

This document is a preview generated by EVS

Identification and/or determination of the quantity of waste

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 14803:2020 sisaldab Euroopa standardi EN 14803:2020 ingliskeelset teksti.	This Estonian standard EVS-EN 14803:2020 consists of the English text of the European standard EN 14803:2020.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 03.06.2020.	Date of Availability of the European standard is 03.06.2020.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 13.030.40

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:  
Koduleht [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage [www.evs.ee](http://www.evs.ee); phone +372 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

EUROPEAN STANDARD

**EN 14803**

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2020

ICS 13.030.40

Supersedes EN 14803:2006

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 27 April 2020.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

<b>Contents</b>	<b>Page</b>
European foreword.....	4
<b>1 Scope</b> .....	<b>5</b>
<b>2 Normative references</b> .....	<b>5</b>
<b>3 Terms and definitions</b> .....	<b>6</b>
<b>4 Requirements</b> .....	<b>9</b>
<b>4.1 General requirements on safety and health</b> .....	<b>9</b>
<b>4.2 Data carriers</b> .....	<b>9</b>
<b>4.2.1 Positioning on the container</b> .....	<b>9</b>
<b>4.2.2 Performance</b> .....	<b>10</b>
<b>4.3 Sensing devices</b> .....	<b>10</b>
<b>4.3.1 General requirements for all sensing devices for ID and DQW</b> .....	<b>10</b>
<b>4.3.2 Additional requirements for identification systems</b> .....	<b>11</b>
<b>4.3.3 Additional requirements for DQW systems</b> .....	<b>12</b>
<b>4.4 On Board Computer (OBC)</b> .....	<b>12</b>
<b>4.5 Data structure and transfer</b> .....	<b>13</b>
<b>4.5.1 Data in the data carriers</b> .....	<b>13</b>
<b>4.5.2 Data transfer from container to sensing devices for ID on the vehicle (interface IF 1) ....</b>	<b>13</b>
<b>4.5.3 Data transfer from the OBC of the refuse collection vehicle to the DPC (interface IF 3)....</b>	<b>13</b>
<b>4.6 Integrity of data</b> .....	<b>14</b>
<b>Annex A (normative) Positions of transponders on waste containers to be handled by the comb lifting device with identification</b> .....	<b>15</b>
<b>A.1 General</b> .....	<b>15</b>
<b>A.2 Comb lifting device with identification</b> .....	<b>15</b>
<b>A.3 Transponder positions on waste containers with frontal receiver</b> .....	<b>15</b>
<b>Annex B (informative) Recommended positions of transponders on waste containers to be handled by lifting devices other than the comb lifting device defined in A.2</b> .....	<b>16</b>
<b>B.1 Comb lifting devices other than the comb lifting device defined in A.2</b> .....	<b>16</b>
<b>B.1.1 Transponder positions (I)</b> .....	<b>16</b>
<b>B.1.2 Transponder positions (II, III, IV)</b> .....	<b>16</b>
<b>B.2 Lifting devices other than comb lifting devices</b> .....	<b>17</b>
<b>B.2.1 Transponder positions for trunnion or other lifting device (I)</b> .....	<b>17</b>
<b>B.2.2 Transponder positions for trunnion lifting device (II)</b> .....	<b>17</b>
<b>B.2.3 Transponder positions for BG lifting device (in accordance with EN 840-4)</b> .....	<b>18</b>
<b>Annex C (normative) Integration of systems for ID and DQW on lifting devices – requirements</b> .....	<b>19</b>
<b>Annex D (normative) Application and registration procedures for manufacturers/suppliers</b> .....	<b>20</b>
<b>D.1 Application procedure for assignment of a manufacturer/supplier code</b> .....	<b>20</b>
<b>D.2 Criteria for approval of an application for a manufacturer/supplier code</b> .....	<b>20</b>

<b>D.3</b>	<b>Responsibilities of the manufacturer/supplier.....</b>	<b>20</b>
<b>D.4</b>	<b>Responsibilities RA for manufacturer/supplier register.....</b>	<b>21</b>
<b>D.5</b>	<b>Register of manufacturers/suppliers.....</b>	<b>21</b>
<b>D.5.1</b>	<b>Publication and availability.....</b>	<b>21</b>
<b>D.5.2</b>	<b>Contents .....</b>	<b>21</b>
<b>D.6</b>	<b>Costs aspects.....</b>	<b>22</b>
<b>D.7</b>	<b>Disclaimer .....</b>	<b>22</b>
	<b>Bibliography .....</b>	<b>23</b>

This document is a preview generated by EVS

## European foreword

This document (EN 14803:2020) 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 December 2020, and conflicting national standards shall be withdrawn at the latest by December 2020.

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

This document supersedes EN 14803:2006.

The main changes compared with the previous edition are listed below:

- a) The Introduction has been deleted.
- b) Clause 2 "Normative References" and Clause 3 "Terms and definitions" have been revised.
- c) 4.2.1.2.4 "Optical data carrier position (dot code/ bar code) for automatic reading", 4.2.1.2.5 "Optical data carrier (dot code/bar code) position for manual reading", Table 2 "Test requirements and acceptance criteria for bar code/dot code stickers", 4.5 "Data processing centre (DPC)" and 4.6.1.2 "Bar code/dot code" have been deleted.
- d) Table 4 "Code structure of the unique identification in the transponder" has been updated.
- e) 4.7 "Integrity of data" has been revised.
- f) A.2 "Comb lifting device with identification" has been revised.
- g) Former Annex B "Positions of optical data carriers (dot code/bar code labels) on waste containers" has been deleted.

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

## 1 Scope

This document specifies general requirements and verifications for methods of identification of waste containers and/or determination of the quantity of waste and other reusable materials including:

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

This document is applicable to systems for handling containers conforming to the EN 840 series.

Although this document does not cover systems for handling containers not conforming to the EN 840 series, users are encouraged to apply the requirements of this document to these systems as far as possible.

This document is applicable to systems both for billing and not for billing.

## 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.

EN 840-1, *Mobile waste and recycling 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 and recycling 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 and recycling 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 and recycling 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 and recycling containers - Part 5: Performance requirements and test methods*

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

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

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

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

EN 60068-2-27, *Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock (IEC 60068-2-27)*

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

EN ISO 7250-1, *Basic human body measurements for technological design — Part 1: Body measurement definitions and landmarks (ISO 7250-1:2017)*

ISO 11784, *Radio frequency identification of animals — Code structure*

OIML R 51, Automatic catchweighing instruments

### 3 Terms and definitions

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

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

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

#### 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 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

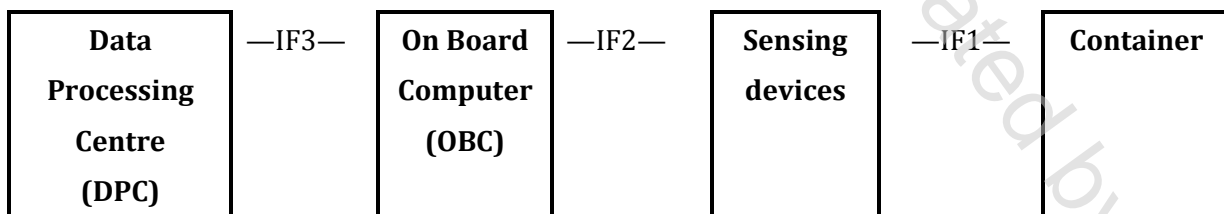
**IF**  
boundary linking two systems

Note 1 to entry: The interface could be a mechanical interface, a data interface, an electrical interface etc.

Note 2 to entry: IF2 now corresponds to EN 16815 “CleANopen – Application profile for municipal vehicles”.

Note 3 to entry: For the purposes of this document, interfaces (IF) are numbered as follows in Table 1:

**Table 1 — Data flow and interfaces**



#### 3.5 malfunction

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