

**SLOVENSKI
STANDARD**

SIST EN 60617-4:1997

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december 1997

Graphical symbols for diagrams - Part 4: Basic passive components (IEC 617-4:1996)

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ICS 01.080.40; 29.020

Referenčna številka
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ICS 01.080.30

Descriptors: Electronic component, passive components, electric diagram, electrical symbol

English version

Graphical symbols for diagrams
Part 4: Basic passive components
(IEC 617-4:1996)

Symboles graphiques pour schémas
Partie 4: Composants passifs de base
(CEI 617-4:1996)

Graphische Symbole für Schaltpläne
Teil 4: Schaltzeichen für passive
Bauelemente
(IEC 617-4:1996)

This European Standard was approved by CENELEC on 1996-03-05. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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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 3A/382/FDIS, future edition 2 of IEC 617-4, prepared by SC 3A, Graphical symbols for diagrams, of IEC TC 3, Documentation and graphical symbols, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60617-4 on 1996-03-05.

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) 1997-03-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1997-03-01

Endorsement notice

The text of the International Standard IEC 617-4:1996 was approved by CENELEC as a European Standard without any modification.

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
617-4

Deuxième édition
Second edition
1996-06

Symboles graphiques pour schémas –

**Partie 4:
Composants passifs de base**

Graphical symbols for diagrams –

**Part 4:
Basic passive components**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
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● Pour prix, voir catalogue en vigueur
For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

GRAPHICAL SYMBOLS FOR DIAGRAMS –

Part 4 : Basic passive components

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

International Standard IEC 617-4 has been prepared by sub-committee 3A: Graphical symbols for diagrams, of IEC technical committee 3: Documentation and graphical symbols.

This second edition cancels and replaces the first edition published in 1983 and constitutes a technical revision.

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

FDIS	Report on voting
3A/382/FDIS	3A/420/RVD

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

Annexes A, B and C are for information only.

INTRODUCTION

This part of IEC 617 forms an element of a series which deals with graphical symbols for diagrams.

The series consists of the following parts:

- Part 1: General information, general index. Cross-reference tables
- Part 2: Symbol elements, qualifying symbols and other symbols having general application
- Part 3: Conductors and connecting devices
- Part 4: Basic passive components
- Part 5: Semiconductors and electron tubes
- Part 6: Production and conversion of electrical energy
- Part 7: Switchgear, controlgear and protective devices
- Part 8: Measuring instruments, lamps and signalling devices
- Part 9: Telecommunications: Switching and peripheral equipment
- Part 10: Telecommunications: Transmission
- Part 11: Architectural and topographical installation plans and diagrams
- Part 12: Binary logic elements
- Part 13: Analogue elements

The scope and the normative references for this series are given in IEC 617-1.

Symbols have been designed in accordance with requirements given in the future ISO 11714-1*. The module size $M = 2,5$ mm has been used. For better readability smaller symbols in this standard have been enlarged to double size and are marked "200 %" in the symbol column. To save space larger symbols have been reduced to half size and are marked "50 %" in the symbol column. In accordance with the future ISO 11714-1, clause 7, symbol dimensions (for instance height) may be modified in order to make space for greater number of terminals or for other layout requirements. In all cases, whether the size is enlarged or reduced, or dimensions modified, the thickness of the original line should be maintained without scaling.

The symbols in this standard are laid out in such a way that the distance between connecting lines is a multiple of a certain module. The module $2M$ has been chosen to provide enough space for a required terminal designation. The symbols have been drawn to a size convenient for comprehension, using the same grid consistently in the representation of all symbols.

All symbols are designed within a grid in a computer-aided draughting system. The grid which was used has been reproduced in the background of the symbols.

The older symbols which were included in appendix A of the first edition of IEC 617-4 for a transitional period, are no longer part of this second edition, as they will definitely be withdrawn from use.

The indexes in Annex B and C include an alphabetic list of symbol names and their corresponding number. The symbol names are based on the description of the symbols of this part. A general index including an alphabetic list of symbols of all parts is given in IEC 617-1.

* At present, at the stage of Draft International Standard (document 3/563/DIS).

SYMBOLES GRAPHIQUES POUR SCHÉMAS

GRAPHICAL SYMBOLS FOR DIAGRAMS

Quatrième partie: Composants passifs de base



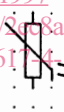

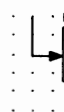
Part 4: Basic passive components

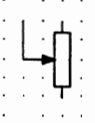


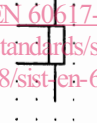

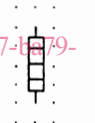
CHAPITRE I: RÉISTANCES, CONDENSATEURS, INDUCTANCES

CHAPTER I: RESISTORS, CAPACITORS, INDUCTORS

SECTION 1 – RÉISTANCES

SECTION 1 – RESISTORS

No.	Symbole	Symbol	Légende	Description
04-01-01			Résistance, symbole général	Resistor, general symbol
04-01-02	supprimé deleted		Transféré à Annexe A: 04-A1-01	Transferred to Annex A: 04-A1-01
04-01-03			Résistance réglable	Adjustable resistor
04-01-04			Résistance dépendant de la tension Varistance	Voltage dependent resistor Varistor
04-01-05			Résistance variable à contact mobile	Resistor with movable contact
04-01-06			Résistance à contact mobile et avec position de coupure	Resistor with movable contact and off position

No.	Symbole	Légende	Description
04-01-07		Résistance réglable à contact glissant	Potentiometer with movable contact
04-01-08		Résistance réglable à contact glissant et à ajustage prédéterminé	Potentiometer with movable contact and pre-set adjustment
04-01-09		Résistance avec prises fixes, deux prises figurées	Resistor with fixed tapplings (taps), two shown
04-01-10		Shunt Résistance à bornes "courant" et "tension" séparées	Shunt Resistor with separate current and voltage terminals
04-01-11		Résistance variable à disques de carbone	Carbon-pile resistor
04-01-12		Élément chauffant	Heating element

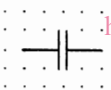


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SECTION 2 – CAPACITORS

SECTION 2 – CONDENSATEURS

No.	Symbole Symbol	Légende Condensateur, symbole général	Description Capacitor, general symbol
04-02-01		Condensateur, symbole général	Capacitor, general symbol
04-02-02	supprimé deleted	Transféré à Annexe A: 04-A2-01	Transferred to Annex A: 04-A2-01
04-02-03		Condensateur de traversée	Lead-through capacitor Feed-through capacitor
04-02-04	supprimé deleted	Transféré à Annexe A: 04-A2-02	Transferred to Annex A: 04-A2-02
04-02-05		Condensateur polarisé, par exemple électrolytique	Polarized capacitor, for example electrolytic
04-02-06	supprimé deleted	Transféré à Annexe A: 04-A2-03	Transferred to Annex A: 04-A2-03

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