

Harmonized system of quality assessment for electronic components

Blank detail specification

Electromechanical all-or-nothing TELECOM relays of assessed quality, dual- in-line, with 15 mm x 7,5 mm base, 2 change-over contacts

The European Standard EN 116504 : 1995 has the status of a British Standard

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EPL/40/1

Committees responsible for this British Standard

The preparation of this British standard was entrusted to Technical Committee EPL/94, General purpose relays and reed contact units, upon which the following bodies were represented:

Federation of the Electronics Industry (FEI)
Ministry of Defence
National Supervising Inspectorate (BSI-PC)

National foreword

This British Standard has been prepared by Technical Committee EPL/94 and is the English language version of EN 116504 : 1995 : *Blank Detail Specification : Electromechanical all-or-nothing Telecom relays of assessed quality, dual-in-line, with 15mm x 7,5mm base, 2 change-over contacts*, incorporating the Corrigendum : 1995, published by the Electronic Components Committee (CECC) of the European Committee for Electrotechnical Standardization (CENELEC).

This standard lists the ratings, characteristics and inspection requirements which shall be included as mandatory requirements in any detail specification for this type of relay.

Detail specifications shall conform to the requirements of this blank detail specification and BS CECC 00111 *Rule of Procedure 11. Specifications Part 4 : 1991 Regulations for CECC detail specifications*.

The British Standard which implements the CECC Rules of Procedure is BS 9000 *General requirements for a system for electronic components of assessed quality Part 2 : 1996 Specification for the national implementation of the CECC system*.

Cross-references

International Standard	Corresponding British Standard
EN 116500 : 1992	BS EN 116500 : 1995 <i>Harmonized system of quality assessment for electronic components. Sectional specification : Electromechanical all-or-nothing TELECOM relays of assessed quality</i>
CECC 00802 : 1994	BS CECC 00802 : 1994. <i>Harmonized system of quality assessment for electronic components. Guidance document : CECC Standard method for the specification of surface mounting components (SMDs) of assessed quality</i>
CECC 00114/II : 1994	BS CECC 00114 <i>Rule of procedure 14 Quality assessment procedures</i> Part 2 : 1995 <i>Qualification approval of electronic components</i>
IEC 62 : 1992	BS EN 60062 : 1994 <i>Marking codes for resistors and capacitors</i>
IEC 68-2-17 : 1994	BS EN 60068 <i>Environmental testing</i> Part 2 <i>Test methods</i> Section 2-17 : 1995 <i>Test Q. Sealing</i>
IEC 68-2-20 : 1979	BS 2011 <i>Environmental testing</i> Part 2.1T : 1981 <i>Test T. Soldering</i>

BS EN 116504 : 1996

IEC 68-2-47 : 1982

BS EN 60068 *Environmental testing*

Part 2 *Test methods*

Section 2-47 : 1993 *Environmental testing. Tests. Mounting of components, equipment and other articles for dynamic tests including shock (Ea), bump (Eb), vibration (Fc and Fd) and steady-state acceleration (Ga) and guidance*

IEC 255-14 : 1981

BS 5992 *Electrical relays*

Part 4 : 1983 *Specification for contact loads of preferred values used in endurance tests for electrical relay contacts*

IEC 695-2-2 : 1991

BS 6458 *Fire hazard testing for electrotechnical product*

Part 2 *Test methods*

Section 2.2 : 1993 *Needle flame test*

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

Descriptors: Quality, electronic components, TELECOM relays

English version

Blank Detail Specification:
**Electromechanical all-or-nothing TELECOM relays of assessed quality,
dual-in-line, with 15 X 7,5 mm base, 2 change-over contacts**

Spécification particulière cadre:
Relais électromécaniques de tout ou rien
TELECOM, dual-in-line avec une surface
d'encombrement de 15 x 7,5 mm,
soumis au régime d'assurance de la
qualité, 2 contacts à deux directions

Vordruck für Bauartspezifikation:
Gütebestätigte elektromechanische
Dual-in-line TELEKOM-Relais
mit 15 x 7,5 mm-Grundfläche,
2 Wechsler

This European Standard was approved on 1995-06-23. 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

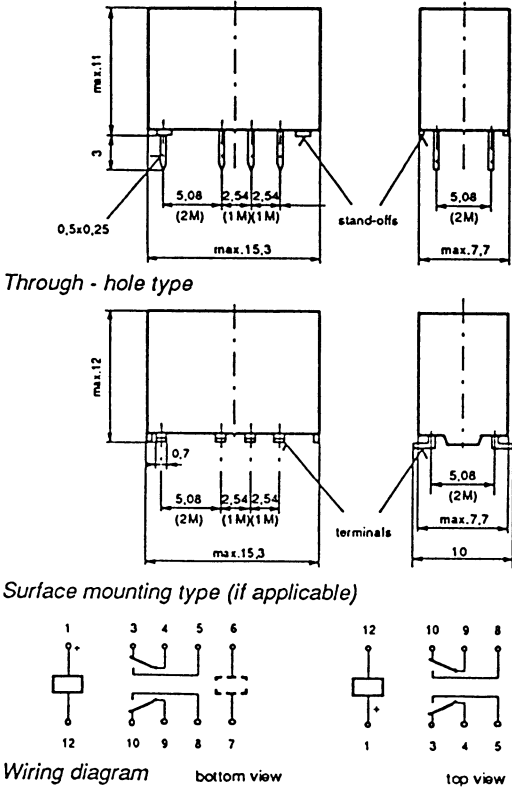
Foreword

This European Standard was prepared by Working Group CLC/TC CECC/WG 16.

The text of the draft based on document CECC(Secretariat)3593 was submitted to the formal vote; together with the voting report, circulated as document CECC(Secretariat)3653, it was approved as EN 116504 on 1996-06-23.

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) 1996-07-01
 - latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1997-07-01
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(1)	(2) CECC 16 504 - xxx Issue: Page 1 of
(3) Electronic components of assessed quality in accordance with: EN 116 000 - 1 : 1992 (CECC 16 000 / I, 1990) EN 116 500 : 1992	(4)
Detail specification for electromechanical all-or-nothing TELECOM relays of assessed quality, dual-in-line, with 15 x 7,5 mm base, 2 change-over contacts Type: 2 change-over contacts (5) Construction: Dual-in-line, with 15 x 7,5 mm base plastic sealed case, overall height <i>through hole type</i> of 11 max., <i>surface mounting type</i> of 12 mm max. (6) Relay properties RT III For conventional assembling techniques of printed circuit boards using mounting holes and soldering or for surface mounting technology (if applicable)	
Outline drawing resp. wiring diagram (7) Dimensions in mm  Through - hole type Surface mounting type (if applicable) Wiring diagram bottom view top view NOTE - Drawings are examples; the maximum outer dimensions, the wiring diagram of one coil relay, the terminal arrangement and the same orientation of all rectangular terminals are mandatory.	
(9) Coil data Rated voltages: V d. c. Rated power: mW	(8) Application: Relays according to this standard are provided for the operation in telecommunication applications. However, as printed circuit board relays they are suitable also for control or switching functions in particular industrial and other applications.
(10) Contact data Change-over break-before-make contacts Rated contact voltage: 125 V d.c. / 110 V a.c. Rated contact current: 1,25 A Rated contact power: 30 W / 50 VA Limiting continuous current: 2 A	
(11) Component climatic category: 25 / 70 / 21 Temperature range - operating ambient temperature: - 25 to + 70 °C - storage temperature: - 40 to + 85 °C	
Information about manufacturers who have components qualified to this detail specification is available in the current CECC 00 200	

Key for page 3:

The numbers between brackets on page 2 correspond to the following indications which should be given:

Identification of the detail specification

- (1) The name of the National Standards Organization under whose authority the detail specification is published and, if applicable, the organization from whom the detail specification is available
- (2) The CECC symbol and the number allotted to the completed detail specification by the CECC General Secretariat
- (3) The number and the year of availability of the EN generic specification and / or sectional specification; also national reference if different
- (4) If different from the CECC number, the national number of the detail specification, date of issue and any further information required by the national system, together with any amendment numbers.

Identification of the relay

- (5) Type: Monostable or bistable, non-polarized or polarized, 2 change-over contacts
- (6) Construction: Sizes, e. g. dual-in-line, base and overall height, type of relay, based upon environmental protection (RT III), mounting variants and other typical construction details
- (7) An outline drawing with main dimensions which are of importance for interchangeability, and / or reference to the appropriate national or international document for outlines - see also note in (7). Alternatively, this drawing may be given in an annex to the detail specification, but (7) should always contain an illustration of the general outer appearance of the relay.

Location and dimensions of stand-offs (maximum relay height shall include stand-offs), position of terminal no. 1 relative to the outside shape, acceptable offset of the tip of a terminal relative to the nominal grid position, indication of the area on the top of the relay housing to enable automatic mounting using aspirators, suitable hole diameter for assembling on printed circuit board

- (8) Typical field of applications
- (9) Available rated coil voltages and rated power
- (10) Available contact arrangements, defined special contact materials and contact voltage, current and power. The respective code digit for contact materials shall be listed in an annex, if applicable.
- (11) Component climatic category and temperature range.

1 Related documents

EN 116 000 - 1 : 1992 (CECC 16 000 / I, 1990)	Generic specification for electromechanical all-or-nothing relays, Part I: General
EN 116 500 : 1992	Sectional specification for electromechanical all-or-nothing telecom relays of assessed quality

(National authorized institutions will complete this section making reference to any documents or specifications directly referred to in their national equivalent of this document.)

2 Characteristic values of the relay

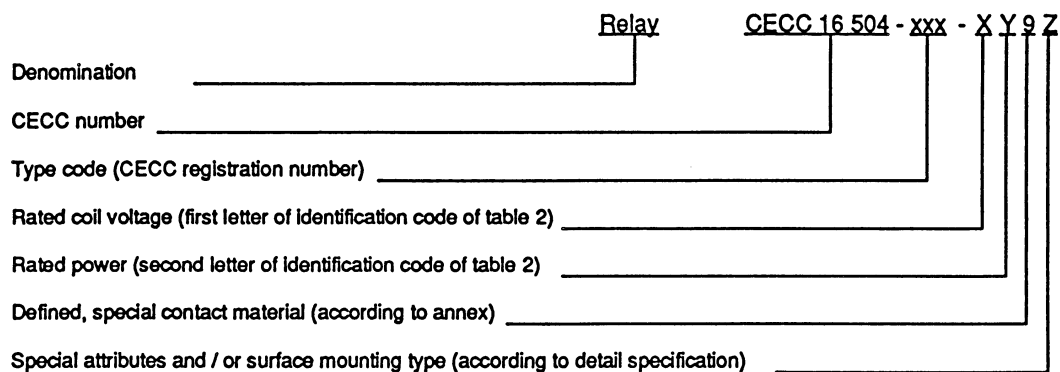
2.1 General data

- Thermal resistance: max. K / W
- Contact application: CA 0, CA 1 and CA 2
- Relay mass: max. g
- Finish of the terminals: tinned; admissible non-tinned part: max. 1 mm to the stand offs' plane, if applicable
- Insulation resistance: 1000 Mohm min. at 500 V d. c. initial value
100 Mohm min. at 500 V d. c. after tests
- Dielectric strength: see table 1

Table 1 Dielectric test voltages

	Dielectric test V a. c. min.	Impulse voltage test 10 / 700 μ s V min.
Opened contact circuits	500	
Between adjacent contact circuits	500	
Coil to contact circuits	500	
Between separate windings (if applicable)		

2.2 Construction of CECC type designation (ordering information):



Note - The coding of the monostable or bistable relay type shall be combined with the rated power of the coil, if applicable. The reference to 2 change-over contacts shall be given on page 3 of the specification.

Use code 0 as last digit if no special attributes apply. If one of the attributes in the example for a detail specification shall not be considered, the corresponding code number or letter shall be deleted; there shall be no special marks or open space for non applicable attributes.