

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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**Electrostatics –  
Part 4-6: Standard test methods for specific applications – Wrist straps**

**Electrostatique –  
Partie 4-6: Méthodes d'essai normalisées pour des applications spécifiques –  
Bracelets de conduction dissipative**



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## ELECTROSTATICS –

## Part 4-6: Standard test methods for specific applications – Wrist straps

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IEC 61340-4-6 has been prepared by IEC technical committee 101: Electrostatics. It is an International Standard.

This third edition cancels and replaces the second edition published in 2015. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) editorial comments made during the review of the second edition were reviewed and incorporated where appropriate;
- b) normative references have been added to address the safety of equipment.

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

Draft	Report on voting
101/732/FDIS	101/738/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

A list of all parts in the IEC 61340 series, published under the general title *Electrostatics*, can be found on the IEC website.

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## INTRODUCTION

This part of IEC 61340 has been developed to establish test methods for evaluating the electrical and mechanical attributes of wrist straps used in an electrostatic control program. Wrist straps are intended to connect the user to electrical ground, thus preventing electrostatic charge on a user's body from attaining a level that can damage ESD susceptible devices or assemblies.

Test methods and performance limits for evaluation, acceptance, and functional testing are provided.

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## ELECTROSTATICS –

### Part 4-6: Standard test methods for specific applications – Wrist straps

#### 1 Scope

This part of IEC 61340 provides electrical and mechanical test methods and performance limits for the evaluation, acceptance, and compliance verification testing of wrist straps.

NOTE All dimensions are nominal except where indicated.

This document is intended for testing wrist straps and wrist strap systems used for the grounding of personnel engaged in working with ESD sensitive assemblies and devices.

It does not address constant monitoring systems.

#### 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 61010-1, *Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1 General requirements*

IEC 61010-2-030, *Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 2-030 Particular requirements for equipment having testing or measuring circuits*

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

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

##### 3.1 wrist strap

assembled device consisting of a wristband and ground cord that is designed to provide electrical connection from a person's skin to ground

##### 3.2 wrist strap system

wrist strap when properly worn by a person, where the electrical path includes the person, the wristband and the ground cord