

Förderverein für Elektrotechnische Normung (FEN) e. V.
Cenelec Electronic Components Committee

CECC

Système Harmonisé d'Assurance de la Qualité
des Composants Electroniques

EXEMPLE DE SPECIFICATION
PARTICULIERE/
SPECIFICATION PARTICULIERE CADRE:

**CONNECTEURS
EN DEUX PARTIES ET LES
CONNECTEURS EN CARTABLES
POUR CARTES IMPRIMEES**

Harmonized System of Quality Assessment for
Electronic Components

EXAMPLE DETAIL SPECIFICATION/
BLANK DETAIL SPECIFICATION:

**TWO PART AND EDGE SOCKET
CONNECTORS FOR PRINTED
BOARD APPLICATION**



1 Edition
Issue
Ausgabe

CECC 75101

1984

FOREWORD

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

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

This document has been formally approved by the CECC, and has been prepared for those countries taking part in the System who wish to issue national harmonised specifications for TWO PART AND EDGE SOCKET CONNECTORS FOR PRINTED BOARD APPLICATION. It should be read in conjunction with document CECC 00 100: Basic Rules (1974).

At the date of printing of this document 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, and copies of it can be obtained from the addresses shown on the blue fly sheet.

PREFACE

This example detail specification/blank detail specification (EDS/BDS) was prepared by CECC WG 25 "Low frequency connectors".

This EDS/BDS provides an example of how to prepare a detail specification in accordance with CECC 75 100.

The example covers a group of related two-part connectors for printed boards. The group extends from connectors having a full complement of contacts for low-voltage applications to connectors for relatively high voltages and currents having fewer contacts.

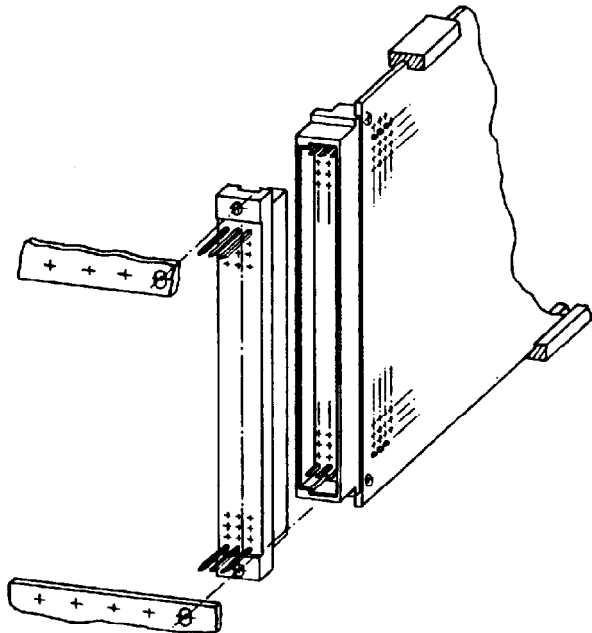
All connectors have the same common mounting features irrespective of their different application characteristics. The board-mounted connectors are provided with terminations suitable for printed boards in accordance with IEC 326 and using a grid of 2,54 mm (0,1 in) as laid down in IEC 97.

The fixed connectors are provided either with solder contacts or with wrap or crimp contacts. The terminations of the fixed connectors are located in such a way as to be suitable for use with mother boards using a grid as laid down in IEC Publication 97 as well as for automatic wiring techniques.

The text of this EDS/BDS was circulated to the CECC for voting in the document indicated below and was ratified by the President of the CECC for printing as a CECC Specification.

<u>Document</u>	<u>Date of Voting</u>	<u>Report on the Voting</u>
CECC (Secretariat) 1381	October 1983	CECC (Secretariat) 1448

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

CECC WG 25: LF CONNECTORS Specification available from: (National Authorized Institution or manufacturer)	CECC 75 101-XXX ISSUE 1 JANUARY 19XX 
ELECTRONIC COMPONENTS OF ASSESSED QUALITY - DETAIL SPECIFICATION IN ACCORDANCE WITH CECC 75 100 (Issue 1) Sectional Specification. Two-part and Edge Socket Connectors for printed board application.	Page x of xx pages National Specification No: Date of issue:
See 4 for dimensions 	DETAIL SPECIFICATION for two-part connectors for printed boards, for basic grid of 2.54 mm (0.1 in) with common mounting, according to IEC 603-2 (1980). The group of connectors extends from high-density connectors for low-voltage applications to connectors for relatively high voltages and currents having fewer contacts. Performance Levels: 4 and 7 (*) Assessment Levels: C, H and F (*) The combinations of performance level and assessment level covered by this detail specification are 7C, 4H and 4F.

Climatic category: 55/125/56

See 6.2 for electrical characteristics

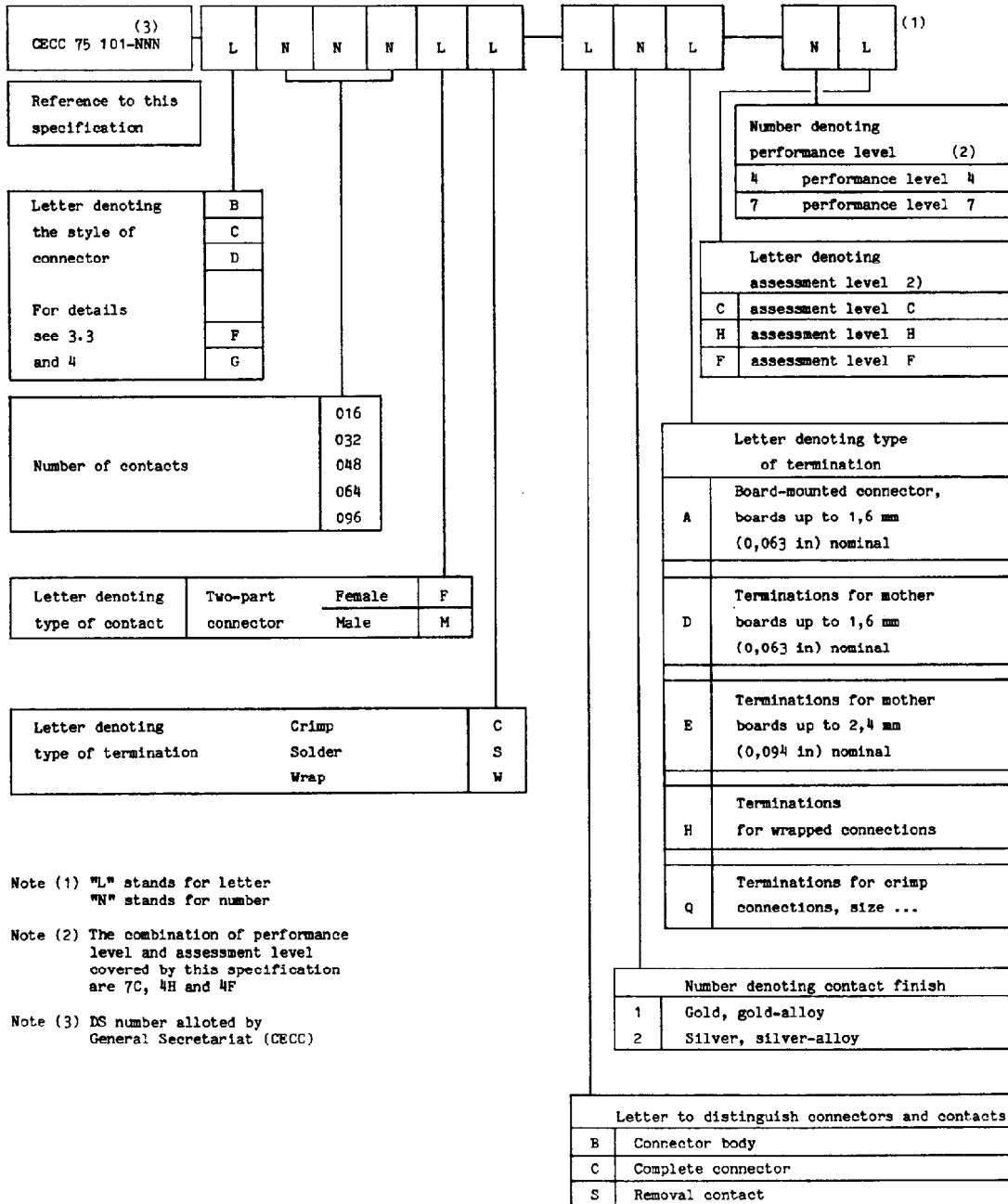
See 6.3 for mechanical characteristics

(*) See 7 and 8

Information about manufacturers who have components qualified to this detail specification is available in the current CECC 00 200: Qualified Products List.

2. Type designation

Connectors, connector bodies, removable crimp-contacts, performance level and assessment level according to this specification shall be designated by the following system:



Note (1) "L" stands for letter
"N" stands for number

Note (2) The combination of performance level and assessment level covered by this specification are 7C, 4H and 4F

Note (3) DS number allotted by General Secretariat (CECC)

Example: Connector style C, having 96 male gold contacts with solder terminations. Complete board-mounted connector for board up to 1,6 mm (0,063 in), with performance level 7 and assessment level C: CECC 75 101-XXX-C096MS-C1A-7C.

3. Common features and isometric view
 - 3.1 Mounting dimensions, isometric view
 - 3.2 Mating information
 - 3.3 Survey of styles
4. Dimensions
 - 4.1 General
 - 4.2 Fixed connectors
 - 4.3 Board-mounted connectors
 - 4.4 Mating information
 - 4.5 Accessories
 - 4.6 Mounting information for fixed connectors
 - 4.7 Mounting information for board-mounted connectors
5. Gauges
6. Characteristics
 - 6.1 Climatic category
 - 6.2 Electrical
 - 6.3 Mechanical
7. Test Schedule
 - 7.1 General

This test schedule shows all tests and the order in which they shall be carried out as well as the requirements to be met.

An "X" in the column "Requirements" of the following table indicates that the test or conditioning shall be applied.

Unless otherwise specified, mated sets of connectors shall be tested. Care shall be taken to keep a particular combination of connectors together during the complete test sequence, for example when unmating is necessary for a certain test, the same connectors as before shall be mated for the subsequent tests.

7. Test Schedule (Continued)

7.1 General (Continued)

In the following, a mated set of connectors is called a "specimen".

For a complete test sequence, 20 specimens are necessary.

For the measurements of contact resistance, the points of connection shall be as follows:

7.2 All specimens shall be subjected to the following tests:

Test phase			IEC test					Measurement to be performed		PLA		Requirements		
			Title	IEC 512 Part	Severity or condition of test		Title	IEC 512 Part				B64	C96	C64
PLA	PL7				PLA	PL7								
X	X	P1	General examination		X	X	Unmated connectors	Visual examination Dimensional examination	-2 Test 1a Test 1b	X	X	The dimensions in clearances shall 4.2 There shall be no operation		
X	X	P2	Polarization method	-7 Test 13e						X	X	It shall be possible appropriate It shall not be possible other than the		
X	X	P3			X	X	Connection points as in 7.1 6 contacts/specimens	Contact resistance	-2 Test 2a	X	X	20 mΩ max.		
X	X	P4			X	X	Test voltage 100 ± 15 V Method A 3 contacts	Insulation resistance	-2 Test 3a	X		10 ⁶ MΩ min.		
											X	10 ⁵ MΩ min.		
X	X	P5			X	X	Contact/contact	Voltage proof	-2 Test 4a	X	X	1000 V (r.m.s.)		
							Contact/test panel					1550 V (r.m.s.)		

Note: "PL" denotes Performance Level.

- 7.3 The specimens shall be divided into five groups. All connectors in each group shall undergo the tests specified for the relevant group.

Group AP

Test phase		IEC test					Measurement to be performed		Requirements			
		Title	IEC 512 Part	Severity or condition of test		Title	IEC 512 Part	PL4	PL7	B64	C96	C54
PL4	PL7			PL4	PL7							
X	X	AP1	Gauge retention force	-8 Test 16e	X X	Female contacts only 5 contacts/specimens Sizing tool P11 Gauge P12		X	X	X	X	X
						Sizing tool P21 Gauge P22						
						Sizing tool P31 Gauge P33						
X	X	AP2	Insertion force	-7 Test 13b	X X			X	X	60 N max.	90 N max.	60 N max.
X	X	AP3	Soldering	-6 Test 12a	X X	Solder bath method		X	X	X	X	X
X	X	AP4			X X	Contact/contact Contact/test panel	Voltage proof -2 Test 4a	X	X	1 000 V (r.m.s.)		
		AP5								1 550 V (r.m.s.)		
X	X	AP6	Vibration	-4 Test 6d	X	10 Hz-500 Hz 0,35 mm (0,014 in) or 5 g Duration : 6 h	Variation of contact resistance: 2c connection points as in 7.1	X	X	40 mΩ max.		
					X	10 Hz-2000 Hz 0,75 mm (0,03 in) or 10 g Duration : 6 h						