ICS 31.020 SLOVENSKÁ TECHNICKÁ NORMA Apríl 2023

STN	**Nositeľné elektronické zariadenia a technológie Časť 402-1: Meranie výkonnosti nositeľných zariadení na meranie telesnej kondície Skúšobná metóda pre snímače pohybu v rukaviciach na meranie pohybov prstov**	**STN EN IEC 63203-402-1** 35 9350

Wearable electronic devices and technologies - Part 402-1: Performance measurement of fitness wearables - Test methods of glove-type motion sensors for measuring finger movements

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/23

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

EN IEC 63203-402-1

December 2022

ICS 31.020

English Version

Wearable electronic devices and technologies - Part 402-1: Performance measurement of fitness wearables - Test methods of glove-type motion sensors for measuring finger movements (IEC 63203-402-1:2022)

Technologies et dispositifs électroniques prêts-à-porter - Partie 402-1: Mesure des performances des dispositifs prêts-à-porter d'activité physique - Méthodes d'essai des capteurs de mouvement type gant pour le mesurage des mouvements digitaux
(IEC 63203-402-1:2022)

Tragbare elektronische Geräte und Technologien - Teil 402-1: Performance Messung von Fitness Wearables - Prüfverfahren für handschuhartige Bewegungssensoren zur Messung von Fingerbewegungen
(IEC 63203-402-1:2022)

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European foreword

The text of document 124/195/FDIS, future edition 1 of IEC 63203-402-1, 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 63203-402-1:2022.

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) 2023-09-09
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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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

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Publication	Year	Title	EN/HD	Year
IEC 62047-6	-	Semiconductor devices - Micro-electromechanical devices - Part 6: Axial fatigue testing methods of thin film materials	EN 62047-6	-
IEC 62951-1	-	Semiconductor devices - Flexible and stretchable semiconductor devices - Part 1: Bending test method for conductive thin films on flexible substrates	-	-
ISO 291	-	Plastics - Standard atmospheres for conditioning and testing	EN ISO 291	-
ISO 21420	2020	Protective gloves - General requirements and test methods	EN ISO 21420	2020

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IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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IEC 63203-402-1 has been prepared by IEC technical committee 124: Wearable electronic devices and technologies. It is an International Standard.

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

Draft	Report on voting
124/195/FDIS	124/204/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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WEARABLE ELECTRONIC DEVICES AND TECHNOLOGIES –

Part 402-1: Performance measurement of fitness wearables – Test methods of glove-type motion sensors for measuring finger movements

1 Scope

This document specifies test methods for wearable glove-type motion sensors to measure finger movements. The measurement methods include goniometric parameters related to the finger postures and flexion dynamics. Glove-type motion sensors are the type of gloves considered within the scope of this document for testing and measurement. This document describes direct and indirect measurement methods. In the direct measurement method, the angles of the joints of each finger are directly measured by a goniometer. The indirect method uses a measurement device such as a servomotor-based angle-measuring device. This document is applicable to angle measurement of all gloves with glove-type motion sensors without limitation of the device technology or size.

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.

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