPITAL LETTER I
?	—	—	U+0456	CYRILLIC SMALL LETTER BYELORUSSIANUKRAINIAN I
?	—	—	U+0406	CYRILLIC CAPITAL LETTER BYELORUSSIAN- UKRAINIAN I
?	—	—	U+0457	CYRILLIC SMALL LETTER YI
?	—	—	U+0407	CYRILLIC CAPITAL LETTER YI
?	—	—	U+0439	CYRILLIC SMALL LETTER SHORT I
?	—	—	U+0419	CYRILLIC CAPITAL LETTER SHORT I
?	—	—	U+0458	CYRILLIC SMALL LETTER JE
?	—	—	U+0408	CYRILLIC CAPITAL LETTER JE
?	—	—	U+043A	CYRILLIC SMALL LETTER KA
?	—	—	U+041A	CYRILLIC CAPITAL LETTER KA
?	—	—	U+045C	CYRILLIC SMALL LETTER KJE
?	—	—	U+040C	CYRILLIC CAPITAL LETTER KJE
?	—	—	U+043B	CYRILLIC SMALL LETTER EL
?	—	—	U+041B	CYRILLIC CAPITAL LETTER EL
?	—	—	U+0459	CYRILLIC SMALL LETTER LJE
?	—	—	U+0409	CYRILLIC CAPITAL LETTER LJE
?	—	—	U+043C	CYRILLIC SMALL LETTER EM
?	—	—	U+041C	CYRILLIC CAPITAL LETTER EM
?	—	—	U+043D	CYRILLIC SMALL LETTER EN
?	—	—	U+041D	CYRILLIC CAPITAL LETTER EN
?	—	—	U+045A	CYRILLIC SMALL LETTER NJE
?	—	—	U+040A	CYRILLIC CAPITAL LETTER NJE
?	—	—	U+043E	CYRILLIC SMALL LETTER O
?	—	—	U+041E	CYRILLIC CAPITAL LETTER O
?	—	—	U+043F	CYRILLIC SMALL LETTER PE
?	—	—	U+041F	CYRILLIC CAPITAL LETTER PE

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name
?	—	—	U+0440	CYRILLIC SMALL LETTER ER
?	—	—	U+0420	CYRILLIC CAPITAL LETTER ER
?	—	—	U+0441	CYRILLIC SMALL LETTER ES
?	—	—	U+0421	CYRILLIC CAPITAL LETTER ES
?	—	—	U+0442	CYRILLIC SMALL LETTER TE
?	—	—	U+0422	CYRILLIC CAPITAL LETTER TE
?	—	—	U+045B	CYRILLIC SMALL LETTER TSHE
?	—	—	U+040B	CYRILLIC CAPITAL LETTER TSHE
?	—	—	U+0443	CYRILLIC SMALL LETTER U
?	—	—	U+0423	CYRILLIC CAPITAL LETTER U
?	—	—	U+045E	CYRILLIC SMALL LETTER SHORT U
?	—	—	U+040E	CYRILLIC CAPITAL LETTER SHORT U
?	—	—	U+0444	CYRILLIC SMALL LETTER EF
?	—	—	U+0424	CYRILLIC CAPITAL LETTER EF
?	—	—	U+0445	CYRILLIC SMALL LETTER HA
?	—	—	U+0425	CYRILLIC CAPITAL LETTER HA
?	—	—	U+0446	CYRILLIC SMALL LETTER TSE
?	—	—	U+0426	CYRILLIC CAPITAL LETTER TSE
?	—	—	U+0447	CYRILLIC SMALL LETTER CHE
?	—	—	U+0427	CYRILLIC CAPITAL LETTER CHE
?	—	—	U+045F	CYRILLIC SMALL LETTER DZHE
?	—	—	U+040F	CYRILLIC CAPITAL LETTER DZHE
?	—	—	U+0448	CYRILLIC SMALL LETTER SHA
?	—	—	U+0428	CYRILLIC CAPITAL LETTER SHA
?	—	—	U+0449	CYRILLIC SMALL LETTER SHCHA
?	—	—	U+0429	CYRILLIC CAPITAL LETTER SHCHA
?	—	—	U+044A	CYRILLIC SMALL LETTER HARD SIGN
?	—	—	U+042A	CYRILLIC CAPITAL LETTER HARD SIGN
?	—	—	U+044B	CYRILLIC SMALL LETTER YERU
?	—	—	U+042B	CYRILLIC CAPITAL LETTER YERU
?	—	—	U+044C	CYRILLIC SMALL LETTER SOFT SIGN
?	—	—	U+042C	CYRILLIC CAPITAL LETTER SOFT SIGN
?	—	—	U+044D	CYRILLIC SMALL LETTER E
?	—	—	U+042D	CYRILLIC CAPITAL LETTER E
?	—	—	U+044E	CYRILLIC SMALL LETTER YU
?	—	—	U+042E	CYRILLIC CAPITAL LETTER YU
?	—	—	U+044F	CYRILLIC SMALL LETTER YA
?	—	—	U+042F	CYRILLIC CAPITAL LETTER YA

NOTE: Repertoire according to ISO/IEC 8859-5:1998, ordered according to ENV 13710 [16]. Applies to Bulgarian, Belarussian, Macedonian, Russian, Serbian and Ukrainian.

## 6.2.2.4 Minimum Latin subset to be used with Cyrillic and Greek

Table 4: Minimum Latin subset to be used with Cyrillic and Greek

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name
a	6/01	06/01	U+0061	LATIN SMALL LETTER A
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A
b	6/02	06/02	U+0062	LATIN SMALL LETTER B
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B
c	6/03	06/03	U+0063	LATIN SMALL LETTER C
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C
d	6/04	06/04	U+0064	LATIN SMALL LETTER D
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D
e	6/05	06/05	U+0065	LATIN SMALL LETTER E
E	4/05	0405/0	U+0045	LATIN CAPITAL LETTER E
f	6/06	06/06	U+0066	LATIN SMALL LETTER F
F	4/06	0406/0	U+0046	LATIN CAPITAL LETTER F
g	6/07	0607/0	U+0067	LATIN SMALL LETTER G
G	4/07	0407/0	U+0047	LATIN CAPITAL LETTER G
h	6/08	06/08	U+0068	LATIN SMALL LETTER H
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H
i	6/09	06/09	U+0069	LATIN SMALL LETTER I
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I
j	6/10	06/10	U+006A	LATIN SMALL LETTER J
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J
k	6/11	06/11	U+006B	LATIN SMALL LETTER K
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K
l	6/12	06/12	U+006C	LATIN SMALL LETTER L
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L
m	6/13	06/13	U+006D	LATIN SMALL LETTER M
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M
n	6/14	06/14	U+006E	LATIN SMALL LETTER N
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N
o	6/15	06/15	U+006F	LATIN SMALL LETTER O
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O
p	7/00	07/00	U+0070	LATIN SMALL LETTER P
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q
r	7/02	07/02	U+0072	LATIN SMALL LETTER R
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R
s	7/03	07/03	U+0073	LATIN SMALL LETTER S
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S
t	7/04	07/04	U+0074	LATIN SMALL LETTER T
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T
u	7/05	07/05	U+0075	LATIN SMALL LETTER U
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U
v	7/06	07/06	U+0076	LATIN SMALL LETTER V
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V
w	7/07	07/07	U+0077	LATIN SMALL LETTER W
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W
x	7/08	07/08	U+0078	LATIN SMALL LETTER X
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z

## 6.2.3 Language-specific letter repertoires and ordering

### 6.2.3.1 Bulgarian

Table 5: Bulgarian letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
?	---	---	U+0430	CYRILLIC SMALL LETTER A	A	
?	---	---	U+0410	CYRILLIC CAPITAL LETTER A	A	
?	---	---	U+0431	CYRILLIC SMALL LETTER BE	A	
?	---	---	U+0411	CYRILLIC CAPITAL LETTER BE	A	
?	---	---	U+0432	CYRILLIC SMALL LETTER VE	A	
?	---	---	U+0412	CYRILLIC CAPITAL LETTER VE	A	
?	---	---	U+0433	CYRILLIC SMALL LETTER GHE	A	
?	---	---	U+0413	CYRILLIC CAPITAL LETTER GHE	A	
?	---	---	U+0434	CYRILLIC SMALL LETTER DE	A	
?	---	---	U+0414	CYRILLIC CAPITAL LETTER DE	A	
?	---	---	U+0435	CYRILLIC SMALL LETTER IE	A	
?	---	---	U+0415	CYRILLIC CAPITAL LETTER IE	A	
?	---	---	U+0436	CYRILLIC SMALL LETTER ZHE	A	
?	---	---	U+0416	CYRILLIC CAPITAL LETTER ZHE	A	
?	---	---	U+0437	CYRILLIC SMALL LETTER ZE	A	
?	---	---	U+0417	CYRILLIC CAPITAL LETTER ZE	A	
?	---	---	U+0438	CYRILLIC SMALL LETTER I	A	
?	---	---	U+0418	CYRILLIC CAPITAL LETTER I	A	
?	---	---	U+0439	CYRILLIC SMALL LETTER SHORT I	A	
?	---	---	U+0419	CYRILLIC CAPITAL LETTER SHORT I	A	
?	---	---	U+043A	CYRILLIC SMALL LETTER KA	A	
?	---	---	U+041A	CYRILLIC CAPITAL LETTER KA	A	
?	---	---	U+043B	CYRILLIC SMALL LETTER EL	A	
?	---	---	U+041B	CYRILLIC CAPITAL LETTER EL	A	
?	---	---	U+043C	CYRILLIC SMALL LETTER EM	A	
?	---	---	U+041C	CYRILLIC CAPITAL LETTER EM	A	
?	---	---	U+043D	CYRILLIC SMALL LETTER EN	A	
?	---	---	U+041D	CYRILLIC CAPITAL LETTER EN	A	
?	---	---	U+043E	CYRILLIC SMALL LETTER O	A	
?	---	---	U+041E	CYRILLIC CAPITAL LETTER O	A	
?	---	---	U+043F	CYRILLIC SMALL LETTER PE	A	
?	---	---	U+041F	CYRILLIC CAPITAL LETTER PE	A	
?	---	---	U+0440	CYRILLIC SMALL LETTER ER	A	
?	---	---	U+0420	CYRILLIC CAPITAL LETTER ER	A	
?	---	---	U+0441	CYRILLIC SMALL LETTER ES	A	
?	---	---	U+0421	CYRILLIC CAPITAL LETTER ES	A	
?	---	---	U+0442	CYRILLIC SMALL LETTER TE	A	
?	---	---	U+0422	CYRILLIC CAPITAL LETTER TE	A	
?	---	---	U+0443	CYRILLIC SMALL LETTER U	A	
?	---	---	U+0423	CYRILLIC CAPITAL LETTER U	A	
?	---	---	U+0444	CYRILLIC SMALL LETTER EF	A	
?	---	---	U+0424	CYRILLIC CAPITAL LETTER EF	A	
?	---	---	U+0445	CYRILLIC SMALL LETTER HA	A	
?	---	---	U+0425	CYRILLIC CAPITAL LETTER HA	A	
?	---	---	U+0446	CYRILLIC SMALL LETTER TSE	A	
?	---	---	U+0426	CYRILLIC CAPITAL LETTER TSE	A	
?	---	---	U+0447	CYRILLIC SMALL LETTER CHE	A	
?	---	---	U+0427	CYRILLIC CAPITAL LETTER CHE	A	
?	---	---	U+0448	CYRILLIC SMALL LETTER CHA	A	
?	---	---	U+0428	CYRILLIC CAPITAL LETTER CHA	A	
?	---	---	U+0449	CYRILLIC SMALL LETTER SHCHA	A	
?	---	---	U+0429	CYRILLIC CAPITAL LETTER SHCHA	A	
?	---	---	U+044A	CYRILLIC SMALL LETTER HARD SIGN	A	
?	---	---	U+042A	CYRILLIC CAPITAL LETTER HARD SIGN	A	
?	---	---	U+044C	CYRILLIC SMALL LETTER SOFT SIGN	A	
?	---	---	U+042C	CYRILLIC CAPITAL LETTER SOFT SIGN	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
?	---	---	U+044E	CYRILLIC SMALL LETTER YU	A	
?	---	---	U+042E	CYRILLIC CAPITAL LETTER YU	A	
?	---	---	U+044F	CYRILLIC SMALL LETTER YA	A	
?	---	---	U+042F	CYRILLIC CAPITAL LETTER YA	A	



## 6.2.3.2 Czech

Table 6: Czech letter repertoire listed in language -specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
á	—	12/02 06/01	U+00E1	LATIN SMALL LETTER A WITH ACUTE	A	?
Á	—	12/02 04/01	U+00C1	LATIN CAPITAL LETTER A WITH ACUTE	A	?
ä	7/11	12/08 06/01	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS	B	
Ä	5/11	12/08 04/01	U+00C4	LATIN CAPITAL LETTER A WITH DIAERESIS	B	
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	‡
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	‡
č	—	12/15 06/03	U+010D	LATIN SMALL LETTER C WITH CARON	A	
Č	—	12/15 04/03	U+010C	LATIN CAPITAL LETTER C WITH CARON	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	?
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	?
ď	—	12/15 06/04	U+010F	LATIN SMALL LETTER D WITH CARON	A	?
Ď	—	12/15 04/04	U+010E	LATIN CAPITAL LETTER D WITH CARON	A	?
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	A	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	A	?
ě	—	12/15 06/05	U+011B	LATIN SMALL LETTER E WITH CARON	A	?
Ě	—	12/15 04/05	U+011A	LATIN CAPITAL LETTER E WITH CARON	A	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	?
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	?
í	—	12/02 06/09	U+00ED	LATIN SMALL LETTER I WITH ACUTE	A	?
Í	—	12/02 04/09	U+00CD	LATIN CAPITAL LETTER I WITH ACUTE	A	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	?
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	?
ň	—	12/15 06/14	U+0148	LATIN SMALL LETTER N WITH CARON	A	?
Ň	—	12/15 04/14	U+0147	LATIN CAPITAL LETTER N WITH CARON	A	?
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE	A	?
Ó	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE	A	?
ö	7/12	12/08 06/15	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	B	?
Ö	5/12	12/08 04/15	U+00D6	LATIN CAPITAL LETTER O WITH DIAERESIS	B	?
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	B	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	B	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
r	—	12/15 07/02	U+0159	LATIN SMALL LETTER R WITH CARON	A	
R	—	12/15 05/02	U+0158	LATIN CAPITAL LETTER R WITH CARON	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
š	—	12/15 07/03	U+0161	LATIN SMALL LETTER S WITH CARON	A	
Š	—	12/15 05/03	U+0160	LATIN CAPITAL LETTER S WITH CARON	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	?
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	?
t	—	12/15 07/04	U+0165	LATIN SMALL LETTER T WITH CARON	A	?
T	—	12/15 05/04	U+0164	LATIN CAPITAL LETTER T WITH CARON	A	?
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
ú	—	12/02 07/05	U+00FA	LATIN SMALL LETTER U WITH ACUTE	A	?
Ú	—	12/02 05/05	U+00DA	LATIN CAPITAL LETTER U WITH ACUTE	A	?
u	—	12/10 07/05	U+016F MB	LATIN SMALL LETTER U WITH RING ABOVE	A	?
U	—	12/10 05/05	U+016E	LATIN CAPITAL LETTER U WITH RING ABOVE	A	?
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	B	?
Ü	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	B	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	B	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	B	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	B	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	B	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	?
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	?
ý	—	12/02 07/09	U+00FD	LATIN SMALL LETTER Y WITH ACUTE	A	?
Ý	—	12/02 05/09	U+00DD	LATIN CAPITAL LETTER Y WITH ACUTE	A	?
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	
ž	—	12/15 07/10	U+017E	LATIN SMALL LETTER Z WITH CARON	A	
Ž	—	12/15 05/10	U+017D	LATIN CAPITAL LETTER Z WITH CARON	A	

NOTE: ? Adjacent letters with this marking are considered equivalent in ordering (except for case)  
‡ The digraph ch/Ch is ordered following letter h/H

## 6.2.3.3 Danish

Table 7: Danish letter repertoire listed in language -specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	? ‡
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	? ‡
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE	B	?
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE	B	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	?
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	?
ð	—	15/03	U+00F0	LATIN SMALL LETTER ETH	B	?
Ð	—	14/02	U+00D0	LATIN CAPITAL LETTER ETH	B	?
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	B	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	B	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE	B	?
Ó	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE	B	?
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	?

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	?
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	B	?
Ü	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	B	?
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	
æ	1/13	15/01	U+00E6	LATIN SMALL LETTER AE	A	?
Æ	1/12	14/01	U+00C6	LATIN CAPITAL LETTER AE	A	?
ä	7/11	12/08 06/01	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS	B	?
Ä	5/11	12/08 04/01	U+00C4	LATIN CAPITAL LETTER A WITH DIAERESIS	B	?
ø	0/12	15/09	U+00F8	LATIN SMALL LETTER O WITH STROKE	A	?
Ø	0/11	14/09	U+00D8	LATIN CAPITAL LETTER O WITH STROKE	A	?
ö	7/12	12/08 06/15	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	B	?
Ö	5/12	12/08 04/15	U+00D6	LATIN CAPITAL LETTER O WITH DIAERESIS	B	?
å	0/15	12/10 06/01	U+00E5	LATIN SMALL LETTER A WITH RING ABOVE	A	‡
Å	0/14	12/10 04/01	U+00C5	LATIN CAPITAL LETTER A WITH RING ABOVE	A	‡
NOTE: "Letter THORN" is ordered as the two consecutive letters TH. ? Adjacent letters with this marking are considered equivalent in ordering (except for case) ‡ The digraph aa/Aa is ordered as equivalent to letter å/Å						

## 6.2.3.4 Dutch

Table 8: Dutch letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
ä	7/11	12/08 06/01	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS	A	?
Ä	5/11	12/08 04/01	U+00C4	LATIN CAPITAL LETTER A WITH DIAERESIS	A	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
ë	—	12/08 06/05	U+00EB	LATIN SMALL LETTER E WITH DIAERESIS	A	?
Ë	—	12/08 04/05	U+00CB	LATIN CAPITAL LETTER E WITH DIAERESIS	A	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	? ‡
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	? ‡
ï	—	12/08 06/09	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS	A	?
Ï	—	12/08 04/09	U+00CF	LATIN CAPITAL LETTER I WITH DIAERESIS	A	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ö	7/12	12/08 06/15	U+00F3	LATIN SMALL LETTER O WITH DIAERESIS	A	?
Ö	5/12	12/08 04/15	U+00D3	LATIN CAPITAL LETTER O WITH DIAERESIS	A	?
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	A	?
Ü	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	A	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	
NOTE: ? Adjacent letters so marked are considered equivalent in ordering (except for case)						
‡ Ligature ij/IJ may be ordered as letters i+j/l+j or as letter y/Y						

## 6.2.3.5 English

Table 9: English letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE	A	?
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE	A	?
â	—	12/03 06/01	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX	B	?
Â	—	12/03 04/01	U+00C2	LATIN CAPITAL LETTER A WITH CIRCUMFLEX	B	?
æ	1/13	15/01	U+00E6	LATIN SMALL LETTER AE	A	
Æ	1/12	14/01	U+00C6	LATIN CAPITAL LETTER AE	A	
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	?
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	?
ç	0/09	12/11 06/03	U+00E7	LATIN SMALL LETTER C WITH CEDILLA	A	?
Ç	—	12/11 04/03	U+00C7	LATIN CAPITAL LETTER C WITH CEDILLA	A	?
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	A	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	A	?
è	0/04	12/01 06/05	U+00E8	LATIN SMALL LETTER E WITH GRAVE	A	?
È	—	12/01 04/05	U+00C8	LATIN CAPITAL LETTER E WITH GRAVE	A	?
ë	—	12/08 06/05	U+00EB	LATIN SMALL LETTER E WITH DIAERESIS	A	?
Ë	—	12/08 04/05	U+00CB	LATIN CAPITAL LETTER E WITH DIAERESIS	A	?
ê	—	12/03 06/05	U+00EA	LATIN SMALL LETTER E WITH CIRCUMFLEX	A	?
Ê	—	12/03 04/05	U+00CA	LATIN CAPITAL LETTER E WITH CIRCUMFLEX	A	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	?
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	?
î	—	12/03 06/09	U+00EE	LATIN SMALL LETTER I WITH CIRCUMFLEX	B	?
Î	—	12/03 04/09	U+00CE	LATIN CA PITAL LETTER I WITH CIRCUMFLEX	B	?
ï	—	12/08 06/09	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS	A	?
Ï	—	12/08 04/09	U+00CF	LATIN CAPITAL LETTER I WITH DIAERESIS	A	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	?
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	?
ñ	7/13	12/04 06/14	U+00F1	LATIN SMALL LETTER N WITH TILDE	A	?
Ñ	5/13	12/04 04/14	U+00D1	LATIN CAPITAL LETTER N WITH TILDE	A	?
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ö	7/12	12/08 06/15	U+00F3	LATIN SMALL LETTER O WITH DIAERESIS	A	?
Ó	5/12	12/08 04/15	U+00D3	LATIN CAPITAL LETTER O WITH DIAERESIS	A	?
ô	—	12/03 06/15	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX	A	?
Ô	—	12/03 04/15	U+00D4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX	A	?
œ	—	15/10	U+0153	LATIN SMALL LIGATURE OE	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
Œ	—	14/10	U+0152	LATIN CAPITAL LIGATURE OE	A	
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
û	—	12/03 07/05	U+00FB	LATIN SMALL LETTER U WITH CIRCUMFLEX	B	?
Û	—	12/03 05/05	U+00DB	LATIN CAPITAL LETTER U WITH CIRCUMFLEX	B	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	?
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	?
w	—	12/03 07/07	U+0175	LATIN SMALL LETTER W WITH CIRCUMFLEX	B	?
W	—	12/03 05/07	U+0174	LATIN CAPITAL LETTER W WITH CIRCUMFLEX	B	?
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	?
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	?
y	—	12/03 07/09	U+0177	LATIN SMALL LETTER Y WITH CIRCUMFLEX	B	?
Y	—	12/03 05/09	U+0176	LATIN CAPITAL LETTER Y WITH CIRCUMFLEX	B	?
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	

NOTE: Adjacent letters marked ? are considered equivalent in ordering (except for case).



## 6.2.3.6 Estonian

Table 10: Estonian letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	B	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	B	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	B	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	B	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
š	—	12/15 07/03	U+0161	LATIN SMALL LETTER S WITH CARON	A	
Š	—	12/15 05/03	U+0160	LATIN CAPITAL LETTER S WITH CARON	A	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	
ž	—	12/15 07/10	U+017E	LATIN SMALL LETTER Z WITH CARON	A	
Ž	—	12/15 05/10	U+017D	LATIN CAPITAL LETTER Z WITH CARON	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	B	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	B	
õ	—	12/04 06/15	U+00F5	LATIN SMALL LETTER O WITH TILDE	A	
Õ	—	12/04 04/15	U+00D5	LATIN CAPITAL LETTER O WITH TILDE	A	
ä	7/11	12/08 06/01	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS	A	
Ä	5/11	12/08 04/01	U+00C4	LATIN CAPITAL LETTER A WITH DIAERESIS	A	
ö	7/12	12/08 06/15	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	A	
Ö	5/12	12/08 04/15	U+00D6	LATIN CAPITAL LETTER O WITH DIAERESIS	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage Notes type
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	A
Ū	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	A
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	B
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	B
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	B
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	B

## 6.2.3.7 Finnish

Table 11: Finnish letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
á	—	12/02 06/01	U+00E1	LATIN SMALL LETTER A WITH ACUTE	B	?
Á	—	12/02 04/01	U+00C1	LATIN CAPITAL LETTER A WITH ACUTE	B	?
â	—	12/03 06/01	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX	B	?
Â	—	12/03 04/01	U+00C2	LATIN CAPITAL LETTER A WITH CIRCUMFLEX	B	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
ç	—	12/15 06/03	U+010D	LATIN SMALL LETTER C WITH CARON	B	
Č	—	12/15 04/03	U+010C	LATIN CAPITAL LETTER C WITH CARON	B	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
đ	—	15/02	U+0111	LATIN SMALL LETTER D WITH STROKE	B	
Đ	—	14/02	U+0110	LATIN CAPITAL LETTER WITH STROKE	B	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
g	—	—	U+01E7	LATIN SMALL LETTER G WITH CARON	B	
Ĝ	—	—	U+01E6	LATIN CAPITAL LETTER G WITH CARON	B	
—	—	—	U+01E5	LATIN SMALL LETTER G WITH STROKE		
—	—	—	U+01E4	LATIN CAPITAL LETTER G WITH STROKE		
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
—	—	—	U+01E9	LATIN SMALL LETTER K WITH CARON	B	
—	—	—	U+01E8	LATIN CAPITAL LETTER K WITH CARON	B	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
?	—	15/14	U+014B	LATIN SMALL LETTER ENG	B	
?	—	14/14	U+014A	LATIN CAPITAL LETTER ENG	B	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	
õ	—	12/04 06/15	U+00F5	LATIN SMALL LETTER O WITH TILDE	B	
Õ	—	12/04 04/15	U+00D5	LATIN CAPITAL LETTER O WITH TILDE	B	
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	?
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	?

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
š	—	12/15 07/03	U+0161	LATIN SMALL LETTER S WITH CARON	B	?
Š	—	12/15 05/03	U+0160	LATIN CAPITAL LETTER S WITH CARON	B	?
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
ţ	—	15/13	U+0167	LATIN SMALL LETTER T WITH STROKE	B	
Ţ	—	14/13	U+0166	LATIN CAPITAL LETTER T WITH STROKE	B	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	?
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	?
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	?
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	?
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	?
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	?
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	B	?
Ü	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	B	?
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	?
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	?
ž	—	12/15 07/10	U+017E	LATIN SMALL LETTER Z WITH CARON	B	?
Ž	—	12/15 05/10	U+017D	LATIN CAPITAL LETTER Z WITH CARON	B	?
	—	—	U+0292	LATIN SMALL LETTER EZH		
	—	—	U+01B7	LATIN CAPITAL LETTER EZH	B	
	—	—	U+01EF	LATIN SMALL LETTER EZH WITH CARON	B	
	—	—	U+01EE	LATIN CAPITAL LETTER EZH WITH CARON	B	
â	0/15	12/10 06/01	U+00E5	LATIN SMALL LETTER A WITH RING ABOVE	B	
Â	0/14	12/10 04/01	U+00C5	LATIN CAPITAL LETTER A WITH RING ABOVE	B	
ä	7/11	12/08 06/01	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS	A	
Ä	5/11	12/08 04/01	U+00C4	LATIN CAPITAL LETTER A WITH DIAERESIS	A	
ö	7/12	12/08 06/15	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	A	?
Ö	5/12	12/08 04/15	U+00D6	LATIN CAPITAL LETTER O WITH DIAERESIS	A	?
ø	0/12	15/09	U+00F8	LATIN SMALL LETTER O WITH STROKE	B	?
Ø	0/11	14/09	U+00D8	LATIN CAPITAL LETTER O WITH STROKE	B	?

NOTE: Adjacent letters marked ? are considered equivalent in ordering (except for case).

## 6.2.3.8 French

Table 12: French letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE	A	?
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE	A	?
â	—	12/03 06/01	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX	A	?
Â	—	12/03 04/01	U+00C2	LATIN CAPITAL LETTER A WITH CIRCUMFLEX	A	?
æ	1/13	15/01	U+00E6	LATIN SMALL LETTER AE	B	‡
Æ	1/12	14/01	U+00C6	LATIN CAPITAL LETTER AE	B	‡
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	?
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	?
ç	0/09	12/11 06/03	U+00E7	LATIN SMALL LETTER C WITH CEDILLA	A	?
Ç	—	12/11 04/03	U+00C7	LATIN CAPITAL LETTER C WITH CEDILLA	A	?
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	A	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	A	?
è	0/04	12/01 06/05	U+00E8	LATIN SMALL LETTER E WITH GRAVE	A	?
È	—	12/01 04/05	U+00C8	LATIN CAPITAL LETTER E WITH GRAVE	A	?
ê	—	12/03 06/05	U+00EA	LATIN SMALL LETTER E WITH CIRCUMFLEX	A	?
Ê	—	12/03 04/05	U+00CA	LATIN CAPITAL LETTER E WITH CIRCUMFLEX	A	?
ë	—	12/08 06/05	U+00EB	LATIN SMALL LETTER E WITH DIAERESIS	A	?
Ë	—	12/08 04/05	U+00CB	LATIN CAPITAL LETTER E WITH DIAERESIS	A	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	?
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	?
î	—	12/03 06/09	U+00EE	LATIN SMALL LETTER I WITH CIRCUMFLEX	A	?
Î	—	12/03 04/09	U+00CE	LATIN CAPITAL LETTER I WITH CIRCUMFLEX	A	?
ï	—	12/08 06/09	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS	B	?
Ï	—	12/08 04/09	U+00CF	LATIN CAPITAL LETTER I WITH DIAERESIS	B	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	?
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	?
ñ	7/13	12/04 06/14	U+00F1	LATIN SMALL LETTER N WITH TILDE	B	?
Ñ	5/13	12/04 04/14	U+00D1	LATIN CAPITAL LETTER N WITH TILDE	B	?
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ô	—	12/03 06/15	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX	A	?
Ó	—	12/03 04/15	U+00D4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX	A	?
œ	—	15/10	U+0153	LATIN SMALL LIGATURE OE	A	‡
Œ	—	14/10	U+0152	LATIN CAPITAL LIGATURE OE	A	‡

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
ù	0/06	12/01 07/05	U+00F9	LATIN SMALL LETTER U WITH GRAVE	A	?
Ù	—	12/01 05/05	U+00D9	LATIN CAPITAL LETTER U WITH GRAVE	A	?
û	—	12/03 07/05	U+00FB	LATIN SMALL LETTER U WITH CIRCUMFLEX	A	?
Û	—	12/03 05/05	U+00DB	LATIN CAPITAL LETTER U WITH CIRCUMFLEX	A	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	?
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	?
ÿ	—	12/08 07/09	U+00FF	LATIN SMALL LETTER Y WITH DIAERESIS	B	?
Ÿ	—	12/08 05/09	U+0178	LATIN CAPITAL LETTER Y WITH DIAERESIS	B	?
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	

NOTE: ? Adjacent letters so marked are considered equivalent in ordering (except for case)  
‡ LETTER AE and LIGATURE OE are ordered as a+e/A+e and o+e/O+e respectively

## 6.2.3.9 German

Table 13: German letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
ä	7/11	12/08 06/01	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS	A	?
Ä	5/11	12/08 04/01	U+00C4	LATIN CAPITAL LETTER A WITH DIAERESIS	A	?
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE	B	?
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE	B	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	B	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	B	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ö	7/12	12/08 06/15	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	A	?
Ö	5/12	12/08 04/15	U+00D6	LATIN CAPITAL LETTER O WITH DIAERESIS	A	?
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	?
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	?
ß	1/14	15/11	U+00DF	LATIN SMALL LETTER SHARP S	A	?
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	A	?
Ü	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	A	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	

NOTE: Adjacent letters marked ? are considered equivalent in ordering (except for case).

### 6.2.3.10 Greek

There is no table given here. See instead Table 2 in Clause 6.2.2.2 for the Greek repertoire, listed in a language-specific alphabetic order.



## 6.2.3.11 Hungarian

Table 14: Hungarian letter repertoire listed in language -specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
á	—	12/02 06/01	U+00E1	LATIN SMALL LETTER A WITH ACUTE	A	?
Á	—	12/02 04/01	U+00C1	LATIN CAPITAL LETTER A WITH ACUTE	A	?
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE	B	?
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE	B	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	‡
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	‡
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	A	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	A	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	‡
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	‡
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	?
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	?
í	—	12/02 06/09	U+00ED	LATIN SMALL LETTER I WITH ACUTE	A	?
Í	—	12/02 04/09	U+00CD	LATIN CAPITAL LETTER I WITH ACUTE	A	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	‡
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	‡
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	‡
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	‡
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE	A	?
Ó	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE	A	?
ö	7/12	12/08 06/15	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	A	?
Ö	5/12	12/08 04/15	U+00D6	LATIN CAPITAL LETTER O WITH DIAERESIS	A	?
o	—	12/13 06/15	U+0151	LATIN SMALL LETTER O WITH DOUBLE ACUTE	A	?
O	—	12/13 04/15	U+0150	LATIN CAPITAL LETTER O WITH DOUBLE ACUTE	A	?
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	B	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	B	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	‡
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	‡
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	‡
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	‡
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
ú	—	12/02 07/05	U+00FA	LATIN SMALL LETTER U WITH ACUTE	A	?
Û	—	12/02 05/05	U+00DA	LATIN CAPITAL LETTER U WITH ACUTE	A	?
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	A	?
Û	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	A	?
u	—	12/13 07/05	U+0171	LATIN SMALL LETTER U WITH DOUBLE ACUTE	A	?
Û	—	12/13 05/05	U+0170	LATIN CAPITAL LETTER U WITH DOUBLE ACUTE	A	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	‡
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	‡

NOTE: ? Adjacent letters so marked are considered equivalent in ordering (except for case)  
‡ The Hungarian alphabet contains a number of digraphs (cs/Cs, gy/Gy, ly/Ly, ny/Ny, sz/Sz, ty/Ty, zs/Zs) ordered following the initial letter

## 6.2.3.12 Icelandic

Table 15: Icelandic letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
ä	7/11	12/08 06/01	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS	B	?
Ä	5/11	12/08 04/01	U+00C4	LATIN CAPITAL LETTER A WITH DIAERESIS	B	?
å	0/15	12/10 06/01	U+00E5	LATIN SMALL LETTER A WITH RING ABOVE	B	?
Å	0/14	12/10 04/01	U+00C5	LATIN CAPITAL LETTER A WITH RING ABOVE	B	?
á	—	12/02 06/01	U+00E1	LATIN SMALL LETTER A WITH ACUTE	A	
Á	—	12/02 04/01	U+00C1	LATIN CAPITAL LETTER A WITH ACUTE	A	
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
ð	—	15/03	U+00F0	LATIN SMALL LETTER ETH	A	
Ð	—	14/02	U+00D0	LATIN CAPITAL LETTER ETH	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
ë	—	12/08 06/05	U+00EB	LATIN SMALL LETTER E WITH DIAERESIS	B	?
É	—	12/08 04/05	U+00CB	LATIN CAPITAL LETTER WITH DIAERESIS	B	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	A	
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	A	
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	
í	—	12/02 06/09	U+00ED	LATIN SMALL LETTER I WITH ACUTE	A	
Í	—	12/02 04/09	U+00CD	LATIN CAPITAL LETTER I WITH ACUTE	A	
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE	A	
Ó	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE	A	
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	B	
Ů	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	B	
ú	—	12/02 07/05	U+00FA	LATIN SMALL LETTER U WITH ACUTE	A	
Ů	—	12/02 05/05	U+00DA	LATIN CAPITAL LETTER U WITH ACUTE	A	
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	
ý	—	12/02 07/09	U+00FD	LATIN SMALL LETTER Y WITH ACUTE	A	
Ÿ	—	12/02 05/09	U+00DD	LATIN CAPITAL LETTER Y WITH ACUTE	A	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	
þ	—	15/12	U+00FE	LATIN SMALL LETTER THORN	A	
Þ	—	14/12	U+00DE	LATIN CAPITAL LETTER THORN	A	
æ	1/13	15/01	U+00E6	LATIN SMALL LETTER AE	A	
Æ	1/12	14/01	U+00C6	LATIN CAPITAL LETTER AE	A	
ö	7/12	12/08 06/15	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	A	?
Ů	5/12	12/08 04/15	U+00D6	LATIN CAPITAL LETTER O WITH DIAERESIS	A	?
ø	0/12	15/09	U+00F8	LATIN SMALL LETTER O WITH STROKE	B	?
Ø	0/11	14/09	U+00D8	LATIN CAPITAL LETTER O WITH STROKE	B	?

NOTE: Adjacent letters marked ? are considered equivalent in ordering (except for case).

## 6.2.3.13 Irish

Table 16: Irish letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
á	—	12/02 06/01	U+00E1	LATIN SMALL LETTER A WITH ACUTE	A	?
Á	—	12/02 04/01	U+00C1	LATIN CAPITAL LETTER A WITH ACUTE	A	?
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE	B	?
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE	B	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	?
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	?
ç	0/09	12/11 06/03	U+00E7	LATIN SMALL LETTER C WITH CEDILLA	B	?
Ç	—	12/11 04/03	U+00C7	LATIN CAPITAL LETTER C WITH CEDILLA	B	?
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	A	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	A	?
è	0/04	12/01 06/05	U+00E8	LATIN SMALL LETTER E WITH GRAVE	B	?
È	—	12/01 04/05	U+00C8	LATIN CAPITAL LETTER E WITH GRAVE	B	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	?
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	?
í	—	12/02 06/09	U+00ED	LATIN SMALL LETTER I WITH ACUTE	A	?
Í	—	12/02 04/09	U+00CD	LATIN CAPITAL LETTER I WITH ACUTE	A	?
ì	0/07	12/01 06/09	U+00EC	LATIN SMALL LETTER I WITH GRAVE	B	?
Ì	—	12/01 04/09	U+00CC	LATIN CAPITAL LETTER I WITH GRAVE	B	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	B	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	B	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE	A	?
Ó	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE	A	?
ò	0/08	12/01 06/15	U+00F2	LATIN SMALL LETTER O WITH GRAVE	B	?
Ò	—	12/01 04/15	U+00D2	LATIN CAPITAL LETTER O WITH GRAVE	B	?
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
ú	—	12/02 07/05	U+00FA	LATIN SMALL LETTER U WITH ACUTE	A	?
Û	—	12/02 05/05	U+00DA	LATIN CAPITAL LETTER U WITH ACUTE	A	?
ù	0/06	12/01 07/05	U+00F9	LATIN SMALL LETTER U WITH GRAVE	B	?
Û	—	12/01 05/05	U+00D9	LATIN CAPITAL LETTER U WITH GRAVE	B	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	

NOTE: Adjacent letters marked ? are considered equivalent in ordering (except for case).

## 6.2.3.14 Italian

Table 17: Italian letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE	A	?
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE	A	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	A	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	A	?
è	0/04	12/01 06/05	U+00E8	LATIN SMALL LETTER E WITH GRAVE	A	?
È	—	12/01 04/05	U+00C8	LATIN CAPITAL LETTER E WITH GRAVE	A	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	?
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	?
í	—	12/02 06/09	U+00ED	LATIN SMALL LETTER I WITH ACUTE	A	?
Í	—	12/02 04/09	U+00CD	LATIN CAPITAL LETTER I WITH ACUTE	A	?
ì	—	12/01 06/09	U+00EC	LATIN SMALL LETTER I WITH GRAVE	A	?
Ì	—	12/01 04/09	U+00CC	LATIN CAPITAL LETTER I WITH GRAVE	A	?
ï	—	12/08 06/09	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS	A	?
Ï	—	12/08 04/09	U+00CF	LATIN CAPITAL LETTER I WITH DIAERESIS	A	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE	A	?
Ó	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE	A	?
ò	0/08	12/01 06/15	U+00F2	LATIN SMALL LETTER O WITH GRAVE	A	?
Ò	—	12/01 04/15	U+00D2	LATIN CAPITAL LETTER O WITH GRAVE	A	?
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
ú	—	12/02 07/05	U+00FA	LATIN SMALL LETTER U WITH ACUTE	A	?
Ū	—	12/02 05/05	U+00DA	LATIN CAPITAL LETTER U WITH ACUTE	A	?
ù	0/06	12/01 07/05	U+00F9	LATIN SMALL LETTER U WITH GRAVE	A	?
Ū	—	12/01 05/05	U+00D9	LATIN CAPITAL LETTER U WITH GRAVE	A	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	B	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	B	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	B	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	B	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	

NOTE: Adjacent letters marked ? are considered equivalent in ordering (except for case).



## 6.2.3.15 Latvian

Table 18: Latvian letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
a	—	12/05 06/01	U+0101	LATIN SMALL LETTER A WITH MACRON	A	?
A	—	12/05 04/01	U+0100	LATIN CAPITAL LETTER A WITH MACRON	A	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
c	—	12/15 06/03	U+010D	LATIN SMALL LETTER C WITH CARON	A	
C	—	12/15 04/03	U+010C	LATIN CAPITAL LETTER C WITH CARON	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
e	—	12/05 06/05	U+0113	LATIN SMALL LETTER E WITH MACRON	A	?
E	—	12/05 04/05	U+0112	LATIN CAPITAL LETTER E WITH MACRON	A	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
g	—	12/02 06/07	U+0123	LATIN SMALL LETTER G WITH CEDILLA	A	‡
G	—	12/11 04/07	U+0122	LATIN CAPITAL LETTER G WITH CEDILLA	A	‡
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	?
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	?
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	?
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	?
i	—	12/05 06/09	U+012B	LATIN SMALL LETTER I WITH MACRON	A	?
I	—	12/05 04/09	U+012A	LATIN CAPITAL LETTER I WITH MACRON	A	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
k	—	12/11 06/11	U+0137	LATIN SMALL LETTER K WITH CEDILLA	A	
K	—	12/11 04/11	U+0136	LATIN CAPITAL LETTER K WITH CEDILLA	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
l	—	12/11 06/12	U+013C	LATIN SMALL LETTER L WITH CEDILLA	A	
L	—	12/11 04/12	U+013B	LATIN CAPITAL LETTER L WITH CEDILLA	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
n	—	12/11 06/14	U+0146	LATIN SMALL LETTER N WITH CEDILLA	A	
N	—	12/11 04/14	U+0145	LATIN CAPITAL LETTER N WITH CEDILLA	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
o	—	12/05 06/15	U+014D	LATIN SMALL LETTER O WITH MACRON	A	?
O	—	12/05 04/15	U+014C	LATIN CAPITAL LETTER O WITH MACRON	A	?
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	B	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	B	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
r	—	12/11 07/02	U+0157	LATIN SMALL LETTER R WITH CEDILLA	A	
R	—	12/11 05/02	U+0156	LATIN CAPITAL LETTER R WITH CEDILLA	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
š	—	12/15 07/03	U+0161	LATIN SMALL LETTER S WITH CARON	A	
Š	—	12/15 05/03	U+0160	LATIN CAPITAL LETTER S WITH CARON	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
u	—	12/05 07/05	U+016B	LATIN SMALL LETTER U WITH MACRON	A	?
U	—	12/05 05/05	U+016A	LATIN CAPITAL LETTER U WITH MACRON	A	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	B	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	B	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	B	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	B	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	
ž	—	12/15 07/10	U+017E	LATIN SMALL LETTER Z WITH CARON	A	
Ž	—	12/15 05/10	U+017D	LATIN CAPITAL LETTER Z WITH CARON	A	
NOTE:	? Adjacent letters so marked are considered equivalent in ordering (except for case)					
	‡ Small letter G WITH CEDILLA is defined in ISO/IEC 6937 as G WITH ACUTE					

## 6.2.3.16 Lithuanian

Table 19: Lithuanian letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
a	—	12/14 06/01	U+0105	LATIN SMALL LETTER A WITH OGONEK	A	?
A	—	12/14 04/01	U+0104	LATIN CAPITAL LETTER A WITH OGONEK	A	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
c	—	12/15 06/03	U+010D	LATIN SMALL LETTER C WITH CARON	A	
C	—	12/15 04/03	U+010C	LATIN CAPITAL LETTER C WITH CARON	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
e	—	12/14 06/05	U+0119	LATIN SMALL LETTER E WITH OGONEK	A	?
E	—	12/14 04/05	U+0118	LATIN CAPITAL LETTER E WITH OGONEK	A	?
e	—	12/07 06/05	U+0117	LATIN SMALL LETTER E WITH DOT ABOVE	A	?
E	—	12/07 04/05	U+0116	LATIN CAPITAL LETTER E WITH DOT ABOVE	A	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	?
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	?
i	—	12/14 06/09	U+012F	LATIN SMALL LETTER I WITH OGONEK	A	?
I	—	12/14 04/09	U+012E	LATIN CAPITAL LETTER I WITH OGONEK	A	?
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	?
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	B	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	B	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
š	—	12/15 07/03	U+0161	LATIN SMALL LETTER S WITH CARON	A	
Š	—	12/15 05/03	U+0160	LATIN CAPITAL LETTER S WITH CARON	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
u	—	12/14 07/05	U+0173	LATIN SMALL LETTER U WITH OGONEK	A	?
U	—	12/14 05/05	U+0172	LATIN CAPITAL LETTER U WITH OGONEK	A	?

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
u	—	12/05 07/05	U+016B	LATIN SMALL LETTER U WITH MACRON	A	?
U	—	12/05 05/05	U+016A	LATIN CAPITAL LETTER U WITH MACRON	A	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	B	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	B	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	B	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	B	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	
ž	—	12/15 07/10	U+017E	LATIN SMALL LETTER Z WITH CARON	A	
Ž	—	12/15 05/10	U+017D	LATIN CAPITAL LETTER Z WITH CARON	A	

NOTE: ? Adjacent letters so marked are considered equivalent in ordering (except for case)

## 6.2.3.17 Maltese

Table 20: Maltese letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
â	—	12/03 06/01	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX	B	?
Ā	—	12/03 04/01	U+00C2	LATIN CAPITAL LETTER A WITH CIRCUMFLEX	B	?
á	—	12/02 06/01	U+00E1	LATIN SMALL LETTER A WITH ACUTE	B	?
Ā	—	12/02 04/01	U+00C1	LATIN CAPITAL LETTER A WITH ACUTE	B	?
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE	B	?
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE	B	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	—	12/07 06/03	U+010B	LATIN SMALL LETTER C WITH DOT ABOVE	A	?
C	—	12/07 04/03	U+010A	LATIN CAPITAL LETTER C WITH DOT ABOVE	A	?
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	B	?
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	B	?
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
ê	—	12/03 06/05	U+00EA	LATIN SMALL LETTER E WITH CIRCUMFLEX	B	?
Ē	—	12/03 04/05	U+00CA	LATIN CAPITAL LETTER E WITH CIRCUMFLEX	B	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	B	?
Ē	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	B	?
è	0/04	12/01 06/05	U+00E8	LATIN SMALL LETTER E WITH GRAVE	B	?
Ē	—	12/01 04/05	U+00C8	LATIN CAPITAL LETTER E WITH GRAVE	B	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	—	12/07 06/07	U+0121	LATIN SMALL LETTER G WITH DOT ABOVE	A	
G	—	12/07 04/07	U+0120	LATIN CAPITAL LETTER G WITH DOT ABOVE	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	‡
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	‡
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
h	—	15/04	U+0127	LATIN SMALL LETTER H WITH STROKE	A	
H	—	14/04	U+0126	LATIN CAPITAL LETTER H WITH STROKE	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	?
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	?
î	—	12/03 06/09	U+00EE	LATIN SMALL LETTER I WITH CIRCUMFLEX	B	?
Ī	—	12/03 04/09	U+00CE	LATIN CAPITAL LETTER I WITH CIRCUMFLEX	B	?
í	—	12/02 06/09	U+00ED	LATIN SMALL LETTER I WITH ACUTE	B	?
Ī	—	12/02 04/09	U+00CD	LATIN CAPITAL LETTER I WITH ACUTE	B	?
ì	0/07	12/01 06/09	U+00EC	LATIN SMALL LETTER I WITH GRAVE	B	?
Ī	—	12/01 04/09	U+00CC	LATIN CAPITAL LETTER I WITH GRAVE	B	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ô	—	12/03 06/15	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX	B	?
Ō	—	12/03 04/15	U+00D4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX	B	?
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE	B	?
Ō	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE	B	?

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
ò	0/08	12/01 06/15	U+00F2	LATIN SMALL LETTER O WITH GRAVE	B	?
Ō	—	12/01 04/15	U+00D2	LATIN CAPITAL LETTER O WITH GRAVE	B	?
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
û	—	12/03 07/05	U+00FB	LATIN SMALL LETTER U WITH CIRCUMFLEX	B	?
Û	—	12/03 05/05	U+00DB	LATIN CAPITAL LETTER U WITH CIRCUMFLEX	B	?
ú	—	12/02 07/05	U+00FA	LATIN SMALL LETTER U WITH ACUTE	B	?
Û	—	12/02 05/05	U+00DA	LATIN CAPITAL LETTER U WITH ACUTE	B	?
ü	0/06	12/01 07/05	U+00F9	LATIN SMALL LETTER U WITH GRAVE	B	?
Û	—	12/01 05/05	U+00D9	LATIN CAPITAL LETTER U WITH GRAVE	B	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	B	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	B	
z	—	12/07 07/10	U+017C	LATIN SMALL LETTER Z WITH DOT ABOVE	A	
Z	—	12/07 05/10	U+017B	LATIN CAPITAL LETTER Z WITH DOT ABOVE	A	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	

NOTE 1: ? Adjacent letters so marked are considered equivalent in ordering (except for case)

NOTE 2: ‡ The digraph gh/Gh is ordered following g/G and before h/H

NOTE 3: The apostrophe (ISO/IEC 10646 identifier U+ 02BC) is considered a letter in Maltese. It is sorted after Z. For the present document, it is assumed that the character is entered as a common apostrophe (U+ 0027, see Table 60)

## 6.2.3.18 Norwegian

Table 21: Norwegian letter repertoire listed in language -specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	? ‡
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	? ‡
á	—	12/02 06/01	U+00E1	LATIN SMALL LETTER A WITH ACUTE	B	?
Á	—	12/02 04/01	U+00C1	LATIN CAPITAL LETTER A WITH ACUTE	B	?
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE	B	?
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE	B	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
ç	—	12/15 06/03	U+010D	LATIN SMALL LETTER C WITH CARON	B	
Ç	—	12/15 04/03	U+010C	LATIN CAPITAL LETTER C WITH CARON	B	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
đ	—	15/02	U+0111	LATIN SMALL LETTER D WITH STROKE	B	
Đ	—	14/02	U+0110	LATIN CAPITAL LETTER WITH STROKE	B	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	A	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	A	?
è	0/04	12/01 06/05	U+00E8	LATIN SMALL LETTER E WITH GRAVE	B	?
È	—	12/01 04/05	U+00C8	LATIN CAPITAL LETTER E WITH GRAVE	B	?
ê	—	12/03 06/05	U+00EA	LATIN SMALL LETTER E WITH CIRCUMFLEX	B	?
Ê	—	12/03 04/05	U+00CA	LATIN CAPITAL LETTER E WITH CIRCUMFLEX	B	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	
ï	—	12/08 06/09	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS	B	
Ï	—	12/08 04/09	U+00CF	LATIN CAPITAL LETTER I WITH DIAERESIS	B	
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
?	—	15/14	U+014B	LATIN SMALL LETTER ENG	B	
?	—	14/14	U+014A	LATIN CAPITAL LETTER ENG	B	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE	B	?
Ó	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE	B	?
ò	0/08	12/01 06/15	U+00F2	LATIN SMALL LETTER O WITH GRAVE	B	?
Ò	—	12/01 04/15	U+00D2	LATIN CAPITAL LETTER O WITH GRAVE	B	?
ô	—	12/03 06/15	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX	B	?
Ô	—	12/03 04/15	U+00D4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX	B	?
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
š	—	12/15 07/03	U+0161	LATIN SMALL LETTER S WITH CARON	B	
Š	—	12/15 05/03	U+0160	LATIN CAPITAL LETTER S WITH CARON	B	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
t	—	15/13	U+0167	LATIN SMALL LETTER T WITH STROKE	B	
T	—	14/13	U+0166	LATIN CAPITAL LETTER T WITH STROKE	B	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	?
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	?
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	B	?
Ü	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	B	?
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	
ž	—	12/15 07/10	U+017E	LATIN SMALL LETTER Z WITH CARON	B	
Ž	—	12/15 05/10	U+017D	LATIN CAPITAL LETTER Z WITH CARON	B	
þ	—	15/12	U+00FE	LATIN SMALL LETTER THORN	B	
Þ	—	14/12	U+00DE	LATIN CAPITAL LETTER THORN	B	
æ	1/13	15/01	U+00E6	LATIN SMALL LETTER AE	A	?
Æ	1/12	14/01	U+00C6	LATIN CAPITAL LETTER AE	A	?
ä	7/11	12/08 06/01	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS	B	?
Ä	5/11	12/08 04/01	U+00C4	LATIN CAPITAL LETTER A WITH DIAERESIS	B	?
ø	0/12	15/09	U+00F8	LATIN SMALL LETTER O WITH STROKE	A	?
Ø	0/11	14/09	U+00D8	LATIN CAPITAL LETTER O WITH STROKE	A	?
ö	7/12	12/08 06/15	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	B	?
Ö	5/12	12/08 04/15	U+00D6	LATIN CAPITAL LETTER O WITH DIAERESIS	B	?
å	0/15	12/10 06/01	U+00E5	LATIN SMALL LETTER A WITH RING ABOVE	A	‡
Å	0/14	12/10 04/01	U+00C5	LATIN CAPITAL LETTER A WITH RING ABOVE	A	‡

NOTE: ? Adjacent letters so marked are considered equivalent in ordering (except for case)  
‡ The digraph aa/Aa is ordered as equivalent to letter å/Å

## 6.2.3.19 Polish

Table 22: Polish letter repertoire listed in language -specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	
a	—	12/14 06/01	U+0105	LATIN SMALL LETTER A WITH OGONEK	A	
A	—	12/14 04/01	U+0104	LATIN CAPITAL LETTER A WITH OGONEK	A	
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
c	—	12/02 06/03	U+0107	LATIN SMALL LETTER C WITH ACUTE	A	
C	—	12/02 04/03	U+0106	LATIN CAPITAL LETTER C WITH ACUTE	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	



Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	
e	—	12/14 06/05	U+0119	LATIN SMALL LETTER E WITH OGONEK	A	
E	—	12/14 04/05	U+0118	LATIN CAPITAL LETTER E WITH OGONEK	A	
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
l	—	15/08	U+0142	LATIN SMALL LETTER L WITH STROKE	A	
L	—	14/08	U+0141	LATIN CAPITAL LETTER L WITH STROKE	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
n	—	12/02 06/14	U+0144	LATIN SMALL LETTER N WITH ACUTE	A	
N	—	12/02 04/14	U+0143	LATIN CAPITAL LETTER N WITH ACUTE	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE	A	
Ó	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE	A	
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	B	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	B	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
s	—	12/02 07/03	U+015B	LATIN SMALL LETTER S WITH ACUTE	A	
S	—	12/02 05/03	U+015A	LATIN CAPITAL LETTER S WITH ACUTE	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	B	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	B	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	B	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	B	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	
z	—	12/02 07/10	U+017A	LATIN SMALL LETTER Z WITH ACUTE	A	
Z	—	12/02 05/10	U+0179	LATIN CAPITAL LETTER Z WITH ACUTE	A	
z	—	12/07 07/10	U+017C	LATIN SMALL LETTER Z WITH DOT ABOVE	A	
Z	—	12/07 05/10	U+017B	LATIN CAPITAL LETTER Z WITH DOT ABOVE	A	

## 6.2.3.20 Portuguese

Table 23 : Portuguese letter repertoire listed in language -specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
á	—	12/02 06/01	U+00E1	LATIN SMALL LETTER A WITH ACUTE	A	?
Á	—	12/02 04/01	U+00C1	LATIN CAPITAL LETTER A WITH ACUTE	A	?
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE	A	?
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE	A	?
â	—	12/03 06/01	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX	A	?
Â	—	12/03 04/01	U+00C2	LATIN CAPITAL LETTER A WITH CIRCUMFLEX	A	?
ã	—	12/04 06/01	U+00E3	LATIN SMALL LETTER A WITH TILDE	A	?
Ã	—	12/04 04/01	U+00C3	LATIN CAPITAL LETTER A WITH TILDE	A	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	?
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	?
ç	0/09	12/11 06/03	U+00E7	LATIN SMALL LETTER C WITH CEDILLA	A	?
Ç	—	12/11 04/03	U+00C7	LATIN CAPITAL LETTER C WITH CEDILLA	A	?
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	A	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	A	?
ê	—	12/03 06/05	U+00EA	LATIN SMALL LETTER E WITH CIRCUMFLEX	A	?
Ê	—	12/03 04/05	U+00CA	LATIN CAPITAL LETTER E WITH CIRCUMFLEX	A	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	?
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	?
í	—	12/02 06/09	U+00ED	LATIN SMALL LETTER I WITH ACUTE	A	?
Í	—	12/02 04/09	U+00CD	LATIN CAPITAL LETTER I WITH ACUTE	A	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	B	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	B	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE	A	?
Ó	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE	A	?
ô	—	12/03 06/15	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX	A	?
Ô	—	12/03 04/15	U+00D4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX	A	?
õ	—	12/04 06/15	U+00F5	LATIN SMALL LETTER O WITH TILDE	A	?
Õ	—	12/04 04/15	U+00D5	LATIN CAPITAL LETTER O WITH TILDE	A	?
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
ú	—	12/02 07/05	U+00FA	LATIN SMALL LETTER U WITH ACUTE	A	?
Ú	—	12/02 05/05	U+00DA	LATIN CAPITAL LETTER U WITH ACUTE	A	?
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	A	?
Ü	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	A	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	B	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	B	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	B	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	B	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	

NOTE: Adjacent letters marked ? are considered equivalent in ordering (except for case).

## 6.2.3.21 Romanian

Table 24: Romanian letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	
â	—	12/03 06/01	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX	A	
Ă	—	12/03 04/01	U+00C2	LATIN CAPITAL LETTER A WITH CIRCUMFLEX	A	
a	—	12/06 06/01	U+0103	LATIN SMALL LETTER A WITH BREVE	A	
A	—	12/06 04/01	U+0102	LATIN CAPITAL LETTER A WITH BREVE	A	
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	
î	—	12/03 06/09	U+00EE	LATIN SMALL LETTER I WITH CIRCUMFLEX	A	
Î	—	12/03 04/09	U+00CE	LATIN CAPITAL LETTER I WITH CIRCUMFLEX	A	
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	B	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	B	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
s	—	12/11 07/03	U+0219	LATIN SMALL LETTER S WITH COMMA BELOW	A	‡
S	—	12/11 05/03	U+0218	LATIN CAPITAL LETTER S WITH COMMA BELOW	A	‡
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
t	—	12/11 07/04	U+021B	LATIN SMALL LETTER T WITH COMMA BELOW	A	‡
T	—	12/11 05/04	U+021A	LATIN CAPITAL LETTER T WITH COMMA BELOW	A	‡
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	B	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	B	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	B	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	B	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	

NOTE: ‡ The diacritical mark of letters S AND T is "COMMA BELOW", not "CEDILLA". The ISO/IEC 6937 coding above is however given as "CEDILLA", since "COMMA BELOW" is not defined in that standard.

## 6.2.3.22 Russian

Table 25: Russian letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
?	---	---	U+0430	CYRILLIC SMALL LETTER A	A	
?	---	---	U+0410	CYRILLIC CAPITAL LETTER A	A	
?	---	---	U+0431	CYRILLIC SMALL LETTER BE	A	
?	---	---	U+0411	CYRILLIC CAPITAL LETTER BE	A	
?	---	---	U+0432	CYRILLIC SMALL LETTER VE	A	
?	---	---	U+0412	CYRILLIC CAPITAL LETTER VE	A	
?	---	---	U+0433	CYRILLIC SMALL LETTER GHE	A	
?	---	---	U+0413	CYRILLIC CAPITAL LETTER GHE	A	
?	---	---	U+0434	CYRILLIC SMALL LETTER DE	A	
?	---	---	U+0414	CYRILLIC CAPITAL LETTER DE	A	
?	---	---	U+0435	CYRILLIC SMALL LETTER IE	A	
?	---	---	U+0415	CYRILLIC CAPITAL LETTER IE	A	
?	---	---	U+0451	CYRILLIC SMALL LETTER IO	A	
E	---	---	U+0401	CYRILLIC CAPITAL LETTER IO	A	
?	---	---	U+0436	CYRILLIC SMALL LETTER ZHE	A	
?	---	---	U+0416	CYRILLIC CAPITAL LETTER ZHE	A	
?	---	---	U+0437	CYRILLIC SMALL LETTER ZE	A	
?	---	---	U+0417	CYRILLIC CAPITAL LETTER ZE	A	
?	---	---	U+0438	CYRILLIC SMALL LETTER I	A	
?	---	---	U+0418	CYRILLIC CAPITAL LETTER I	A	
?	---	---	U+0439	CYRILLIC SMALL LETTER SHORT I	A	
?	---	---	U+0419	CYRILLIC CAPITAL LETTER SHORT I	A	
?	---	---	U+043A	CYRILLIC SMALL LETTER KA	A	
?	---	---	U+041A	CYRILLIC CAPITAL LETTER KA	A	
?	---	---	U+043B	CYRILLIC SMALL LETTER EL	A	
?	---	---	U+041B	CYRILLIC CAPITAL LETTER EL	A	
?	---	---	U+043C	CYRILLIC SMALL LETTER EM	A	
?	---	---	U+041C	CYRILLIC CAPITAL LETTER EM	A	
?	---	---	U+043D	CYRILLIC SMALL LETTER EN	A	
?	---	---	U+041D	CYRILLIC CAPITAL LETTER EN	A	
?	---	---	U+043E	CYRILLIC SMALL LETTER O	A	
?	---	---	U+041E	CYRILLIC CAPITAL LETTER O	A	
?	---	---	U+043F	CYRILLIC SMALL LETTER PE	A	
?	---	---	U+041F	CYRILLIC CAPITAL LETTER PE	A	
?	---	---	U+0440	CYRILLIC SMALL LETTER ER	A	
?	---	---	U+0420	CYRILLIC CAPITAL LETTER ER	A	
?	---	---	U+0441	CYRILLIC SMALL LETTER ES	A	
?	---	---	U+0421	CYRILLIC CAPITAL LETTER ES	A	
?	---	---	U+0442	CYRILLIC SMALL LETTER TE	A	
?	---	---	U+0422	CYRILLIC CAPITAL LETTER TE	A	
?	---	---	U+0443	CYRILLIC SMALL LETTER U	A	
?	---	---	U+0423	CYRILLIC CAPITAL LETTER U	A	
?	---	---	U+0444	CYRILLIC SMALL LETTER EF	A	
?	---	---	U+0424	CYRILLIC CAPITAL LETTER EF	A	
?	---	---	U+0445	CYRILLIC SMALL LETTER HA	A	
?	---	---	U+0425	CYRILLIC CAPITAL LETTER HA	A	
?	---	---	U+0446	CYRILLIC SMALL LETTER TSE	A	
?	---	---	U+0426	CYRILLIC CAPITAL LETTER TSE	A	
?	---	---	U+0447	CYRILLIC SMALL LETTER CHE	A	
?	---	---	U+0427	CYRILLIC CAPITAL LETTER CHE	A	
?	---	---	U+0448	CYRILLIC SMALL LETTER CHA	A	
?	---	---	U+0428	CYRILLIC CAPITAL LETTER CHA	A	
?	---	---	U+0449	CYRILLIC SMALL LETTER SHCHA	A	
?	---	---	U+0429	CYRILLIC CAPITAL LETTER SHCHA	A	
?	---	---	U+044A	CYRILLIC SMALL LETTER HARD SIGN	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
?	---	---	U+042A	CYRILLIC CAPITAL LETTER HARD SIGN	A	
?	---	---	U+044B	CYRILLIC SMALL LETTER YERU	A	
?	---	---	U+042B	CYRILLIC CAPITAL LETTER YERU	A	
?	---	---	U+044C	CYRILLIC SMALL LETTER SOFT SIGN	A	
?	---	---	U+042C	CYRILLIC CAPITAL LETTER SOFT SIGN	A	
?	---	---	U+044D	CYRILLIC SMALL LETTER E	A	
?	---	---	U+042D	CYRILLIC CAPITAL LETTER E	A	
?	---	---	U+044E	CYRILLIC SMALL LETTER YU	A	
?	---	---	U+042E	CYRILLIC CAPITAL LETTER YU	A	
?	---	---	U+044F	CYRILLIC SMALL LETTER YA	A	
?	---	---	U+042F	CYRILLIC CAPITAL LETTER YA	A	

## 6.2.3.23 Slovak

Table 26: Slovak letter repertoire listed in language -specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
á	—	12/02 06/01	U+00E1	LATIN SMALL LETTER A WITH ACUTE	A	?
Á	—	12/02 04/01	U+00C1	LATIN CAPITAL LETTER A WITH ACUTE	A	?
ä	7/11	12/08 06/01	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS	B	?
Ä	5/11	12/08 04/01	U+00C4	LATIN CAPITAL LETTER A WITH DIAERESIS	B	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	‡
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	‡
č	—	12/15 06/03	U+010D	LATIN SMALL LETTER C WITH CARON	A	
Č	—	12/15 04/03	U+010C	LATIN CAPITAL LETTER C WITH CARON	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	?
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	?
ď	—	12/15 06/04	U+010F	LATIN SMALL LETTER D WITH CARON	A	?
Ď	—	12/15 04/04	U+010E	LATIN CAPITAL LETTER D WITH CARON	A	?
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	A	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	A	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	?
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	?
í	—	12/02 06/09	U+00ED	LATIN SMALL LETTER I WITH ACUTE	A	?
Í	—	12/02 04/09	U+00CD	LATIN CAPITAL LETTER I WITH ACUTE	A	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	?
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	?
ĺ	6/12	12/02 06/12	U+013A	LATIN SMALL LETTER L WITH ACUTE	A	?
Ľ	4/12	12/02 04/12	U+0139	LATIN CAPITAL LETTER L WITH ACUTE	A	?
ľ	6/12	12/15 06/12	U+013E	LATIN SMALL LETTER L WITH CARON	A	?
Ľ	4/12	12/15 04/12	U+013D	LATIN CAPITAL LETTER L WITH CARON	A	?
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	?
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	?
ň	—	12/15 06/14	U+0148	LATIN SMALL LETTER N WITH CARON	A	?
Ň	—	12/15 04/14	U+0147	LATIN CAPITAL LETTER N WITH CARON	A	?
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE	A	?
Ó	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE	A	?
ö	7/12	12/08 06/15	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	B	?
Ö	5/12	12/08 04/15	U+00D6	LATIN CAPITAL LETTER O WITH DIAERESIS	B	?
ȯ	—	12/13 06/15	U+0151	LATIN SMALL LETTER O WITH DOUBLE ACUTE	B	?
Ŏ	—	12/13 04/15	U+0150	LATIN CAPITAL LETTER O WITH DOUBLE ACUTE	B	?
ô	—	12/03 06/15	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX	A	



Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
Ó	—	12/03 04/15	U+00D4	LATIN CAPITAL LETTER O WITH CIRCUMFLEX	A	
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	B	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	B	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	?
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	?
ř	—	12/02 07/02	U+0155	LATIN SMALL LETTER R WITH ACUTE	A	?
R̄	—	12/02 05/02	U+0154	LATIN CAPITAL LETTER R WITH ACUTE	A	?
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
š	—	12/15 07/03	U+0161	LATIN SMALL LETTER S WITH CARON	A	
S̄	—	12/15 05/03	U+0160	LATIN CAPITAL LETTER S WITH CARON	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	?
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	?
ť	—	12/15 07/04	U+0165	LATIN SMALL LETTER T WITH CARON	A	?
T̄	—	12/15 05/04	U+0164	LATIN CAPITAL LETTER T WITH CARON	A	?
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
ú	—	12/02 07/05	U+00FA	LATIN SMALL LETTER U WITH ACUTE	A	?
Ú	—	12/02 05/05	U+00DA	LATIN CAPITAL LETTER U WITH ACUTE	A	?
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	B	?
Ü	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	B	?
ů	—	12/13 07/05	U+0171	LATIN SMALL LETTER U WITH DOUBLE ACUTE	B	?
Ů	—	12/13 05/05	U+0170	LATIN CAPITAL LETTER U WITH DOUBLE ACUTE	B	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	B	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	B	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	?
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	?
ý	—	12/02 07/09	U+00FD	LATIN SMALL LETTER Y WITH ACUTE	A	?
Ý	—	12/02 05/09	U+00DD	LATIN CAPITAL LETTER Y WITH ACUTE	A	?
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	
ž	—	12/15 07/10	U+017E	LATIN SMALL LETTER Z WITH CARON	A	
Z̄	—	12/15 05/10	U+017D	LATIN CAPITAL LETTER Z WITH CARON	A	

NOTE: The digraph ch/Ch is ordered following letter h/H.

## 6.2.3.24 Slovenian

Table 27: Slovenian letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
c	—	12/15 06/03	U+010D	LATIN SMALL LETTER C WITH CARON	A	
C	—	12/15 04/03	U+010C	LATIN CAPITAL LETTER C WITH CARON	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	B	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	B	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
š	—	12/15 07/03	U+0161	LATIN SMALL LETTER S WITH CARON	A	
Š	—	12/15 05/03	U+0160	LATIN CAPITAL LETTER S WITH CARON	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	B	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	B	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	B	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	B	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	B	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	B	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	
ž	—	12/15 07/10	U+017E	LATIN SMALL LETTER Z WITH CARON	A	
Ž	—	12/15 05/10	U+017D	LATIN CAPITAL LETTER Z WITH CARON	A	

## 6.2.3.25 Spanish

Table 28: Spanish letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
á	—	12/02 06/01	U+00E1	LATIN SMALL LETTER A WITH ACUTE	A	?
Á	—	12/02 04/01	U+00C1	LATIN CAPITAL LETTER A WITH ACUTE	A	?
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE	B	?
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE	B	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	?
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	?
ç	0/09	12/11 06/03	U+00E7	LATIN SMALL LETTER C WITH CEDILLA	B	?
Ç	—	12/11 04/03	U+00C7	LATIN CAPITAL LETTER C WITH CEDILLA	B	?
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	A	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	A	?
è	0/04	12/01 06/05	U+00E8	LATIN SMALL LETTER E WITH GRAVE	B	?
È	—	12/01 04/05	U+00C8	LATIN CAPITAL LETTER E WITH GRAVE	B	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	?
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	?
í	—	12/02 06/09	U+00ED	LATIN SMALL LETTER I WITH ACUTE	A	?
Í	—	12/02 04/09	U+00CD	LATIN CAPITAL LETTER I WITH ACUTE	A	?
ï	—	12/08 06/09	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS	B	?
Ï	—	12/08 04/09	U+00CF	LATIN CAPITAL LETTER I WITH DIAERESIS	B	?
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	B	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	B	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
ñ	7/13	12/04 06/14	U+00F1	LATIN SMALL LETTER N WITH TILDE	A	
Ñ	5/13	12/04 04/14	U+00D1	LATIN CAPITAL LETTER N WITH TILDE	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	?
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	?
ó	—	12/02 06/15	U+00F3	LATIN SMALL LETTER O WITH ACUTE	A	?
Ó	—	12/02 04/15	U+00D3	LATIN CAPITAL LETTER O WITH ACUTE	A	?
ò	0/08	12/01 06/15	U+00F2	LATIN SMALL LETTER O WITH GRAVE	B	?
Ò	—	12/01 04/15	U+00D2	LATIN CAPITAL LETTER O WITH GRAVE	B	?
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
ú	—	12/02 07/05	U+00FA	LATIN SMALL LETTER U WITH ACUTE	A	?
Ú	—	12/02 05/05	U+00DA	LATIN CAPITAL LETTER U WITH ACUTE	A	?
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	A	?
Ü	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	A	?
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	B	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	B	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	

NOTE: Adjacent letters marked ? are considered equivalent in ordering (except for case).

## 6.2.3.26 Swedish

Table 29: Swedish letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Us age type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
á	—	12/02 06/01	U+00E1	LATIN SMALL LETTER A WITH ACUTE	B	?
Á	—	12/02 04/01	U+00C1	LATIN CAPITAL LETTER A WITH ACUTE	B	?
à	7/15	12/01 06/01	U+00E0	LATIN SMALL LETTER A WITH GRAVE	B	?
À	—	12/01 04/01	U+00C0	LATIN CAPITAL LETTER A WITH GRAVE	B	?
æ	1/13	15/01	U+00E6	LATIN SMALL LETTER AE	B	‡
Æ	1/12	14/01	U+00C6	LATIN CAPITAL LETTER AE	B	‡
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
ç	—	12/15 06/03	U+010D	LATIN SMALL LETTER C WITH CARON	B	
Č	—	12/15 04/03	U+010C	LATIN SMALL LETTER C WITH CARON	B	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
đ	—	15/02	U+0111	LATIN SMALL LETTER D WITH STROKE	B	
Đ	—	14/02	U+0110	LATIN CAPITAL LETTER D WITH STROKE	B	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	?
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	?
é	0/05	12/02 06/05	U+00E9	LATIN SMALL LETTER E WITH ACUTE	A	?
É	1/15	12/02 04/05	U+00C9	LATIN CAPITAL LETTER E WITH ACUTE	A	?
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	
ï	—	12/08 06/09	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS	B	
İ	—	12/08 04/09	U+00CF	LATIN CAPITAL LETTER I WITH DIAERESIS	B	
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
?	—	15/14	U+014B	LATIN SMALL LETTER ENG	B	
?	—	14/14	U+014A	LATIN CAPITAL LETTER ENG	B	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	A	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	A	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
š	—	12/15 07/03	U+0161	LATIN SMALL LETTER S WITH CARON	B	
Š	—	12/15 05/03	U+0160	LATIN CAPITAL LETTER S WITH CARON	B	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
t	—	15/13	U+0167	LATIN SMALL LETTER T WITH STROKE	B	
T	—	14/13	U+0166	LATIN CAPITAL LETTER T WITH STROKE	B	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	?
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	?
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	A	?
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	A	?
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	A	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	A	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	?
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	?
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	B	?
U	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	B	?
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	
ž	—	12/15 07/10	U+017E	LATIN SMALL LETTER Z WITH CARON	B	
Z	—	12/15 05/10	U+017D	LATIN CAPITAL LETTER Z WITH CARON	B	
ă	0/15	12/10 06/01	U+00E5	LATIN SMALL LETTER A WITH RING ABOVE	A	
Ă	0/14	12/10 04/01	U+00C5	LATIN CAPITAL LETTER A WITH RING ABOVE	A	
ä	7/11	12/08 06/01	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS	A	
Ä	5/11	12/08 04/01	U+00C4	LATIN CAPITAL LETTER A WITH DIAERESIS	A	
ö	7/12	12/08 06/15	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	A	?
Ö	5/12	12/08 04/15	U+00D6	LATIN CAPITAL LETTER O WITH DIAERESIS	A	?
ø	0/12	15/09	U+00F8	LATIN SMALL LETTER O WITH STROKE	B	?
Ø	0/11	14/09	U+00D8	LATIN CAPITAL LETTER O WITH STROKE	B	?

NOTE: Adjacent letters marked ? are considered equivalent in ordering (except for case)  
LETTER AE is ordered as letters a+e/A+e

## 6.2.3.27 Turkish

Table 30: Turkish letter repertoire listed in language-specific alphabetic order

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
a	6/01	06/01	U+0061	LATIN SMALL LETTER A	A	?
A	4/01	04/01	U+0041	LATIN CAPITAL LETTER A	A	?
â	—	12/03 06/01	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX	B	?
Â	—	12/03 04/01	U+00C2	LATIN CAPITAL LETTER A WITH CIRCUMFLEX	B	?
b	6/02	06/02	U+0062	LATIN SMALL LETTER B	A	
B	4/02	04/02	U+0042	LATIN CAPITAL LETTER B	A	
c	6/03	06/03	U+0063	LATIN SMALL LETTER C	A	
C	4/03	04/03	U+0043	LATIN CAPITAL LETTER C	A	
ç	0/09	12/11 06/03	U+00E7	LATIN SMALL LETTER C WITH CEDILLA	A	
Ç	—	12/11 04/03	U+00C7	LATIN CAPITAL LETTER C WITH CEDILLA	A	
d	6/04	06/04	U+0064	LATIN SMALL LETTER D	A	
D	4/04	04/04	U+0044	LATIN CAPITAL LETTER D	A	
e	6/05	06/05	U+0065	LATIN SMALL LETTER E	A	
E	4/05	04/05	U+0045	LATIN CAPITAL LETTER E	A	
f	6/06	06/06	U+0066	LATIN SMALL LETTER F	A	
F	4/06	04/06	U+0046	LATIN CAPITAL LETTER F	A	
g	6/07	06/07	U+0067	LATIN SMALL LETTER G	A	
G	4/07	04/07	U+0047	LATIN CAPITAL LETTER G	A	
g	—	12/06 06/07	U+011F	LATIN SMALL LETTER G WITH BREVE	A	
G	—	12/06 04/07	U+011E	LATIN CAPITAL LETTER G WITH BREVE	A	
h	6/08	06/08	U+0068	LATIN SMALL LETTER H	A	
H	4/08	04/08	U+0048	LATIN CAPITAL LETTER H	A	
i	—	15/05	U+0131	LATIN SMALL DOTLESS LETTER I	A	
I	4/09	04/09	U+0049	LATIN CAPITAL LETTER I	A	
i	6/09	06/09	U+0069	LATIN SMALL LETTER I	A	
I	—	12/07 04/09	U+0130	LATIN CAPITAL LETTER I WITH DOT ABOVE	A	
j	6/10	06/10	U+006A	LATIN SMALL LETTER J	A	
J	4/10	04/10	U+004A	LATIN CAPITAL LETTER J	A	
k	6/11	06/11	U+006B	LATIN SMALL LETTER K	A	
K	4/11	04/11	U+004B	LATIN CAPITAL LETTER K	A	
l	6/12	06/12	U+006C	LATIN SMALL LETTER L	A	
L	4/12	04/12	U+004C	LATIN CAPITAL LETTER L	A	
m	6/13	06/13	U+006D	LATIN SMALL LETTER M	A	
M	4/13	04/13	U+004D	LATIN CAPITAL LETTER M	A	
n	6/14	06/14	U+006E	LATIN SMALL LETTER N	A	
N	4/14	04/14	U+004E	LATIN CAPITAL LETTER N	A	
o	6/15	06/15	U+006F	LATIN SMALL LETTER O	A	
O	4/15	04/15	U+004F	LATIN CAPITAL LETTER O	A	
ö	7/12	12/08 06/15	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	A	
Ö	5/12	12/08 04/15	U+00D6	LATIN CAPITAL LETTER O WITH DIAERESIS	A	
p	7/00	07/00	U+0070	LATIN SMALL LETTER P	A	
P	5/00	05/00	U+0050	LATIN CAPITAL LETTER P	A	
q	7/01	07/01	U+0071	LATIN SMALL LETTER Q	B	
Q	5/01	05/01	U+0051	LATIN CAPITAL LETTER Q	B	
r	7/02	07/02	U+0072	LATIN SMALL LETTER R	A	
R	5/02	05/02	U+0052	LATIN CAPITAL LETTER R	A	
s	7/03	07/03	U+0073	LATIN SMALL LETTER S	A	
S	5/03	05/03	U+0053	LATIN CAPITAL LETTER S	A	
s	—	12/11 07/03	U+015F	LATIN SMALL LETTER S WITH CEDILLA	A	
S	—	12/11 05/03	U+015E	LATIN CAPITAL LETTER S WITH CEDILLA	A	
t	7/04	07/04	U+0074	LATIN SMALL LETTER T	A	
T	5/04	05/04	U+0054	LATIN CAPITAL LETTER T	A	
u	7/05	07/05	U+0075	LATIN SMALL LETTER U	A	?
U	5/05	05/05	U+0055	LATIN CAPITAL LETTER U	A	?
û	—	12/03 07/05	U+00FB	LATIN SMALL LETTER U WITH CIRCUMFLEX	B	?
Û	—	12/03 05/05	U+00DB	LATIN CAPITAL LETTER U WITH CIRCUMFLEX	B	?
ü	7/14	12/08 07/05	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	A	
Ü	5/14	12/08 05/05	U+00DC	LATIN CAPITAL LETTER U WITH DIAERESIS	A	

Letter	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name	Usage type	Notes
v	7/06	07/06	U+0076	LATIN SMALL LETTER V	A	
V	5/06	05/06	U+0056	LATIN CAPITAL LETTER V	A	
w	7/07	07/07	U+0077	LATIN SMALL LETTER W	B	
W	5/07	05/07	U+0057	LATIN CAPITAL LETTER W	B	
x	7/08	07/08	U+0078	LATIN SMALL LETTER X	B	
X	5/08	05/08	U+0058	LATIN CAPITAL LETTER X	B	
y	7/09	07/09	U+0079	LATIN SMALL LETTER Y	A	
Y	5/09	05/09	U+0059	LATIN CAPITAL LETTER Y	A	
z	7/10	07/10	U+007A	LATIN SMALL LETTER Z	A	
Z	5/10	05/10	U+005A	LATIN CAPITAL LETTER Z	A	

NOTE: Adjacent letters marked ? are considered equivalent in ordering (except for case).



### 6.3 Language-independent repertoire of digits and special characters

The special characters addressed by the present document and specified below are the blank (space), punctuation marks, currency signs and some special symbols. The telecommunication-specific symbols “star” (\*) and “square” (#) are represented by the characters “asterisk” and “number sign”.

The present document concerns single characters. Combinations of characters used for special purposes (e.g. “smileys”, consisting of combinations of parentheses, hyphen, colon etc.) are not dealt with.

One common language-independent table for all languages is provided below. The need for language-specific repertoires for non-letter characters is not addressed by this document.

Table 31: Language-independent repertoire of digits and special characters

Char	GSM 03.38 7-bit coding	ISO/IEC 6937 coding	ISO/IEC 10646 identifier	ISO/IEC 10646 name
	2/00	02/00	U+0020	SPACE
!	2/01	02/01	U+0021	EXCLAMATION MARK
"	2/02	02/02	U+0022	QUOTATION MARK
#	2/03	02/03	U+0023	NUMBER SIGN
%	2/05	02/05	U+0025	PERCENT SIGN
&	2/06	02/06	U+0026	AMPERSAND
'	2/07	02/07	U+0027	APOSTROPHE
(	2/08	02/08	U+0028	LEFT PARENTHESIS
)	2/09	02/09	U+0029	RIGHT PARENTHESIS
*	2/10	02/10	U+002A	ASTERISK
+	2/11	02/11	U+002B	PLUS SIGN
,	2/12	02/12	U+002C	COMMA
-	2/13	02/13	U+002D	HYPHEN-MINUS
.	2/14	02/14	U+002E	FULL STOP
/	2/15	02/15	U+002F	SOLIDUS
:	3/10	03/10	U+003A	COLON
;	3/11	03/11	U+003B	SEMICOLON
<	3/12	03/12	U+003C	LESS-THAN SIGN
=	3/13	03/13	U+003D	EQUALS SIGN
>	3/14	03/14	U+003E	GREATER-THAN SIGN
?	3/15	03/15	U+003F	QUESTION MARK
@	0/00	04/00	U+0040	COMMERCIAL AT
[	1/11 3/12	05/11	U+005B	LEFT SQUARE BRACKET
\	1/11 2/15	05/12	U+005C	REVERSE SOLIDUS
]	1/11 3/14	05/13	U+005D	RIGHT SQUARE BRACKET
^	1/11 1/04	05/14	U+005E	CIRCUMFLEX ACCENT
_	1/01	05/15	U+005F	LOW LINE
{	1/11 2/08	07/11	U+007B	LEFT CURLY BRACKET
	1/11 2/09	07/12	U+007C	VERTICAL LINE
}	1/11 2/09	07/13	U+007D	RIGHT CURLY BRACKET
~	1/11 3/13	07/14	U+007E	TILDE
¡	4/00	10/01	U+00A1	INVERTED EXCLAMATION MARK
§	5/15	10/07	U+00A7	SECTION SIGN
¿	6/00	11/15	U+00BF	INVERTED QUESTION MARK
\$	0/02	02/04	U+0024	DOLLAR SIGN
£	0/01	10/03	U+00A3	POUND SIGN
¤	2/04	10/08	U+00A4	CURRENCY SIGN
¥	0/03	10/05	U+00A5	YEN SIGN
€	1/11 6/05	-	U+20AC	EURO SIGN
0	3/00	03/00	U+0030	DIGIT ZERO
1	3/01	03/01	U+0031	DIGIT ONE
2	3/02	03/02	U+0032	DIGIT TWO
3	3/03	03/03	U+0033	DIGIT THREE
4	3/04	03/04	U+0034	DIGIT FOUR
5	3/05	03/05	U+0035	DIGIT FIVE
6	3/06	03/06	U+0036	DIGIT SIX
7	3/07	03/07	U+0037	DIGIT SEVEN
8	3/08	03/08	U+0038	DIGIT EIGHT
9	3/09	03/09	U+0039	DIGIT NINE

## 7 Keypad assignments

### 7.1 General

In Clause 7, language-independent and language-specific assignment of letters and digits to the 12-key telephone keypad are provided. At the beginning of Clause 7, a language-independent keypad assignment specification of digits and special characters is also provided.

### 7.2 Keypad assignment of digits and letters

#### 7.2.1 General

The tables in this clause specify the assignment of letters and digits to the keys of the 12-key keypad. The principles for the application of the following tables can be found in Clause 5 of the present document.

Language-independent tables are provided for the Latin, Greek and Cyrillic scripts, and language-specific tables are provided for the individual languages. The tables contain the following information:

- **Key:** The key of the 12-key keypad the respective letters are assigned to
- **Letter:** Representation of the letter
- **ISO/IEC 10646 identifier:** The unique four-digit-form identifier for each letter according to the standard ISO/IEC 10646-1 "Information technology – Universal Multiple Octet Character Set (UCS)".
- **ISO/IEC 10646 name:** The unique name of each letter according to the standard ISO/IEC 10646-1 "Information technology – Universal Multiple-Octet Character Set (UCS)".

NOTE 1: Letters with diacritical marks are assigned to the same key of the 12-key keypad as their respective basic letters (if existant), i.e. "ä" is assigned to key "2" because "a" is assigned to "2" according to ITU-T E.161.

NOTE 2: Latin-script letters are assigned to a particular key in the following order:

- Letters assigned to that particular key according to ITU-T E.161 (e.g. "abc" to key "2")
- The number of the respective key according to ITU-T E.161
- Type A letters according to the tables in Section 6 (e.g. "ä" on key "2" for German)
- Type B letters according to the tables in Section 6 (e.g. "à" on key "2" for German) (e.g. the resulting assignment for key "2" for German is "abc2ää").

NOTE 3: Greek-script and Cyrillic-script letters are assigned to a particular key in the following order:

- Letters assigned to that particular key in alphabetic order (e.g. "????" to key "2")
- The number of the respective key according to ITU-T E.161
- Latin letters assigned to that particular key according to ITU-T E.161 (e.g. abc to key "2")  
For example, the resulting assignment for key "2" for Russian is "????2abc")

## 7.2.2 Language-independent keypad assignment of digits and Latin-script letters

**Table 32: Language-independent keypad assignment of digits and Latin-script letters**

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	á	U+00E1	LATIN SMALL LETTER A WITH ACUTE
	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE
	a	U+0103	LATIN SMALL LETTER A WITH BREVE
	â	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX
	â	U+00E5	LATIN SMALL LETTER A WITH RING ABOVE
	ä	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS
	ã	U+00E3	LATIN SMALL LETTER A WITH TILDE
	a	U+0105	LATIN SMALL LETTER A WITH OGONEK
	a	U+0101	LATIN SMALL LETTER A WITH MACRON
	æ	U+00E6	LATIN SMALL LETTER AE
	c	U+0107	LATIN SMALL LETTER C WITH ACUTE
	c	U+010D	LATIN SMALL LETTER C WITH CARON
	c	U+010B	LATIN SMALL LETTER C WITH DOT ABOVE
ç	U+00E7	LATIN SMALL LETTER C WITH CEDILLA	
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	d	U+010F	LATIN SMALL LETTER D WITH CARON
	d	U+0111	LATIN SMALL LETTER D WITH STROKE
	ð	U+00F0	LATIN SMALL LETTER ETH
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
	è	U+00E8	LATIN SMALL LETTER E WITH GRAVE
	ê	U+00EA	LATIN SMALL LETTER E WITH CIRCUMFLEX
	e	U+011B	LATIN SMALL LETTER E WITH CARON
	ë	U+00EB	LATIN SMALL LETTER E WITH DIAERESIS
	e	U+0119	LATIN SMALL LETTER E WITH OGONEK
	e	U+0113	LATIN SMALL LETTER E WITH MACRON
	4	g	U+0067
h		U+0068	LATIN SMALL LETTER H
i		U+0069	LATIN SMALL LETTER I
4		U+0034	DIGIT FOUR
g		U+011F	LATIN SMALL LETTER G WITH BREVE
g		U+01E7	LATIN SMALL LETTER G WITH CARON
g		U+0121	LATIN SMALL LETTER G WITH DOT ABOVE
g		U+0123	LATIN SMALL LETTER G WITH CEDILLA
		U+01E5	LATIN SMALL LETTER G WITH STROKE
h		U+0127	LATIN SMALL LETTER H WITH STROKE
í		U+00ED	LATIN SMALL LETTER I WITH ACUTE
ì		U+00EC	LATIN SMALL LETTER I WITH GRAVE
î		U+00EE	LATIN SMALL LETTER I WITH CIRCUMFLEX
ï		U+00EF	LATIN SMALL LETTER I WITH DIAERESIS
i		U+012F	LATIN SMALL LETTER I WITH OGONEK
i		U+012B	LATIN SMALL LETTER I WITH MACRON
l		U+0131	LATIN SMALL DOTLESS LETTER I
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
	k	U+01E9	LATIN SMALL LETTER K WITH CARON
	i	U+0137	LATIN SMALL LETTER K WITH CEDILLA
	U+013A	LATIN SMALL LETTER L WITH ACUTE	

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
	l	U+013E	LATIN SMALL LETTER L WITH CARON
	l	U+013C	LATIN SMALL LETTER L WITH CEDILLA
	l	U+0142	LATIN SMALL LETTER L WITH STROKE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	n	U+0144	LATIN SMALL LETTER N WITH ACUTE
	n	U+0148	LATIN SMALL LETTER N WITH CARON
	ñ	U+00F1	LATIN SMALL LETTER N WITH TILDE
	n	U+0146	LATIN SMALL LETTER N WITH CEDILLA
	?	U+014B	LATIN SMALL LETTER ENG
	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE
	ò	U+00F2	LATIN SMALL LETTER O WITH GRAVE
	ô	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX
	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
	o	U+0151	LATIN SMALL LETTER O WITH DOUBLE ACUTE
	õ	U+00F5	LATIN SMALL LETTER O WITH TILDE
	o	U+014D	LATIN SMALL LETTER O WITH MACRON
	ø	U+00F8	LATIN SMALL LETTER O WITH STROKE
œ	U+0153	LATIN SMALL LIGATURE OE	
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	r	U+0155	LATIN SMALL LETTER R WITH ACUTE
	r	U+0159	LATIN SMALL LETTER R WITH CARON
	r	U+0157	LATIN SMALL LETTER R WITH CEDILLA
	s	U+015B	LATIN SMALL LETTER S WITH ACUTE
	š	U+0161	LATIN SMALL LETTER S WITH CARON
	s	U+015F	LATIN SMALL LETTER S WITH CEDILLA
	s	U+0219	LATIN SMALL LETTER S WITH COMMA BELOW
	ß	U+00DF	LATIN SMALL LETTER SHARP S
	8	t	U+0074
u		U+0075	LATIN SMALL LETTER U
v		U+0076	LATIN SMALL LETTER V
8		U+0038	DIGIT EIGHT
t		U+0165	LATIN SMALL LETTER T WITH CARON
t		U+021B	LATIN SMALL LETTER T WITH COMMA BELOW
t		U+0167	LATIN SMALL LETTER T WITH STROKE
ú		U+00FA	LATIN SMALL LETTER U WITH ACUTE
ù		U+00F9	LATIN SMALL LETTER U WITH GRAVE
û		U+00FB	LATIN SMALL LETTER UWITH CIRCUMFLEX
u		U+0075	LATIN SMALL LETTER U WITH RING ABOVE
ü		U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
u		U+0171	LATIN SMALL LETTER U WITH DOUBLE ACUTE
u		U+0173	LATIN SMALL LETTER U WITH OGONEK
9	u	U+016B	LATIN SMALL LETTER U WITH MACRON
	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+0080	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	w	U+0175	LATIN SMALL LETTER W WITH CIRCUMFLEX
	ý	U+00FD	LATIN SMALL LETTER Y WITH ACUTE
	y	U+0177	LATIN SMALL LETTER Y WITH CIRCUMFLEX
	ÿ	U+00FF	LATIN SMALL LETTER Y WITH DIAERESIS
	z	U+017A	LATIN SMALL LETTER Z WITH ACUTE
	ž	U+017E	LATIN SMALL LETTER Z WITH CARON
	z	U+017C	LATIN SMALL LETTER Z WITH DOT ABOVE
		U+0292	LATIN SMALL LETTER EZH

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
		U+01EF	LATIN SMALL LETTER EZH WITH CARON
	p	U+00FE	LATIN SMALL LETTER THORN

### 7.2.3 Keypad assignment of digits and Greek-script letters

Table 33: Assignment of digits and Greek-script letters

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+03B1	GREEK SMALL LETTER ALPHA
	β	U+03B2	GREEK SMALL LETTER BETA
	γ	U+03B3	GREEK SMALL LETTER GAMMA
	2	U+0032	DIGIT TWO
	?	U+03AC	GREEK SMALL LETTER ALPHA WITH TONOS
	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
3	c	U+0063	LATIN SMALL LETTER C
	d	U+03B4	GREEK SMALL LETTER DELTA
	e	U+03B5	GREEK SMALL LETTER EPSILON
	?	U+03B6	GREEK SMALL LETTER ZETA
	3	U+0033	DIGIT THREE
	?	U+03AD	GREEK SMALL LETTER EPSILON WITH TONOS
	d	U+0064	LATIN SMALL LETTER D
4	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	?	U+03B7	GREEK SMALL LETTER ETA
	?	U+03B8	GREEK SMALL LETTER THETA
	?	U+03B9	GREEK SMALL LETTER IOTA
	4	U+0034	DIGIT FOUR
	?	U+03AE	GREEK SMALL LETTER ETA WITH TONOS
	?	U+03AF	GREEK SMALL LETTER IOTA WITH TONOS
	?	U+03CA	GREEK SMALL LETTER IOTA WITH DIALYTICA
	?	U+0390	GREEK SMALL LETTER IOTA WITH DIALYTICA AND TONOS
	4	U+0034	DIGIT FOUR
5	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	?	U+03BA	GREEK SMALL LETTER KAPPA
	?	U+03BB	GREEK SMALL LETTER LAMDA
	μ	U+03BC	GREEK SMALL LETTER MU
	5	U+0035	DIGIT FIVE
6	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	?	U+03BD	GREEK SMALL LETTER NU
	?	U+03BE	GREEK SMALL LETTER XI
	?	U+03BF	GREEK SMALL LETTER OMICRON
	6	U+0036	DIGIT SIX
7	?	U+03CC	GREEK SMALL LETTER OMICRON WITH TONOS
	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	p	U+03C0	GREEK SMALL LETTER PI
	?	U+03C1	GREEK SMALL LETTER RHO
	s	U+03C3	GREEK SMALL LETTER SIGMA
7	?	U+03C2	GREEK SMALL LETTER FINAL SIGMA
	7	U+0037	DIGIT SEVEN

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
8	t	U+03C4	GREEK SMALL LETTER TAU
	?	U+03C5	GREEK SMALL LETTER UPSILON
	f	U+03C6	GREEK SMALL LETTER PHI
	8	U+0038	DIGIT EIGHT
	?	U+03CD	GREEK SMALL LETTER UPSILON WITH TONOS
	?	U+03CB	GREEK SMALL LETTER UPSILON WITH DIALYTICA
	?	U+003B0	GREEK SMALL LETTER UPSILON WITH DIALYTICA AND TONOS
	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	9	?	U+03C7
?		U+03C8	GREEK SMALL LETTER PSI
?		U+03C9	GREEK SMALL LETTER OMEGA
9		U+0039	DIGIT NINE
?		U+03CE	GREEK SMALL LETTER OMEGA WITH TONOS
w		U+0077	LATIN SMALL LETTER W
x		U+0078	LATIN SMALL LETTER X
y		U+0079	LATIN SMALL LETTER Y
z		U+007A	LATIN SMALL LETTER Z

## 7.2.4 Language-independent keypad assignment of digits and Cyrillic-script letters

**Table 34: Language-independent assignment of digits and Cyrillic-script letters**

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	?	U+0430	CYRILLIC SMALL LETTER A
	?	U+0431	CYRILLIC SMALL LETTER BE
	?	U+0432	CYRILLIC SMALL LETTER VE
	?	U+0433	CYRILLIC SMALL LETTER GHE
	?	U+0453	CYRILLIC SMALL LETTER GJE
	2	U+0032	DIGIT TWO
	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
3	?	U+0434	CYRILLIC SMALL LETTER DE
	?	U+0435	CYRILLIC SMALL LETTER IE
	?	U+0451	CYRILLIC SMALL LETTER IO
	?	U+0436	CYRILLIC SMALL LETTER ZHE
	?	U+0437	CYRILLIC SMALL LETTER ZE
	?	U+0452	CYRILLIC SMALL LETTER DJE
	?	U+0454	CYRILLIC SMALL LETTER UKRAINIAN IE
	?	U+455	CYRILLIC SMALL LETTER DZE
	3	U+0033	DIGIT THREE
	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	4	?	U+0438
?		U+0439	CYRILLIC SMALL LETTER SHORT I
?		U+043A	CYRILLIC SMALL LETTER KA
?		U+043B	CYRILLIC SMALL LETTER EL
?		U+0456	CYRILLIC SMALL LETTER BYELORUSSIAN/UKRAINIAN I
?		U+0457	CYRILLIC SMALL LETTER YI
?		U+0458	CYRILLIC SMALL LETTER JE
?		U+045C	CYRILLIC SMALL LETTER KJE
?		U+0459	CYRILLIC SMALL LETTER LJE
4		U+0034	DIGIT FOUR
g		U+0067	LATIN SMALL LETTER G
h		U+0068	LATIN SMALL LETTER H
i		U+0069	LATIN SMALL LETTER I
5		?	U+043C
	?	U+043D	CYRILLIC SMALL LETTER EN
	?	U+043E	CYRILLIC SMALL LETTER O
	?	U+043F	CYRILLIC SMALL LETTER PE
	?	U+045A	CYRILLIC SMALL LETTER NJE
	5	U+0035	DIGIT FIVE
	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
6	?	U+006C	LATIN SMALL LETTER L
	?	U+0440	CYRILLIC SMALL LETTER ER
	?	U+0441	CYRILLIC SMALL LETTER ES
	?	U+0442	CYRILLIC SMALL LETTER TE
	?	U+0443	CYRILLIC SMALL LETTER U
	?	U+045B	CYRILLIC SMALL LETTER TSHE
	?	U+045E	CYRILLIC SMALL LETTER SHORT U
	6	U+0036	DIGIT SIX
	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
7	?	U+0444	CYRILLIC SMALL LETTER EF
	?	U+0445	CYRILLIC SMALL LETTER HA
	?	U+0446	CYRILLIC SMALL LETTER TSE



Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
	?	U+0447	CYRILLIC SMALL LETTER CHE
	?	U+045F	CYRILLIC SMALL LETTER DZHE
	7	U+0037	DIGIT SEVEN
	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
8	?	U+0448	CYRILLIC SMALL LETTER CHA
	?	U+0449	CYRILLIC SMALL LETTER SHCHA
	?	U+044A	CYRILLIC SMALL LETTER HARD SIGN
	?	U+044B	CYRILLIC SMALL LETTER YERU
	8	U+0038	DIGIT EIGHT
	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
9	v	U+0076	LATIN SMALL LETTER V
	?	U+044C	CYRILLIC SMALL LETTER SOFT SIGN
	?	U+044D	CYRILLIC SMALL LETTER E
	?	U+044E	CYRILLIC SMALL LETTER YU
	?	U+044F	CYRILLIC SMALL LETTER YA
	9	U+0039	DIGIT NINE
	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z

## 7.3 Language-specific keypad assignment of digits and letters

### 7.3.1 Keypad assignment for Bulgarian

**Table 35: Keypad assignment for Bulgarian**

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	?	U+0430	CYRILLIC SMALL LETTER A
	?	U+0431	CYRILLIC SMALL LETTER BE
	?	U+0432	CYRILLIC SMALL LETTER VE
	?	U+0433	CYRILLIC SMALL LETTER GHE
	2	U+0032	DIGIT TWO
	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
3	c	U+0063	LATIN SMALL LETTER C
	?	U+0434	CYRILLIC SMALL LETTER DE
	?	U+0435	CYRILLIC SMALL LETTER IE
	?	U+0436	CYRILLIC SMALL LETTER ZHE
	?	U+0437	CYRILLIC SMALL LETTER ZE
	3	U+0033	DIGIT THREE
	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
4	f	U+0066	LATIN SMALL LETTER F
	?	U+0438	CYRILLIC SMALL LETTER I
	?	U+0439	CYRILLIC SMALL LETTER SHORT I
	?	U+043A	CYRILLIC SMALL LETTER KA
	?	U+043B	CYRILLIC SMALL LETTER EL
	4	U+0034	DIGIT FOUR
	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
5	i	U+0069	LATIN SMALL LETTER I
	?	U+043C	CYRILLIC SMALL LETTER EM
	?	U+043D	CYRILLIC SMALL LETTER EN
	?	U+043E	CYRILLIC SMALL LETTER O
	?	U+043F	CYRILLIC SMALL LETTER PE
	5	U+0035	DIGIT FIVE
	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
6	l	U+006C	LATIN SMALL LETTER L
	?	U+0440	CYRILLIC SMALL LETTER ER
	?	U+0441	CYRILLIC SMALL LETTER ES
	?	U+0442	CYRILLIC SMALL LETTER TE
	?	U+0443	CYRILLIC SMALL LETTER U
	6	U+0036	DIGIT SIX
	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
7	o	U+006F	LATIN SMALL LETTER O
	?	U+0444	CYRILLIC SMALL LETTER EF
	?	U+0445	CYRILLIC SMALL LETTER HA
	?	U+0446	CYRILLIC SMALL LETTER TSE
	?	U+0447	CYRILLIC SMALL LETTER CHE
	7	U+0037	DIGIT SEVEN
	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
8	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	?	U+0448	CYRILLIC SMALL LETTER CHA
	?	U+0449	CYRILLIC SMALL LETTER SHCHA
	?	U+044A	CYRILLIC SMALL LETTER HARD SIGN
	8	U+0038	DIGIT EIGHT
t	U+0074	LATIN SMALL LETTER T	
u	U+0075	LATIN SMALL LETTER U	

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
	v	U+0076	LATIN SMALL LETTER V
9	?	U+044C	CYRILLIC SMALL LETTER SOFT SIGN
	?	U+044E	CYRILLIC SMALL LETTER YU
	?	U+044F	CYRILLIC SMALL LETTER YA
	9	U+0039	DIGIT NINE
	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z

## 7.3.2 Keypad assignment for Czech

Table 36: Keypad assignment for Czech

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	á	U+00E1	LATIN SMALL LETTER A WITH ACUTE
	č	U+010D	LATIN SMALL LETTER C WITH CARON
	ä	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	d	U+010F	LATIN SMALL LETTER D WITH CARON
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
	ě	U+011B	LATIN SMALL LETTER E WITH CARON
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	í	U+00ED	LATIN SMALL LETTER I WITH ACUTE
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
6	5	U+0035	DIGIT FIVE
	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	n	U+0148	LATIN SMALL LETTER N WITH CARON
	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE
	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	r	U+0159	LATIN SMALL LETTER R WITH CARON
	š	U+0161	LATIN SMALL LETTER S WITH CARON
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	t	U+0165	LATIN SMALL LETTER T WITH CARON
	ú	U+00FA	LATIN SMALL LETTER U WITH ACUTE
	u	U+016F	LATIN SMALL LETTER U WITH RING ABOVE
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	ý	U+00FD	LATIN SMALL LETTER Y WITH ACUTE
	ž	U+017E	LATIN SMALL LETTER Z WITH CARON

## 7.3.3 Keypad assignment for Danish

Table 37: Keypad assignment for Danish

Key	Character	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	æ	U+00E6	LATIN SMALL LETTER AE
	å	U+00E5	LATIN SMALL LETTER A WITH RING ABOVE
	ä	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS
3	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE
	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
4	ð	U+00F0	LATIN SMALL LETTER ETH
	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
5	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
6	5	U+0035	DIGIT FIVE
	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ø	U+00F8	LATIN SMALL LETTER O WITH STROKE
7	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE
	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
8	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
9	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
9	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE

## 7.3.4 Keypad assignment for Dutch

Table 38: Keypad assignment for Dutch

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	ä	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS
	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	ë	U+00EB	LATIN SMALL LETTER E WITH DIAERESIS
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	ï	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE

### 7.3.5 Keypad assignment for English

**Table 39: Keypad assignment for English**

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE
	â	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX
	æ	U+00E6	LATIN SMALL LETTER AE
	ç	U+00E7	LATIN SMALL LETTER C WITH CEDILLA
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
	è	U+00E8	LATIN SMALL LETTER E WITH GRAVE
	ê	U+00EA	LATIN SMALL LETTER E WITH CIRCUMFLEX
	ë	U+00EB	LATIN SMALL LETTER E WITH DIAERESIS
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	î	U+00EE	LATIN SMALL LETTER I WITH CIRCUMFLEX
	ï	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ñ	U+00F1	LATIN SMALL LETTER N WITH TILDE
	ô	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX
	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
	œ	U+0153	LATIN SMALL LIGATURE OE
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	û	U+00FB	LATIN SMALL LETTER U WITH CIRCUMFLEX
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	w	U+0175	LATIN SMALL LETTER W WITH CIRCUMFLEX
	y	U+0177	LATIN SMALL LETTER Y WITH CIRCUMFLEX

## 7.3.6 Keypad assignment for Estonian

Table 40: Keypad assignment for Estonian

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	ä	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	õ	U+00F5	LATIN SMALL LETTER O WITH TILDE
7	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	š	U+0161	LATIN SMALL LETTER S WITH CARON
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	ž	U+017E	LATIN SMALL LETTER Z WITH CARON



## 7.3.7 Keypad assignment for Finnish

Table 41: Keypad assignment for Finnish

Key	Character	ISO/IEC 10646 identifier	ISO/IEC 10646 name	
2	a	U+0061	LATIN SMALL LETTER A	
	b	U+0062	LATIN SMALL LETTER B	
	c	U+0063	LATIN SMALL LETTER C	
	2	U+0032	DIGIT TWO	
	ä	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS	
	å	U+00E5	LATIN SMALL LETTER A WITH RING ABOVE	
	á	U+00E1	LATIN SMALL LETTER A WITH ACUTE	
	â	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX	
	ç	U+010D	LATIN SMALL LETTER C WITH CARON	
3	d	U+0064	LATIN SMALL LETTER D	
	e	U+0065	LATIN SMALL LETTER E	
	f	U+0066	LATIN SMALL LETTER F	
	3	U+0033	DIGIT THREE	
	d̄	U+0111	LATIN SMALL LETTER D WITH STROKE	
4	g	U+0067	LATIN SMALL LETTER G	
	h	U+0068	LATIN SMALL LETTER H	
	i	U+0069	LATIN SMALL LETTER I	
	4	U+0034	DIGIT FOUR	
	ḡ	U+01E7	LATIN SMALL LETTER G WITH CARON	
		U+01E5	LATIN SMALL LETTER G WITH STROKE	
5	j	U+006A	LATIN SMALL LETTER J	
	k	U+006B	LATIN SMALL LETTER K	
	l	U+006C	LATIN SMALL LETTER L	
	5	U+0035	DIGIT FIVE	
			U+01E9	LATIN SMALL LETTER K WITH CARON
6	m	U+006D	LATIN SMALL LETTER M	
	n	U+006E	LATIN SMALL LETTER N	
	o	U+006F	LATIN SMALL LETTER O	
	6	U+0036	DIGIT SIX	
	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	
	ø	U+00D8	LATIN CAPITAL LETTER O WITH STROKE	
	?	U+014B	LATIN SMALL LETTER ENG	
	õ	U+00F5	LATIN SMALL LETTER O WITH TILDE	
7	p	U+0070	LATIN SMALL LETTER P	
	q	U+0071	LATIN SMALL LETTER Q	
	r	U+0072	LATIN SMALL LETTER R	
	s	U+0073	LATIN SMALL LETTER S	
	7	U+0037	DIGIT SEVEN	
8	š	U+0161	LATIN SMALL LETTER S WITH CARON	
	t	U+0074	LATIN SMALL LETTER T	
	u	U+0075	LATIN SMALL LETTER U	
	v	U+0076	LATIN SMALL LETTER V	
	8	U+0038	DIGIT EIGHT	
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS	
	t̄	U+0167	LATIN SMALL LETTER T WITH STROKE	
			U+0077	LATIN SMALL LETTER W
9	w	U+0077	LATIN SMALL LETTER W	
	x	U+0078	LATIN SMALL LETTER X	
	y	U+0079	LATIN SMALL LETTER Y	
	z	U+007A	LATIN SMALL LETTER Z	
	9	U+0039	DIGIT NINE	
	ž	U+017E	LATIN SMALL LETTER Z WITH CARON	
			U+0292	LATIN SMALL LETTER EZH
			U+01EF	LATIN SMALL LETTER EZH WITH CARON

## 7.3.8 Keypad assignment for French

Table 42: Keypad assignment for French

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE
	â	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX
	ç	U+00E7	LATIN SMALL LETTER C WITH CEDILLA
	æ	U+00E6	LATIN SMALL LETTER AE
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
	è	U+00E8	LATIN SMALL LETTER E WITH GRAVE
	ê	U+00EA	LATIN SMALL LETTER E WITH CIRCUMFLEX
	ë	U+00EB	LATIN SMALL LETTER E WITH DIAERESIS
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	î	U+00EE	LATIN SMALL LETTER I WITH CIRCUMFLEX
	ï	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ô	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX
	œ	U+0153	LATIN SMALL LIGATURE OE
7	ñ	U+00F1	LATIN SMALL LETTER N WITH TILDE
	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
8	7	U+0037	DIGIT SEVEN
	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ù	U+00F9	LATIN SMALL LETTER U WITH GRAVE
9	û	U+00FB	LATIN SMALL LETTER U WITH CIRCUMFLEX
	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
ÿ	U+005A	LATIN SMALL LETTER Y WITH DIAERESIS	

### 7.3.9 Keypad assignment for German

Table 43: Keypad assignment for German

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	ä	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS
	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	ß	U+00DF	LATIN SMALL LETTER SHARP S
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE

### 7.3.10 Keypad assignment for Greek

No table is provided here. See instead Table 33 in Clause 7.2.3.

## 7.3.11 Keypad assignment for Hungarian

Table 44: Keypad assignment for Hungarian

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	á	U+00E1	LATIN SMALL LETTER A WITH ACUTE
	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	í	U+00ED	LATIN SMALL LETTER I WITH ACUTE
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE
	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
7	o	U+0151	LATIN SMALL LETTER O WITH DOUBLE ACUTE
	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
7	U+0037	DIGIT SEVEN	
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ú	U+00FA	LATIN SMALL LETTER U WITH ACUTE
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
9	u	U+0171	LATIN SMALL LETTER U WITH DOUBLE ACUTE
	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
9	U+0039	DIGIT NINE	

## 7.3.12 Keypad assignment for Icelandic

Table 45: Keypad assignment for Icelandic

Key	Character	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	æ	U+00E6	LATIN SMALL LETTER AE
	á	U+00E1	LATIN SMALL LETTER A WITH ACUTE
	ä	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS
	å	U+00E5	LATIN SMALL LETTER A WITH RING ABOVE
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	ð	U+00F0	LATIN SMALL LETTER ETH
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
	ë	U+00EB	LATIN SMALL LETTER E WITH DIAERESIS
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	í	U+00ED	LATIN SMALL LETTER I WITH ACUTE
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE
	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
	ø	U+00F8	LATIN SMALL LETTER O WITH STROKE
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ú	U+00FA	LATIN SMALL LETTER U WITH ACUTE
9	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	ý	U+00FD	LATIN SMALL LETTER Y WITH ACUTE
	þ	U+00FE	LATIN SMALL LETTER THORN

## 7.3.13 Keypad assignment for Irish

Table 45: Keypad assignment for Irish

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	á	U+00E1	LATIN SMALL LETTER A WITH ACUTE
	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE
	ç	U+00E7	LATIN SMALL LETTER C WITH CEDILLA
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
	è	U+00E8	LATIN SMALL LETTER E WITH GRAVE
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	í	U+00ED	LATIN SMALL LETTER I WITH ACUTE
	ì	U+00EC	LATIN SMALL LETTER I WITH GRAVE
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
6	5	U+0035	DIGIT FIVE
	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE
	ò	U+00F2	LATIN SMALL LETTER O WITH GRAVE
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ú	U+00FA	LATIN SMALL LETTER U WITH ACUTE
9	ù	U+00F9	LATIN SMALL LETTER U WITH GRAVE
	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
9	U+0039	DIGIT NINE	

## 7.3.14 Keypad assignment for Italian

Table 46: Keypad assignment for Italian

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name	
2	a	U+0061	LATIN SMALL LETTER A	
	b	U+0062	LATIN SMALL LETTER B	
	c	U+0063	LATIN SMALL LETTER C	
	2	U+0032	DIGIT TWO	
	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE	
3	d	U+0064	LATIN SMALL LETTER D	
	e	U+0065	LATIN SMALL LETTER E	
	f	U+0066	LATIN SMALL LETTER F	
	3	U+0033	DIGIT THREE	
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE	
4	è	U+00E8	LATIN SMALL LETTER E WITH GRAVE	
	g	U+0067	LATIN SMALL LETTER G	
	h	U+0068	LATIN SMALL LETTER H	
	i	U+0069	LATIN SMALL LETTER I	
	4	U+0034	DIGIT FOUR	
	í	U+00ED	LATIN SMALL LETTER I WITH ACUTE	
	ì	U+00EC	LATIN SMALL LETTER I WITH GRAVE	
	ï	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS	
	5	j	U+006A	LATIN SMALL LETTER J
		k	U+006B	LATIN SMALL LETTER K
l		U+006C	LATIN SMALL LETTER L	
5		U+0035	DIGIT FIVE	
6	m	U+006D	LATIN SMALL LETTER M	
	n	U+006E	LATIN SMALL LETTER N	
	o	U+006F	LATIN SMALL LETTER O	
	6	U+0036	DIGIT SIX	
	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE	
7	ò	U+00F2	LATIN SMALL LETTER O WITH GRAVE	
	p	U+0070	LATIN SMALL LETTER P	
	q	U+0071	LATIN SMALL LETTER Q	
	r	U+0072	LATIN SMALL LETTER R	
	s	U+0073	LATIN SMALL LETTER S	
8	7	U+0037	DIGIT SEVEN	
	t	U+0074	LATIN SMALL LETTER T	
	u	U+0075	LATIN SMALL LETTER U	
	v	U+0076	LATIN SMALL LETTER V	
	8	U+0038	DIGIT EIGHT	
	ú	U+00FA	LATIN SMALL LETTER U WITH ACUTE	
9	ù	U+00F9	LATIN SMALL LETTER U WITH GRAVE	
	w	U+0077	LATIN SMALL LETTER W	
	x	U+0078	LATIN SMALL LETTER X	
	y	U+0079	LATIN SMALL LETTER Y	
	z	U+007A	LATIN SMALL LETTER Z	
9	U+0039	DIGIT NINE		

## 7.3.15 Keypad assignment for Latvian

Table 47: Keypad assignment for Latvian

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	a	U+0101	LATIN SMALL LETTER A WITH MACRON
	c	U+010D	LATIN SMALL LETTER C WITH CARON
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	e	U+0113	LATIN SMALL LETTER E WITH MACRON
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	g	U+0123	LATIN SMALL LETTER G WITH CEDILLA
	i	U+012B	LATIN SMALL LETTER I WITH MACRON
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
	k	U+0137	LATIN SMALL LETTER K WITH CEDILLA
6	l	U+013C	LATIN SMALL LETTER L WITH CEDILLA
	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	n	U+0146	LATIN SMALL LETTER N WITH CEDILLA
7	o	U+014D	LATIN SMALL LETTER O WITH MACRON
	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	r	U+0157	LATIN SMALL LETTER R WITH CEDILLA
8	š	U+0161	LATIN SMALL LETTER S WITH CARON
	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	u	U+016B	LATIN SMALL LETTER U WITH MACRON
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	ž	U+017E	LATIN SMALL LETTER Z WITH CARON



## 7.3.16 Keypad assignment for Lithuanian

Table 48: Keypad assignment for Lithuanian

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	a	U+0105	LATIN SMALL LETTER A WITH OGONEK
	c	U+010D	LATIN SMALL LETTER C WITH CARON
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	e	U+0119	LATIN SMALL LETTER E WITH OGONEK
	e	U+0117	LATIN SMALL LETTER E WITH DOT ABOVE
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	i	U+012F	LATIN SMALL LETTER I WITH OGONEK
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	š	U+0161	LATIN SMALL LETTER S WITH CARON
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	u	U+0173	LATIN SMALL LETTER U WITH OGONEK
	u	U+016B	LATIN SMALL LETTER U WITH MACRON
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	ž	U+017E	LATIN SMALL LETTER Z WITH CARON
			U+017E

## 7.3.17 Keypad assignment for Maltese

Table 49: Keypad assignment for Maltese

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	c	U+010B	LATIN SMALL LETTER C WITH DOT ABOVE
	â	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX
	á	U+00E1	LATIN SMALL LETTER A WITH ACUTE
	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	ê	U+00EA	LATIN SMALL LETTER E WITH CIRCUMFLEX
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
	è	U+00E8	LATIN SMALL LETTER E WITH GRAVE
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	g	U+0121	LATIN SMALL LETTER G WITH DOT ABOVE
	h	U+0127	LATIN SMALL LETTER H WITH STROKE
	î	U+00EE	LATIN SMALL LETTER I WITH CIRCUMFLEX
	í	U+00ED	LATIN SMALL LETTER I WITH ACUTE
	ì	U+00EC	LATIN SMALL LETTER I WITH GRAVE
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ô	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX
	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	û	U+00FB	LATIN SMALL LETTER U WITH CIRCUMFLEX
	ú	U+00FA	LATIN SMALL LETTER U WITH ACUTE
	ù	U+00F9	LATIN SMALL LETTER U WITH GRAVE
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	z	U+017C	LATIN SMALL LETTER Z WITH DOT ABOVE

## 7.3.18 Keypad assignment for Norwegian

Table 50: Keypad assignment for Norwegian

Key	Character	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	æ	U+00E6	LATIN SMALL LETTER AE
	å	U+00E5	LATIN SMALL LETTER A WITH RING ABOVE
	ä	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS
	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE
	á	U+00E1	LATIN SMALL LETTER A WITH ACUTE
3	c	U+010D	LATIN SMALL LETTER C WITH CARON
	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
	è	U+00E8	LATIN SMALL LETTER E WITH GRAVE
	ê	U+00EA	LATIN SMALL LETTER E WITH CIRCUMFLEX
	d	U+0111	LATIN SMALL LETTER D WITH STROKE
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	ï	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ø	U+00F8	LATIN SMALL LETTER O WITH STROKE
	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE
	ò	U+00F2	LATIN SMALL LETTER O WITH GRAVE
	ô	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX
?	U+014B	LATIN SMALL LETTER ENG	
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	š	U+0161	LATIN SMALL LETTER S WITH CARON
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
9	t	U+0167	LATIN SMALL LETTER T WITH STROKE
	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	þ	U+00FE	LATIN SMALL LETTER THORN
	ž	U+017E	LATIN SMALL LETTER Z WITH CARON

## 7.3.19 Keypad assignment for Polish

Table 51: Keypad assignment for Polish

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	a	U+0105	LATIN SMALL LETTER A WITH OGONEK
	c	U+0107	LATIN SMALL LETTER C WITH ACUTE
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	e	U+0119	LATIN SMALL LETTER E WITH OGONEK
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
	l	U+0142	LATIN SMALL LETTER L WITH STROKE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	n	U+0144	LATIN SMALL LETTER N WITH ACUTE
7	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE
	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
8	s	U+015B	LATIN SMALL LETTER S WITH ACUTE
	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
9	8	U+0038	DIGIT EIGHT
	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	z	U+017A	LATIN SMALL LETTER Z WITH ACUTE
z	U+017C	LATIN SMALL LETTER Z WITH DOT ABOVE	

## 7.3.20 Keypad assignment for Portuguese

Table 52: Keypad assignment for Portuguese

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	á	U+00E1	LATIN SMALL LETTER A WITH ACUTE
	â	U+00E0	LATIN SMALL LETTER A WITH GRAVE
	ã	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX
	ä	U+00E3	LATIN SMALL LETTER A WITH TILDE
ç	U+00E7	LATIN SMALL LETTER C WITH CEDILLA	
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
	ê	U+00EA	LATIN SMALL LETTER E WITH CIRCUMFLEX
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	í	U+00ED	LATIN SMALL LETTER I WITH ACUTE
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE
	ô	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX
õ	U+00F5	LATIN SMALL LETTER O WITH TILDE	
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
8	7	U+0037	DIGIT SEVEN
	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ú	U+00FA	LATIN SMALL LETTER U WITH ACUTE
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE

## 7.3.21 Keypad assignment for Romanian

Table 53: Keypad assignment for Romanian

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	ă	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX
	a	U+0103	LATIN SMALL LETTER A WITH BREVE
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
4	3	U+0033	DIGIT THREE
	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	î	U+00EE	LATIN SMALL LETTER I WITH CIRCUMFLEX
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
7	6	U+0036	DIGIT SIX
	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	s	U+0219	LATIN SMALL LETTER S WITH COMMA BELOW
	8	U+0074	LATIN SMALL LETTER T
8	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	t	U+021B	LATIN SMALL LETTER T WITH COMMA BELOW
	9	w	U+0077
x		U+0078	LATIN SMALL LETTER X
y		U+0079	LATIN SMALL LETTER Y
z		U+007A	LATIN SMALL LETTER Z
9		U+0039	DIGIT NINE

## 7.3.22 Keypad assignment for Russian

Table 54: Keypad assignment for Russian

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	?	U+0430	CYRILLIC SMALL LETTER A
	?	U+0431	CYRILLIC SMALL LETTER BE
	?	U+0432	CYRILLIC SMALL LETTER VE
	?	U+0433	CYRILLIC SMALL LETTER GHE
	2	U+0032	DIGIT TWO
	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
3	?	U+0434	CYRILLIC SMALL LETTER DE
	?	U+0435	CYRILLIC SMALL LETTER IE
	?	U+0451	CYRILLIC SMALL LETTER IO
	?	U+0436	CYRILLIC SMALL LETTER ZHE
	?	U+0437	CYRILLIC SMALL LETTER ZE
	3	U+0033	DIGIT THREE
	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
4	?	U+0438	CYRILLIC SMALL LETTER I
	?	U+0439	CYRILLIC SMALL LETTER SHORT I
	?	U+043A	CYRILLIC SMALL LETTER KA
	?	U+043B	CYRILLIC SMALL LETTER EL
	4	U+0034	DIGIT FOUR
	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
5	?	U+043C	CYRILLIC SMALL LETTER EM
	?	U+043D	CYRILLIC SMALL LETTER EN
	?	U+043E	CYRILLIC SMALL LETTER O
	?	U+043F	CYRILLIC SMALL LETTER PE
	5	U+0035	DIGIT FIVE
	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
6	?	U+0440	CYRILLIC SMALL LETTER ER
	?	U+0441	CYRILLIC SMALL LETTER ES
	?	U+0442	CYRILLIC SMALL LETTER TE
	?	U+0443	CYRILLIC SMALL LETTER U
	6	U+0036	DIGIT SIX
	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
7	?	U+0444	CYRILLIC SMALL LETTER EF
	?	U+0445	CYRILLIC SMALL LETTER HA
	?	U+0446	CYRILLIC SMALL LETTER TSE
	?	U+0447	CYRILLIC SMALL LETTER CHE
	7	U+0037	DIGIT SEVEN
	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
8	?	U+0073	LATIN SMALL LETTER S
	?	U+0448	CYRILLIC SMALL LETTER CHA
	?	U+0449	CYRILLIC SMALL LETTER SHCHA
	?	U+044A	CYRILLIC SMALL LETTER HARD SIGN
	?	U+044B	CYRILLIC SMALL LETTER YERU
	8	U+0038	DIGIT EIGHT
	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
v	U+0076	LATIN SMALL LETTER V	

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
9	?	U+044C	CYRILLIC SMALL LETTER SOFT SIGN
	?	U+044D	CYRILLIC SMALL LETTER E
	?	U+044E	CYRILLIC SMALL LETTER YU
	?	U+044F	CYRILLIC SMALL LETTER YA
	9	U+0039	DIGIT NINE
	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z



## 7.3.23 Keypad assignment for Slovak

Table 55: Keypad assignment for Slovak

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	á	U+00E1	LATIN SMALL LETTER A WITH ACUTE
	č	U+010D	LATIN SMALL LETTER C WITH CARON
	ä	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	ď	U+010F	LATIN SMALL LETTER D WITH CARON
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	í	U+00ED	LATIN SMALL LETTER I WITH ACUTE
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
	ľ	U+013A	LATIN SMALL LETTER L WITH ACUTE
6	l	U+013E	LATIN SMALL LETTER L WITH CARON
	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ň	U+0148	LATIN SMALL LETTER N WITH CARON
	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE
	ô	U+00F4	LATIN SMALL LETTER O WITH CIRCUMFLEX
ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS	
7	o	U+0151	LATIN SMALL LETTER O WITH DOUBLE ACUTE
	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	ř	U+0155	LATIN SMALL LETTER R WITH ACUTE
	š	U+0161	LATIN SMALL LETTER S WITH CARON
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	t	U+0165	LATIN SMALL LETTER T WITH CARON
	ú	U+00FA	LATIN SMALL LETTER U WITH ACUTE
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
	ů	U+0171	LATIN SMALL LETTER U WITH DOUBLE ACUTE
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	ý	U+00FD	LATIN SMALL LETTER Y WITH ACUTE
	ž	U+017E	LATIN SMALL LETTER Z WITH CARON

## 7.3.24 Keypad assignment for Slovenian

Table 56: Keypad assignment for Slovenian

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	c	U+010D	LATIN SMALL LETTER C WITH CARON
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
4	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	š	U+0161	LATIN SMALL LETTER S WITH CARON
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	ž	U+017E	LATIN SMALL LETTER Z WITH CARON

## 7.3.25 Keypad assignment for Spanish

Table 57: Keypad assignment for Spanish

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	á	U+00E1	LATIN SMALL LETTER A WITH ACUTE
	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE
	ç	U+00E7	LATIN SMALL LETTER C WITH CEDILLA
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
4	è	U+00E8	LATIN SMALL LETTER E WITH GRAVE
	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	í	U+00ED	LATIN SMALL LETTER I WITH ACUTE
	ï	U+00EF	LATIN SMALL LETTER I WITH DIAERESIS
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ñ	U+00F1	LATIN SMALL LETTER N WITH TILDE
	ó	U+00F3	LATIN SMALL LETTER O WITH ACUTE
	ò	U+00F2	LATIN SMALL LETTER O WITH GRAVE
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ú	U+00FA	LATIN SMALL LETTER U WITH ACUTE
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE

## 7.3.26 Keypad assignment for Swedish

Table 58: Keypad assignment for Swedish

Key	Character	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	å	U+00E5	LATIN SMALL LETTER A WITH RING ABOVE
	ä	U+00E4	LATIN SMALL LETTER A WITH DIAERESIS
	à	U+00E0	LATIN SMALL LETTER A WITH GRAVE
	æ	U+00E6	LATIN SMALL LETTER AE
	á	U+00E1	LATIN SMALL LETTER A WITH ACUTE
	c	U+010D	LATIN SMALL LETTER C WITH CARON
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
	3	U+0033	DIGIT THREE
	é	U+00E9	LATIN SMALL LETTER E WITH ACUTE
	d	U+0111	LATIN SMALL LETTER D WITH STROKE
	4	g	U+0067
h		U+0068	LATIN SMALL LETTER H
i		U+0069	LATIN SMALL LETTER I
4		U+0034	DIGIT FOUR
ï		U+00EF	LATIN SMALL LETTER I WITH DIAERESIS
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
	ø	U+00F8	LATIN SMALL LETTER O WITH STROKE
	?	U+014B	LATIN SMALL LETTER ENG
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	š	U+0161	LATIN SMALL LETTER S WITH CARON
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
	t	U+0167	LATIN SMALL LETTER T WITH STROKE
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE
	ž	U+017E	LATIN SMALL LETTER Z WITH CARON

## 7.3.27 Keypad assignment for Turkish

**Table 59: Keypad assignment for Turkish**

Key	Letter	ISO/IEC 10646 identifier	ISO/IEC 10646 name
2	a	U+0061	LATIN SMALL LETTER A
	b	U+0062	LATIN SMALL LETTER B
	c	U+0063	LATIN SMALL LETTER C
	2	U+0032	DIGIT TWO
	ç	U+00E7	LATIN SMALL LETTER C WITH CEDILLA
	â	U+00E2	LATIN SMALL LETTER A WITH CIRCUMFLEX
3	d	U+0064	LATIN SMALL LETTER D
	e	U+0065	LATIN SMALL LETTER E
	f	U+0066	LATIN SMALL LETTER F
4	3	U+0033	DIGIT THREE
	g	U+0067	LATIN SMALL LETTER G
	h	U+0068	LATIN SMALL LETTER H
	i	U+0069	LATIN SMALL LETTER I
	4	U+0034	DIGIT FOUR
	g	U+011F	LATIN SMALL LETTER G WITH BREVE
5	j	U+006A	LATIN SMALL LETTER J
	k	U+006B	LATIN SMALL LETTER K
	l	U+006C	LATIN SMALL LETTER L
	5	U+0035	DIGIT FIVE
6	m	U+006D	LATIN SMALL LETTER M
	n	U+006E	LATIN SMALL LETTER N
	o	U+006F	LATIN SMALL LETTER O
	6	U+0036	DIGIT SIX
	ö	U+00F6	LATIN SMALL LETTER O WITH DIAERESIS
7	p	U+0070	LATIN SMALL LETTER P
	q	U+0071	LATIN SMALL LETTER Q
	r	U+0072	LATIN SMALL LETTER R
	s	U+0073	LATIN SMALL LETTER S
	7	U+0037	DIGIT SEVEN
	s	U+015F	LATIN SMALL LETTER S WITH CEDILLA
8	t	U+0074	LATIN SMALL LETTER T
	u	U+0075	LATIN SMALL LETTER U
	v	U+0076	LATIN SMALL LETTER V
	8	U+0038	DIGIT EIGHT
	ü	U+00FC	LATIN SMALL LETTER U WITH DIAERESIS
	û	U+00FB	LATIN SMALL LETTER U WITH CIRCUMFLEX
9	w	U+0077	LATIN SMALL LETTER W
	x	U+0078	LATIN SMALL LETTER X
	y	U+0079	LATIN SMALL LETTER Y
	z	U+007A	LATIN SMALL LETTER Z
	9	U+0039	DIGIT NINE

## 7.4 Keypad assignment of digits and special characters

### 7.4.1 Language-independent keypad assignment and order of appearance of digits and special characters

The principles of use and compliance for the use of Table 60 are explained in clause 5.4 and 5.5.

**Table 60: Language- independent keypad assignment of digits and special characters**

	Character	ISO/IEC 10646 identifier	ISO/IEC 10646 name
One entry point (Key 1 recommended)		U+0020	SPACE
	.	U+002E	FULL STOP
	,	U+002C	COMMA
	?	U+003F	QUESTION MARK
	!	U+0021	EXCLAMATION MARK
	0	U+0030	DIGIT 0
	1	U+0031	DIGIT 1
	@	U+0040	COMMERCIAL AT
	'	U+0027	APOSTROPHE
	"	U+0022	QUOTATION MARK
	-	U+002D	HYPHEN-MINUS
	(	U+0028	LEFT PARENTHESIS
	)	U+0029	RIGHT PARENTHESIS
	/	U+002F	SOLIDUS
	:	U+003A	COLON
	_	U+005F	LOW LINE
	;	U+003B	SEMICOLON
	+	U+002B	PLUS SIGN
	&	U+0026	AMPERSAND
	%	U+0025	PERCENT SIGN
	*	U+002A	ASTERISK
	=	U+003D	EQUALS SIGN
	<	U+003C	LESS-THAN SIGN
	>	U+003E	GREATER-THAN SIGN
	€	U+20AC	EURO SIGN
	£	U+00A3	POUND SIGN
	\$	U+0024	DOLLAR SIGN
	¥	U+00A5	YEN SIGN
	¤	U+00A4	CURRENCY SIGN
	[	U+005B	LEFT SQUARE BRACKET
	]	U+005D	RIGHT SQUARE BRACKET
	{	U+007B	LEFT CURLY BRACKET
	}	U+007D	RIGHT CURLY BRACKET
	\	U+005C	REVERSE SOLIDUS
	~	U+007E	TILDE
	^	U+005E	CIRCUMFLEX ACCENT
	¿	U+008F	INVERTED QUESTION MARK
	¡	U+00A1	INVERTED EXCLAMATION MARK
	§	U+00A7	SECTION SIGN
	#	U+0023	NUMBER SIGN

NOTE 1: DIGIT 0 shall be included in this list only when the chosen entry point is the "0" key. DIGIT 1 shall be included in this list only when the chosen entry point is the "1" key.

NOTE 2: It is recommended but not normative to support the "generate new line" function (moving the cursor to the first position of the subsequent line) for implementation. See Annex A.3 (informative) for details.

## 7.4.2 Language specific keypad assignment and ordering of digits and special characters

The present document does not provide language-specific keypad assignments specifications for digits and special characters.

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## Annex A (informative): Language coverage, background and methodology

### A.1 Language selection

#### A.1.1 Languages covered by the present version

Europe has approximately 230 indigenous languages- worldwide there are close to 7000. The largest number of languages presently (in 2003) supported by a specific ICT device or service is approaching 50.

The languages fully addressed by the present document – i.e. with letter repertoires and keypad assignments specified– are limited to the languages of the European Union (EU) member states as of 2003 (also covering the official languages of the European Union as of 2003 [9], [12]) and those of near-term enlargement candidate countries and, additionally, to the official languages of the EFTA countries and Russian.

Other languages could not be fully addressed. In anticipation of future expansions, however, the language-independent Latin- and Cyrillic-script repertoires and keypad assignments specified in the document include also letters needed in the remaining European majority languages. Further, letters specific to some minority languages, in particular those recognised in ratifications of the Council of Europe charter on regional/minority languages have been included in the tables as suitable (see below).

The language-specific letter repertoires specified in the present document are based on various information sources, both from formal standards and from other sources, relating mostly to data processing. This information has been utilized with consideration of the user requirements in telecommunications, resulting in some differences between the sources used and the contents of the document.

#### A.1.2 Future expansions

Due to the available work resource and work plan, language coverage had to be limited as described above. However, the present document could be used for the European, official languages listed below, as regards the repertoires, but not necessarily for key mapping and sorting (no tables are provided for these languages):

- Belarusian, Macedonian (the official language of the Former Yugoslavian Republic of Macedonia), Serbian and Ukrainian covered by the language-independent Cyrillic-script repertoire
- Albanian, covered e.g. by the repertoire specified for English
- Moldavian, covered by Romanian
- Croatian, covered by the language-independent Latin-script repertoire

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## A.2 Background and methodology

### A.2.1 Initial survey

As start of the work to developing the present document, an informal survey of the key assignments in a number of mobile phone models was carried out on several major manufacturers' phones. The survey was based mainly on specifications and user manuals downloaded from Internet but also on some 'hands-on' investigation.

## A.2.2 Future-proofness

The present document is expected to have a considerable impact, not only in the sheer number of users that it could affect, but also in the functionality it may make possible or – conversely – limit.

The original reason for assigning letters to the numeric telephone keys was to provide alphabetic 'aliases' for digits, as an 'aide-memoir' (mnemonics) in dialling. That there would emerge a need to use a telephone keypad for inputting data was something that nobody then envisaged. Neither was imagined the concept of 'phone books' stored inside a telephone, nor the – unexpectedly successful – facility to transmit text messages as a complement to voice calls.

## A.2.3 Characters needed

Approximately 240 Latin-repertoire letters are needed to cover the major European languages. With Greek and Cyrillic letters added the number increases to something well over 350.

This can be compared to the 75 Latin repertoire letters (mix of capital and small) permitted by the present GSM 03.38 [11] 7-bit scheme generally implemented in today's mobile phones (85 letters all-in-all when the Greek capital letters of that scheme are included).

As defined in clause "Letter repertoires and ordering" it was found necessary to include in the language-specific repertoires more letters than are contained in the "core" of those languages, the "Type A" letters. This is because in all languages there is a user need to input also foreign-origin words, some of them needing "foreign" letters. Further, in all countries there exist user preferences in spelling of some names with "foreign" letters, and possibly also a need to represent names – personal and/or geographical – in recognised minority languages correctly.

The repertoire tables therefore also include "Type B" letters. These parts of the tables shall be seen as "best-effort" in the development of the standard, and may become modified.

## A.2.4 Device dependencies

For mobile phones, there exists four interacting but independent cases of language-dependencies:

- 1) User interface related settings (e.g. menu language)
- 2) Ordering (e.g. of lists such as the list of phone book entries)
- 3) Keypad layouts (i.e. character assignment to keys)
- 4) Dictionaries for 'predictive' text input (e.g. T9).

## A.2.5 System and network constraints

The present generation of network implementations for applications such as SMS messaging have different constraints, bounded by the ETSI standard GSM 03.38, see [11]. Part of that standard was originally taken over from paging, with only a rudimentary set of characters defined: the "ASCII set" complemented by a few specifically European-language letters, amongst them the ten Greek capital letters not having a corresponding visual representation in the Latin alphabet. The Cyrillic alphabet was not covered at all.

The GSM 03.38 standard [11] applies only to what is transmitted between a mobile phone and the 'Mobile Switching Centre', not to how SMS generation is handled inside the phone. Naturally it is however not very meaningful to generate SMS messages with characters that can then not be transmitted, so the character limitations of the standard also limits what needs to be generated. With the original – 'default' – SMS character set, multi-linguality is therefore completely unsatisfactory.

In GSM Phase 2, an alternative to the original character set was introduced, in principle permitting about double the numbers of characters of the original SMS scheme. This alternative was designated 'user-defined', i.e. no scheme was specified in the standard. It appears no 'user' – i.e. operator – has utilized this possibility.

With GSM Phase 2+ another alternative was introduced, namely the coding scheme of ISO/IEC 10646-1. With this scheme there is, in principle, no longer any limitation on the 'repertoire' of characters that can be represented in SMS messages. European multi-linguality is therefore possible, as far as representation of characters is concerned.



## A.2.6 Alphabet-specific factors

In all European languages, the letters A–Z are considered part of the alphabet (even if, in many of them, some of the letters are not used in any indigenous-origin words). Also some languages have special-shape letters, like the Icelandic Þ and the German ß (which remains in use, despite recent spelling reforms).

Additionally, all languages use special variants of letters with diacritical marks, like the acute accent and the cedilla (e.g. É and Ç). For ordering, most languages consider such variants equivalent to the basic letter. In some languages, however, a few of them are considered letters of their own, and ordered differently. For instance, the letter Ö is ordered in Swedish as the last letter of the alphabet.

These special language-dependent orderings are specified in the repertoire tables, and should be applied to phone books etc. It was however not obvious if the principles should be applied to the keypad assignments as well, since the "de facto" situation for mobile phones is that all variants of letters with diacritics are at present found on the same keys as the basic letters, and a change could prove confusing to users. It was therefore decided to keep the de facto key-press sequencing implemented today, even if it is slightly illogical in some languages.

Further, the phone-book ordering may not be completely suitable for the input sequencing of the letters, since it sometimes places infrequently-used letters preceding frequently-used ones. There is therefore not an exact correspondence between the repertoire table orderings and the key sequencing.

## A.2.7 Positioning of digits in input sequence

In today's keypad-input implementations - foremost in mobile phones - the digits are generally placed as the last character in the key-press sequence, following not only the standardized letter assignments (ABC on key 2, DEF on key 3 etc.) but also all special letter variants assigned to the keys.

The same principle was considered for the present document. However, the special needs of, in particular, visually impaired users makes the principle questionable.

It was therefore decided to place, instead, the digits immediately following the presently standardized letter assignments; i.e. as the fourth key-press on all keys except 7 and 9 (PQRS and WXYZ) where it is the fifth.

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## A.3 Control functions

In the following descriptive text, mention is made of some standard and de facto-standard documents; detailed information on those documents can be found in the 'References' clause or in the 'Bibliography' annex.

Characters are usually divided into control characters and graphic (printable) characters. The scope of this standard is limited to graphic characters. In this clause, some informative background material and guidance on control characters is provided.

As defined, the purpose of a control character is to invoke a control function affecting "the recording, processing, transmission, or interpretation of data". The control functions primarily relevant to the scope of this standard are those related to formatting of text.

The ASCII coding scheme, as developed in the 1960s by the American National Standards Institute ANSI, contains 33 control characters, six of which are there classified as "format effectors", namely Backspace, Horizontal tabulation, Line feed, Vertical tabulation, Form feed and Carriage return. The functional actions that these characters shall invoke are defined in the standard's text.

In the Unicode coding scheme, the initial 128-character section is an "encapsulated" ASCII. Consequently Unicode contains the same 33 control characters as ASCII. Their exact meaning is however not specified in the Unicode de facto-standard itself.

The ISO standards corresponding to ASCII and Unicode, ISO/IEC 646 and ISO/IEC 10646 respectively, do not contain any control characters. Instead, those characters are specified in a special separate standard, ISO/IEC 6429.

Out of the ASCII- and Unicode-defined formatting-effecting control characters only two were included in the ETSI GSM 03.38 coding scheme, namely Line feed (LF), code 0/10, and Carriage return (CR), code 0/13 (same coding as in ASCII and Unicode). In ASCII the two corresponding control functions are defined thus:

**CR:** carriage return. A format effector that moves the active position to the first character position on the same line

**LF:** line feed. A format effector that advances the active position to the same character position on the next line. (The definition then continues to describe the use of LF for the concept "New line", requiring "agreement between sender and recipient of data")

The definition of these two control functions in ISO/IEC 6429 is more complex, taking into account also e.g. the situation of bi-directional text input and presentation. For the usual European left-to-right writing of text the meaning is however the same as in ASCII (with exception of the "New line" concept).

It shall be noticed that in data processing equipment, these two control functions are normally implemented in combination. Pressing the "Return" key on computer keyboards generally generates a combined "carriage return – line feed" function (corresponding to that of the carriage-return lever on traditional mechanical typewriters). As this function matches a basic user need, the below recommendation is given:

As explained above, the exact function assigned to the control characters CR and LF, if implemented as key -presses and/or in presentation, is outside the scope of this document. However, in all implementations due consideration should be given to the support of an easily accessible function to move the cursor to the first position of the subsequent line.

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## Annex B (informative): Bibliography

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## History

<b>Document history</b>		
0.0.1- 0.0.5	2002- January	First pre-drafts developed by the STF
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0.0.15- 0.0.16	June 2002	Reviewed, extended drafts ; submitted to HF#28
0.0.16- 0.0.19	June- July, 2002	STF pre- and post-work session versions
0.0.20	July 2002	Pre- public draft (to be published on STF202 ETSI portal web site)
0.0.21-0.0.23	August- September, 2002	Second pre-public draft working versions presented at HF#29
0.0.24	October 2002	Pre-processed by the ETSI Secretariat <a href="mailto:editHelp@etsi.fr">editHelp!</a> E-mail: <a href="mailto:edithelp@etsi.fr">mailto:edithelp@etsi.fr</a> ; Presented and discussed at HF#29; Second public draft
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