

TECHNICAL REPORT

ISO TR 10219

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Batteries for watches — Dimensions, requirements and marking

Piles pour montres — Dimensions, exigences et marquage



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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 main task of ISO technical committees is to prepare International Standards. In exceptional circumstances a technical committee may propose the publication of a technical report of one of the following types:

- type 1, when the necessary support within the technical committee cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2, when the subject is still under technical development, requiring wider exposure;
- type 3, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example).

Technical reports are accepted for publication directly by ISO Council. Technical reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

ISO/TR 10219, which is a technical report of type 1, was prepared by Technical Committee ISO/TC 114, *Horology*.



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Introduction

This Technical Report applies to primary batteries used as the energy source for watches. This kind of battery is known by experts as a "button cell" and/or a "small battery". Button cells and small batteries are used not only for watches but also for other applications, for example pocket calculators, hearing aids, etc.

The standardization of button cells and small batteries is conducted within IEC/TC 35, *Primary cells and batteries*. Specifications are laid down in IEC 86. The standards of IEC/TC 35 are applicable in the fields with the highest applications of button cells and small batteries, such as pocket-calculators. However, specific requirements for batteries used in watches are not sufficiently covered by IEC 86.

Consequently, a working group for watch batteries within ISO/TC 114, *Horology* was set up and has clarified questions of specific requirements for watch batteries. The results of this working group have been submitted to IEC/TC 35 and have been included in its discussions. A full agreement on many detail requirements, however, could not yet be achieved. In particular the following points still meet with different opinions:

- main dimensions for watch batteries;
- specific requirements concerning the design;
- tolerances,
- nomenclature,
- performance tests.

Since IEC/TC 35 is continuing its discussions on batteries, the ISO/TC 114 working group will continue to provide the necessary information on requirements for watch batteries. ISO/TC 114 is, however, of the opinion that it is inevitable that requirements and other specifications for watch batteries must be included in complete documents and must be provided for the manufacturers of watches and the consumers. This Technical Report takes care of this justified wish.

This Technical Report is also subject to further considerations and members of WG 1 have already provided relevant proposals. Moreover, ISO/TC 114 intends that this Technical Report be reviewed regularly in the light of technological advances and the availability of more data, with the ultimate objective of converting it into an International Standard or of incorporating the contents of this Technical Report into already existing International Standards.

In following up the previous discussions of IEC/TC 35 for a revision of IEC 86 (see decision 1, Ankara), this Technical Report has been prepared in the shape of a TC 114 proposal for an International Standard for button cells/small batteries. In this way, the envisaged conversion into an International Standard would be facilitated considerably.