SLOVENSKI STANDARD

SIST EN ISO 25178-605:2014

01-julij-2014

Specifikacija geometrijskih veličin izdelka (GPS) - Tekstura površine: ploskovna - 605. del: Imenske značilnosti brezkontaktnih (točka avtofokusne sonde) instrumentov (ISO 25178-605:2014)

Geometrical product specifications (GPS) - Surface texture: Areal - Part 605: Nominal characteristics of non-contact (point autofocus probe) instruments (ISO 25178-605:2014)

Geometrische Produktspezifikation (GPS) - Oberflächenbeschaffenheit: Flächenhaft - Teil 605: Merkmale von berührungslos messenden Geräten (Punkt-Autofokus-Sensor) (ISO 25178-605:2014)

Spécification géométrique des produits (GPS) - État de surface: Surfacique - Partie 605: Caractéristiques nominales des instruments sans contact (à capteur autofocus à point) (ISO 25178-605:2014)

Ta slovenski standard je istoveten z: **EN ISO 25178-605:2014**

ICS:

17.040.20	Lastnosti površin	Properties of surfaces

SIST EN ISO 25178-605:2014 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 25178-605

January 2014

ICS 17.040.20

English Version

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Ref. No. EN ISO 25178-605:2014 E

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Foreword

This document (EN ISO 25178-605:2014) 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of an identical text or by endorsement, at the latest by July 2014, and conflicting national standards shall be withdrawn at the latest by July 2014.

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

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Endorsement notice

The text of ISO 25178-605:2014 has been approved by CEN as EN ISO 25178-605:2014 without any modification.

INTERNATIONAL STANDARD

ISO 25178-605

First edition
2014-02-01

Geometrical product specifications (GPS) — Surface texture: Areal —

Part 605: Nominal characteristics of non-contact (point autofocus probe) instruments

Spécification géométrique des produits (GPS) — État de surface: Surfacique —
Partie 605: Caractéristiques nominales des instruments sans contact (capteur autofocus à point)

Reference number
ISO 25178-605:2014(E)

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Published in Switzerland

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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.

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. 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. 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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 213, *Dimensional and geometrical product specifications and verification*.

ISO 25178 consists of the following parts, under the general title *Geometrical product specifications (GPS) — Surface texture: Areal*:

— *Part 1: Indication of surface texture*

— *Part 2: Terms, definitions and surface texture parameters*

— *Part 3: Specification operators*

— *Part 6: Classification of methods for measuring surface texture*

— *Part 70: Material measures*

— *Part 71: Software measurement standards*

— *Part 601: Nominal characteristics of contact (stylus) instruments*

— *Part 602: Nominal characteristics of non-contact (confocal chromatic probe) instruments*

— *Part 603: Nominal characteristics of non-contact (phase-shifting interferometric microscopy) instruments*

— *Part 604: Nominal characteristics of non-contact (coherence scanning interferometry) instruments*

— *Part 605: Nominal characteristics of non-contact (point autofocus probe) instruments*

— *Part 606: Nominal characteristics of non-contact (focus variation) instruments*

— *Part 701: Calibration and measurement standards for contact (stylus) instruments*

The following parts are under preparation:

— *Part 72: XML file format x3p*

Calibration and measurement standards for non-contact (confocal chromatic probe) instruments and calibration and measurement standards for non-contact (phase-shifting interferometric microscopy) instruments are to form the subject of future parts 702 and 703.

A part 600 is planned which is intended to contain provisions common with the other 600-level parts of ISO 25178. Once it has been submitted as a Final Draft International Standard, those provisions in the other 600-level parts that are then redundant will be removed from them.

Introduction

This part of ISO 25178 is a Geometrical Product Specification standard and is to be regarded as a General GPS standard (see ISO/TR 14638). It influences the chain link 5 of the chains of standards on roughness profile, waviness profile, primary profile, and areal surface texture.

For more detailed information on the relationship of this standard to the GPS matrix model, see Annex G.

The ISO/GPS Masterplan given in ISO/TR 14638 gives an overview of the ISO/GPS system of which this standard is a part. The fundamental rules of ISO/GPS given in ISO 8015 apply to this standard and the default decision rules given in ISO 14253-1 apply to specifications made in accordance with this standard, unless otherwise indicated.

The point autofocus optical principle can be implemented in various set-ups. The configuration described in this document comprises three basic elements: an autofocus optical system, an autofocus mechanism, and an electronic controller.

This type of instrument is mainly designed for areal measurements, but it is also able to perform profile measurements.

This part of ISO 25178 describes the metrological characteristics of an optical profiler using a point autofocus probe for the measurement of areal surface texture.

For more detailed information on the point autofocus method, see Annex A. Reading this annex before the main body may lead to a better understanding of this standard.

Geometrical product specifications (GPS) — Surface texture: Areal —

Part 605: Nominal characteristics of non-contact (point autofocus probe) instruments

1 Scope

This part of ISO 25178 describes the metrological characteristics of a non-contact instrument for measuring surface texture using point autofocus probing.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable 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 4287:1997, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters*

ISO 10360-1, *Geometrical Product Specifications (GPS) — Acceptance and reverification tests for coordinate measuring machines (CMM) — Part 1: Vocabulary*

ISO 14406:2010, *Geometrical product specifications (GPS) — Extraction*

ISO 14978:2006, *Geometrical product specifications (GPS) — General concepts and requirements for GPS measuring equipment*

ISO 25178-2:2012, *Geometrical product specifications (GPS) — Surface texture: Areal — Part 2: Terms, definitions and surface texture parameters*

ISO 25178-3:2012, *Geometrical product specifications (GPS) — Surface texture: Areal — Part 3: Specification operators*

ISO 25178-6:2010, *Geometrical product specifications (GPS) — Surface texture: Areal — Part 6: Classification of methods for measuring surface texture*

ISO 25178-601:2010, *Geometrical product specifications (GPS) — Surface texture: Areal — Part 601: Nominal characteristics of contact (stylus) instruments*

ISO 25178-602:2010, *Geometrical product specifications (GPS) — Surface texture: Areal — Part 602: Nominal characteristics of non-contact (confocal chromatic probe) instruments*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4287, ISO 10360-1, ISO 14406, ISO 14978, ISO 25178-2, ISO 25178-3, ISO 25178-6, ISO 25178-601, ISO 25178-602 and the following apply.