
Horology — Divers' watches

Horlogerie — Montres de plongée



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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 3, Water-resistant watches.

This fourth edition of ISO 6425 cancels and replaces the third edition (ISO 6425:1996) which has been technically revised.

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.

Introduction

This document has been drawn up to meet a global demand for specifications for divers' watches. It is a reference and clarifies the terms used, defines the criteria to be met by the product and specifies the marking which may appear on them.

It also stipulates the tests to be applied in homologation by the manufacturer and at the production stage to demonstrate that the manufacturer's products satisfy this document.

The manufacturer is responsible for stating whether a specific activity falls within the field of use of a particular watch. Similarly, it defines the warranty conditions and the precautions to be taken to maintain the quality of the watch over an extended period of time.

Horology — Divers' watches

1 Scope

This document specifies requirements and test methods for divers' watches and for saturation divers' watches for use in deep diving (see [Annex A](#) which deals with watches for saturation diving).

It applies to divers' watches designed to withstand diving in water at depths of at least 100 m and equipped with a secured measuring system to indicate the diving time, which is visible in darkness.

Moreover, it indicates the marking which the manufacturer is authorized to apply to them.

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 764:2002, *Horology — Magnetic resistant watches*

ISO 1413:2016, *Horology — Shock-resistant wrist watches*

ISO 9227:2017, *Corrosion tests in artificial atmospheres — Salt spray tests*

ISO 17514:2004, *Time-measuring instruments — Photoluminescent deposits — Test methods and requirements*

ISO 22810:2010, *Horology — Water-resistant watches*

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

SCUBA diving

mode of underwater diving in which a diver uses a self-contained underwater breathing apparatus (SCUBA) to breathe underwater

3.2

saturation diving

diving technique that allows divers to reduce the risk of decompression sickness ("the bends") when they work at deep diving for long periods of time

Note 1 to entry: In saturation diving, the divers live in a pressurized environment corresponding to the diving depth, which can be a hyperbaric chamber. This may be maintained for up to several weeks, and the divers are decompressed to surface pressure only once, at the end of their tour of duty. By limiting the number of decompressions in this way, the risk of decompression sickness is significantly reduced.