SLOVENSKI STANDARD

SIST EN 61076-4-107:2002

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september 2002

Connectors for electronic equipment - Part 4-107: Printed board connections with assessed quality - Detail specification for shielded two-part connectors having a basic grid of 2,0 mm, fixed part with solder and press-in terminations for printed boards, fixed part with solder and press-in terminations for printed boards, free part with non-accessible insulation displacement and crimp termination (IEC 61076-4-107:2001)

ICS 31.220.10

Referenčna številka
SIST EN 61076-4-107:2002(en)

EUROPEAN STANDARD **EN 61076-4-107**

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English version

Connectors for electronic equipment Part 4-107: Printed board connectors with assessed quality - Detail specification for shielded two-part connectors having a basic grid of 2,0 mm, fixed part with solder and press-in terminations for printed boards, free part with non-accessible insulation displacement and crimp terminations

(IEC 61076-4-107:2001)

Connecteurs pour équipements électroniques
Partie 4-107: Connecteurs pour cartes imprimées sous assurance de la qualité – Spécification particulière pour les connecteurs blindés en deux parties, au pas de base de 2,0 mm, partie fixe avec sorties soudées et CIF pour cartes imprimées, partie mobile avec sorties autodénudantes et serties
(CEI 61076-4-107:2001)

Steckverbinder für elektronische Einrichtungen
Teil 4-107: Steckverbinder für gedruckte Schaltungen mit bewerteter Qualität - Bauartspezifikation für geschirmte indirekte Steckverbinder im Raster 2,0 mm, freie Teile mit Löt- und Einpressanschlüssen für Leiterplatten, feste Teile mit nichtzugänglichen Schneidklemm- und Crimpanschlüssen
(IEC 61076-4-107:2001)

This European Standard was approved by CENELEC on 2001-10-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, 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

Ref. No. EN 61076-4-107:2001 E

Foreword

The text of document 48B/1066/FDIS, future edition 1 of IEC 61076-4-107, prepared by SC 48B, Connectors, of IEC TC 48, Electromechanical components and mechanical structures for electronic equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61076-4-107 on 2001-10-01.

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)	2002-07-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2004-10-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annexes A and ZA are normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61076-4-107:2001 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60068-1	1988	Environmental testing Part 1: General and guidance	EN 60068-1 [1)]	1994
IEC 60352-2 + A1	1990 1996	Solderless connections Part 2: Solderless crimped connections - General requirements, test methods and practical guidance	EN 60352-2 + A1	1994 1997
IEC 60352-3	1993	Part 3: Solderless accessible insulation displacement connections - General requirements, test methods and practical guidance	EN 60352-3	1994
IEC 60352-4	1994	Part 4: Solderless non-accessible insulation displacement connections - General requirements, test methods and practical guidance	EN 60352-4	1994
IEC 60352-5	2001	Part 5: Press-in connections - General requirements, test methods and practical guidance	EN 60352-5	2001
IEC 60410	1973	Sampling plans and procedures for inspection by attributes	-	-
IEC 60512-2 + A1	1985 1994	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods Part 2: General examination, electrical continuity and contact resistance tests, insulation tests and voltage stress tests	-	-
IEC 60512-3	1976	Part 3: Current-carrying capacity tests	-	-
IEC 60512-4	1976	Part 4: Dynamic stress tests	-	-

[1)] EN 60068-1 includes corrigendum October 1988 + A1:1992 to IEC 60068-1.

Publication	Year	Title	EN/HD	Year
IEC 60512-5	1992	Part 5: Impact tests (free components), static load tests (fixed components), endurance tests and overload tests	-	-
IEC 60512-7	1993	Part 7: Mechanical operating tests and sealing tests	-	-
IEC 60512-8	1993	Part 8: Connector tests (mechanical) and mechanical tests on contacts and terminations	-	-
IEC 60512-9	1992	Part 9: Miscellaneous tests	-	-
IEC 60512-11-7	1996	Part 11: Climatic tests - Section 7: Test 11g: Flowing mixed gas corrosion test	EN 60512-11-7	1996
IEC 60603-1	1991	Connectors for frequencies below 3 MHz for use with printed boards Part 1: Generic specification - General requirements and guide for the preparation of detail specifications, with assessed quality	EN 60603-1 [2)]	1998
IEC 61076-1	1995	Connectors with assessed quality, for use in d.c., low frequency analogue and in digital high-speed data applications Part 1: Generic specification - Capability approval	EN 61076-1	1995
IEC 61076-4	1995	Part 4: Sectional specification - Printed board connectors	EN 61076-4	1996
IEC 61076-4-001	1996	Part 4: Printed board connectors - Section 001: Blank detail specification	EN 61076-4-001	1996
IEC QC 001002-3	1998	IEC Quality Assessment System for Electronic Components (IECQ) - Basic rules Part 3: Approval procedures	-	-
ISO 1302	1992	Technical drawings - Method of indicating surface texture	-	-

[2)] EN 60603-1 includes A1:1992 to IEC 60603-1.

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Connecteurs pour équipements électroniques –

Partie 4-107:
Connecteurs pour cartes imprimées sous assurance de la qualité – Spécification particulière pour les connecteurs blindés en deux parties, au pas de base de 2,0 mm, partie fixe avec sorties soudées et CIF pour cartes imprimées, partie mobile avec sorties autodénudantes et serties

Connectors for electronic equipment –

Part 4-107:
Printed board connectors with assessed quality – Detail specification for shielded two-part connectors having a basic grid of 2,0 mm, fixed part with solder and press-in terminations for printed boards, free part with non-accessible insulation displacement and crimp terminations

International Electrotechnical Commission 3, rue de Varembé Geneva, Switzerland
Telefax: +41 22 919 0300 e-mail: inmail@iec.ch IEC web site http://www.iec.ch

Commission Electrotechnique Internationale
International Electrotechnical Commission
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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CONNECTORS FOR ELECTRONIC EQUIPMENT –

Part 4-107: Printed board connectors with assessed quality – Detail specification for shielded two-part connectors having a basic grid of 2,0 mm, fixed part with solder and press-in terminations for printed boards, free part with non-accessible insulation displacement and crimp terminations

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.

3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.

4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.

6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61076-4-107 has been prepared by subcommittee 48B: Connectors, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

The text of this standard is based on the following documents:

FDIS	Report on voting
48B/1066/FDIS	48B/1097/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

Annex A forms an integral part of this standard.

This part 4-107 constitutes the detail specification in the IEC quality assessment system for electronic components (IECQ) for shielded two-part connectors for a basic grid of 2,0 mm, fixed part with solder and press-in terminations for printed boards, free part with non-accessible insulation displacement and crimp terminations.

The QC number that appears on the front cover of this publication is the specification number in the IEC Quality Assessment System for Electronic Components (IECQ).

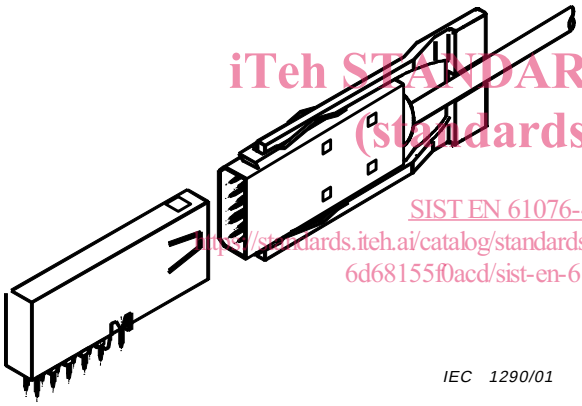
This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

The committee has decided that the contents of this publication will remain unchanged until 2005. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

CONNECTORS FOR ELECTRONIC EQUIPMENT –

Part 4-107: Printed board connectors with assessed quality – Detail specification for shielded two-part connectors having a basic grid of 2,0 mm, fixed part with solder and press-in terminations for printed boards, free part with non-accessible insulation displacement and crimp terminations

IEC SC 48B: CONNECTORS Specification available from: IEC Central Office or from the addresses shown on the inside cover [Electronic components of assessed quality] DETAIL SPECIFICATION in accordance with IEC 61076-1:1995	IEC 61076-4-107 QC 480301XX0008 Blank detail specification: IEC 61076-4-001:1996
 IEC 1290/01	Rectangular printed board connector for solder and press-in terminations; cable-to-board connector for insulation displacement and crimp terminations Two coaxial or 10 standard contacts Terminations: solder, press-in, insulation displacement, crimp Performance levels (PL): 1 Assessment levels: B and G* Combinations of performance and assessment levels: Climatic categories: see 4.1 Electrical characteristics: see 4.2 Mechanical characteristics: see 4.3 Ordering information: see 1.6
* See 6.2.	

1 General data

1.1 Recommended method of mounting

A connector pair consists of one fixed board connector and one free connector module. Both modules are completely shielded in order to fulfil future EMC requirements.

Fixed board connector modules are mounted on the edge of the printed board and have female contacts with solder or press-in terminations.

Free connector modules are mounted on cables and have male contacts with insulation displacement terminations for standard contacts and crimp terminations for coaxial contacts.

1.2 Ratings and characteristics

Rated voltage:	contact/contact 50 V
Current rating:	1,5 A at 70 °C (all contacts)
Insulation resistance:	10^4 MΩ
Climatic category:	25/125/04
Printed board hole diameter:	for connector with standard contacts: plated-through hole 0,6 mm min. for connector with coaxial contacts: plated-through hole 1,0 mm according to IEC 60352-5
Grid layout:	contact spacing: 2 mm row z of the front panel is in line with the datum lane of the printed board termination row a on the printed board lies 4 mm from the edge and 6,5 mm from the front panel

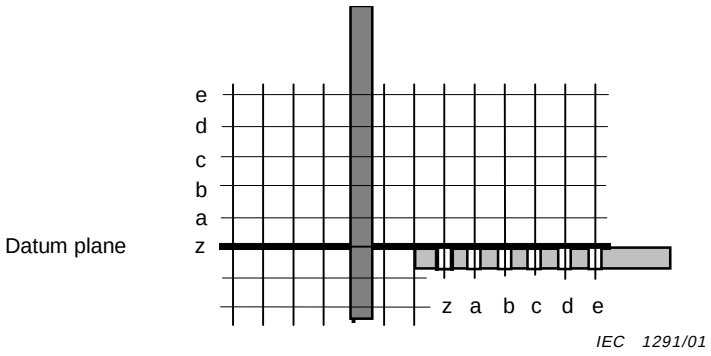


Figure 1 – Grid layout for 2 mm connector module

1.3 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61076. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 61076 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*

IEC 60352-2:1990, *Solderless connections – Part 2: Solderless crimped connections – General requirements, test methods and practical guidance*
Amendment 1 (1996)

IEC 60352-3:1993, *Solderless connections – Part 3: Solderless accessible insulation displacement connections – General requirements, test methods and practical guidance*

IEC 60352-4:1994, *Solderless connections – Part 4: Solderless non-accessible insulation displacement connections – General requirements, test methods and practical guidance*

IEC 60352-5:2001, *Solderless connections – Part 5: Solderless press-in connections – General requirements, test methods and practical guidance*

IEC 60410:1973, *Sampling plans and procedures for inspections by attributes*

IEC 60512-2:1985, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods – Part 2: General examination, electrical continuity and contact resistance tests, insulation tests and voltage stress tests*
Amendment 1 (1994)

IEC 60512-3:1976, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods – Part 3: Current-carrying capacity tests*

IEC 60512-4:1976, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods – Part 4: Dynamic stress tests*

IEC 60512-5:1992, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods – Part 5: Impact tests (free components), static load tests (fixed components), endurance tests and overload tests*

IEC 60512-7:1993, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods – Part 7: Mechanical operating tests and sealing tests*

IEC 60512-8:1993, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods – Part 8: Connector tests (mechanical) and mechanical tests on contacts and terminations*