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**Rolling bearings — Symbols for  
physical quantities**

*Roulements — Symboles relatifs aux grandeurs*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 15241 was prepared by Technical Committee ISO/TC 4, *Rolling bearings*.

This second edition cancels and replaces the first edition (ISO 15241:2001), which has been technically revised. In particular, references ISO 31-0 and ISO 31-11 have been replaced by ISO 80000-1 and ISO 80000-2, respectively. ISO 281:1990/Amd.1:2000 has been replaced by the new edition of ISO 281 as well. In addition, items 8.04, 8.05, 8.11 and 8.14 in Table 10 have been deleted, which means that other item numbers in Table 10 have been updated.

# Rolling bearings — Symbols for physical quantities

## 1 Scope

This International Standard establishes the presentation of symbols for physical quantities (dimensions, dimensional tolerances, accuracy, load ratings, life, etc.) in the field of rolling bearings. These symbols are primarily intended for use in International Standards and ISO documents relating to rolling bearings, but they are also suitable for use in other printed materials, such as handbooks, illustrations/drawings and pamphlets.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are dispensable 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 281, *Rolling bearings — Dynamic load ratings and rating life*

ISO 1132-1, *Rolling bearings — Tolerances — Part 1: Terms and definitions*

ISO 5593, *Rolling bearings — Vocabulary*

ISO 80000-1, *Quantities and units — Part 1: General*

ISO 80000-2, *Quantities and units — Part 2: Mathematical signs and symbols to be used in the natural sciences and technology*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 281, ISO 1132-1 and ISO 5593 apply.

## 4 Symbols for physical quantities

### 4.1 Principles of the system of symbols

The following principles apply in this International Standard.

- Generally, the principles of the system of symbols shall be in accordance with ISO 80000-1 and ISO 80000-2.
- Symbols for physical quantities used in the field of rolling bearings are defined as quantities in physics. Symbols for dimensionless values such as coefficients, factors and parameters are thus also involved. Mathematical variables, e.g. probability ( $n$ ), are also included.
- Subscripts of subscripts shall not be adopted; for example the subscript letters “dmp” of  $V_{dmp}$  shall be reproduced in the same point size. The form  $V_{d_{mp}}$  should not be used (see Figure 1).
- Superscripts shall not be used.