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BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

मसौदा भारतीय मानक

पहनने योग्य विद्युत उपकरण एवं प्रौद्योगिकियां – भाग 201: इलेक्ट्रॉनिक टेक्सटाइल – अनुभाग 1: चालकीय सूत के मूलभूत गुणधर्म के लिए मापन विधियां।

Draft Indian Standard

Wearable Electronic Devices and Technologies – Part 201: Electronic Textile – Section 1: Measurement Methods for Basic Properties of Conductive Yarns

ICS 59.080.80;59.080.20

LITD 33-Wearable Electronic Devices and Technologies Sectional Committee	Last date for comments: 16 January 2024

NATIONAL FOREWORD

(Formal clauses to be added later)

This Draft Indian Standard (Part 201/Section 1) which is identical with IEC 63203-201-1:2022 'Wearable electronic devices and technologies - Part 201-1: Electronic textile - Measurement methods for basic properties of conductive yarns' issue by the Electrotechnical Commission (IEC) *will be* adopted by the Bureau of Indian Standards on the recommendation of Wearable Electronic Devices and Technologies Sectional Committee LITD 33 and approval of the Electronics and Information Technology Division Council.

The text of IEC Standard may be approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appears referring to this standard, they should be read as 'Indian Standard'.
b) Comma (,) has been used as a decimal marker while in Indian Standards, the current Practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their places, are listed below along with their degree of equivalence for editions indicated:

International Standard	***Corresponding Indian Standard***	***Degree of Equivalence***
ISO 105-E04, Textiles – Tests for colour fastness – Part E04: Colour fastness to perspiration	IS/ISO 105-E04 : 2013 ISO 105-E04:2013 Textiles - Tests for Colour Fastness Part E04 Colour Fastness to Perspiration	Identical under dual numbering
ISO 6330, Textiles – Domestic washing and drying procedures for textile testing	IS 15370 : 2020 ISO 6330 : 2012 Textiles – Domestic washing and drying procedures for textiles testing (first revision)	Identical under dual numbering

The technical committee has reviewed the provisions of the following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard. For undated references, the latest edition of the referenced document applies, including any corrigenda and amendment

International Standards	***Title***
IEC 60468:1974	Method of measurement of resistivity of metallic materials
ISO 139	Textiles – Standard atmospheres for conditioning and testing
EN 16812:2016	Textiles and textile products – Electrically conductive textiles – Determination of the linear electrical resistance of conductive tracks

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:2022 'Rules for rounding off numerical values (Second Revision)'. The number of significant places retained in the rounded off value should be same as that of the specified value in this standard

SCOPE of IEC 63203-201-1:

This part of IEC 63203-201 specifies provisions and test methods for measurement of properties of conductive yarns. Conductive yarns covered in this document have conductivity of a level that can be used for transmission of electric signals, supply of electric power and electromagnetic shield. They do not include high-resistance conductive yarn used for anti-static and heating use. Conductive yarns are the basic material in electronic textiles and are mainly used as conductive traces in clothes-type wearable devices, as well as with secondary processing (woven, knitted, embroidered, nonwoven, etc.) to provide conductive fabrics.

This document does not define the required characteristics of the conductive yarn; rather, it specifies the handling and measurement methods for general and electrical properties of conductive yarn.

Note: The Technical content of this document has not been enclosed as these are identical with the corresponding IEC Standard. For details please refer IEC IEC 63203-201-1: 2022 or kindly contact.

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