SLOVENSKI STANDARD
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Sectional specification: Rectangular connectors for frequencies below 3 MHz

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Rahmenspezifikation: Rechteckige Steckverbinder für Frequenzen unter 3 MHz

Spécification intermédiaire: Connecteurs rectangulaires pour fréquences inférieures à 3 MHz

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EUROPEAN STANDARD

NORME EUROPÉENNE

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EN 175300

April 1996

Descriptors: Quality, electronic components, connectors

Supersedes EN 175300:1992

CLC/CECC SC48B

English version

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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

This European Standard was prepared by Working Group CLC/TC CECC/SC 48B (former WG 25).

It is based, wherever possible, on the Publications of the International Electrotechnical Commission and in particular on IEC 807-1: Rectangular connectors for frequnecies below 3 MHz, Part 1: General requirements and guide for the preparation of detail specifications.

The text of the draft based on document CECC(Secretariat)3556 was submitted to the formal vote; together with the voting report, circulated as document CECC(Secretariat)3666, it was approved as EN 175300 on 1995-09-08.

This European Standard replaces EN 175300:1992.

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) 1996-09-15
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1997-09-15

NOTE: This specification does not comply completely with the requirements of CECC 00 400.

Contents

Annexes

CECC SPECIFICATION
SYSTEM
for LF Connectors

EN 175200	EN 61076-4	EN 175300
SECTIONAL SPECIFICATION for Circular Connectors	SECTIONAL SPECIFICATION for Printed Board Connectors	SECTIONAL SPECIFICATION for Rectangular Connectors

Scope
General
Tests & Test Schedules
Quality Assessment Procedures
Preparation of Detail
Specifications

EN 61076-2-001	EN 175101	EN 61076-3-001
EXAMPLE DETAIL SPECIFICATION/BLANK DETAIL SPECIFICATION	EXAMPLE DETAIL SPECIFICATION/BLANK DETAIL SPECIFICATION	EXAMPLE DETAIL SPECIFICATION/BLANK DETAIL SPECIFICATION

Provides an example of layout
and the basis of a proforma for
preparation of
Detail Specifications

CECC 75 201-8XX	CECC 75 101-8XX	CECC 75 301-8XX
DETAIL SPECIFICATION	DETAIL SPECIFICATION (Connector Type ...)	DETAIL SPECIFICATION

Description
Type Designation
Outline Drawings
Characteristics
Assessment Levels
Test Schedules

NOTE: Sectional specifications include generic data.

1 Scope

This Sectional Specification is applicable to rectangular connectors particularly designed for use in equipment for telecommunication, electronic data processing and in electronic devices employing similar techniques.

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

The object of this Sectional Specification is to establish uniform specifications and type test requirements for rectangular connectors and to establish rules for the preparation of Detail Specifications.

In the event of conflict between this Sectional Specification and a Detail Specification , the requirements of the Detail Specification shall prevail.

2 General

2.1 Related documents

EN 61076-3-001[1)]	EDS/BDS Rectangular Connectors
CECC 00 007	Harmonization document for IEC 410: Sampling procedures and tables for inspection by attributes for electronic components of assessed quality
CECC 00 009	Harmonization document for IEC 512: Basic testing procedure and measuring methods for Electromechanical Components
CECC 00 100	Basic Rules
CECC 00114/II	Rules of Procedure 14 - Part II: Qualifications Approval of Electronic Components
CECC 00114/III	Rule of Procedure 14 - Part III: Capability Approval of an Electronic Component Manufacturing Activity
IEC 27	Letter symbols to be used in electrotechnology
IEC 50 (581)	International Electrotechnical Vocabulary (IEV) - Chapter 581: Electromechanical components for electronic equipment
IEC 68-1	Basic environmental testing procedures - Part 1: General and Guidance
IEC 410	Sampling procedures and tables for inspection by attributes for electronic components of assessed quality (see CECC 00 007)
IEC 512	Electromechanical components for electronic equipment; basic testing procedures and measuring methods (see CECC 00 009)

1) In preparation

IEC 664-1	Insulation Coordination for Equipment within low voltage systems Principles, requirements and tests
IEC 807-1	Rectangular Connectors for frequencies below 3 MHz - Part 1: General requirements and guide for the preparation of detail specifications
ISO R 286	ISO systems of limits and fits - General tolerances and deviations
ISO R 1000	Rules for the use of units of the International system of units and selection of the decimal multiples and sub-multiples of the SI units
ISO 1101	Technical drawings geometrical tolerancing of form, orientation, location and run out-generalities, definitions symbols, indications on drawings

2.2 Terminology

The terminology used in and applicable to this specification is included in IEC 50(581). IEC 512 also contains applicable terms.

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

2.2.1 hybrid connectors

Detailed specifications in accordance with this Sectional Specification which contain integrated hybrid elements from other Sectional Specifications in the CECC system shall be permitted providing that:

a) The hybridising elements are assessed using the appropriate test method from its sectional specification e.g. CECC 22 000 for RF contacts, CECC 86 000 for optical contacts, or Generic Specification, CECC 33 000 for integrated filter contacts.

b) Where such test methods are not published in existing specifications they shall be included as Annex to the Detail Specification.

2.2.2 group of related connectors

A group of coonectors within a sub-family having common features. Typical examples are:

- same mounting features but different kinds and number of contacts, or;

- same coupling features but different inserts and types of contacts.

A group of related connectors is covered by a single Detail Specification .

2.2.3 type

Connectors within a particular sub-family, such as rectangular connectors with blade contacts.

2.2.4 style

A particular connector within a type.

2.2.5 variant

Variations within a type and style, or within a group of related connectors.

2.2.6 Examples

Family	: Connectors
Sub-Family	: Rack and Panel connectors
Type	: Rectangular, multipole connector with 2,5mm wide blade contacts
Style	: Rectangular, fixed, free, adaptor etc.
Variant	: Rectangular, number of contacts, terminations etc.

2.3 Classification into climatic categories

The connectors are classified into climatic categories in accordance with the general rules given in IEC 68-1.

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	
25/070/10	-25°C to +70°C	10 days	
25/085/10	-25°C to +85°C	10 days	
25/085/21	-25°C to +85°C	21 days	
40/085/21	-40°C to +85°C	21 days	
40/085/56	-40°C to +85°C	56 days	Under consideration
40/100/10	-40°C to +100°C	10 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	
65/175/56	-65°C to +175°C	56 days	
65/200/56	-65°C to +200°C	56 days	

1) Identification code to be used for EN 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 Detail Specification . See also IEC 664-1.

2.5 Current

For each connector, the current carrying capacity shall be specified in the Detail Specification , preferably by the current temperature derating curve evaluated in accordance with Test 5b of IEC 512-3, 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 Detail Specification . 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) date code, if explicitly required by the Detail Specification;

(3) type designation.

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

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

NOTE: The number of characters shall not exceed 18 including spaces.

1) CECC abbreviated to "C";

2) An abbreviated reference of this sectional specification to "753" followed by the number of the detail specification eg. 800 for a Committee Detail Specification or 001 for a Manufacturer's Detail Specification ;

3) A letter denoting the style of the connector. (The system shall be prescribed in the Detail Specification).

4) A letter denoting a housing (shell) or body size;

5) two numbers denoting the contact arrangement. (Not necessarily the number of contacts);

6) A letter denoting the type of contact. The following letters shall be used.

   M = male contact

   F = female contact

   H = hermaphroditic contact

7) A letter denoting the basic type of the terminations. The following letters shall be used:

A = Screw termination

E = solder termination, eyelet

S = solder termination, solder bucket

F = solder termination, printed wires

C = crimp

W = wrap termination

D = insulation displacement

P = press-in

8) A letter or digit denoting polarization or orientation by a particular arrangement of indexing keys on housing (shells) or bodies, or position of insert in housing.

9) A digit to denote variations permitted by the Detail Specification . For example: plating, performance, colour, etc;

10) If prescribed in the Detail Specification , the type designation may optionally be extended to include an additional block to cover further information such as climatic category, termination information, etc. (See EN 175301);

11) Where the Detail Specification provides for a variation of performance and assessment levels, a single digit and a letter shall be used to denote Performance Level (PL) and Assessment Level (AL) respectively. The letter and digit shall be prescribed in the Detail Specification and shall be included as the final cyphers of the type designation.

3 General requirements, tests and test schedules

3.1 Workmanship

The connectors shall be processed in a careful and workmanlike manner, in accordance with good current practice.

3.2 Testing

3.2.1 General aspects

All tests shall be in accordance with the requirements of IEC 512.