
Konektorji za elektronsko opremo - 4-114. del: Konektorji za tiskane plošče - Podrobna specifikacija za dvodelne konektorje z integrirano zaslonko funkcijo in rastrom 1 mm x 1,5 mm (IEC 61076-4-114:2003)

Connectors for electronic equipment - Part 4-114: Printed board connectors - Detail specification for two-part connectors with integrated shielding function having a grid of 1 mm x 1,5 mm (IEC 61076-4-114:2003)

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Connectors for electronic equipment
Part 4-114: Printed board connectors -
Detail specification for two-part connector with integrated shielding
function having a grid of 1 mm x 1,5 mm
(IEC 61076-4-114:2003)

Connecteurs pour équipements
électroniques

Partie 4-114: Connecteurs pour cartes
imprimées -

Spécification particulière pour connecteurs
en deux parties avec fonction de blindage
intégré ayant un pas de 1 mm x 1,5 mm
(CEI 61076-4-114:2003)

Steckverbinder für elektronische
Einrichtungen

Teil 4-114: Steckverbinder für gedruckte
Schaltungen -

Bauartspezifikation für indirekte
Steckverbinder mit integrierter Schirmung
im Raster 1 mm x 1,5 mm
(IEC 61076-4-114:2003)

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This European Standard was approved by CENELEC on 2003-05-01. 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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, 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

The text of document 48B/1287/FDIS, future edition 1 of IEC 61076-4-114, 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 61076-4-114 on 2003-05-01.

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) 2004-02-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2006-05-01

Annexes designated "normative" are part of the body of the standard.
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 61076-4-114:2003 was approved by CENELEC as a European Standard without any modification.

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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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-1	1988	Environmental testing		
+ corr. October	1988	Part 1: General and guidance		
+ A1	1992		EN 60068-1	1994
IEC 60352-5	2001	Solderless connections	EN 60352-5	2001
		Part 5: Press-in connections - General requirements, test methods and practical guidance		
IEC 60512	Series	Connectors for electronic equipment - Tests and measurements	EN 60512	Series
IEC 60512-1-100	2001	Connectors for electronic equipment - Tests and measurements Part 1-100: General - Applicable publications	EN 60512-1-100	2001
IEC 60664-1	1992	Insulation coordination for equipment within low-voltage systems	EN 60664-1	2003
		Part 1: Principles, requirements and tests		
+ A2	2002		EN 60664-1	2003
IEC 60917	Series	Modular order for the development of mechanical structures for electronic equipment practices	EN 60917	Series
IEC 60917-1	1998	Modular order for the development of mechanical structures for electronic equipment practices Part 1: Generic standard	EN 60917-1	1998
IEC 60917-2-2	1994	Part 2: Sectional specification - Interface co-ordination dimensions for the 25 mm equipment practice Section 2: Detail specification - Dimensions for subracks, chassis, backplanes, front panels and plug-in units	EN 60917-2-2	1996

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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
ISO 1302	2002	Geometrical Product Specifications (GPS) - Indication of surface texture in technical product documentation	EN ISO 1302	2002

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INTERNATIONAL STANDARD

IEC 61076-4-114

First edition
2003-02

Connectors for electronic equipment –

Part 4-114:

Printed board connectors –

Detail specification for two-part connector with integrated shielding function having a grid of 1 mm × 1,5 mm

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Commission Electrotechnique Internationale
International Electrotechnical Commission
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

CONNECTORS FOR ELECTRONIC EQUIPMENT –

**Part 4-114: Printed board connectors –
Detail specification for two-part connector with integrated
shielding function having a grid of 1 mm × 1,5 mm**

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 61076-4-114 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/1287/FDIS	48B/1307/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.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

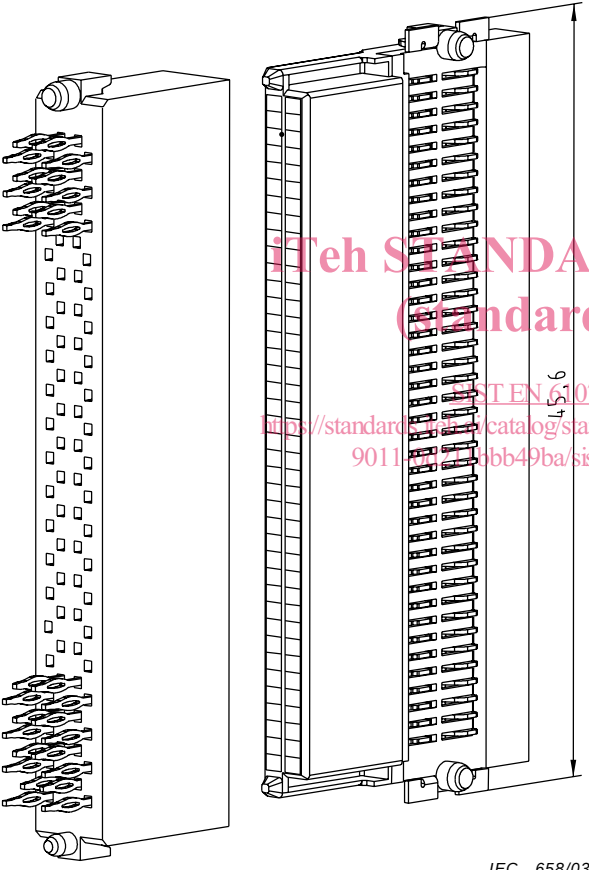
Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated when new editions will be published.

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 4-114: Printed board connectors –
Detail specification for two-part connector with integrated
shielding function having a grid of 1 mm × 1,5 mm

IEC SC 48B: LF Connectors Specification available from: IEC Central Office or from the addresses shown on the inside cover. ELECTRONIC COMPONENTS OF ASSESSED QUALITY IN ACCORDANCE WITH: - GENERIC SPECIFICATION IEC 61076-1:1995	Draft IEC 61076-4-114 Blank detail specification number 61076-4-001
See Clause 3 for dimensions  IEC 658/03	Two-part connector for printed boards and backplanes, grid of 1 mm × 1,5 mm in accordance with IEC 60917-1.
Information on the availability of components qualified to this detail specification is given in the qualified product list.	

1 General data

This detailed specification contains modular two-part connectors with integrated shielded function having a grid of 1 mm × 1,5 mm in accordance with IEC 60917-1.

1.1 Recommended method of mounting

The free board connectors are provided with contacts for surface mounting technique. Guiding pivots support positioning of the free board connector. The terminations of the free board connectors shall fit on solder pads on printed boards having a grid of 1 mm × 4 mm.

The fixed board connectors are provided with contacts, either with press-in or surface mount terminations.

The connector is fixed by the press-in terminations or by surface mounted terminations. Provided holes in the printed board (diameter 1,4 mm and 1,8 mm) are used for correct positioning and polarisation and are not necessary for secure connector mounting.

1.2 Ratings and characteristics

Rated voltage: Contact/contact for fully loaded connector

Table 1 – Rated voltage

Material group	Pollution degree	Rated voltage V
I, II, IIIa/b	1	200
II, IIIa/b	2	20
NOTE Reference is made to Table 15: Minimum creepage and clearance distances, of this specification, and Table 4 of IEC 60664-1 listing the relation between creepage distances, pollution degree and material groups versus voltages r.m.s.		

Current rating: 1 A at 50 °C for fully loaded connector

Insulation resistance: 10⁴ MΩ min.

Climatic category: PL1: 55/125/56
PL2: 55/125/21

Printed board thickness: see Table 10

Contact spacing: 1 mm × 1,5 mm

1.3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*
Amendment 1 (1992)

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

IEC 60512 (all parts), *Connectors for electronic equipment – Tests and measurements*

IEC 60512-1-100:2001, *Connectors for electronic equipment – Tests and measurements – Part 1-100: General – Applicable publications*

IEC 60664-1:2002, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 60917 (all parts), *Modular order for the development of mechanical structures for electronic equipment practices*

IEC 60917-1:1998, *Modular order for the development of mechanical structures for electronic equipment practices – Part 1: Generic standard*

IEC 60917-2-2:1994, *Modular order for the development of mechanical structures for electronic equipment practices – Part 2: Sectional specification – Interface co-ordination dimensions for the 25 mm equipment practice – Section 2: Detail specification – Dimensions for subracks, chassis, backplanes, front panels and plug-in units*

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*

IEC 61076-4:1995, *Connectors with assessed quality, for use in d.c., low-frequency analogue and in digital high-speed data applications – Part 4: Sectional specification – Printed board connectors*

ISO 1302:2002, *Geometrical product specifications (GPS) – Indication of surface texture in technical product documentation*

1.4 Marking

Marking of the connector and the package shall be in accordance with 2.6 of IEC 61076-4.