

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

AMENDMENT 1  
AMENDEMENT 1

**Basic principles for graphical symbols for use on equipment –  
Part 3: Guidelines for the application of graphical symbols**

**Principes élémentaires pour les symboles graphiques utilisables sur le matériel –  
Partie 3: Guide pour l'application des symboles graphiques**

<https://standards.iteh.ai/catalog/standards/sist/36065b62-afaa-45d9-aafa-0df609a5dc84/iec-80416-3-2002-amd-1-2013>



## THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2011 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester.

If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de la CEI ou du Comité national de la CEI du pays du demandeur.

Si vous avez des questions sur le copyright de la CEI ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de la CEI de votre pays de résidence.

IEC Central Office  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland  
Email: [inmail@iec.ch](mailto:inmail@iec.ch)  
Web: [www.iec.ch](http://www.iec.ch)

### About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

### About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

■ Catalogue of IEC publications: [www.iec.ch/searchpub](http://www.iec.ch/searchpub)  
The IEC on-line Catalogue enables you to search by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, withdrawn and replaced publications.

■ IEC Just Published: [www.iec.ch/online\\_news/justpub](http://www.iec.ch/online_news/justpub)  
Stay up to date on all new IEC publications. Just Published details twice a month all new publications released. Available on-line and also by email.

■ Electropedia: [www.electropedia.org](http://www.electropedia.org)  
The world's leading online dictionary of electronic and electrical terms containing more than 20 000 terms and definitions in English and French, with equivalent terms in additional languages. Also known as the International Electrotechnical Vocabulary online.

■ Customer Service Centre: [www.iec.ch/webstore/custserv](http://www.iec.ch/webstore/custserv)  
If you wish to give us your feedback on this publication or need further assistance, please visit the Customer Service Centre FAQ or contact us:

Email: [csc@iec.ch](mailto:csc@iec.ch)  
Tel.: +41 22 919 02 11  
Fax: +41 22 919 03 00

### A propos de la CEI

La Commission Electrotechnique Internationale (CEI) est la première organisation mondiale qui élabore et publie des normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

### A propos des publications CEI

Le contenu technique des publications de la CEI est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

■ Catalogue des publications de la CEI: [www.iec.ch/searchpub/cur\\_fut-f.htm](http://www.iec.ch/searchpub/cur_fut-f.htm)  
Le Catalogue en-ligne de la CEI vous permet d'effectuer des recherches en utilisant différents critères (numéro de référence, texte, comité d'études,...). Il donne aussi des informations sur les projets et les publications retirées ou remplacées.

■ Just Published CEI: [www.iec.ch/online\\_news/justpub](http://www.iec.ch/online_news/justpub)  
Restez informé sur les nouvelles publications de la CEI. Just Published détaille deux fois par mois les nouvelles publications parues. Disponible en-ligne et aussi par email.

■ Electropedia: [www.electropedia.org](http://www.electropedia.org)  
Le premier dictionnaire en ligne au monde de termes électroniques et électriques. Il contient plus de 20 000 termes et définitions en anglais et en français, ainsi que les termes équivalents dans les langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International en ligne.

■ Service Clients: [www.iec.ch/webstore/custserv/custserv\\_entry-f.htm](http://www.iec.ch/webstore/custserv/custserv_entry-f.htm)  
Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions, visitez le FAQ du Service clients ou contactez-nous:

Email: [csc@iec.ch](mailto:csc@iec.ch)  
Tél.: +41 22 919 02 11  
Fax: +41 22 919 03 00



IEC 80416-3

Edition 1.0 2011-07

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

AMENDMENT 1  
AMENDEMENT 1

**Basic principles for graphical symbols for use on equipment –  
Part 3: Guidelines for the application of graphical symbols**

**Principes élémentaires pour les symboles graphiques utilisables sur le matériel –  
Partie 3: Guide pour l'application des symboles graphiques**

<https://standards.iteh.ai/catalog/standards/sist/36065b62-afaa-45d9-aafa-0df609a5dc84/iec-80416-3-2002-amd-1-2013>

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

PRICE CODE  
CODE PRIX

**F**

ICS 01.080.20

ISBN 978-2-88912-579-1

## FOREWORD

This amendment has been prepared by subcommittee 3C: Graphical symbols for use on equipment, of IEC technical committee 3: Information structures, documentation and graphical symbols.

This amendment has been prepared in collaboration with ISO TC 145/SC 3.

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

CDV	Report on voting
3C/1687/CDV	3C/1711/RVC

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

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

iTeh STANDARD PREVIEW  
(standards.iteh.ai)

[IEC 80416-3:2002/Amd 1:2013](https://standards.iteh.ai/catalog/standards/sist/366562-afaa-45d9-aafa-0df609a5dc84/iec-80416-3-2002-amd-1-2013)

<https://standards.iteh.ai/catalog/standards/sist/366562-afaa-45d9-aafa-0df609a5dc84/iec-80416-3-2002-amd-1-2013>

## INTRODUCTION

*Replace the first and the second paragraphs by the following paragraphs, respectively:*

A graphical symbol is defined as a visually perceptible figure with a particular meaning used to transmit information independently of language. Graphical symbols are used on equipment for a wide range of purposes. The understanding of such symbols can be improved by consistent design. This is particularly important where families of symbols are used in one location or on similar equipment. Good design also helps to maintain the legibility of symbols when they are reduced to small dimensions for application. Thus, there is a need to standardize the principles for creating graphical symbols for use on equipment to ensure visual clarity, to maintain consistency and thereby to improve recognition.

The IEC 80416 series is a multi-part international standard which provides basic principles and guidelines for the creation of graphical symbols for use on equipment (Parts 1 and 2) and also principles and guidelines for adapting registered graphical symbols for use in practice (Parts 3 and 4).

### 1 Scope

*Delete the first paragraph.*

## 2 Normative references

*Replace the reference to IEC 80416-1 by the following:*

IEC 80416-1:2008, *Basic principles for graphical symbols for use on equipment – Part 1: Creation of graphical symbols for registration*

*Replace the reference to ISO/FDIS 3864-1:2001 by the following:*

ISO 3864-1, *Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs and safety markings*

*Add the following reference:*

ISO 3864-2, *Graphical symbols – Safety colours and safety signs – Part 2: Design principles for product safety labels*

*Replace the reference to ISO/FDIS 7010:2001 by the following:*

ISO 7010, *Graphical symbols – Safety colours and safety signs – Safety signs used in workplaces and public areas*

*Add the following footnote to ISO 7000:*

The ISO 7000 collection of graphical symbols for use on equipment is also available online, either separately or jointly with the IEC 60417 collection of graphical symbols for use on equipment. ISO Catalogue provides further information on this regard.

*Replace the reference to IEC 60417 (all parts) by the following:*

IEC 60417, *Graphical symbols for use on equipment*

*Add the following reference:*

ISO 80416-4, *Basic principles for graphical symbols for use on equipment – Part 4: Guidelines for the adaptation of graphical symbols for use on screens and displays (icons)*

## 3 Definitions

*Replace the title of Clause 3 by the following:*

Terms and definitions

*Delete 3.2.*

### 4.2 Screens and displays

*Add the following to the first paragraph:*

In this application, ISO 80416-4 shall be taken into consideration.

*Delete Note 1 and renumber Note 2 to “Note”.*

**4.4 International Standards**

*Replace in Note, the reference ISO/FDIS 14617 by the following:*

ISO 14617.

**6.1 Modification according to design**

*Replace the text of the existing subclause by the following:*

To coordinate with the design requirements of equipment, it is allowed:

- a) to change the line width;
- b) to round the corners;
- c) to fill areas;
- d) to interrupt crossing lines;
- e) to adapt distances between graphical elements;
- f) to adapt the relative proportions of graphical elements;
- g) to modify the type of arrow.

If several graphical symbols are applied together, it can be necessary and it is permitted to adjust their relative sizes and positions in order to achieve a balanced appearance on the equipment.

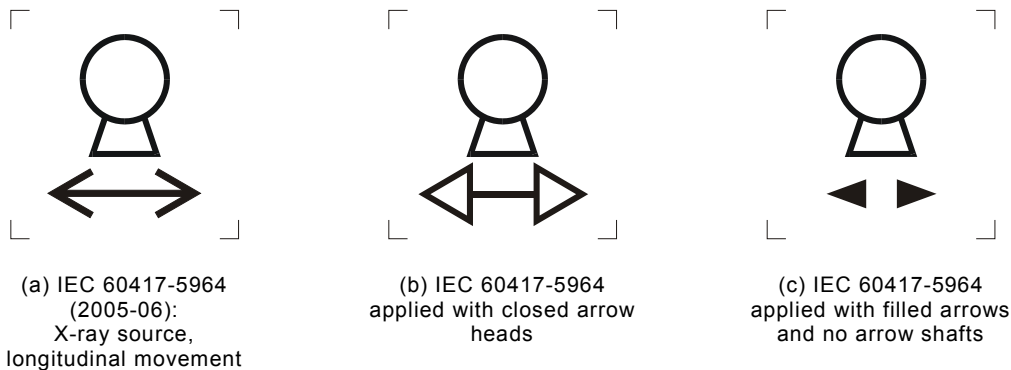
These changes shall only be made to the extent that the basic communicative characteristics of the graphical symbol remain unchanged.

**6.5 Interruption of crossing lines**

*Add after the existing subclause 6.5, the following new subclause 6.6 and the following new Figure:*

**6.6 Modification of arrow type**

The arrow type may be modified as in the examples given in Figure 11.



**Figure 11 – Examples of arrows**

**7 Negation**

*Replace the first paragraph by the following:*

The meaning of graphical symbols registered in ISO 7000 and IEC 60417 may also be negated when they are applied. The method and the meaning of negation should be in agreement with IEC 80416-1:2008, 7.9.

*Replace the second paragraph by the following:*

An application of a circle with a diagonal bar defined in ISO 3864-1 to graphical symbols denotes a 'prohibition'. Therefore, a circle combined with a diagonal bar, in any colour including black and white, shall not be used for other meaning than prohibition.

## 8 Arrows

*Delete the last sentence of Clause 8, located below Figure 6.*

### 9.1 Orientation

*Replace the second paragraph by the following:*

If there is no conflict of meaning, the orientation may be changed or the graphical symbol or part of it may be presented in a mirrored position in order to take the equipment or the given reference system into account, as shown in the examples in Figures 7 and 12.

*Add the following new figure, after the existing Figure 8:*



**Figure 12 – Example of mirroring**

### 9.2 Application dependent orientation

*Replace the first sentence by the following:*

The meaning of a graphical symbol can depend upon its orientation in a particular context of use and care should be taken to avoid ambiguity.

## 10 Use of colour

*Replace the text in brackets by the following:*

see ISO 3864-1, ISO 3864-2 , IEC 60073 and ISO 7010

*Delete footnote 2.*

## Bibliography

*Replace the reference ISO/FDIS 14617-1 by the following:*

ISO 14617-1, *Graphical symbols for diagrams – Part 1: General information and indexes*

---

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[IEC 80416-3:2002/Amd 1:2013](https://standards.iteh.ai/catalog/standards/sist/36065b62-afaa-45d9-aafa-0df609a5dc84/iec-80416-3-2002-amd-1-2013)

<https://standards.iteh.ai/catalog/standards/sist/36065b62-afaa-45d9-aafa-0df609a5dc84/iec-80416-3-2002-amd-1-2013>





## AVANT-PROPOS

Le présent amendement a été établi par le sous-comité 3C: Symboles graphiques utilisables sur le matériel, du comité d'études 3 de la CEI: Structures d'informations, documentation et symboles graphiques.

Le présent amendement a été établi en collaboration avec le TC 145/SC 3 de l'ISO.

Le texte de cet amendement est issu des documents suivants:

CDV	Rapport de vote
3C/1687/CDV	3C/1711/RVC

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cet amendement.

Le comité a décidé que le contenu de cette publication ne sera pas modifié avant la date de stabilité indiquée sur le site web de la CEI sous "http://webstore.iec.ch" dans les données relatives à la publication recherchée. A cette date, la publication sera

- reconduite,
- supprimée,
- remplacée par une édition révisée, ou
- amendée.

(standards.iteh.ai)

[IEC 80416-3:2002/Amd 1:2013](https://standards.iteh.ai/catalog/standards/sist/36065b62-afaa-45d9-aafa-0df609a5dc84/iec-80416-3-2002-amd-1-2013)

<https://standards.iteh.ai/catalog/standards/sist/36065b62-afaa-45d9-aafa-0df609a5dc84/iec-80416-3-2002-amd-1-2013>

## INTRODUCTION

*Remplacer le premier et le deuxième alinéa par les alinéas suivants, soit respectivement:*

Un symbole graphique est défini comme un dessin reconnaissable visuellement, ayant une signification particulière et qui est utilisé pour transmettre des informations indépendamment de la langue. Les symboles graphiques sont utilisés sur le matériel pour une large gamme de fonctions. La compréhension de tels symboles peut être améliorée par une conception cohérente. Ceci est particulièrement important lorsque des familles de symboles sont utilisées à un même emplacement ou sur des matériels analogues. Une bonne conception aide aussi à conserver la lisibilité des symboles lorsqu'ils sont réduits à de petites dimensions pour leur application. Il y a donc un besoin de normaliser les principes de création des symboles graphiques utilisables sur le matériel pour assurer une clarté visuelle, pour maintenir une cohérence et par là même pour améliorer la reconnaissance.

La série CEI 80416 est une norme internationale à parties multiples qui donne les principes de base et les lignes directrices pour la création des symboles graphiques utilisables sur le matériel (Parties 1 et 2) et aussi les principes et les lignes directrices pour l'adaptation des symboles graphiques enregistrés pour leur utilisation dans la pratique (Parties 3 et 4).

### 1 Objet

*Supprimer le premier alinéa.*