

**SLOVENSKI STANDARD
SIST EN ISO 13385-1:2019****01-december-2019****Nadomešča:****SIST EN ISO 13385-1:2011**

Specifikacija geometrijskih veličin izdelka (GPS) - Oprema za merjenje dimenzij - 1. del: Konstrukcija in meroslovne karakteristike kljunastih meril (ISO 13385-1:2019)

Geometrical product specifications (GPS) - Dimensional measuring equipment - Part 1: Design and metrological characteristics of callipers (ISO 13385-1:2019)

Geometrische Produktspezifikation (GPS) - Längenmessgeräte - Teil 1: Messschieber; Konstruktionsmerkmale und messtechnische Anforderungen (ISO 13385-1:2019)

Spécification géométrique des produits (GPS) - Équipement de mesurage dimensionnel - Partie 1: Caractéristiques de conception et caractéristiques métrologiques des pieds à coulisse (ISO 13385-1:2019)

Ta slovenski standard je istoveten z: EN ISO 13385-1:2019**ICS:**

17.040.30	Merila	Measuring instruments
17.040.40	Specifikacija geometrijskih veličin izdelka (GPS)	Geometrical Product Specification (GPS)

SIST EN ISO 13385-1:2019**en,fr,de**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 13385-1:2019](#)

<https://standards.iteh.ai/catalog/standards/sist/99829dcc-abfc-47b6-ac06-e347f4bace37/sist-en-iso-13385-1-2019>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 13385-1

September 2019

ICS 17.040.30

Supersedes EN ISO 13385-1:2011

English Version

Geometrical product specifications (GPS) - Dimensional measuring equipment - Part 1: Design and metrological characteristics of callipers (ISO 13385-1:2019)

Spécification géométrique des produits (GPS) -
Équipement de mesure dimensionnel - Partie 1:
Caractéristiques de conception et caractéristiques
métrologiques des pieds à coulisse (ISO 13385-1:2019)

Geometrische Produktspezifikation (GPS) -
Längenmessgeräte - Teil 1: Konstruktionsmerkmale
und messtechnische Anforderungen von
Messschiebern (ISO 13385-1:2019)

This European Standard was approved by CEN on 28 July 2019.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	3

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 13385-1:2019](https://standards.iteh.ai/catalog/standards/sist/99829dcc-abfc-47b6-ac06-e347f4bace37/sist-en-iso-13385-1-2019)
<https://standards.iteh.ai/catalog/standards/sist/99829dcc-abfc-47b6-ac06-e347f4bace37/sist-en-iso-13385-1-2019>

European foreword

This document (EN ISO 13385-1:2019) has been prepared by Technical Committee ISO/TC 213 "Dimensional and geometrical product specifications and verification" in collaboration with Technical Committee CEN/TC 290 "Dimensional and geometrical product specification and verification" the secretariat of which is held by AFNOR.

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 March 2020, and conflicting national standards shall be withdrawn at the latest by March 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 13385-1:2011.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

iTeh STANDARD PREVIEW

(standards.iteh.ai)

Endorsement notice

The text of ISO 13385-1:2019 has been approved by CEN as EN ISO 13385-1:2019 without any modification.

SIST EN ISO 13385-1:2019
<https://standards.iteh.ai/catalog/standards/sist/99829dce-ab1c-47b6-ac06-e347f4bace37/sist-en-iso-13385-1-2019>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 13385-1:2019

<https://standards.iteh.ai/catalog/standards/sist/99829dcc-abfc-47b6-ac06-e347f4bace37/sist-en-iso-13385-1-2019>

INTERNATIONAL
STANDARD

ISO
13385-1

Second edition
2019-08

**Geometrical product specifications
(GPS) — Dimensional measuring
equipment —**

**Part 1:
Design and metrological
characteristics of callipers**

iTeh STANDARD PREVIEW

*Spécification géométrique des produits (GPS) — Équipement de
mesurage dimensionnel —*

*Partie 1: Caractéristiques de conception et caractéristiques
métrologiques des pieds à coulisse*

<https://standards.iteh.ai/catalog/standards/sist/59629dce-4b1c-47b6-ac06-e347f4bace37/sist-en-iso-13385-1-2019>



Reference number
ISO 13385-1:2019(E)

© ISO 2019

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 13385-1:2019

<https://standards.iteh.ai/catalog/standards/sist/99829dcc-abfc-47b6-ac06-e347f4bace37/sist-en-iso-13385-1-2019>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Design characteristics	2
4.1 General design and nomenclature.....	2
4.2 Dimensions.....	2
5 Metrological characteristics	5
5.1 General.....	5
5.2 Rated operating conditions.....	5
5.3 Reference point.....	5
5.4 Test methods.....	5
5.5 Partial surface contact error, E (limited by E_{MPE}).....	5
5.6 Shift error, S (limited by S_{MPE}).....	7
5.6.1 General.....	7
5.6.2 Shift error — Internal measuring faces.....	7
5.6.3 Shift error — Crossed knife-edge internal measuring faces.....	7
5.6.4 Shift error — Depth or step measuring faces.....	8
5.7 MPE values.....	9
5.8 Special cases.....	9
6 Determination of conformity to specifications	9
6.1 General.....	9
6.2 Measurement uncertainty.....	9
6.3 Decision rule.....	10
7 Marking	10
Annex A (informative) Calibration guidelines for metrological characteristics	11
Annex B (normative) Default MPE values for metrological characteristics	12
Annex C (informative) Relation to the GPS matrix model	13
Bibliography	14

ISO 13385-1:2019(E)

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 ISO/TC 213, *Dimensional and geometrical product specifications and verification*.

This second edition cancels and replaces the first edition (ISO 13385-1:2011), which has been technically revised.

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

- figures have been updated to show more modern technology;
- general design characteristics have been removed and reference to ISO 14978:2018 included;
- metrological characteristics have been clarified and modified;
- requirements for test methods have been included;
- default values for maximum permissible errors have been added.

A list of all parts in the ISO 13385 series can be found on the ISO website.

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 the chain links F and G of the chain of standards on size and distance in the general GPS matrix (see [Annex C](#)).

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 on the relation of this document to other standards and the GPS matrix model, see [Annex C](#).

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 13385-1:2019](#)

<https://standards.iteh.ai/catalog/standards/sist/99829dcc-abfc-47b6-ac06-e347f4bace37/sist-en-iso-13385-1-2019>