

DIN 7984



ICS 21.060.10

Supersedes
DIN 7984:2021-10

Hexagon socket head cap screws with low head with reduced loadability, English translation of DIN 7984:2022-03

Zylinderschrauben mit Innensechskant mit niedrigem Kopf mit reduzierter Belastbarkeit,
Englische Übersetzung von DIN 7984:2022-03

Vis à tête cylindrique à six pans creux avec tête basse à capacité de charge réduite,
Traduction anglaise de DIN 7984:2022-03

Document comprises 17 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.

A comma is used as the decimal marker.

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Foreword

This standard has been prepared by Working Committee NA 067-00-02 AA “Fasteners with metric external thread” of *DIN-Normenausschuss Mechanische Verbindungselemente* (DIN Standards Committee Fasteners).

The DIN 4000-160-2 tabular layout of product properties applies to screws and bolts covered in this standard.

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

For current information on this document, please go to DIN’s website (www.din.de) and search for the document number in question.

Amendments

This document differs from DIN 7984:2009-06 as follows:

- a) the title of the standard has been supplemented with the words “with reduced loadability”;
- b) normative references have been updated;
- c) the restrictions regarding the reduced loadability of stainless steel screws have been aligned with the modified specifications in DIN EN ISO 3506-1;
- d) new rounding rules have been used for Table 6. The values for $F_{m,min}$ have been determined using the exact values of $A_{s,nom}$ and rounded up to the next higher 10 N up to 10 000 N, to the next higher 100 N up to 100 000 N and above this, where applicable, to the next higher 1 000 N. All values for the reduced minimum ultimate tensile load have been rounded up to three significant decimal places;
- e) the standard has been editorially revised.

The following corrections have been made to DIN 7984:2021-10:

- a) in Table 6 in column “8.8”, line M24, 134 000 has been replaced by 234 000.

Previous editions

DIN 7984: 1961-03, 1967-12, 1970-12, 1985-05, 2002-12, 2009-06, 2021-10

1 Scope

This standard specifies properties for sizes M 3 to M 24 hexagon socket head cap screws with low head of product grade A as in DIN EN ISO 4759-1, with reduced loadability due to the head design, made of steel and stainless steel.

Screws as specified in this standard cannot be used in the form of screw assemblies with captive washers because the associated components (e.g. washers) would require a smaller radius below the screw head, which could seriously reduce the strength of the screw head.

NOTE Due to their head design, screws as in this standard are not capable of withstanding full loading when being tensile tested (see Clause 5).

Information on masses is given in the informative Annex A.

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.

DIN 962, *Bolts, screws, studs and nuts — Designation, types and finishes*

DIN EN 26157-1, *Fasteners — Surface discontinuities — Part 1: Bolts, screws and studs subject to general requirements*

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

DIN EN ISO 898-1, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs with specified property classes — Coarse thread and fine pitch thread*

DIN EN ISO 3269, *Fasteners — Acceptance inspection*

DIN EN ISO 3506-1:2020-08, *Fasteners — Mechanical properties of corrosion-resistant stainless steel fasteners — Part 1: Bolts, screws and studs with specified grades and property classes (ISO 3506-1:2020)*

DIN EN ISO 4042, *Fasteners — Electroplated coating systems*

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

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

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

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

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