# Secure storage units - Classification for high security locks according to their resistance to unauthorized opening

EESTI STANDARDIMIS- JA AKREDITEERIMISKESKUS
ESTONIAN CENTRE FOR STANDARDISATION AND ACCREDITATION

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

| | |
|---|---|
| See Eesti standard EVS-EN 1300:2023 sisaldab Euroopa standardi EN 1300:2023 ingliskeelset teksti. | This Estonian standard EVS-EN 1300:2023 consists of the English text of the European standard EN 1300:2023. |
| 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 and Accreditation. |
| Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 27.09.2023. | Date of Availability of the European standard is 27.09.2023. |
| Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest. | The standard is available from the Estonian Centre for Standardisation and Accreditation. |

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

ICS 13.310

EUROPEAN STANDARD

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# EN 1300

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Supersedes EN 1300:2018

English Version

# Secure storage units - Classification for high security locks according to their resistance to unauthorized opening

Unités de stockage en lieu sûr - Classification des serrures haute sécurité en fonction de leur résistance à l'effraction

Wertbehältnisse - Klassifizierung von Hochsicherheitsschlössern nach ihrem Widerstandswert gegen unbefugtes Öffnen

This European Standard was approved by CEN on 16 July 2023.

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

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## European foreword

This document (EN 1300:2023) has been prepared by Technical Committee CEN/TC 263 “Secure storage of cash, valuables and data media”, 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 March 2024 and conflicting national standards shall be withdrawn at the latest by March 2024.

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 1300:2018.

EN 1300:2023 includes the following significant technical changes with respect to EN 1300:2018:

General changes:

— editorial changes in the Scope;

— references have been updated in Clause 2;

— definitions in Clause 3 have been added (opening event, opening related event, relevant audit information, non relevant audit information, character). Other definitions have been updated (one time code, locked door, secured HSL condition, fail secure, penalty time, authentication, firmware);

— requirements have been added for the used clocks (see 8.2.2.2.1 and 8.2.3.2.1);

— requirements have been added that the test report shall include any deviations from the procedure and unusual features observed (see Clause 9);

— Annex C and Annex F have been changed from normative to informative;

— editorial changes for clarification in 5.1.4.5, 5.1.5.1, 5.1.5.3, 5.2.1, 5.2.6.5, 5.2.3.1, 5.2.7, 8.1.3, 8.2.1.4, 8.2.2.1, 8.2.2.3, 8.2.2.5, 8.2.4.3.2, 8.2.6.2.5, 8.2.6.3.1, 8.2.6.3.2, 8.2.6.3.3, 10, A.2b), B.2.2, B.2.4, Annex G, Figure 1, Table 1 and Table 2.

Technical changes for any type of lock:

— requirement for indication of blocking status (5.1.2.5 and Annex A) has been updated;

— test requirement has been changed from “normal condition” to “operating condition” in several clauses (see 5.2.8.1, 5.2.8.2, 8.2.5.1, 8.2.5.2, 5.3.1, 5.3.3, 8.2.6.1, 8.2.6.3.2, 8.2.6.3.3, 8.2.7.1, 8.2.7.2, 8.3.1.1, 8.3.1.4, 8.3.2.1, 8.3.2.3 and 8.3.3.1);

— number of test specimens has changed from four to seven (see 7.1);

— the manipulation tool “personal computer” has now been classified with 0 basic units (with standard software) and with 25 basic units (with lock specific manipulation software), see Table 4.

Changes for mechanical combination locks:

— a dynamic code entry requirement was added (see 5.3.4) that corresponds to the already existing test requirement in 8.3.3.

Technical changes for electronic locks:

— removal of requirements regarding distributed systems into the European Standard EN 17646 (see Clause 1, 5.2.5.2, 5.2.5.4, Annex A, Annex F);

— raising encryption requirements for contactless electronic tokens for class B (from 64 bits to 128 bits, see 5.1.7.2.3) and for all classes, if the range is more than 15 cm (shall be tested according to EN 17646, see 5.1.7.2.1);

— Clause 5.1.7.2.4 is now also applicable for contacted electronic tokens (5.1.7.3);

— new minimum requirements for recording events (see 5.1.6.2);

— updating requirements for local firmware updates (see 5.1.8);

— adding tolerance for usable codes for electronic locks (see Table 1);

— including new requirements for the manipulation of electronic locks and mechanical locks with electronic components 5.2.5.4, 8.2.2.1, Table 4 and Annex B;

— updating of power supply tests: raising current from 220 V to an effective value of 230 V (AC) and changing it to 60 V (DC), re-structuring of the clauses for better reading, changing checking time from 12 h to 24 h, adding test requirements for electronic HSL with separate processing unit not included in the locking device used in secure cabinets (see 5.1.6.8, 5.2.6.1, 5.2.6.2, 8.2.5.3, 8.2.5.4 and Annex E);

— updates in 5.1.6.6 and 5.1.6.7.

This document has been prepared by the Working Group 3 of CEN/TC 263 as one of a series of standards for secure storage of cash valuable and data media. Other standards in the series are, among others:

— EN 1047-1, *Secure storage units — Classification and methods of test for resistance to fire — Part 1: Data cabinets and diskette inserts*

— EN 1047-2, *Secure storage units — Classification and methods of test for resistance to fire — Part 2: Data rooms and data container*

— EN 1143-1, *Secure storage units — Requirements, classification and methods of test for resistance to burglary — Part 1: Safes, ATM safes, strongroom doors and strongrooms*

— EN 1143-2, *Secure storage units — Requirements, classification and methods of test for resistance to burglary — Part 2: Deposit systems*

— EN 14450, *Secure storage units — Requirements, classification and methods of test for resistance to burglary — Secure safe cabinets*

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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, Türkiye and the United Kingdom.

# 1 Scope

This document specifies requirements for high security locks (HSL) for reliability, resistance to burglary and manipulation with methods of testing. It also provides a scheme for classifying HSL in accordance with their assessed resistance to burglary and unauthorized opening.

It is applicable to mechanical and electronic HSL. For electronic locks used in a distributed system, see EN 17646 for further information.

The following features can be included as optional subjects but they are not mandatory:

a) recognized code for preventing code altering and/or enabling/disabling parallel codes;

b) recognized code for disabling time set up;

c) integration of alarm components or functions;

d) resistance to attacks with acids;

e) resistance to X-rays;

f) resistance to explosives;

g) time functions.

# 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 1143-1, *Secure storage units - Requirements, classification and methods of test for resistance to burglary - Part 1: Safes, ATM safes, strongroom doors and strongrooms*

EN 1143-2, *Secure storage units - Requirements, classification and methods of tests for resistance to burglary - Part 2: Deposit systems*

EN 14450, *Secure storage units - Requirements, classification and methods of test for resistance to burglary - Secure safe cabinets*

EN 17646, *Secure storage units - Classification for high security locks according to their resistance to unauthorized opening - Distributed systems*

EN 60068-2-1, *Environmental testing - Part 2-1: Tests - Test A: Cold (IEC 60068-2-1)*

EN 60068-2-2, *Environmental testing - Part 2-2: Tests - Test B: Dry heat (IEC 60068-2-2)*

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

EN 61000-4-2, *Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test (IEC 61000-4-2)*

EN IEC 61000-4-3, *Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test (IEC 61000-4-3)*

EN 61000-4-5, *Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test (IEC 61000-4-5)*

EN ISO 22479, *Corrosion of metals and alloys - Sulfur dioxide test in a humid atmosphere (fixed gas method) (ISO 22479)*

ISO/IEC 9798-2, *IT Security techniques - Entity authentication - Part 2: Mechanisms using authenticated encryption*

ISO/IEC 9798-4, *Information technology - Security techniques - Entity authentication - Part 4: Mechanisms using a cryptographic check function*

NIST/SP 800-57, *Recommendation for Key Management - Part 1: General*

## 3 Terms and definitions

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

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

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp/

**3.1**
**High Security Lock**
**HSL**
independent assembly normally fitted to doors of secure storage units

Note 1 to entry: Codes can be entered into an HSL for comparison with memorized codes (processing unit). A correct match of an opening code allows movement of a blocking feature.

**3.2**
**code**
identification information required which can be entered into an HSL and which, if correct, enables the security status of the HSL to be changed

**3.2.1**
**opening code**
identification information which allows the HSL to be opened

**3.2.2**
**recognized code**
identification information which allows access to the processing unit and which may also be an opening code

Note 1 to entry: Master codes, manager codes, authorization codes and services codes may fall under recognized codes.

**3.2.3**
**duress code**
parallel code which initiates some additional function

**3.2.4**
**parallel code**
opening code which has identical function to that of an existing opening code but constructed of different characters