

**Harmonized system of quality
assessment for electronic
components**

Sectional specification: Two part and edge socket connectors for printed board applications

The European Standard EN 175100:1992 has the status of a
British Standard

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National foreword

This British Standard has been prepared under the direction of the Electronic Components Standards Policy Committee and is the English language version of EN 175100:1992 *Sectional specification: Two part and edge socket connectors for printed board application*, published by the European Committee for Electrotechnical Standardization (CENELEC) Electronic Components Committee (CECC).

EN 175100 was produced as a result of international discussions in which the UK took an active part. The sectional specification is applicable to connectors particularly designed for use with printed boards in equipment for telecommunication and in electronic devices employing similar techniques

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 32, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

UDC

Descriptors: Quality, electronic components, connectors

English version

Sectional specification:
Two part and edge socket connectors for printed board
application

Spécification intermédiaire:
Connecteurs en deux parties et les
connecteurs encartables pour cartes
imprimées

Rahmenspezifikation:
Direkte und indirekte Steckverbinder für
gedruckte Schaltungen

This European Standard was approved by CENELEC Electronic Components Committee (CECC) on 10 August 1992. The text of this standard consists of the text of CECC 75100 Issue 2 1991 of the corresponding CECC Specification. 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 General Secretariat of the CECC 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 CECC General 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.

CECC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

The CENELEC Electronic Components Committee (CECC) is composed of those member countries of the European Committee for Electrotechnical Standardization (CENELEC) who wish to take part in a harmonized System for electronic components of assessed quality.

The object of the System is to facilitate international trade by the harmonization of the specifications and quality assessment procedures for electronic components, and by the grant of an internationally recognized Mark, or Certificate, of Conformity. The components produced under the System are thereby acceptable in all member countries without further testing.

This specification has been formally approved by the CECC, and has been prepared for those countries taking part in the System who wish to issue national harmonized specifications for TWO PART and EDGE SOCKET CONNECTORS FOR PRINTED BOARD APPLICATION. It should be read in conjunction with the current regulations for the CECC System.

At the date of printing of this specification, the member countries of the CECC are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Preface

This sectional specification (SS) was prepared by CECC WG 25 “Low frequency connectors”.

It is based, wherever possible, on the Publication of the International Electrotechnical Commission, and in particular on IEC 512: Electromechanical Components for Electronic Equipment; Basic Testing Procedures and Measuring Methods.

The text of this specification was circulated to the CECC for voting in the documents listed below and was ratified by the President of the CECC for printing as a CECC Specification.

Document	Date of Voting	Report on the Voting
CECC (Secretariat) 2433	June 1989	CECC (Secretariat) 2520

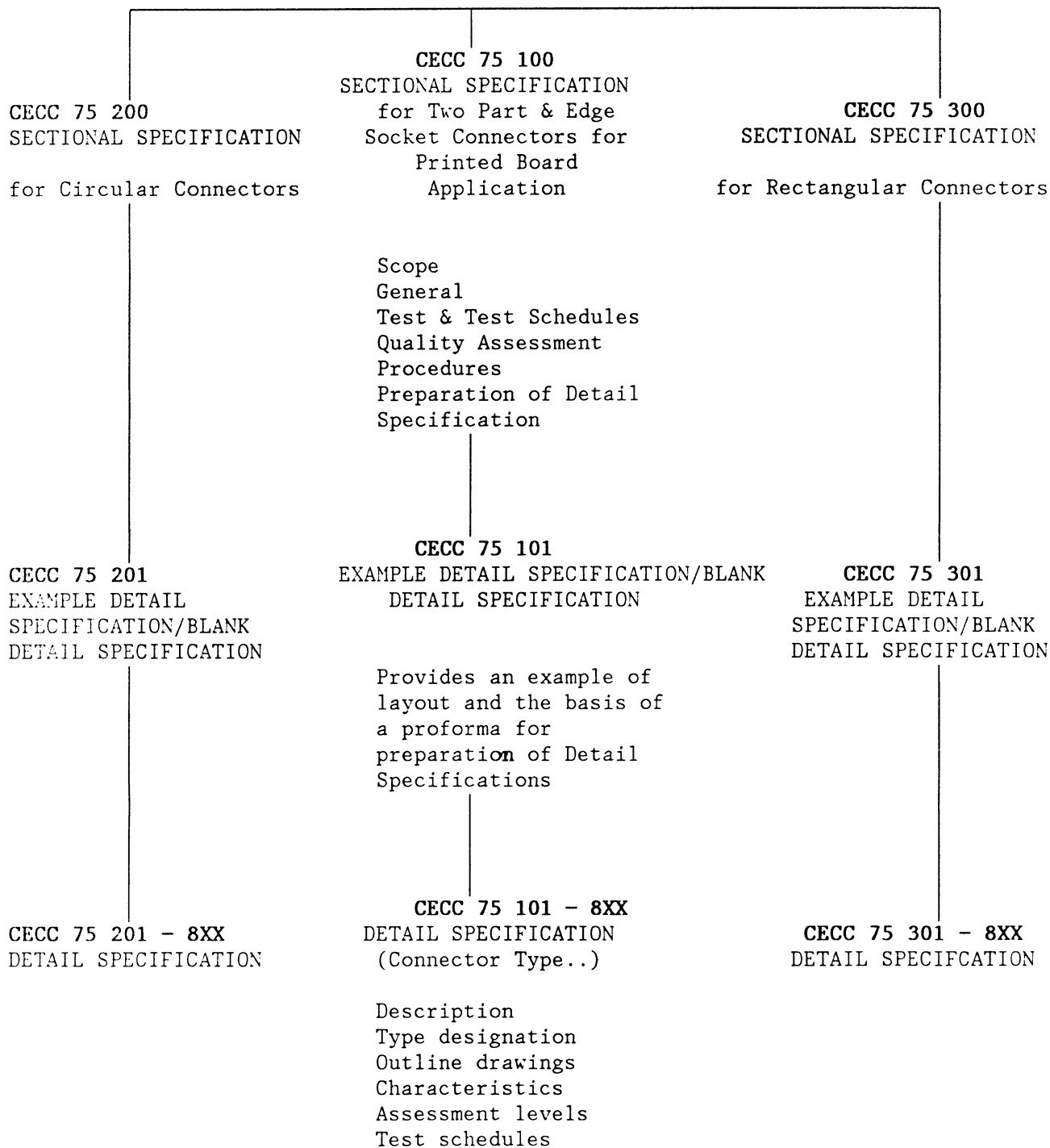
NOTE This specification does not conform completely with the requirements of CECC 00400.

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CECC SPECIFICATION SYSTEM

for LF connectors



Note: Sectional specifications include generic data.

Section 1. Scope

This sectional specification is applicable to connectors particularly designed for use with printed boards in equipment for telecommunication and in electronic devices employing similar techniques.

Connectors essentially designed for use at frequencies exceeding 3 MHz are not covered.

The object of this SS is to establish uniform specifications and type test requirements for connectors for printed board applications and to establish rules for the preparation of DS.

In the event of conflict between this SS and the DS, the requirements of the DS shall prevail.

Section 2. General

2.1 Related documents

In each case the latest issue of the document prior to the date of issue of this document is valid.

ISO/R/1000:	<i>Rules for the use of units of the International system of units and selection of the decimal multiples and submultiples of the SI units.</i>
IEC 27:	<i>Letter symbols to be used in electrotechnology.</i>
IEC 50 (581):	<i>International Electrotechnical Vocabulary (Electromechanical components for electronic equipment).</i>
IEC 68:	<i>Environmental testing.</i>
IEC 410:	<i>Sampling plans and procedures for inspection by attributes (see CECC 00007).</i>
IEC 512:	<i>Electromechanical components for electronic equipment; basic testing procedures and measuring methods (see CECC 00009).</i>
CECC 00007:	<i>Sampling plans and procedures for inspection by attributes.</i>
CECC 00009:	<i>Basic testing procedures and measuring methods for electromechanical components.</i>
CECC 00100:	<i>Basic rules.</i>

2.2 Terminology

The terminology used in and applicable to this specification is included in IEC 50 (581): International Electrotechnical Vocabulary (IEV) Chapter 581: Electromechanical Components for Electronic Equipment. IEC 512: Electromechanical Components for Electronic Equipment: Basic Testing Procedures and Measuring Methods also contain applicable terms.

For the purpose of this specification, the following additional terms and definitions shall apply.

2.2.1

type

connectors within a particular sub-family, such as one-part connectors (edge socket connectors) or two-part connectors

2.2.2

style

a particular connector with a type

2.2.3

variant

variations within a type and style, or within a group of related connectors

2.2.4

examples

Family	: Connectors
Sub-family	: Connector for printed boards
Type	: Two-part connector for printed boards
Style	: A particular external mounting configuration such as rectangular, flange mounting
Variant	: Number of contacts, polarisation, termination etc.

2.3 Classification into climatic categories

The connectors are classified into climatic categories in accordance with the general rules in IEC 68-1: Basic Environmental Testing Procedures, Part 1: General and Guidance.

The following preferred temperature ranges and severities of the damp heat steady state tests have been selected:

Category	Temperature range	Damp heat Steady state	Identification code 1)
10/070/04	– 10 °C to + 70 °C	4 days	Under consideration
25/070/10	– 25 °C to + 70 °C	10 days	
40/085/21	– 40 °C to + 85 °C	21 days	
40/085/56	– 40 °C to + 85 °C	56 days	
55/100/21	– 55 °C to + 100 °C	21 days	
55/125/21	– 55 °C to + 125 °C	21 days	
55/125/56	– 55 °C to + 125 °C	56 days	
65/155/56	– 65 °C to + 155 °C	56 days	
NOTE 1) Identification code to be used for CECC — type designation.			

2.4 Creepage and clearance distances

Permissible operating voltages depend on the application and on the applicable or specified safety requirements. Therefore, creepage and clearance distances as well as proof voltages under specified air pressure shall be specified in the DS.

NOTE Creepage and clearance distances are in the context of the connector and do not refer to the wiring of the equipment.

2.5 Current

For each connector, the current carrying capacity shall be specified in the DS, preferably by the derating curve evaluated in accordance with Test 5b of IEC 512-3: Electromechanical Components for Electronic Equipment: Basic Testing Procedures and Measuring Methods, Part 3: Current-carrying Capacity Tests, or by at least one value of current and the associated temperature on this derating curve as well as the maximum operating temperature.

2.6 Marking

2.6.1 On the connector. Each connector shall have the following information marked upon it: Identification of the contact position as prescribed in the DS. If space does not permit full marking, as much as possible of the following in the order shown shall be included:

- 1) mark of origin (manufacturer's name or trademark);
- 2) types designation;
- 3) date code, if explicitly required by the DS.

2.6.2 On the package. The information in 2.6.1 1), 2) and 3) shall also be marked on the package.

2.7 Type designation

Connectors to which this specification applies shall be designated by the following indications and in the order given:

- 1) The reference number of the DS.
- 2) The letters "CECC" (alternatively ONH reference may be used, see cl. 7.2.3 of RP 11).
- 3) A letter denoting the style of the connector. (The system shall be prescribed in the DS).
- 4) The number of contacts of connectors or of contact cavities of connector bodies.
- 5) A letter denoting the type of the contact of two-part connectors or the number of electrically independent rows of edge-socket connectors.

The following letters shall be used:

Two-part connector	— M male contact
	— F female contact
	— H hermaphroditic contact
Edge socket connector	— S single row
	— D double row (separated)

6) A letter denoting the basic type of the termination.

The following letters shall be used:

— S solder terminations
— C crimp terminations
— W wrap terminations
— I insulation displacement terminations
— P press-in terminations

7) If prescribed in the DS, the type designation may optionally be extended to cover further information, such as climatic category, termination information etc. See example detail specification CECC 75101;

8) Where the DS provides for a variation of performance and assessment levels, a single letter and a digit shall be used to denote performance level (PL) and assessment level (AL) respectively. The letter and digit shall be prescribed in the DS and shall be included as the final cyphers of the type designation.