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**Accessible design — Application of  
braille on signage, equipment and  
appliances**

*Conception accessible — Méthodes d’affichage des signes en braille*

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. [www.iso.org/directives](http://www.iso.org/directives)

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. [www.iso.org/patents](http://www.iso.org/patents)

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 173, *Assistive products for persons with disability*, Subcommittee SC 7, *Accessible design*.

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# Accessible design — Application of braille on signage, equipment and appliances

## 1 Scope

This International Standard specifies the fundamental requirements for braille used on signage, equipment and appliances, including the dimensional parameters of braille and the characteristics of materials used, and the guidelines for practical implementation.

## 2 Terms and definitions

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

### 2.1

#### **signage**

means of conveying information about name, direction, location, usage, safety or a form of action

### 2.2

#### **equipment**

permanent device or machine used in daily life in a house, an office or publicly accessible places

EXAMPLE Such devices or machines include kitchen equipment, a copying or printing machine, an automatic teller machine, a ticket kiosk or a lift.

Note 1 to entry: In ISO 9999:2011, 6.3, and 18 30 03, the term “elevator” is used for lift.

### 2.3

#### **appliance**

movable device or machine used in daily life, such as an electric appliance for household or office use

### 2.4

#### **tactile reading**

recognizing braille and other tactile information by touch

### 2.5

#### **tactile readability**

ease of reading braille and other tactile information by touch

### 2.6

#### **braille cell**

space for the braille pattern, comprising up to six predefined dots set out in two columns of three

### 2.7

#### **braille pattern**

combination of raised dots within a braille cell

### 2.8

#### **exclusion zone**

area where nothing is placed around a braille cell or cells

### 2.9

#### **button**

operative device, such as pressure sensitive button, pressure sensitive surface, touch sensitive button, and touch sensitive surface

**2.10****dial**

control which persons physically rotate in order to operate a function

**3 Specifications for braille****3.1 Braille character, word and line**

The braille character is composed of single braille patterns or a combination of braille patterns; the braille word is composed of one or more braille characters.

Braille patterns are all placed within the braille cell and they require the space of the braille cell. A braille cell requires the space of all six nominal dots. Vacant dots shall not be neglected because they are a part of the braille pattern.

Where a braille character or word appears in isolation, there shall be an exclusion zone around such a character or word.

Codes and format of braille characters, which are commonly used and recognized in each country, shall be adopted.

Braille shall be arranged to allow tactile reading to be performed consistent with the braille reading order in the language in which it is presented, e.g. left to right.

**3.2 Configuration and spacing of braille dot and cell**

The configuration of braille dots and cells shall be in accordance with [Figure 1](#); the spacing shown as  $a$ ,  $b$ ,  $p$  and  $q$  shall be in the range shown in [Table 1](#).

Specifications should be in line with national or regional standards, if applicable.

**Table 1 — Spacing between braille dots and cells**

<https://standards.iteh.ai/catalog/standards/iso/324db3ce-3b08-420c-af93-d126> Dimensions in millimetres 13

| Parameters | Description  | Distance between dot centres |
|------------|--|------------------------------|
| $a$        | Vertical dot spacing (spacing between dot 1 and dot 2)   | 2,2 to 2,8                   |
| $b$        | Horizontal dot spacing (spacing between dot 1 and dot 4) | 2,0 to 2,8                   |
| $p$        | Cell spacing (spacing between dot 1 and dot 1')          | 5,1 to 6,8                   |
| $q$        | Line spacing (spacing between dot 1 and dot 1'')         | 10,0 to 15,0                 |