

Quality assurance requirements for measuring equipment —

Part 1: Metrological confirmation system for measuring equipment

The European Standard EN 30012-1:1993 has the status of a
British Standard

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The preparation of this British Standard was entrusted by the Quality, Management and Statistics Standards Policy Committee (QMS/-) to Technical Committee QMS/24, upon which the following bodies were represented:

Association of Consulting Scientists
British Gas plc
British Steel Industry
Consumers' Association
County Surveyors' Society
Department of Trade and Industry (National Measurement Accreditation Service)
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EEA (the Association of the Electronics, Telecommunications and Business Equipment Industries)
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Institute of Physics
Institute of Quality Assurance
Institution of Electrical Engineers
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National foreword

This British Standard has been prepared under the direction of the Quality, Management and Statistics Standards Policy Committee and supersedes BS 5781-1:1979 and BS 5781-2:1981 which are withdrawn. It is identical with ISO 10012-1:1992 *Quality assurance requirements for measuring equipment Part 1: Metrological confirmation system for measuring equipment* published by the International Organization for Standardization (ISO) and in the preparation of which the United Kingdom played a full part.

In 1993 the European Committee for Standardization (CEN) accepted ISO 10012-1:1992 as European Standard EN 30012-1:1993. As a consequence of implementing the European Standard this British Standard is renumbered as BS EN 30012-1 and any reference to BS 5781-1 should be read as a reference to BS EN 30012-1.

Cross-references

International standard	Corresponding British Standard
ISO 8402:1986	BS 4778 <i>Quality vocabulary</i> Part 1:1987 <i>International terms</i> (Identical) BS 5750 <i>Quality systems</i>
ISO 9001:1987	Part 1:1987 <i>Specification for design/development, production, installation and servicing</i> (Identical)
ISO 9002:1987	Part 2:1987 <i>Specification for production and installation</i> (Identical)
ISO 9003:1987	Part 3:1987 <i>Specification for final inspection and test</i> (Identical)
ISO 9004:1987	Part 0: <i>Principal concepts and applications</i> Section 0.2:1987 <i>Guide to quality management and quality system elements</i> (Identical)

BS 5233:1986 *Glossary of terms used in metrology (incorporating BS 2643)* includes the terms in BIPM/IEC/ISO/OIML:1984.

The Technical Committee has reviewed the provisions of ISO/IEC Guide 25, ISO Guide 30 and BIPM/IEC/ISO/OIML, to which normative reference is made in the text, and has decided that they are acceptable for use in conjunction with this standard.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 16, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

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Descriptors: Measuring instruments, standard measures, reference materials, test equipment, quality assurance, quality control, definitions, specifications

English version

Quality assurance requirements for measuring
equipment —
Part 1: Metrological confirmation system for measuring
equipment

(ISO 10012-1:1992)

Exigences d'assurance de la qualité des
équipements de mesure
Partie 1: Confirmation métrologique de
l'équipement de mesure
(ISO 10012-1:1992)

Forderungen an die Qualitätssicherung für
Meßmittel
Teil 1: Bestätigungssystem für Meßmittel
(ISO 10012-1:1992)

This European Standard was approved by CEN on 1993-10-28. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword

Following resolution BT 96/1992, the international standard ISO 10012-1:1992 *Quality assurance requirements for measuring equipment — Part 1: Metrological confirmation system for measuring equipment* was submitted to the Unique Acceptance Procedure (UAP).

The result of the Unique Acceptance Procedure was positive.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 1994, and conflicting national standards shall be withdrawn at the latest by April 1994.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This part of ISO 10012 is written in the context of a Purchaser and a Supplier, both terms being interpreted in the broadest sense. The “Supplier” may be a manufacturer, an installer or a servicing organization responsible for providing a product or a service. The “Purchaser” may be a procurement authority or a customer using a product or service. Suppliers become Purchasers when procuring supplies and services from vendors or other outside sources. The subject of the negotiations relating to this part of ISO 10012 may be a design, an artefact, a product or a service. This part of ISO 10012 may be applied, by agreement, to other situations.

Reference to this part of ISO 10012 may be made:

- by a Purchaser when specifying products or services required;
- by a Supplier when specifying products or services offered;
- by consumer or employee interests, or by legislative or regulatory bodies;
- in assessment and audit of laboratories.

This part of ISO 10012 includes both requirements and (in clause 4) guidance on the implementation of the requirements.

In order to distinguish clearly between requirements and guidance, in clause 4 the latter appears in italic type-face, in a box, after each corresponding paragraph under the heading “GUIDANCE”.

The text under “GUIDANCE” is for information only and contains no requirements. Statements given there are not to be construed as adding to, limiting or modifying any requirement.

NOTE 1 Use of the masculine gender in this part of ISO 10012 is not meant to exclude the feminine gender where applied to persons. Similarly, use of the singular does not exclude the plural (and vice versa) when the sense allows.

1 Scope

1.1 This part of ISO 10012 contains quality assurance requirements for a Supplier to ensure that measurements are made with the intended accuracy. It also contains guidance on the implementation of the requirements.

1.2 This part of ISO 10012 specifies the main features of the confirmation system to be used for a Supplier’s measuring equipment.

1.3 This part of ISO 10012 is applicable to measuring equipment used in the demonstration of compliance with a specification: it does not apply to other items of measuring equipment. This part of ISO 10012 does not deal extensively with other elements that may affect measurement results such as methods of measurement, competence of personnel etc.; these are dealt with more specifically in other International Standards, such as those referred to in 1.4.

1.4 This part of ISO 10012 is applicable:

- to testing laboratories, including those providing a calibration service; this includes laboratories operating a quality system in accordance with ISO/IEC Guide 25;
- to Suppliers of products or services who operate a quality system in which measurement results are used to demonstrate compliance with specified requirements; this includes operating systems that meet the requirements of ISO 9001, ISO 9002 and ISO 9003. The guidance given in ISO 9004 is also relevant;
- to other organizations where measurement is used to demonstrate compliance with specified requirements.

1.5 The role of the Purchaser in monitoring a Supplier’s compliance with the requirements of this part of ISO 10012 may be fulfilled by a third party, such as an accreditation or certification body.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 10012. 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 10012 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 8402:1986, *Quality — Vocabulary*.

ISO 9001:1987, *Quality systems — Model for quality assurance in design/development, production, installation and servicing*.

ISO 9002:1987, *Quality systems — Model for quality assurance in production and installation*.

ISO 9003:1987, *Quality systems — Model for quality assurance in final inspection and test*.

ISO 9004:1987, *Quality management and quality system elements — Guidelines*.

ISO Guide 30:1981, *Terms and definitions used in connection with reference materials*.