

Basic principles for graphical symbols for use on equipment - Part 2: Form and use of arrows

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equipment - Part 2: Form and use of arrows

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 80416-2:2003 sisaldab Euroopa standardi EN 80416-2:2001 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 08.05.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 80416-2:2003 consists of the English text of the European standard EN 80416-2:2001.</p> <p>This document is endorsed on 08.05.2003 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: ISO 80416-2 lays down the basic principles and the proportions for arrows used to indicate various elements, forces, functions or dimensions. The arrows defined in ISO 80416-2 are used as graphical symbols or graphical symbol elements</p>	<p>Scope: ISO 80416-2 lays down the basic principles and the proportions for arrows used to indicate various elements, forces, functions or dimensions. The arrows defined in ISO 80416-2 are used as graphical symbols or graphical symbol elements</p>
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Võtmesõnad: design, documentations, electrical engineering, equipment, graphic methods, graphic symbols, graphical methods, marking, production, products documentation, rules, shape, shapes, significance, specification (approval), specifications, symbols, technical documents

EUROPEAN STANDARD

EN 80416-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2001

ICS 01.080.020

English version

Basic principles for graphical symbols for use on equipment
Part 2: Form and use of arrows
(ISO 80416-2:2001)

Principes de base pour les symboles
graphiques utilisables sur le matériel
Part 2: Forme et utilisation des flèches
(ISO 80416-2:2001)

Allgemeine Grundlagen für Graphische
Symbole auf Einrichtungen
Teil 2: Form und Anwendung von Pfeilen
(ISO 80416-2:2001)

This European Standard was approved by CENELEC on 2001-07-03. 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.

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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

Foreword

The text of document 3C/601/FDIS, future edition 1 of ISO 80416-2, prepared by ISO Technical committee 145, Graphical Symbols, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 80416-2 on 2001-07-03.

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) 2002-04-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2004-07-01

Annexes designated "normative" are part of the body of the standard.

In this standard, annexes A and ZA are normative.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard ISO 80416-2:2001 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 80416-1	2001	Basic principles for graphical symbols for use on equipment Part 1: Creation of symbol originals	EN 80416-1	2001
IEC 60417	Series	Graphical symbols for use on equipment	EN 60417	Series
ISO 7000	1)	Graphical symbols for use on equipment - Index and synopsis	-	-

1) undated reference.

**Basic principles for graphical symbols for
use on equipment —**

**Part 2:
Form and use of arrows**

Principes de base pour les symboles graphiques utilisables sur le matériel —

Partie 2: Forme et utilisation des flèches

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of ISO 80416-2 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

In order to collect all requirements concerning basic principles for graphical symbols for use on equipment, ISO/TC 145, *Graphical symbols*, and IEC/TC 3, *Documentation and graphical symbols*, agreed to prepare jointly all parts of this International Standard and to publish them under the general number 80416. For each of the individual parts of this series, only one of the two organizations is responsible. Meanwhile, the technical committees have agreed that no modification will be made to International Standard 80416 except by mutual agreement.

International Standard ISO 80416-2 was accordingly prepared jointly by Technical Committee ISO/TC 145, *Graphical symbols*, and Technical Committee IEC/TC 3, *Documentation and graphical symbols*. The draft was circulated for voting to the national bodies of both ISO and IEC.

This first edition of ISO 80416-2 cancels and replaces ISO 4196. It provides guidelines which are equally applicable to graphical symbols prepared within ISO and IEC.

International Standard 80416 consists of the following parts, under the general title *Basic principles for graphical symbols for use on equipment*:

- *Part 1: Creation of symbol originals* (published by IEC)
- *Part 2: Form and use of arrows* (published by ISO)
- *Part 3: Guidelines for the application of graphical symbols* (published by IEC)

Annex A forms a normative part of ISO 80416-2.

Introduction

A graphical symbol is a visually perceptible figure used to transmit information independently of language. Graphical symbols are used on equipment for a wide range of purposes. For such symbols, consistency in the design of families of symbols used in one location or on similar equipment is an important issue, as is legibility when these symbols are reduced to small dimensions. Thus, there is a need to standardize the principles for creating graphical symbols for use on equipment in order to ensure visual clarity, to maintain consistency and thereby to improve recognition.

This International Standard addresses the basic rules used to create graphical symbols for use on equipment, including line widths, form and use of arrows, negation elements, and use of the basic pattern which serves as a guideline for drawing equipment symbols. These design principles should be used for all graphical symbols for use on equipment, the standardized graphical symbols of which are found in ISO 7000 and IEC 60417.

ISO 80416-2 has been produced to promote the use of a reduced number of arrow forms as symbol elements or graphical symbols.

Basic principles for graphical symbols for use on equipment —

Part 2: Form and use of arrows

1 Scope

ISO 80416-2 lays down the basic principles and the proportions for arrows used to indicate various elements, forces, functions or dimensions. The arrows defined in ISO 80416-2 are used as graphical symbols or graphical symbol elements.

When new symbol originals are created or graphical symbols in current use are revised, the principles established in ISO 80416-2 are applicable.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of ISO 80416-2. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on ISO 80416-2 are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 80416-1:2001, *Basic principles for graphical symbols for use on equipment — Part 1: Creation of symbol originals*.

3 General principle

Symbol originals containing arrows shall be created in accordance with IEC 80416-1.

The head of the arrow is used to indicate the point where a force or dimension applies, or to indicate the direction of a physical movement or functional movement.

4 Definitions of arrow forms and specific meaning

4.1 Basic arrow form

The basic arrow form as specified in Figure 1 shall be used to indicate any meaning which involves a movement, whether physical, functional or otherwise.



IEC 60417-5022: Movement in one direction

Figure 1 — Basic arrow form