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Second edition
2018-11

Geometrical product specifications (GPS) — General concepts and requirements for GPS measuring equipment

*Spécification géométrique des produits (GPS) — Concepts et exigences
généraux pour les équipements de mesure GPS*



Reference number
ISO 14978:2018(E)

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

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Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
3.1 ISO/IEC Guide 99:2007 terms.....	2
3.2 Synonym terms to ISO/IEC Guide 99:2007 terms.....	2
3.3 ISO/IEC Guide 98-4:2012 terms.....	3
3.4 ISO 14253-5:2015 terms.....	3
3.5 Terms related to GPS measuring equipment.....	3
4 Abbreviations	10
5 Design characteristics	10
5.1 General.....	10
5.1.1 Importance of design characteristics.....	10
5.1.2 Standards for measuring equipment.....	11
5.1.3 Measuring equipment — Commerce.....	11
5.1.4 Measuring equipment — Internal use in a company.....	11
5.2 Design characteristics for indicating measuring instruments.....	11
5.3 Design characteristics for material measures.....	12
6 Metrological characteristics	13
6.1 General.....	13
6.1.1 Importance of metrological characteristics.....	13
6.1.2 Standards for measuring equipment.....	13
6.1.3 Identification, definition and choice of metrological characteristics.....	13
6.1.4 Calibration and verification of measuring equipment.....	14
6.1.5 Calibration and verification methods.....	15
6.1.6 Measuring equipment — Commerce.....	17
6.1.7 Measuring equipment — Internal use in a company.....	17
6.2 Indicating measuring instruments.....	17
6.2.1 General.....	17
6.2.2 Scale interval — Resolution.....	18
6.2.3 Digital step.....	18
6.2.4 Error of indication.....	18
6.2.5 Temperature-related metrological characteristics.....	19
6.2.6 Characteristics related to measuring force.....	19
6.2.7 Geometry of contact element.....	19
6.2.8 Auxiliary equipment.....	19
6.3 Material measures.....	20
6.3.1 General.....	20
6.3.2 Scale interval — Resolution of reading.....	20
6.3.3 Form of feature characteristics.....	20
6.3.4 Orientation of feature characteristics.....	20
6.3.5 Temperature-related metrological characteristics.....	20
6.3.6 Geometrical stability.....	20
6.3.7 Other possible metrological characteristics.....	20
7 Specification and presentation of metrological characteristics	21
7.1 General.....	21
7.2 Specification of metrological characteristics.....	21
7.2.1 General.....	21
7.2.2 Constant value MPE function.....	21
7.2.3 Proportional value MPE function.....	22
7.2.4 Proportional and maximum value MPE function.....	23

This is a preview of "ISO 14978:2018". [Click here to purchase the full version from the ANSI store.](#)

7.3	Presentation of characteristic curves.....	24
7.3.1	General.....	24
7.3.2	Presentation of characteristic curves – Reference point.....	24
8	Calibration of metrological characteristics.....	26
8.1	Manufacturer and supplier of measuring equipment.....	26
8.2	User of measuring equipment.....	26
8.3	Measurement uncertainty.....	26
9	Marking.....	27
10	GPS standards for specific measuring equipment.....	27
Annex A	(normative) General minimum requirements and guidance for clauses in GPS standards for specific measuring equipment.....	28
Annex B	(informative) Data sheet for measuring equipment requirements.....	31
Annex C	(normative) Common design characteristics.....	33
Annex D	(informative) Test uncertainty.....	39
Annex E	(informative) Relation to the GPS matrix model.....	41
Bibliography	43

This is a preview of "ISO 14978:2018". [Click here to purchase the full version from the ANSI store.](#)

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 of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee 213, *Dimensional and geometrical product specifications and verification*.

This second edition cancels and replaces the first edition (ISO 14978:2006), which has been technically revised. It also incorporates the Technical Corrigendum ISO 14978:2006/Cor. 1:2008.

The main changes compared to the previous edition are as follows:

- the terms and definitions have been updated relative to ISO/IEC Guide 99:2007;
- a number of design characteristics common in GPS measuring equipment have been added;
- an updated discussion of calibration and verification, including concepts from ISO 14253-5:2015, has been added.

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 is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO 14638). It influences chain links F and G for measuring equipment and calibration in the general GPS matrix model (see [Annex E](#)).

The ISO/GPS matrix model given in ISO 14638 gives an overview of the ISO/GPS system of which this document is a part. The fundamental rules of ISO/GPS given in ISO 8015 apply to this document and the default decision rules given in ISO 14253-1 apply to specifications made in accordance with this document, unless otherwise indicated; see ISO/TR 14253-6 for additional information on the selection of alternative decision rules.

For more detailed information of the relation of this document to other standards and the GPS matrix model, see [Annex E](#).

This document contains guidance for writing the standards for specific GPS measuring equipment.

This document is intended to give the user a basic understanding of the use of ISO standards for GPS measuring equipment. This document presents and defines general concepts to be used in connection with GPS measuring equipment to avoid multiple repetitions in the ISO standards for specific GPS measuring equipment. This document is also intended as guidance for the manufacturer/supplier to evaluate and present specifications for characteristics for GPS measuring equipment.

This document is necessary when reading and using ISO standards for specific GPS measuring equipment.