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Horology — Procedure for evaluating the accuracy of quartz watches

Horlogerie — Procédure d'évaluation de la précision des montres à quartz

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 114, *Horology*, Subcommittee SC 11, *Indication of accuracy*.

This second edition cancels and replaces the first edition (ISO 10553:2003), which has been technically revised with the following changes:

— Addition of ISO 16269-6:2014 and deletion of ISO 3207:1975 in Clause 2;

— Deletion of the **indicated accuracy classification** definition;

— Adaptation of the Normal and Abnormal distributions (A.4.1 and A.4.2) according to ISO 16269-6:2014;

— Addition of keys after Figures B.1 and B.2.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Horology — Procedure for evaluating the accuracy of quartz watches

1 Scope

This document specifies the procedure for evaluating the accuracy of quartz watches, individually and by lots (see Annex A which presents the methods for statistical evaluation of accuracy by lot), and the relationship between the accuracy tested and the accuracy classification given by the manufacturer.

It applies to quartz watches having accompanying documents on which the accuracy classification is indicated.

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 3158, *Timekeeping instruments — Symbolization of control positions*

ISO 16269-6:2014, *Statistical interpretation of data — Part 6: Determination of statistical tolerance intervals*

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:

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

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

3.1
quartz watch with accuracy indication
quartz watch, the accuracy classification of which is indicated in its accompanying documents, such as operating instructions, prospectus and, labels

3.2
display
accuracy classification indications showing the hours and minutes and having at least one component displaying the seconds to enable the state to be checked

Note 1 to entry: The accuracy classification is expressed in seconds.

4 Symbols and units

The symbols and units for ageing, temperature simulation and accuracy are given in Table 1.