SLOVENSKI STANDARD

SIST EN 60447:2004

september 2004

Osnovna in varnostna načela za vmesnik človek-stroj, označevanje in identifikacija – Načela upravljanja

Basic and safety principles for man-machine interface, marking and identification - Actuating principles

ICS 13.180

Referenčna številka
SIST EN 60447:2004(en)

EUROPEAN STANDARD **EN 60447**

NORME EUROPÉENNE

EUROPÄISCHE NORM April 2004

ICS 29.020 Supersedes EN 60447:1993

English version

Basic and safety principles for man-machine interface, marking and identification – Actuating principles
(IEC 60447:2004)

Principes fondamentaux et de sécurité pour l'interface homme-machine, le marquage et l'identification – Principes de manoeuvre
(CEI 60447:2004)

Grund- und Sicherheitsregeln für die Mensch-Maschine-Schnittstelle, Kennzeichnung – Bedienungsgrundsätze
(IEC 60447:2004)

This European Standard was approved by CENELEC on 2004-03-01. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC
European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Ref. No. EN 60447:2004 E

Foreword

The text of document 16/419/FDIS, future edition 3 of IEC 60447, prepared by IEC TC 16, Basic and safety principles for man-machine interface, marking and identification, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60447 on 2004-03-01.

This European Standard supersedes EN 60447:1993.

This European Standard includes the following significant changes with respect to EN 60447:1993:

- requirements concerning rotating actuators have been added;
- requirements concerning work with display screen equipment have been added.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2004-12-01

– latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-03-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60447:2004 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

ISO 9241-15	NOTE	Harmonized as EN ISO 9241-15:1997 (not modified).
ISO 9241-17	NOTE	Harmonized as EN ISO 9241-17:1998 (not modified).
ISO 11064-1	NOTE	Harmonized as EN ISO 11064-1:2000 (not modified).
ISO 11064-2	NOTE	Harmonized as EN ISO 11064-2:2000 (not modified).
ISO 11064-3	NOTE	Harmonized as EN ISO 11064-3:1999 (not modified).

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60050-721	- [1)]	International Electrotechnical Vocabulary (IEV) Chapter 721: Telegraphy facsimile and data communication	-	-
IEC 60073	- [1)]	Basic and safety principles for man-machine interface, marking and identification - Coding principles for indicators and actuators	EN 60073	2002 [2)]
IEC Guide 104	- [1)]	The preparation of safety publications and the use of basic safety publications and group safety publications	-	-
ISO/IEC Guide 51	- [1)]	Safety aspects - Guidelines for their inclusion in standards	-	-

1) Undated reference.

2) Valid edition at date of issue.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
60447

Troisième édition
Third edition
2004-01

PUBLICATION FONDAMENTALE DE SÉCURITÉ
BASIC SAFETY PUBLICATION

Principes fondamentaux et de sécurité pour l'interface homme-machine, le marquage et l'identification – Principes de manoeuvre

Basic and safety principles for man-machine interface, marking and identification – Actuating principles

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International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE S

Pour prix, voir catalogue en vigueur
For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

BASIC AND SAFETY PRINCIPLES FOR MAN-MACHINE INTERFACE, MARKING AND IDENTIFICATION – ACTUATING PRINCIPLES

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60447 has been prepared by IEC technical committee 16: Basic and safety principles for man-machine interface, marking and identification.

This third edition cancels and replaces the second edition published in 1993 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) special national conditions have been revised editorially;
b) requirements concerning rotating actuators have been added;
c) requirements concerning work with display screen equipment have been added.

It has the status of a basic safety publication in accordance with IEC Guide 104.

The text of this standard is based on the following documents:

FDIS	Report on voting
16/419/FDIS	16/420/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until 2008. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

INTRODUCTION

This basic safety publication is intended for use by technical committees in the preparation of standards; it is not intended to be used on its own except in the absence of such standards.

Where no safety consideration is involved, the relevant technical committee may permit specific exclusions within the framework of this basic safety publication, and according to the rules given in IEC Guide 104 and ISO/IEC Guide 51.

Different kinds of actuators enable electrical equipment and processes to be operated and maintained under normal and fault conditions.

In modern equipment, the moving of an actuator in a certain direction is only one method of actuation. In addition, actuators or data input devices arranged in the form of function or alphanumeric keyboards, or other kinds of actuator (e.g. light pen, touch sensitive screen, mouse), are in general use for computerized equipment.

Actuators as a part of the man-machine interface may have a different importance in the dialogue between the operator and the equipment or machine.

Standardization is especially important where safety is concerned (e.g. where an incorrect actuation may cause damage, or where a frequent or rapid actuation is necessary, such as in the operation of cranes or transport vehicles), and is particularly necessary in the case of equipment likely to be operated by unskilled persons.

Ergonomic aspects should also be taken into account.