

# DRAFT INTERNATIONAL STANDARD

## ISO/DIS 9999

ISO/TC 173/SC 2

Secretariat: JISC

Voting begins on:  
2015-06-25

Voting terminates on:  
2015-09-25

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## Assistive products for persons with disability — Classification and terminology

*Produits d'assistance pour personnes en situation de handicap — Classification et terminologie*

ICS: 11.180.01

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### ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

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Reference number  
ISO/DIS 9999:2015(E)

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 9999 was prepared by Technical Committee ISO/TC 173, *Assistive products for persons with disability*, Subcommittee SC 2, *Classification and terminology*.

This 2016 edition cancels and replaces the 2011 edition (ISO 9999:2011), which has been technically revised. It includes ISO 9999:2011.

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## Introduction

Assistive products (including software) are classified according to their function. The classification consists of three hierarchical levels and the codes each consist of three pairs of digits. Like other classifications, for each level, codes, titles, explanatory notes, inclusions, exclusions and cross-references are given. Besides the explanatory text and the classification itself, a table of conversion between the previous (2011) edition and this edition of this International Standard and an alphabetical index are provided in order to facilitate the use of and to improve the accessibility of the classification.

This edition has 947 titles of which about 44 are new and 423 are changed, including minor editorial and grammatical revisions.

All assistive products in this classification are primarily intended for use outside of health care settings; however, some of the products can be used in facilities such as rehabilitation centres to teach clients how to use these products. It should be noted that the titles of some subclasses and divisions in class 28 refer to the “workplace.” This term does not refer to a specific setting or geographical location; instead, it refers to any setting in which employment-related activities or vocational training are performed.

The definition of “assistive product” used by this International Standard has been revised to align it with the terminology of the International Classification of Functioning, Disability and Health (ICF).

### Relation to the WHO Family of International Classifications

In 2003, ISO 9999 was accepted as a related member of the WHO Family of International Classifications (WHO-FIC). The WHO-FIC is comprised of high-quality classifications for relevant sectors of the health system. With this inclusion, the use of this International Standard was stimulated.

This International Standard makes use of the terminology of the International Classification of Functioning, Disability and Health (ICF, WHO, 2001). ICF is a classification of health and health-related domains. These domains are classified from body, individual and societal perspectives by means of two lists: a list of body functions and structure and a list of domains of activity and participation. Since an individual's functioning and disability occurs in a context, ICF also includes a list of environmental factors. The ICF is one of the core classifications of the WHO-FIC.

A major change in this edition is a change of the titles of the classes to bring them in harmony with the terminology of the ICF.

### Proposal for changes

**Proposals for changes or additions to this International Standard, both in respect of existing and proposed new classes/subclasses/divisions, which take into account the given rules for classification, may be submitted to a national member body of ISO with an accompanying explanation for the proposal. See <http://www.iso.org> for addresses of national member bodies.**

NOTE 1 Some of the assistive products for persons with disability can be classified as medical devices.

NOTE 2 National member bodies are encouraged to improve the accessibility of the classification by the addition of national language synonyms to the nationally implemented standard.

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# Assistive products for persons with disability — Classification and terminology

## 1 Scope

This International Standard establishes a classification of assistive products, especially produced or generally available, for persons with disability.

Assistive products used by a person with disability, but which require the assistance of another person for their operation, are included in the classification.

The following items are specifically excluded from this International Standard:

- items used for the installation of assistive products;
- solutions obtained by combinations of assistive products that are individually classified in this International Standard;
- medicines;
- assistive products and instruments used exclusively by healthcare professionals;
- non-technical solutions, such as personal assistance, guide dogs or lip-reading;
- implanted devices;
- financial support.

## 2 Terms and definitions

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

### 2.1

#### **activity**

execution of a task or action by an individual

[ICF 2001, WHO]

### 2.2

#### **activity limitations**

difficulties an individual can have in executing activities

[ICF 2001, WHO]

2.3

**assistive product<sup>1)</sup>**

any product (including devices, equipment, instruments and software), especially produced or generally available, used by or for persons with disability

- for participation;
- to protect, support, train, measure or substitute for body functions/structures and activities; or
- to prevent impairments, activity limitations or participation restrictions

2.4

**body functions**

physiological functions of body systems (including psychological functions)

[ICF 2001, WHO]

2.5

**body structures**

anatomical parts of the body such as organs, limbs and their components

[ICF 2001, WHO]

2.6

**classification**

system of concepts or a structured set of concepts established according to the relations between them, each concept being determined by a systematic code and its positions in the system of concepts

2.7

**class**

collection of similar articles, divided according to definite and chosen rules

2.8

**disability**

umbrella term for impairments, activity limitations and participation restrictions denoting the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors)

[ICF 2001, WHO]

2.9

**environmental factors**

physical, social and attitudinal environment in which people live and conduct their lives

[ICF 2001, WHO]

2.10

**functioning**

umbrella term for body functions, body structures, activities and participation denoting the positive aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors)

[ICF 2001, WHO]

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1) The definition of assistive product is in discussion at the GATE, the Global cooperation on Assistive Health Technology (a WHO initiative) and the information is given in Annex A.



**2.11****impairments**

problems in body function or structure, such as a significant deviation or loss

[ICF 2001, WHO]

**2.12****person with disability**

person with one or more impairments, one or more activity limitations, one or more participation restrictions or a combination thereof

**2.13****participation**

involvement in a life situation

[ICF 2001, WHO]

**2.14****participation restrictions**

problems an individual can experience in involvement in life situations

[ICF 2001, WHO]

**2.15****workplace**

defined area or areas in which the work activities are carried out

[EN 1540:1998]

**3 Principle**

The classification is based on the function of the products being classified.

In particular, it should be noted that assistive products, which are used exclusively for training in skills, are included in class 05. Assistive products that have a principle function other than training, but which can also be used for training, are included in the class covering their principal function.

Software is classified at the division level of the class relating to its function.

Multifunctional products are also classified based on the primary function and add reference at the item related to the secondary functions.

**4 Elements and rules used in classification****4.1 Construction**

The classification consists of three hierarchical levels: classes, subclasses and divisions.

Each class, subclass or division consists of a code, a title and, if necessary, an explanatory note and reference to other parts of the classification.

Explanatory notes are used to clarify the content of the class, subclass or division. Inclusions and exclusions are used to provide examples.

References are used for two purposes:

- to separate classes, subclasses or divisions from one another;
- for information, e.g., references between related products.

In general, references are made to the lowest possible level.

## 4.2 Codes

### 4.2.1 The code consists of three pairs of digits.

The first pair of digits indicates a class, the second pair of digits a subclass and the third pair of digits a division.

For practical reasons, in this International Standard, the classes are indicated by one pair of digits only (deleting two pairs of zeros) and subclasses are indicated by two pairs of digits (deleting one pair of zeros).

The code determines the position of the class, the subclass, or the division, respectively, in the classification.

**4.2.2** The digits for the codes were originally chosen with intervals of three. In subsequent revisions, the intervening digits have been used to introduce new classes, subclasses and divisions without significantly modifying the classification.

In this revision, codes that were originally used to classify items that have been removed from the classification are not used to classify new items that have been added to the classification.

**4.2.3** Classes 01, 02, and 90 to 99 and the associated subclasses and divisions are reserved for national applications.

The subclasses XX 01, XX 02, and XX 90 to XX 99 and the associated divisions are reserved for national applications.

The divisions XX XX 01, XX XX 02, and XX XX 90 to XX XX 99 are reserved for national applications.

Subclasses XX 88, and the divisions XX XX 88 are reserved for assistive products that are titled “Other [title of parent class or parent subclass]” for international applications. In addition, further levels, e.g., 4th level, may be added to any part of the classification to serve national or local purposes

**4.2.4** A conversion table detailing the coding changes from the previous revision of the classification to this revision is given for information in Annex B.

## 4.3 Titles of classes, subclasses and divisions

**4.3.1** As far as possible, the terminology in general use has been adopted.

**4.3.2** All titles in the classification are in the plural form.

**4.3.3** Titles at class level generally describe a broad area of function of the product, e.g., Assistive products for domestic activities and participation in domestic life, assistive products for activities and participation relating to personal mobility and transportation and assistive products for work activities and participation in employment.

**4.3.4** Titles at subclass level describe a special function, e.g., “Assistive products for reading”, within the broad area covered by the class, e.g., “Assistive products for communication and information management”.

**4.3.5** Going down to the division level the description gets more specific.

**4.3.6** Only in cases where an assistive product is intended for use by persons with a specific disability, age or sex is the title used refer to that group.

## 4.4 Rules used in classification

4.4.1 A class is equal to the sum of its subclasses and a subclass is equal to the sum of its divisions.

4.4.2 In general, parts of assistive products, accessories to assistive products, individually adapted assistive products and individual adaptations in homes and other premises are classified in the same subclass or division of the assistive product with which they are associated.

4.4.3 Parts, accessories and adaptations are separately classified when they are associated with a group of assistive products. In these cases, they are classified as close as possible to the group of assistive products with which they are associated, e.g., 12 07 Accessories for assistive products for walking.

4.4.4 The classification is organized in such a manner that all assistive products can be classified without being tested or measured.

4.4.5 Classification of hypothetical assistive products is avoided.

4.4.6 Classes are created in such a manner that they do not overlap in the described broad function of other classes. The subclasses are created in such a manner that they do not overlap in the specific function of other subclasses. The divisions are created in such a manner that they do not overlap with products in other divisions.

## 5 Index

An alphabetical index of terms is provided for information to facilitate access to the classification.

Terms used in inclusion statements are incorporated in the index.

## 6 Classification

### 6.1 One-level classification — Classes

- 04 Assistive products for measuring, supporting, training or replacing body functions
- 05 Assistive products for education and for training in skills
- 06 Assistive products attached to the body for supporting neuromusculoskeletal or movement related functions (orthoses) and replacing anatomical structures (prostheses)
- 09 Assistive products for self-care activities and participation in self-care
- 12 Assistive products for activities and participation relating to personal mobility and transportation
- 15 Assistive products for domestic activities and participation in domestic life
- 18 Furnishings, fixtures and other assistive products for supporting activities in the indoor and outdoor human-made environment
- 22 Assistive products for communication and information management
- 24 Assistive products for controlling, carrying, moving and handling objects and devices
- 27 Assistive products for controlling, adapting or measuring elements of the physical environment
- 28 Assistive products for work activities and participation in employment
- 30 Assistive products for recreation and leisure

## 6.2 Two-level classification — Classes and subclasses

- 04 Assistive products for measuring, supporting, training or replacing body functions**
- 04 03 Assistive products for respiration
  - 04 06 Assistive products for circulation therapy
  - 04 08 Assistive products for stimulating body control and conceptualization
  - 04 09 Assistive products for light therapy
  - 04 15 Assistive products for dialysis therapy
  - 04 19 Assistive products for administering medicines
  - 04 22 Sterilizing equipment
  - 04 24 Physical, physiological and biochemical test equipment and materials
  - 04 25 Cognitive test and evaluation materials
  - 04 26 Assistive products for cognitive therapy
  - 04 27 Stimulators
  - 04 30 Assistive products for heat or cold treatment
  - 04 33 Assistive products intended to manage tissue integrity
  - 04 36 Assistive products for perceptual training
  - 04 45 Assistive products for spinal traction
  - 04 48 Equipment for movement, strength and balance training
  - 04 49 Wound care products
- 05 Assistive products for education and for training in skills**
- 05 03 Assistive products for communication therapy and training
  - 05 06 Assistive products for training in alternative and augmentative communication
  - 05 09 Assistive products for continence training
  - 05 12 Assistive products for training in cognitive skills
  - 05 15 Assistive products for training in basic skills
  - 05 18 Assistive products for training in educational subjects
  - 05 24 Assistive products for training in the arts
  - 05 27 Assistive products for training in social skills
  - 05 30 Assistive products for training in control of input units and handling products and goods
  - 05 33 Assistive products for training in daily living activities
  - 05 36 Assistive products for training in changing and maintaining body position
- 06 Assistive products attached to the body for supporting neuromusculoskeletal or movement related functions (orthoses) and replacing anatomical structures (prostheses)**
- 06 03 Spinal and cranial orthoses
  - 06 04 Abdominal orthoses
  - 06 06 Upper limb orthoses
  - 06 12 Lower limb orthoses
  - 06 15 Functional neuromuscular stimulators and hybrid orthoses
  - 06 18 Upper limb prostheses
  - 06 24 Lower limb prostheses
  - 06 30 Prostheses other than limb prostheses

- 09 Assistive products for self-care activities and participation in self-care**
- 09 03 Clothes and shoes
  - 09 06 Body-worn assistive products for body protection
  - 09 07 Assistive products for body stabilization
  - 09 09 Assistive products for dressing and undressing
  - 09 12 Assistive products for toileting
  - 09 15 Assistive products for tracheostomy care
  - 09 18 Assistive products for ostomy care
  - 09 21 Products for skin protection and skin cleaning
  - 09 24 Urine diverters
  - 09 27 Assistive products for collecting urine and faeces
  - 09 30 Assistive products for absorbing urine and faeces
  - 09 31 Assistive products to prevent involuntary urine or faeces leakage
  - 09 32 Assistive products for management of menses (menstruation management)
  - 09 33 Assistive products for washing, bathing and showering
  - 09 36 Assistive products for manicure and pedicure
  - 09 39 Assistive products for hair care
  - 09 42 Assistive products for dental care
  - 09 45 Assistive products for facial care
  - 09 54 Assistive products for sexual activities
- 12 Assistive products for activities and participation relating to personal mobility and transportation**
- 12 03 Assistive products for walking, manipulated by one arm
  - 12 06 Assistive products for walking, manipulated by both arms
  - 12 07 Accessories for assistive products for walking
  - 12 10 Cars, vans and trucks
  - 12 11 Mass transit vehicles
  - 12 12 Vehicle accessories and vehicle adaptations
  - 12 16 Mopeds and motorcycles
  - 12 17 Diverse motorized vehicles
  - 12 18 Cycles
  - 12 22 Manual wheelchairs
  - 12 23 Powered wheelchairs
  - 12 24 Wheelchair accessories
  - 12 27 Diverse human powered vehicles
  - 12 31 Assistive products for changing body position
  - 12 36 Assistive products for lifting persons
  - 12 39 Assistive products for orientation
- 15 Assistive products for domestic activities and participation in domestic life**
- 15 03 Assistive products for preparing food and drink
  - 15 06 Assistive products for dishwashing