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Fasteners - Slotted set screws with cone point (ISO 7434:2024)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN ISO 7434:2024 sisaldab Euroopa standardi EN ISO 7434:2024 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 26.06.2024.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN ISO 7434:2024 consists of the English text of the European standard EN ISO 7434:2024.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 26.06.2024.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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ICS 21.060.10

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EUROPEAN STANDARD

EN ISO 7434

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2024

ICS 21.060.10

Supersedes EN 27434:1992

English Version

Fasteners - Slotted set screws with cone point (ISO 7434:2024)

Fixations - Vis sans tête fendues à bout pointeau (ISO 7434:2024)

Verbindungselemente - Gewindestifte mit Schlitz und Ringschneide (ISO 7436:2024)

This European Standard was approved by CEN on 17 June 2024.

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

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

European foreword

This document (EN ISO 7434:2024) has been prepared by Technical Committee ISO/TC 2 "Fasteners" in collaboration with Technical Committee CEN/TC 185 "Fasteners" 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of an identical text or by endorsement, at the latest by December 2024, and conflicting national standards shall be withdrawn at the latest by December 2024.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 27434:1992.

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

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Endorsement notice

The text of ISO 7434:2024 has been approved by CEN as EN ISO 7434:2024 without any modification.

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 2, *Fasteners*, Subcommittee SC 11, *Fasteners with metric external thread*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 185, *Fasteners*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 7434:1983), which has been technically revised.

The main changes are as follows:

- the point angle with tolerance of $\pm 2^\circ$ has been changed to a reference angle β_{ref} of 90° or 120° , without tolerance;
- the values of d_t for cone point have been added in [Table 1](#);
- for M1,6, $l = 2$ mm has been classified as too short length; the lengths for M2 ($l = 3$ mm), M3 ($l = 4$ mm), M3,5 ($l = 5$ mm), M4 ($l = 5$ mm) and M5 ($l = 6$ mm) have been classified separately as short standard lengths with l_{nom} calculated in order to get at least 2,5 full pitches; regular standard lengths have been calculated in order to get at least 4 full pitches up to M3,5 and 3 full pitches above M3,5;
- for stainless steel screws, grades A2 and A4 with hardness classes 12H and 21H have been added;
- non-ferrous metal screws have been deleted (as a consequence of the withdrawal of ISO 8839);
- mechanical properties of steel and stainless steel screws have been added for $d < 1,6$ mm (“As agreed”) in [Table 3](#);
- for steel fasteners, “plain” has been changed to “as processed”, and non-electrolytically applied zinc flake coating has been added in [Table 3](#);
- for stainless steel fasteners, “plain” has been changed to “Clean and bright”, and “Passivated” has been added in [Table 3](#);

- the requirement of surface integrity has been added for steel screws in [Table 3](#);
- specifications for marking and labelling have been added as [Clause 6](#).

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Fasteners — Slotted set screws with cone point

1 Scope

This document specifies the characteristics of slotted set screws with cone point, in steel and stainless steel, with metric coarse pitch threads M1,2 to M12, and with product grade A.

If in certain cases other specifications are requested, hardness classes and stainless steel grades can be selected from ISO 898-5 or ISO 3506-3, and dimensional options from ISO 888, ISO 965-1 or ISO 4753.

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 225, *Fasteners — Bolts, screws, studs and nuts — Symbols and descriptions of dimensions*

ISO 724, *ISO general purpose metric screw threads — Basic dimensions*

ISO 888, *Fasteners — Bolts, screws and studs — Nominal lengths and thread lengths*

ISO 898-5, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 5: Set screws and similar threaded fasteners with specified hardness classes — Coarse thread and fine pitch thread*

ISO 965-1, *ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data*

ISO 1891-4, *Fasteners — Vocabulary — Part 4: Control, inspection, delivery, acceptance and quality*

ISO 3269, *Fasteners — Acceptance inspection*

ISO 3506-3, *Mechanical properties of corrosion-resistant stainless steel fasteners — Part 3: Set screws and similar fasteners not under tensile stress*

ISO 4042, *Fasteners — Electroplated coating systems*

ISO 4753, *Fasteners — Ends of parts with external ISO metric thread*

ISO 4759-1, *Tolerances for fasteners — Part 1: Bolts, screws, studs and nuts — Product grades A, B and C*

ISO 6157-1, *Fasteners — Surface discontinuities — Part 1: Bolts, screws and studs for general requirements*

ISO 8991, *Designation system for fasteners*

ISO 8992, *Fasteners — General requirements for bolts, screws, studs and nuts*

ISO 10683, *Fasteners — Non-electrolytically applied zinc flake coating systems*

3 Terms and definitions

No terms and definitions are listed in this document.

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

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