

Graphical symbols for diagrams

Part 4. Basic passive components

The European Standard EN 60617-4 : 1996 has the status of a
British Standard

ICS 01.080.30; 29.020

Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee GEL/3, Documentation and graphical symbols, upon which the following bodies were represented:

- British Photographic Association
- Consumer Policy Committee of BSI
- Federation of the Electronics Industry
- GAMBICA (BEAMA Ltd.)
- Transmission and Distribution Association (BEAMA Ltd.)

This British Standard, having been prepared under the direction of the Electrotechnical Sector Board, was published under the authority of the Standards Board and comes into effect on 15 November 1996

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Amendments issued since publication

Amd. No.	Date	Text affected

The following BSI references relate to the work on this standard:
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National foreword

This British Standard has been prepared by Technical Committee GEL/3. It is the English language version of EN 60617-4 : 1996, *Graphical symbols for diagrams Part 4 : Basic passive components*, published by the European Committee for Electrotechnical Standardization (CENELEC). It is identical with IEC 617-4 : 1996 published by the International Electrotechnical Commission (IEC).

This British Standard replaces BS 3939 : Part 4 : 1985 which is withdrawn.

NOTE. The French language version of the alphabetic index has not been included.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, an EN title page, pages 2 to 20, an inside back cover and a back cover.

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 1993-03-05. 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.

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

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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

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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 $M = 2,5 \text{ mm}$ 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).

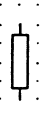
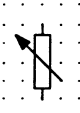
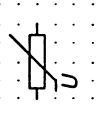
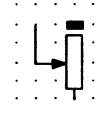
SYMBLES GRAPHIQUES POUR SCHÉMAS
Quatrième partie: Composants passifs de base

GRAPHICAL SYMBOLS FOR DIAGRAMS
Part 4: Basic passive components

CHAPITRE I: RÉISTANCES, CONDENSATEURS, INDUCTANCES

CHAPTER I: RESISTORS, CAPACITORS, INDUCTORS

SECTION 1 – RÉSISTANCES

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 coupe	Resistor with movable contact and off position