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Ergonomics — Accessible design — Guidelines for designing tactile symbols and characters

Ergonomie — Conception accessible — Lignes directrices pour la conception des symboles et caractères tactiles

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Contents

Page

Foreword

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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 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 159, *Ergonomics*, Subcommittee SC 4, *Ergonomics of human-system interaction*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Providing tactile information such as raised symbols or characters is one method for making products or environments more accessible to users who need to access information using a modality that depends on neither vision nor hearing. The use of tactile information has become an increasingly important method for supporting accessible design of products services and environments.

The use of tactile information in a design requires proper consideration to best support human tactile senses so that the information is easily and correctly understandable. Guidelines for designing tactile symbols and characters based on ergonomic knowledge of human tactile abilities are therefore necessary for such design.

This document adopts the guidance of accessibility given in ISO/IEC Guide 71[1] and also design guidelines given in ISO/TR 22411[2].

Ergonomics — Accessible design — Guidelines for designing tactile symbols and characters

1 Scope

This document provides design guidelines and requirements for tactile symbols and characters used for information and marking for people who need non-visual or non-auditory information. It is applicable to products, facilities and equipment in housing and transportation, services and packaging, where tactile symbols and characters may be used.

This document specifies the physical characteristics of tactile symbols and characters for ease of legibility by touch taking into account human abilities of tactile sense and their aging effect. It does not specify semantic characteristics of tactile symbols and characters.

This document is applicable to tactile symbols and characters of convex-type touched by fingers.

It is not applicable to specifically coded tactile symbols or characters such as those of Braille, nor to those with vibratory or temporal changes.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 24503, *Ergonomics — Accessible design —Tactile dots and bars on consumer products*

3 Terms and definitions

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

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
tactile pattern
pattern composed of convex-type dots, lines or planes, or a combination of these which are perceived by touch

3.2
tactile symbol
tactile pattern (3.1) representing a symbol

3.3
tactile character
tactile pattern (3.1) representing a character or number