სსტ ენ ისო 13482:2014/2019

საქართველოს სტანდარტი

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ეროვნული სააგენტო
თბილისი

სსტ ენ ისო 13482:2014/2019

საინფორმაციო მონაცემები

1 შემუშავებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს სტანდარტების დეპარტამენტის მიერ

2 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს 2019 წლის 20 დეკემბრის № 102 განკარგულებით

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4 პირველად

5 რეგისტრირებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2019 წლის 20 დეკემბერი №268-1.3-016740

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English Version

Robots and robotic devices - Safety requirements for personal care robots (ISO 13482:2014)

Robots et composants robotiques - Exigences de sécurité pour les robots de soins personnels (ISO 13482:2014)

Roboter und Robotikgeräte - Sicherheitsanforderungen für nicht-industrielle Roboter - Nichtmedizinische Haushalts und Assistenzroboter (ISO 13482:2014)

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN ISO 13482:2014) has been prepared by Technical Committee ISO/TC 184 “Automation systems and integration” in collaboration with Technical Committee CEN/TC 310 “Advanced automation technologies and their applications” the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2014, and conflicting national standards shall be withdrawn at the latest by August 2014.

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Endorsement notice

The text of ISO 13482:2014 has been approved by CEN as EN ISO 13482:2014 without any modification.

Annex ZA
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide one means of conforming to Essential Requirements of the New Approach Directive 2006/42/EC *Machinery safety.*

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING: Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

INTERNATIONAL STANDARD

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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The committee responsible for this document is ISO/TC 184, *Automation systems and integration*, Subcommittee SC 2, *Robots and robotic devices*.

Introduction

This International Standard has been developed in recognition of the particular hazards presented by newly emerging robots and robotic devices for new applications in non-industrial environments for providing services rather than manufacturing applications in industrial applications. This International Standard focuses on the safety requirements for personal care robots in non-medical applications.

This International Standard complements ISO 10218-1, which covers the safety requirements for robots in industrial environments only. This International Standard includes additional information in line with ISO 12100 and adopts the approach proposed in ISO 13849 and IEC 62061 to formulate a safety standard for robots and robotic devices in personal care to specify the conditions for physical human-robot contact.

This International Standard is a type-C standard, as stated in ISO 12100.

When a type-C standard deviates from one or more technical provisions dealt with by type-A or by type-B standards, the type-C standard takes precedence.

It is recognized that robots and robotic devices in personal care applications require close human-robot interaction and collaborations, as well as physical human-robot contact.

The robots or robotic devices concerned, and the extent to which hazards, hazardous situations or hazardous events are covered, are indicated in the scope of this International Standard.

Hazards are well recognized, and the sources of the hazards are frequently unique to particular robot systems. The number and types of hazards are directly related to the nature of the robot application, the complexity of the installation, and the level of human-robot interaction incorporated.

The risks associated with these hazards vary with the type of robot used and its purpose, and the way in which it is installed, programmed, operated, and maintained.

Not all of the hazards identified by this International Standard apply to every personal care robot, nor will the level of risk associated with a given hazardous situation be the same from robot to robot. Consequently, the safety requirements, and/or protective measures can vary from what is specified in this International Standard. A risk assessment is conducted to determine the protective measures needed when they do not meet safety requirements and/or protective measures specified in this International Standard, and for the particular application being considered.

In this International Standard, the following verbal forms are used:

— “shall” indicates a requirement;

— “should” indicates a recommendation;

— “may” indicates a permission;

— “can” indicates a possibility or a capability.

In recognition of the variable nature of hazards with personal care robot applications, this International Standard provides guidance for the assurance of safety in the design and construction of the non-medical personal care robot, as well as the integration, installation, and use of the robots during their full life cycle. Since safety in the use of personal care robots is influenced by the design of the particular robot system, a supplementary, though equally important, purpose is to provide guidelines for the information for use of personal care robots and robotic devices.

The safety requirements of this International Standard have to be met by the manufacturer and the supplier of the personal care robot.

Future editions of this International Standard might include more specific requirements on particular types of personal care robots, as well as more complete numeric data for different categories of people (e.g. children, elderly persons, pregnant women).