



SLOVENSKI STANDARD
oSIST prEN 17366:2019
01-maj-2019

Ravnanje z odpadki - Nadzor dostopa - Identifikacija in avtorizacija

Waste management - Access control - Identification and authorization

Abfallwirtschaft - Zugriffssteuerung - Identifikation und Autorisierung

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: prEN 17366

<https://standards.iteh.ai/catalog/standards/sist/5c6db4e3-c5ab-4ec2-a007-590eb3f55237/sist-en-17366-2020>

ICS:

13.030.99	Drugi standardi v zvezi z odpadki	Other standards related to wastes
-----------	-----------------------------------	-----------------------------------

oSIST prEN 17366:2019

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 17366

March 2019

ICS 13.030.40

English Version

Waste management - Access control - Identification and authorization

Abfallwirtschaft - Zugriffssteuerung - Identifikation und Autorisierung

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 183.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

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

Contents

Page

European foreword.....	3
1 Scope.....	4
2 Normative references.....	4
3 Terms and definitions	4
4 Symbols and abbreviations	5
5 Requirements.....	5
5.1 General.....	5
5.2 Frequency	5
5.3 Type of the access chip.....	5
5.4 Unique number	6
5.4.1 Generalities	6
5.4.2 Requirement.....	6
5.5 Length of unique number.....	6
5.5.1 Generalities	6
5.5.2 Requirement on unique number.....	6
5.6 Information on access chip.....	6
5.6.1 Generalities	6
5.6.2 Requirement on access chip.....	6
5.7 Information required to open the collection container.....	6
5.8 Reading the unique number.....	6
5.9 Writing to the access chip	7
5.10 Security.....	7
Bibliography.....	8

European foreword

This document (prEN 17366:2019) has been prepared by Technical Committee CEN/TC 183 “Waste management”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This standard takes ISO 14443 (Parts 1, 2 and 3) as basis. In the case that this standard and the ISO 14443 (Parts 1, 2 and 3) are in conflict, this standard prevails.

As this standard takes the series of ISO 14443 (Parts 1, 2 and 3) as basis, it is necessary to conform to these three parts of ISO 14443 to be able to conform to the standard defined in this document.

This document presents the standard for the identification of access chips.

The ISO 14443 series defines two types of access chips: type A and type B. This standard restricts this choice and defines that the type of access chip to be used is type A.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 17366:2020

<https://standards.iteh.ai/catalog/standards/sist/5c6db4e3-c5ab-4ec2-a007-590eb3f55237/sist-en-17366-2020>

prEN 17366:2019 (E)**1 Scope**

This document is used in the framework of the waste processing industry and defines the processing of relevant information for the deposit of garbage between access chips and the collection container systems.

This document is not intended to be used for container identification.

NOTE The container identification is covered by EN 14803.

This document provides the technical specification and the restrictions that are defined on top of the ISO 14443 series (Parts 1, 2 and 3).

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.

ISO/IEC 14443-1, *Cards and security devices for personal identification — Contactless proximity objects — Part 1: Physical characteristics*

ISO/IEC 14443-2, *Identification cards — Contactless integrated circuit cards — Proximity cards — Part 2: Radio frequency power and signal interface*

ISO/IEC 14443-3, *Cards and security devices for personal identification — Contactless proximity objects — Part 3: Initialization and anticollision*

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 <http://www.iso.org/obp>

3.1 access chip (e.g. Card or Tag)
device (like a credit card) capable of carrying a chip. Also assimilated are the Tags or any other way of identifying a user for the access control

3.2 reader
device, placed on a collection container, capable of reading the information contained on a chip

3.3 controller
device capable of interaction with a reader and transferring the information from a chip to reusable information

3.4 chip
device carrying data, which can be recognized by a reading device

3.5**collection container**

reservoir capable of containing waste for more than one household or building

3.6**collection container system**

reservoir capable of containing waste for more than one household or building together with all its electronics to manage the system

3.7**Pay As You Throw****PAYT**

refer to unicity and protection against copy of identification number to avoid misuse in accounting systems

3.8**Data Encryption Standard****DES**

cracked encryption algorithm

3.9**3DES**

replacement of DES

3.10**AES-128**

AES with 128 bit key

4 Symbols and abbreviations

The following abbreviations apply:

MAD Mifare Application Directory

AES Advanced Encryption Standard

5 Requirements**5.1 General**

This clause deals with the technical requirements for the identification of access chips.

The requirements defined in this clause shall be regarded as additional requirements on top of the ISO 14443 series (Parts 1, 2 and 3) standards, to be able to conform to this standard.

It is therefore necessary to conform to all three parts of ISO 14443.

5.2 Frequency

According to the ISO 14443 series, the frequency to be used is 13,56 MHz.

5.3 Type of the access chip

Compliance to this standard requires that type A is used (see Clause 3).

prEN 17366:2019 (E)**5.4 Unique number****5.4.1 Generalities**

Each access chip that complies with ISO 14443 series shall contains a unique number.

This unique number will be used to identify the access chip at the collection container.

5.4.2 Requirement

The uniqueness of the access chip number will be guaranteed by the manufacturers of the access chips by attributing a range of numbers they can use, which will not be provided to any other manufacturer.

Furthermore, the manufacturers shall comply with the rule that they release each number they received, only once.

5.5 Length of unique number**5.5.1 Generalities**

Current implementations of the ISO 14443 series include access chips that contain a unique number with a length of 4 bytes, with a length of 7 bytes and access chips that contain a unique number with a length of 10 bytes.

5.5.2 Requirement on unique number

For use, this standard restricts these options by defining that the length of the unique number of the access chip should be minimum 7 bytes. Readers and systems shall be able to read and process access chips in accordance.

5.6 Information on access chip**5.6.1 Generalities**

The ISO 14443 series not only defines that each access chip shall have a unique number, it also defines other sectors on the access chip that can be used to contain information. This standard does not define or restrict the use of the other sectors on the access chip. It is therefore possible to use the access chip for instance to get access to buildings or pools, without the access chip being not conformant to this standard.

5.6.2 Requirement on access chip

In the case extra information is stored in the available sectors on the access chip, the MAD writing method shall be used to prevent two applications using the same sector and therefore causing problems. The MAD method uses an index to define to which sector of the access chip the information for a specific application can be found, thereby optimizing the use of the access chip.

5.7 Information required to open the collection container

The unique number on the access chip shall be the only element of information that is necessary to determine whether the collection container should be opened. So the UID number shall be used in the data chain. The opening of the drum shall always be based on the UID number. If any other information that is stored on the access chip is necessary to determine whether the container should be opened, the container does not conform to this standard.

5.8 Reading the unique number

The ISO 14443 series defines that each access chip that conforms to the standard shall have a unique number (the so-called "UID") stored on the access chip.

This number should be stored non changeable and readable without encryption or password and should be read by every reader.

To ensure that every reader reads the same number, the byte order that should be used to represent the number when supplying this to the other systems, shall be the big-endian order.

5.9 Writing to the access chip

The UID is the only and sole way to get access to the waste container. Other applications can of course write information to the access chip; this is out of the scope of this standard.

5.10 Security

The unique number on the access chip shall be non changeable and readable without encryption or password and should be read by every reader.

For the other parts of the access chips, that contain information that is not used for the collection of waste (but for instance for access control), this standard does not define whether or not security measures are allowed.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 17366:2020

<https://standards.iteh.ai/catalog/standards/sist/5c6db4e3-c5ab-4ec2-a007-590eb3f55237/sist-en-17366-2020>

Bibliography

ISO/IEC 18000 (series), *Information technology — Radio frequency identification for item management*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 17366:2020

<https://standards.iteh.ai/catalog/standards/sist/5c6db4e3-c5ab-4ec2-a007-590eb3f55237/sist-en-17366-2020>