

Wearable electronic devices and technologies - Part
301-1: Test method of electrochromic films for
wearable equipment

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Wearable electronic devices and technologies - Part 301-1: Test
method of electrochromic films for wearable equipment
(IEC 63203-301-1:2024)

Technologies et dispositifs électroniques prêts-à-porter -
Partie 301-1: Méthode d'essai des films électrochromes
pour les équipements prêts-à-porter
(IEC 63203-301-1:2024)

Tragbare elektronische Geräte und Technologien - Teil 301-
1: Prüfverfahren für elektrochrome Filme für tragbare
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(IEC 63203-301-1:2024)

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Comité Européen de Normalisation Electrotechnique
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European foreword

The text of document 124/263/FDIS, future edition 1 of IEC 63203-301-1, prepared by IEC/TC 124 "Wearable electronic devices and technologies" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63203-301-1:2024.

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ISO 13468-1:2019 NOTE Approved as EN ISO 13468-1:2019 (not modified)

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Wearable electronic devices and technologies –
Part 301-1: Test method of electrochromic films for wearable equipment**

**Technologies et dispositifs électroniques prêts-à-porter –
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INTERNATIONAL STANDARD

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CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references	5
3 Terms and definitions	5
4 Test method of electrochromic films for wearable equipment	6
4.1 Overview.....	6
4.2 Equipment and tools	7
4.3 Test procedure.....	7
4.4 Measurement and data analysis.....	8
4.5 Test report.....	10
Annex A (informative) Transmittance measurement guidance	11
Bibliography.....	12
Figure 1 – Schematic diagram of the electrochromic films: bleached and darkening.....	6
Figure 2 – Schematic figure of the test equipment and tools	7
Figure 3 – Bleaching and darkening transition time of the electrochromic optical element.....	9
Figure A.1 – Characteristics of the transmittance change of the electrochromic optical shutter element.....	11

INTERNATIONAL ELECTROTECHNICAL COMMISSION

WEARABLE ELECTRONIC DEVICES AND TECHNOLOGIES –

Part 301-1: Test method of electrochromic films for wearable equipment

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The text of this International Standard is based on the following documents:

Draft	Report on voting
124/263/FDIS	124/273/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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- revised.

WEARABLE ELECTRONIC DEVICES AND TECHNOLOGIES –

Part 301-1: Test method of electrochromic films for wearable equipment

1 Scope

This part of IEC 63203-301-1 specifies procedures and definitions for the test method of electrochromic films for wearable equipment. This document deals with the colour changing range in visible light and the electrochromic properties of transmittance, response time and evaluation method of long-term stability. This document excludes applications of electrochromic films to displays.

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.

IEC 60068-1, *Environmental testing – Part 1: General and guidance*

3 Terms and definitions

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- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1

transmittance

ratio of transmitted power to incident power for given conditions of spectral composition, polarization and geometrical distribution

Note 1 to entry: In optics, frequently expressed as transmittance density or as a percentage. In communication applications, generally expressed in decibels.

[SOURCE: IEC 60050-731:1991, 731-03-31]

3.2

response time

time from a sudden change of a control quantity until the corresponding change of an output quantity has reached a specified fraction of its final value

[SOURCE: IEC 60050-431:1980, 431-02-12]

3.3

darkening time

time when a control quality suddenly becomes saturated until the corresponding change of an output quantity has reached a dark stage of its final value