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**Oscillation-type density meters —**  
**Part 1:**  
**Laboratory instruments**

*Densimètres à oscillations —*

*Partie 1: Instruments de laboratoire*



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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.

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.

International Standard ISO 15212-1 was prepared by Technical Committee ISO/TC 48, *Laboratory glassware and related apparatus*, Subcommittee SC 4, *Density measuring instruments*.

ISO 15212 consists of the following parts, under the general title *Oscillation-type density meters*:

- *Part 1: Laboratory instruments*
- *Part 2: Process instruments for liquids*

Annexes A and B form an integral part of this part of ISO 15212. Annex C is for information only.

# Oscillation-type density meters —

## Part 1: Laboratory instruments

### 1 Scope

This part of ISO 15212 specifies metrological and other requirements for oscillation-type density meters which are used in laboratories for all kinds of homogeneous fluid samples. In addition, a method for adjustment and calibration of laboratory instruments is given. The instruments are either stand-alone units or part of more complex measuring equipment supplying additional test parameters of the sample.

This part of ISO 15212 does not describe the method of use of density meters for particular applications or products such as petroleum products or beverages. Such methods of use can be defined by relevant institutions such as ISO or responsible government agencies.

This part of ISO 15212 does not define an instrument specification for any particular application. For this information reference should be made to the relevant standard covering the method of use.

This part of ISO 15212 is addressed to manufacturers of density meters and to bodies testing and certifying the conformity of density meters. In addition, this part of ISO 15212 gives recommendations for adjustment and calibration of density meters by the user.

### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 15212. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 15212 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3585:1998, *Borosilicate glass 3.3 — Properties*.

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*.

IEC 61010-1:1990, *Safety requirements for electrical equipment for measurement, control and laboratory use — Part 1: General requirements*.

IEC 61326-1:1997, *Electrical equipment for measurement, control and laboratory use — EMC requirements — Part 1: General requirements*.

IEC 61326-1:—<sup>1)</sup>, Amendment 1.

<sup>1)</sup> To be published.