Wearable electronic devices and technologies - Part 201-3: Electronic Textile - Determination of electrical resistance of conductive textiles under simulated microclimate

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 63203-201-3:2021 sisaldab Euroopa standardi EN IEC 63203-201-3:2021 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 63203-201-3:2021 consists of the English text of the European standard EN IEC 63203-201-3:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 21.05.2021.	Date of Availability of the European standard is 21.05.2021.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 17.220.20, 19.080

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 63203-201-3

May 2021

ICS 59.080.80

English Version

Wearable electronic devices and technologies - Part 201-3: Electronic textile - Determination of electrical resistance of conductive textiles under simulated microclimate (IEC 63203-201-3:2021)

Technologies et dispositifs électroniques prêts-à-porter - Partie 201-3: Textile électronique - Détermination de la résistance électrique des textiles conducteurs sous microclimat simulé (IEC 63203-201-3:2021)

Tragbare elektronische Geräte und Technologien - Teil 201-3: Elektronische Textilien - Bestimmung des elektrischen Widerstandes von leitfähigen Textilien unter simuliertem Mikroklima (IEC 63203-201-3:2021)

This European Standard was approved by CENELEC on 2021-05-12. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

European foreword

The text of document 124/136/FDIS, future edition 1 of IEC 63203-201-3, 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 63203-201-3:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-02-12
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-05-12

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Endorsement notice

The text of the International Standard IEC 63203-201-3:2021 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

ISO 8388:1998 NOTE Harmonized as EN ISO 8388:2003 (not modified)

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
ISO 139	-	Textiles - Standard atmospheres for conditioning and testing	EN ISO 139	-
ISO 11092	2014	Textiles - Physiological effects - Measurement of thermal and water-vapour resistance under steady-state conditions (sweating guarded-hotplate test)	EN ISO 11092	2014
ISO 21232	2018	Textiles - Determination of moisturizing effect of textile materials by measurement of microclimate between textiles and simulated human skin using sweating guarded hotplate	-	-
-	-	Textiles and textile products - Electrically conductive textiles - Determination of the linear electrical resistance of conductive tracks	EN 16812	2016

IEC 63203-201-3

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Wearable electronic devices and technologies –
Part 201-3: Electronic textile – Determination of electrical resistance of conductive textiles under simulated microclimate

Technologies et dispositifs électroniques prêts-à-porter –
Partie 201-3: Textile électronique – Détermination de la résistance électrique des textiles conducteurs sous microclimat simulé

IEC 63203-201-3:2021-04(en-fr)

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INTERNATIONAL STANDARD

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Wearable electronic devices and technologies – Part 201-3: Electronic textile – Determination of electrical resistance of conductive textiles under simulated microclimate

Technologies et dispositifs électroniques prêts-à-porter – Partie 201-3: Textile électronique – Détermination de la résistance électrique des textiles conducteurs sous microclimat simulé

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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WEARABLE ELECTRONIC DEVICES AND TECHNOLOGIES –

Part 201-3: Electronic textile – Determination of electrical resistance of conductive textiles under simulated microclimate

FOREWORD

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International Standard IEC 63203-201-3 has been prepared by IEC technical committee 124: Wearable electronic devices and technologies.

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

FDIS	Report on voting
124/136/FDIS	124/142/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 63203 series, published under the general title *Wearable electronic devices and technologies*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

WEARABLE ELECTRONIC DEVICES AND TECHNOLOGIES –

Part 201-3: Electronic textile – Determination of electrical resistance of conductive textiles under simulated microclimate

1 Scope

This part of IEC 63203-201 specifies a test method for determination of the electrical resistance of conductive fabrics under simulated microclimate within clothing. The microclimate is the climate of the small air layer between the skin and clothing having a specific temperature and humidity. This test method can be applied to conductive fabrics including multilayer assemblies for use in clothing.

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 139, *Textiles – Standard atmospheres for conditioning and testing*

ISO 11092:2014, *Textiles – Physiological effects – Measurement of thermal and water-vapour resistance under steady-state conditions (sweating guarded-hotplate test)*

ISO 21232:2018, *Textiles – Determination of moisturizing effect of textile materials by measurement of microclimate between textiles and simulated human skin using sweating guarded hotplate*

EN 16812:2016, *Textiles and textile products – Electrically conductive textiles – Determination of the linear electrical resistance of conductive tracks*

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:

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

3.1
textile-based electrically conductive track
electrically conductive part of the textile having a length (L) to width (W) ratio of minimum 10 to 1

[SOURCE: EN 16812:2016, 3.1, modified – Note 1 to entry has been deleted.]