

**Manipuleerivad tööstusrobotid. Tööorganite
automaatvahetuse süsteemid. Sõnastik ja
tunnusomaduste esitus**

Manipulating industrial robots - Automatic end
effector exchange systems - Vocabulary and
presentation of characteristics

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 11593:1999 sisaldab Euroopa standardi EN ISO 11593:1997 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.12.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 11593:1999 consists of the English text of the European standard EN ISO 11593:1997.</p> <p>This document is endorsed on 12.12.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>Standard määratleb terminid, mis seonduvad tootmiskeskkonnas kasutatavate manipuleerivate tööstusrobotite tööorganite automaatvahetuse süsteemidega. Terminid on esitatud nende tähise, ühiku, määratluse ja nimetusega. Määratlus sisaldab kohaldatavaid viiteid olemasolevatele standarditele.</p>	<p>Scope:</p>
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ICS 01.040.25, 25.040.30

Võtmesõnad: automaatika, automatiseerimine, esitus, manipulaatorid, sõnastik, tunnusomadused, tööstusrobotid

ICS 01.040.25; 25.040.30

Descriptors: Industrial robots, plates.

English version

Manipulating industrial robots – Automatic end effector exchange systems

Vocabulary and presentation of characteristics
(ISO 11593 : 1996)

Robots manipulateurs industriels –
Systèmes de changement automa-
tique de terminal – Vocabulaire et
présentation des caractéristiques
(ISO 11593 : 1996)

Industrieroboter – Automatische
Wechselsysteme für Endeffektoren –
Begriffe und Darstellung charakte-
ristischer Eigenschaften
(ISO 11593 : 1996)

This European Standard was approved by CEN on 1997-09-18.

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.

CEN members are the national standards bodies of 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.

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 11593 : 1996 Manipulating industrial robots – Automatic end effector exchange systems – Vocabulary and presentation of characteristics,

which was prepared by ISO/TC 184 'Industrial automation systems and integration' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 310 'Advanced manufacturing technologies', the Secretariat of which is held by BSI, 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 April 1998 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 11593 : 1996 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

ISO 11593 is one of a series of standards dealing with the requirements of manipulating industrial robots. Other documents cover such topics as terminology, general characteristics, coordinate systems, performance criteria and related test methods, safety, robot programming languages, and robot companion standards to MMS. It is noted that these standards are interrelated and also related to other International Standards.

Automatic exchange systems for end effectors increase in importance for handling devices. This International Standard contains the vocabulary and presentation of characteristics, e.g. forces, moments (torques), and exchange times, for end effector exchange systems. This International Standard does not contain any details for the development and design of these systems.

1 Scope

This International Standard defines terms relevant to automatic end effector exchange systems used for manipulating industrial robots operated in a manufacturing environment.

The terms are presented by their symbol, unit, definition and description. The definition includes applicable references to existing standards.

Annex A provides a format for the presentation of automatic end effector exchange systems characteristics.

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 8373:1994, *Manipulating industrial robots — Vocabulary*.

ISO 9409-1:1996, *Manipulating industrial robots — Mechanical interfaces — Part 1: Plates (form A)*.

ISO 9409-2:1996, *Manipulating industrial robots — Mechanical interfaces — Part 2: Shafts (form A)*.

ISO 9787:1990, *Manipulating industrial robots — Coordinate systems and motions*.

3 Terms and definitions

For the purposes of this International Standard, the definitions given in ISO 8373 apply.