

SVENSK STANDARD

SS-ISO 17049:2017



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Design för tillgänglighet – Applicering av punktskrift på skyltar, utrustning och apparater (ISO 17049:2013, IDT)

Accessible design – Application of braille on signage, equipment and appliances (ISO 17049:2013, IDT)

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The International Standard ISO 17049:2013 has the status of a Swedish Standard. This document contains the official English version of ISO 17049:2013.

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Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Denna standard är framtagen av kommittén för Synfrågor / Orienteringsstöd, SIS/TK 344/AG 07.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

Contents

Page

| | |
|--|-----------|
| Foreword | iv |
| 1 Scope | 1 |
| 2 Terms and definitions | 1 |
| 3 Specifications for braille | 2 |
| 3.1 Braille character, word and line..... | 2 |
| 3.2 Configuration and spacing of braille dot and cell..... | 2 |
| 3.3 Exclusion zone..... | 3 |
| 3.4 Dimensions and shape of braille dot..... | 4 |
| 3.5 Correlation among dimensional parameters of braille..... | 4 |
| 4 Application of braille on signage, equipment and appliances | 4 |
| 4.1 General..... | 4 |
| 4.2 Braille on signage..... | 5 |
| 4.3 Braille for the controls of equipment and appliances..... | 6 |
| Bibliography | 8 |

SS-ISO 17049:2017 (E)

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

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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*.

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

SS-ISO 17049:2017 (E)

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

Dimensions in millimetres

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