



NSAI
Standards

Irish Standard
I.S. EN ISO 24550:2019&LC:2020

Ergonomics - Accessible design - Indicator lights on consumer products (ISO 24550:2019)

I.S. EN ISO 24550:2019&LC:2020

Incorporating amendments/corrigenda/National Annexes issued since publication:

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This document is based on:

Published:

*This document was published
under the authority of the NSAI
and comes into effect on:*

2020-04-14

ICS number:

11.180.15

13.180

NOTE: If blank see CEN/CENELEC cover page

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National Foreword

I.S. EN ISO 24550:2019&LC:2020 is the adopted Irish version of the European Document EN ISO 24550:2019, Ergonomics - Accessible design - Indicator lights on consumer products (ISO 24550:2019)

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

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In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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Correction Notice

Reference: EN ISO 24550:2019

Title: Ergonomics - Accessible design - Indicator lights on consumer products (ISO 24550:2019)

Work Item: 00122249

Brussels, 2020-03-25

please include the following minor editorial correction(s) in the document related to:

the following language version(s) :

- ☒ English
- ☒ French
- ☐ German

for the following procedure :

- ☐ PQ/UQ
- ☐ Enquiry
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- ☐ 2nd Parallel Formal Vote
- ☐ UAP
- ☐ TC Approval
- ☐ 2nd TC Approval
- ☐ Publication
- ☒ Parallel Publication

It has been brought to our attention that this document, issued on 2019-11-20, requires modification.

Correction ISO re-instatement of superseded document

Please find enclosed the updated English and French version.

We apologise for any inconvenience this may cause.

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 24550

November 2019

ICS 11.180.15; 13.180

English Version

**Ergonomics - Accessible design - Indicator lights on
consumer products (ISO 24550:2019)**

Ergonomie - Conception accessible - Voyants lumineux
sur les produits de consommation (ISO 24550:2019)

Ergonomie - Zugängliche Gestaltung - Kontrollleuchten
an Konsumgütern (ISO 24550:2019)

This European Standard was approved by CEN on 25 October 2019.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 24550:2019 (E)

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European foreword

This document (EN ISO 24550:2019) has been prepared by Technical Committee ISO/TC 159 "Ergonomics" in collaboration with Technical Committee CEN/TC 122 "Ergonomics" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2020, and conflicting national standards shall be withdrawn at the latest by May 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 24550:2019 has been approved by CEN as EN ISO 24550:2019 without any modification.

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INTERNATIONAL STANDARD

**ISO
24550**

First edition
2019-10

Ergonomics — Accessible design — Indicator lights on consumer products

*Ergonomie — Conception accessible — Voyants lumineux sur les
produits de consommation courante*



Reference number
ISO 24550:2019(E)

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Published in Switzerland

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ISO 24550:2019(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 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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*.

This first edition cancels and replaces ISO 24500:2010.

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

Indicator lights of consumer products provide important information to use products properly. Although their importance is recognized widely, many difficulties exist in relation to indicator lights such as insufficient on/off visibility, unclear implications of lighting modes, and discomforting glare are reported by users, particularly by older persons or persons with visual disabilities. These claims result from the lack of a relevant standard related to indicator lights design. This document is intended to provide design requirements and recommendations for adequate brightness, colour, and use of blinking lights of indicator lights considering the needs of older persons and persons with visual disabilities.

This document adopts the concepts of accessibility given in ISO/IEC Guide 71 and in ISO/TR 22411.

Ergonomics — Accessible design — Indicator lights on consumer products

1 Scope

This document specifies design requirements and recommendations for indicator lights, mainly LED sourced, on consumer products for use by older people and people with visual disabilities. It does not consider the needs of persons who are blind.

Indicator lights include those that inform users visually about the conditions, changes in functional status and settings, and malfunction of products. They convey information by light on/off, time-modulated intensity, blinking, colour, luminance level, and layout.

This document addresses household and home appliances. It excludes electronic displays presenting characters and graphics, machinery, and appliances in special use for professional, technical, and industrial applications.

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/IEC Guide 71, *Guide for addressing accessibility in standards*

ISO 17049, *Accessible design — Application of braille on signage, equipment and appliances*

CIE S 017, *ILV: International Lighting Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC Guide 71 and CIE S 017 and the following 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

consumer product

product that is intended to be acquired and used by an individual for personal rather than professional use

[SOURCE: ISO/TS 20282-2:2013, 4.3]

3.2

indicator light

light which is associated with the operation of a product and is indicative of the operation of a product

Note 1 to entry: Indicator light informs users about the conditions, changes in functional statuses and settings, or malfunction of products.

Note 2 to entry: Indicator light conveys information by light on/off, time-modulated intensity, blinking, colour, luminance level, and layout.

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