

# INTERNATIONAL STANDARD

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

Withdrawn

IEC 61340-4-6 Ed. 1.0 - Preview only Copy via ILNAS e-Shop



## THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2010 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester.

If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Central Office  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland  
Email: [inmail@iec.ch](mailto:inmail@iec.ch)  
Web: [www.iec.ch](http://www.iec.ch)

### About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

### About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

- Catalogue of IEC publications: [www.iec.ch/searchpub](http://www.iec.ch/searchpub)

The IEC on-line Catalogue enables you to search by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, withdrawn and replaced publications.

- IEC Just Published: [www.iec.ch/online\\_news/justpub](http://www.iec.ch/online_news/justpub)

Stay up to date on all new IEC publications. Just Published details twice a month all new publications released. Available on-line and also by email.

- Electropedia: [www.electropedia.org](http://www.electropedia.org)

The world's leading online dictionary of electronic and electrical terms containing more than 20 000 terms and definitions in English and French, with equivalent terms in additional languages. Also known as the International Electrotechnical Vocabulary online.

- Customer Service Centre: [www.iec.ch/webstore/custserv](http://www.iec.ch/webstore/custserv)

If you wish to give us your feedback on this publication or need further assistance, please visit the Customer Service Centre FAQ or contact us:

Email: [csc@iec.ch](mailto:csc@iec.ch)  
Tel.: +41 22 919 02 11  
Fax: +41 22 919 03 00



IEC 61340-4-6

Edition 1.0 2010-01

# INTERNATIONAL STANDARD

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

Withheld

IEC 61340-4-6 Ed. 1.0 - Preview only Copy via ILNAS e-Shop

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

PRICE CODE

R

ICS 17.200.99; 29.020

ISBN 978-2-88910-503-8

## CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references .....	7
3 Terms and definitions .....	7
4 Testing levels and performance limits.....	8
5 Test methods .....	9
5.1 Wrist strap continuity and resistance test .....	9
5.1.1 Equipment.....	9
5.1.2 Procedure.....	10
5.1.3 Reporting .....	10
5.2 Cuff resistance test .....	10
5.2.1 Equipment.....	10
5.2.2 Procedure (interior resistance) .....	10
5.2.3 Procedure (exterior resistance).....	10
5.2.4 Reporting .....	11
5.3 Cuff size requirements .....	11
5.3.1 Equipment.....	11
5.3.2 Self-adjusting cuffs.....	11
5.3.3 “One-size-fits-all” cuffs .....	11
5.4 Breakaway force.....	11
5.5 Connection integrity .....	11
5.5.1 Equipment.....	11
5.5.2 Procedure.....	11
5.5.3 Reporting .....	12
5.6 Ground cord extendibility.....	12
5.7 Bending life test .....	12
5.7.1 Equipment.....	12
5.7.2 Procedure.....	12
5.7.3 Reporting .....	12
5.8 Manufacturer’s identification.....	12
5.9 Identification of non-standard resistance value.....	12
5.10 Wrist strap resistance.....	13
5.10.1 Equipment.....	13
5.10.2 Procedure.....	13
5.10.3 Reporting .....	13
5.11 Wrist strap system continuity test.....	13
5.11.1 Equipment.....	13
5.11.2 Procedure (integrated checker) .....	13
5.11.3 Procedure (ohmmeter).....	13
5.11.4 Reporting .....	13
Annex A (informative) Application guidelines .....	17
Annex B (informative) Construction guidelines .....	19
Figure 1 – Wrist strap resistance test apparatus .....	14

Figure 2 – Flex test apparatus ..... 15

Figure 3 – Wrist strap system resistance test..... 16

  

Table 1 – Evaluation testing..... 9

Table 2 – Acceptance testing..... 9

Table 3 – Functional testing..... 9

Withdrawn

# INTERNATIONAL ELECTROTECHNICAL COMMISSION

## ELECTROSTATICS –

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

#### FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

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

The text of this standard is based on ANSI/ESD S1.1-2006. It was submitted to the National Committees for voting under the Fast Track Procedure.

The text of this standard is also based on the following documents:

FDIS	Report on voting
101/291/FDIS	101/296/RVD

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