



SLOVENSKI STANDARD
SIST EN 14803:2006

01-maj-2006

Identifikacija in/ali določanje količine odpadka

Identification and/or determination of the quantity of waste

Identifikation und/oder Mengenbestimmung von Abfall

Identification et/ou détermination de la quantité de déchets

Ta slovenski standard je istoveten z: EN 14803:2006

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EUROPEAN STANDARD

EN 14803

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2006

ICS 13.030.01

English Version

Identification and/or determination of the quantity of waste

Identification et/ou détermination de la quantité de déchets

Identifikation und /oder Mengenbestimmung von Abfall

This European Standard was approved by CEN on 28 December 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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 Central Secretariat has the same status as the official versions.

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EN 14803:2006 (E)

Foreword

This European Standard (EN 14803:2006) has been prepared by Technical Committee CEN/TC 183 “Waste management”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by September 2006, and conflicting national standards shall be withdrawn at the latest by September 2006.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Introduction

CEN and CENELEC draw attention to the fact that it is claimed that compliance with this European Standard may involve the use of a patent concerning systems for identification and/or determination of the quantity of waste described within this European Standard.

CEN and CENELEC take no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured CEN and CENELEC that he/she is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with CEN and CENELEC. Information may be obtained from:

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Attention is drawn to the possibility that some of the elements of this European Standard may be the subject of patent rights other than those identified above. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights. [SIST EN 14803:2006](#)

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EN 14803:2006 (E)**1 Scope**

This European Standard specifies general requirements and verifications for methods of identification of waste containers and/or determination of the quantity of waste including:

- safety requirements;
- interface requirements and performances;
- data to be treated and their integrity.

This European Standard is applicable to systems for handling containers conforming to EN 840.

NOTE Although this European Standard does not cover systems for handling containers not conforming to EN 840, it is recommended to apply the requirements of this document to these systems as far as possible.

This European Standard is applicable to systems both for billing and not for billing.

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 840-1, *Mobile waste containers — Part 1: Containers with 2 wheels with a capacity up to 400 l for comb lifting devices — Dimensions and design*

EN 840-2, *Mobile waste containers — Part 2: Containers with 4 wheels, with a capacity up to 1 300 l with flat lid(s), for trunnion and/or comb lifting devices — Dimensions and design*

EN 840-3, *Mobile waste containers — Part 3: Containers with 4 wheels with a capacity up to 1 300 l with dome lid(s), for trunnion and/or comb lifting devices — Dimensions and design*

EN 840-4, *Mobile waste containers — Part 4: Containers with 4 wheels with a capacity up to 1 700 l with flat lid(s), for wide trunnion or BG- and/or wide comb lifting devices — Dimensions and design*

EN 840-5, *Mobile waste containers — Part 5: Performance requirements and test methods*

EN 840-6, *Mobile waste containers — Part 6: Safety and health requirements*

EN 1501 (all parts), *Refuse collection vehicles and their associated lifting devices — General requirements and safety requirements*

EN 45501:1992, *Metrological aspects of non-automatic weighing instruments*

EN 60068-2-1, *Environmental testing — Part 2: Tests; tests A: Cold (IEC 60068-2-1:1990)*

EN 60068-2-2, *Basic environmental testing procedures — Part 2: Tests — Tests B: Dry heat (IEC 60068 2-2:1974 + IEC 60068-2-2A:1976)*

EN 60068-2-6, *Environmental testing — Part 2: Tests — Test Fc: Vibration (sinusoidal) (IEC 60068-2-6:1995 + Corrigendum 1995)*

EN 60068-2-27, *Basic environmental testing procedures — Part 2: Tests — Test Ea and guidance: Shock (IEC 60068-2-27:1987)*

EN 60068-2-38, *Environmental testing — Part 2: Tests — Test Z/AD: Composite temperature/humidity cyclic test (IEC 60068-38:1974)*

EN 60204-1, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:1997)*

EN ISO 7250, *Basic human body measurements for technological design (ISO 7250:1996)*

OIML R 51, *Automatic catchweighing instruments*

3 Terms and definitions

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

3.1

identification (ID)

process which consists in accurately recognising and verifying a waste container by reading a data carrier

3.2

determination of the quantity of waste (DQW)

determination of the waste volume stored within the receptacle and/or weighing of the waste mass and/or counting of emptying operations

3.3

data carrier

device carrying data which can be recognised by an electro-magnetic, optical or other reading device

3.4

interface (IF)

boundary linking two systems

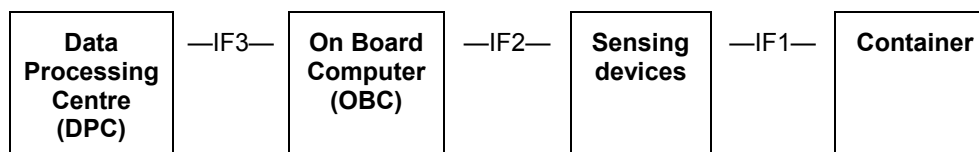
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NOTE The interface could be a mechanical interface, a data interface, an electrical interface etc.

For the purposes of this document interfaces (IF) are numbered as follows:



3.5

manipulation

deliberate and unauthorized modification, addition, omission or suppression of signals or data or procedures or components

3.6

malfunction

non-deliberate modification, addition, omission or suppression of signals or data

3.7

data processing

3.7.1

storage

recording of data relating to the collection of waste

EN 14803:2006 (E)**3.7.2****transfer**

process or method of transmitting data relating to the collection of waste

3.7.3**read**

process of retrieving data from some machine-readable medium and, as appropriate, the contention and error control management, and channel and source decoding required to recover and communicate the data entered at source

3.7.4**read only (RO)**

distinguishing a transponder in which the data is stored in an unchangeable manner and can therefore only be read

3.7.5**read/write (R/W)**

applied to a radio frequency identification system, it is the ability both read data from a transponder and to change data (write process) using a suitable programming device

3.7.6**write once/read many (WORM)**

distinguishing a transponder that can be partly or totally programmed once by the user, and thereafter only read

3.7.7**sensing device**

system with one or more sensors which detects and/or processes and transfers signals and/or data (e.g. scanner + decoder, load cell + processing unit)

3.7.8**encryption**

means of securing data, often applied to a plain or clear text, by converting it to a form that is unintelligible in the absence of an appropriate decryption key

3.8**identification systems****3.8.1****transponder**

data carrier (also called "electromagnetic label") associated with the object to be identified. The transponder is intended to receive a radio frequency signal and to return a different radio frequency signal containing relevant information

3.8.2**bar code symbol**

data carrier made up of an array of parallel rectangular bars and spaces, arranged according to the encodation rules of a particular symbol specification in order to represent data in machine readable form

NOTE This term and definition were adapted from EN 1556:1998.

3.8.3**dot code symbol**

data carrier made up of a series of dots, arranged according to the encodation rules of a particular symbol specification in order to represent data in machine readable form

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3.8.4**positioning system by geographical co-ordinates (GPS)**

identification of a location with geographical co-ordinates (e.g. longitude, latitude, altitude)

3.8.5**antenna**

electronic component which emits or receives energy to/from a data carrier within a radio frequency spectrum

NOTE Antennas are also used to receive data from GPS satellites.

3.8.6**transponder reader**

sensing device which, with an antenna, transmits a radio signal according to a given frequency towards one or more transponders and receives a signal back. The reader is used to establish dialogue without contact with the transponder and to exchange data

3.8.7**bar code reader**

sensing device used to capture the data encoded in a bar code symbol. It consists of two parts: a) the scanner, an input device which sends signals proportional to the reflectivity of each successive element of the symbol to the decoder, and b) the decoder, which examines the signals from the scanner and translates them into recognisable or computer-compatible data. The decoder itself is sometimes erroneously called a reader

[EN 1556:1998]

3.8.8**dot code reader**

sensing device used to capture the data encoded in a dot code symbol. It consists of two parts: a) the scanner, an input device which sends signal proportional to the reflexivity of each successive element of the symbol to the decoder, and b) the decoder, which examines the signals from the scanner and translates them into recognisable or computer compatible data. The decoder itself is sometimes erroneously called a reader

3.9**systems for the determination of the quantity of waste (DQW systems)****3.9.1****volume determination**

determination of the waste volume stored within the receptacle

3.9.2**weighing**

determination of the waste mass

3.9.3**static weighing**

determination of the mass after the weighing instrument has detected that the mass indication has 'no motion'. The detection of 'no motion' is done according to the regulations written in EN 45501

3.9.4**dynamic weighing**

determination of the mass while the container to be weighed is in motion

3.9.5**automatic weighing instrument**

instrument that weighs without the intervention of an operator and follows a pre-determined program of automatic process characteristic of the instrument

[OIML R51]

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EN 14803:2006 (E)**3.9.6****non-automatic weighing instrument**

instrument that requires the intervention of an operator during the weighing process, for example to deposit on or remove from the receptor the load to be measured and also to obtain the result

[EN 45501:1992]

3.9.7**volume level determination**

determination of the quantity of waste inside a receptacle with a certain known volume, by measuring the filling level of that receptacle

3.9.8**on board computer (OBC)**

electronic device for storing and receiving data and performing calculations. The OBC is fitted on the refuse collection vehicle. The OBC transfers data from/to sensing devices and to/from the data processing centre (DPC)

3.9.9**data processing centre (DPC)**

electronic device for storing and receiving data and performing calculations separate from the vehicle. The DPC transfers data from/to OBCs

4 Requirements

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4.1 General requirements on safety and health

4.1.1 Every component and procedure for identification (ID) and/or determination of the quantity of waste (DQW) shall not influence the safety and/or on the correct operation of the refuse collection vehicle (RCV) including the lifting device. <https://standards.iteh.ai/catalog/standards/sist/10ec3800-985e-458d-b811-0ea9200a1c85/sist-en-14803-2006>

4.1.2 The fitting of components to the waste container shall not have any influence on the safe use of the waste container.

4.1.3 All components for ID and DQW, when used on vehicles conforming to EN 1501, shall conform to the EMC requirements as defined in EN 1501.

4.1.4 If an existing RCV or lifting device is modified by fitting an ID or DQW system then the conformity with EN 1501 and relevant standards shall be checked again.

If the fitting of the sensing devices changes one or more characteristics of the RCV and its associated lifting device (maximum permissible mass, operating...), new characteristics shall be included in the documentation of the RCV and of the lifting device.

A lifting device equipped with systems for ID and DQW shall fulfil the requirements defined in Annex D

NOTE Attention is drawn to the conformity with the requirements of the Machinery Directive (98/37/EC) and the EMC Directives (89/336/EC, 95/54/EC) if an existing refuse collection vehicle or lifting device is modified by fitting an ID or DQW system.

4.1.5 The system consisting of the OBC and the sensing devices for ID and for DQW shall be galvanically separated from the controlling unit of the lifting device and shall not negatively affect the functions of the chassis, bodywork and lifting device.

4.1.6 The components for ID and DQW shall be fitted in such a way that they do not generate any risk for any person (driver, operator, other person) under normal and emergency situations.