INTERNATIONAL STANDARD

ISO 11381

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Ophthalmic optics — Spectacle frames — Screw threads

Optique ophtalmique — Montures de lunettes — Filetages

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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 documents 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 on 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 the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 172, *Optics and photonics*, Subcommittee SC 7, *Ophthalmic optics and instruments.*

This second edition cancels and replaces the first edition (ISO 11381:1994), of which it constitutes a minor revision.

The following changes have been done:

— correction of the title;

— update of the normative references.

Ophthalmic optics — Spectacle frames — Screw threads

1 Scope

This International Standard specifies requirements for ISO metric screw threads for use with spectacle frames. Provision is made for screw threads of the following nominal sizes: S0,8 × 0,2; M1,0 × 0,25; M1,2 × 0,25; M1,4 × 0,3; M1,6 × 0,35 and M2,0 × 0,4 and for related taps and gauges.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 529, *Short machine taps and hand taps*

ISO 965-3, *ISO general purpose metric screw threads — Tolerances — Part 3: Deviations for constructional screw threads*

ISO 1501, *ISO miniature screw threads*

ISO 1502, *ISO general-purpose metric screw threads — Gauges and gauging*

3 Screw threads

The screw threads shall be either of the following:

— ISO metric threads of size S0,8 × 0,2, complying with the requirements of ISO 1501;

— ISO metric screw threads of sizes M1,0 × 0,25; M1,2 × 0,25; M1,4 × 0,3; M1,6 × 0,35 or M2,0 × 0,4, complying with the requirements of ISO 965-3.

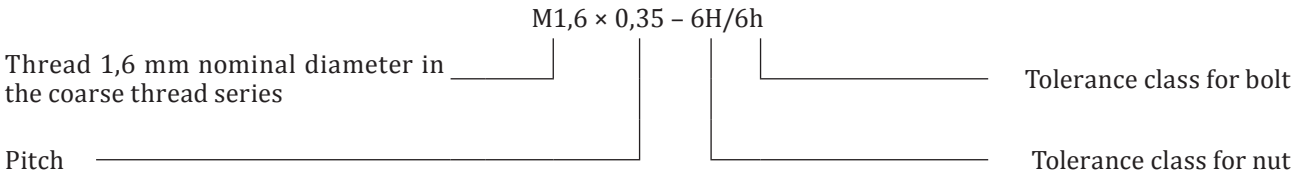
The class of fit shall be as given in Table 1.

Table 1 — Class of fit of screw threads

Screw thread	Class of fit	
	Nut	Screw
S0,8 × 0,2	4H6	5h3
M1,0 × 0,25	5H	6h or 6g
M1,2 × 0,25		
M1,4 × 0,3		
M1,6 × 0,35	6H	
M2,0 × 0,4		

The designation of a screw thread consists of a capital letter indicating the thread series, followed by the value of the nominal diameter and of the pitch, expressed in millimetres, and separated by a Cross (×). The designation of the class of fit consists of a figure indicating the tolerance grade and a letter indicating the tolerance position, capital for nuts and lower case for bolts. The screw thread designation is separated from the class of fit by a dash.

EXAMPLE



4 Definitions and tolerances on lengths of screws

4.1 Flat head machine screws

The length of screws with flat heads is defined to be the distance from the underside surface of the head to the extreme end of the shank, including any chamfer, radius or cone point. See Figure 1.

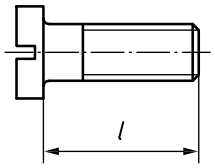


Figure 1 — Flat head machine screws

4.2 Countersunk head screws

The length of screws with countersunk heads is defined to be the distance from the upper surface of the head to the extreme end of the shank, including any chamfer, radius, or cone point. See Figure 2.

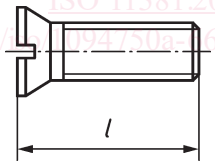


Figure 2 — Countersunk head screws

4.3 Fillister — countersunk head screws

The length of screws with raised countersunk heads is defined to be the distance from the underside surface of the head to the extreme end of the shank, including any chamfer, radius, or cone point. See Figure 3.

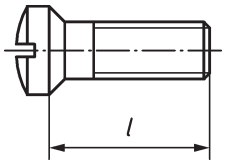


Figure 3 — Fillister — countersunk head screws