

**Toote geomeetriline kirjeldus ja tehnilised
andmed (GPS). Pikkuse etalonid.
Mõõteplokid**

Geometrical product specification (GPS) - Length
standards - Gauge blocks

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 3650:1999 sisaldab Euroopa standardi EN ISO 3650:1998 ingliskeelset teksti. Käesolev dokument on jõustatud 12.12.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 3650:1999 consists of the English text of the European standard EN ISO 3650:1998. This document is endorsed on 12.12.1999 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: Käesolev rahvusvaheline standard määrab kindlaks kõige olulisemad konstruktsiooni- ja mõõtekarakteristikud selliste mõõteplakkide kohta, millel on ristkülikukujuline ristlõige ja mille nominaalpikkus on vahemikus 0,5 mm kuni 1000 mm.	Scope:
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ICS 17.040.30

Võtmesõnad: kalibreerimine, kaliibrid, materjali kirjeldus ja tehnilised andmed, mehaanilised mõõteriistad, mõõteplakid, mõõtmed, mõõtmete määramine, mõõtmeterolerantsid, märgistus, tehnilised andmed, toote geomeetriline kirjeldus ja tehnilised andmed, vormi tolerantsid

ICS 17.040.30

Descriptors: GPS, length standards, gauge blocks.

English version

Geometrical Product Specifications (GPS)
Length standards – Gauge blocks
(ISO 3650 : 1998)

Spécification géométrique des
produits (GPS) – Étalons de
longueur – Cales-étalons
(ISO 3650 : 1998)

Geometrische Produktspezifikationen
(GPS) – Längennormale – Parallel-
endmaße (ISO 3650 : 1998)

This European Standard was approved by CEN on 1998-11-08.

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.

The European Standards exist 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

Foreword

International Standard

ISO 3650 : 1998 Geometrical Product Specifications (GPS) – Length standards – Gauge blocks, which was prepared by ISO/TC 213 'Dimensional and geometrical product specifications and verification' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 290 'Dimensional and geometrical product specifications and verification', the Secretariat of which is held by DIN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by June 1999 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 3650 : 1998 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative)

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Introduction

This International Standard is a geometrical product specification standard and is to be regarded as a general GPS standard (see ISO/TR 14638). It influences chain link 6 (Calibration requirements — Calibration standards) of the chain of standards on size and distance.

For more detailed information on the relation of this standard to the GPS matrix model, see annex B.

Gauge blocks are length standards representing specified fractions of the unit of length, the metre, of the international system of units SI. Depending on the kind of application and the required quality, gauge blocks are offered in several grades. The calibration of the gauge blocks, i.e. the measurement of the length value at a specified point of the measuring face and the evaluation of the measurement uncertainty, is the basis for the application of gauge blocks as length standards.

1 Scope

This International Standard specifies the most important design and metrological characteristics of gauge blocks with a rectangular cross section and a nominal length l_n ranging from 0,5 mm to 1 000 mm.

Limit deviations and tolerances are stated for the calibration grade K and for the grades 0, 1 and 2 for various measuring purposes.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard 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 1:1975, *Standard reference temperature for industrial length measurements*.

ISO 1101:—¹⁾, *Geometrical Product Specifications (GPS) — Geometrical tolerancing — Generalities, definitions, symbols, indication on drawings*.

ISO 6507-1:1997, *Metallic materials — Vickers hardness test — Part 1: Test method*.

ISO 14253-1:1998, *Geometrical Product Specifications (GPS) — Inspection by measurement of workpieces and measuring equipment — Part 1: Decision rules for proving conformance or non-conformance with specifications*.

International vocabulary of basic and general terms in metrology (VIM). BIPM, IEC, IFCC, ISO, IUPAC, IUPAP, OIML, 2nd edition, 1993.

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 14253-1, VIM and the following apply.

3.1

gauge block

material measure of rectangular section, made of wear-resistant material, with one pair of planar, mutually parallel measuring faces, which can be wrung to the measuring faces of other gauge blocks to make composite assemblies, or to similarly finished surfaces of auxiliary plates for length measurements

¹⁾ To be published. (Revision of ISO 1101:1983)