SLOVENSKI STANDARD

SIST EN 61076-4-102:2002

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Connectors with assessed quality, for use in d.c., low frequency analogue and digital high-speed data applications - Part 4: Printed board connectors - Section 102: Detail specification for two-part single-pole connectors, for multiple uses on plug-in units, with pre-centring, coding and early mating features, having a metric grid in accordance with IEC 60917 (IEC 61076-4-102:1997)

ICS 31.220.10

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EUROPEAN STANDARD

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English version

Connectors with assessed quality, for use in d.c., low-frequency analogue and in digital high speed data applications
Part 4: Printed board connectors
Section 102: Detail specification for two-part single-pole connectors, for multiple uses on plug-in units, with pre-centring, coding and early mating features, having a metric grid in accordance with IEC 60917
(IEC 61076-4-102:1997)

Connecteurs sous assurance de la qualité, pour utilisation dans le cadre d'applications analogiques en courant continu et à basse fréquence et dans le cadre d'applications numériques utilisant des débits élevés pour le transfert des données
Partie 4: Connecteurs pour cartes imprimées
Section 102: Spécification particulière pour connecteurs monobroches en deux parties, à usage multiple sur cartes imprimées, aux possibilités de centrage avancé, de codage et d'accouplement avancé, au pas métrique selon la CEI 60917
(CEI 61076-4-102:1997)

Steckverbinder mit bewerteter Qualität für Gleichspannungs- und Niederfrequenz-anwendungen sowie digitale Anwendungen mit hoher Übertragungsrate
Teil 4: Steckverbinder für gedruckte Schaltungen
Hauptabschnitt 102: Bauartspezifikation für indirekte einpolige Steckverbinder für vielfache Anwendungen auf steckbaren Baugruppen mit Vorzentrierung, Kodierung und Voreilung im metrischen Raster nach IEC 60917
(IEC 61076-4-102:1997)

This European Standard was approved by CENELEC on 1997-03-11. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, 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 61076-4-102:1997 E

Foreword

The text of document 48B/509/FDIS, future edition 1 of IEC 61076-4-102, 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 61076-4-102 on 1997-03-11.

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) 1998-01-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1998-01-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61076-4-102:1997 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		
+ A1	1992		EN 60068-1[1)]	1994
IEC 60326-3	1991	Printed boards Part 3: Design and use of printed boards	-	-
IEC 60352-5	1995	Solderless connections Part 5: Solderless press-in connections General requirements, test methods and practical guidance	EN 60352-5	1995
IEC 60410	1973	Sampling plans and procedures for inspection 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	-	-
A1	1994		-	-
IEC 60512-3	1976	Part 3: Current-carrying capacity tests	-	-
IEC 60512-4	1976	Part 4: Dynamic stress tests	-	-
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	-	-

1) EN 60068-1 also includes corrigendum october 1988.

Publication	Year	Title	EN/HD	Year
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 60917	1988	Modular order for the development of mechanical structures for electronic equipment practices	EN 60917	1990
A1	1993		A1	1994
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
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 61076-4-100	1994	Part 4: Printed board connectors Section 100: Detail specification for two-part connector modules having a grid of 2,5 mm (0,098 in) for printed boards and backplanes	-	-
IEC 61076-4-101	1995	Section 101: Detail specification for two-part connector modules having a basic grid of 2,0 mm for printed boards and backplanes in accordance with IEC 917	-	-
ISO 468	1982	Surface roughness - Parameters, their values and general rules for specifying requirements	-	-

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International Electrotechnical Commission
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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 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 61076-4-102 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/509/FDIS	48B/572/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.

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).

CONNECTORS WITH ASSESSED QUALITY FOR USE IN DC, LOW-FREQUENCY ANALOGUE AND IN DIGITAL HIGH SPEED DATA APPLICATIONS –

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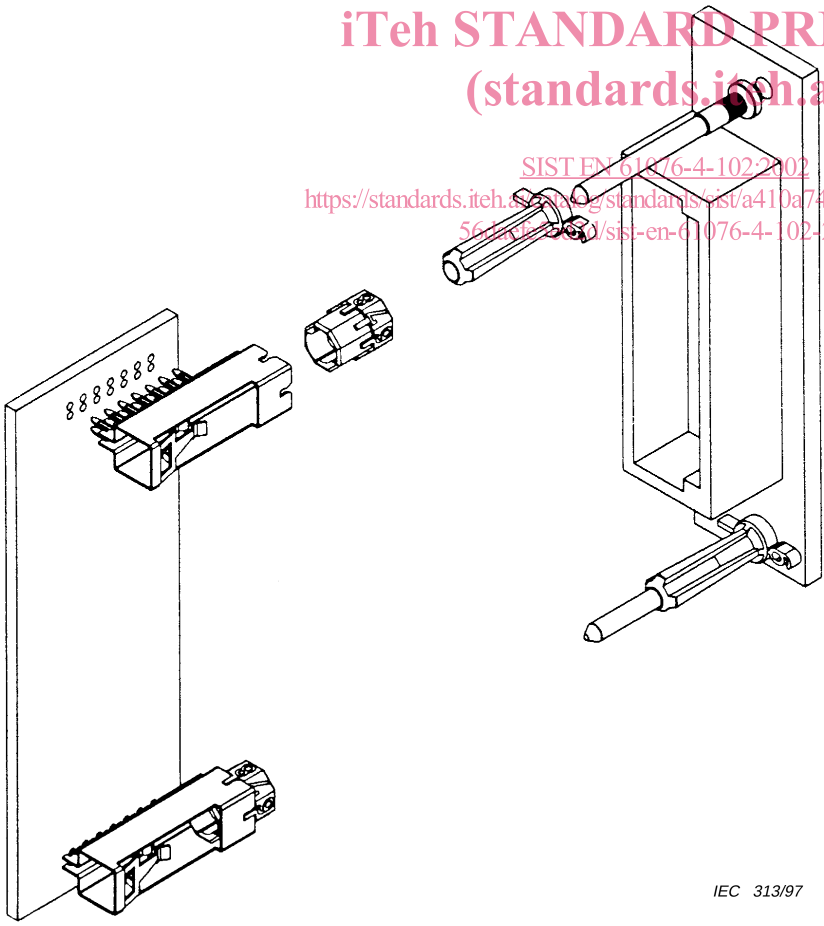
IEC SC 48B – Connectors Specification available from: IEC Central Office or from the addresses shown on the inside cover. ELECTRONIC COMPONENTS OF ASSESSED QUALITY DETAIL SPECIFICATION in accordance with IEC 61076-1	IEC 61076-4-102 QC 480301XX0003
 IEC 313/97	**Two-part single-pole connectors** for multiple uses on plug-in units, with pre-centring, coding and early mating features, having a metric grid in accordance with IEC 60917. Generally, two pairs of connectors are used, one at the top edge and one at the bottom edge of the plug-in unit. Performance levels (PL): 1, 2 Assessment level: A

Information on the availability of components qualified to this detail specification is given in the Qualified products list.

1 General data

Throughout this specification dimensions are in millimetres.

1.1 *Recommended method of mounting*

The free board connector has 14 press-in terminations, which assure the mechanical fixation on the printed board.

The fixed board connector is bolted on, through a hole in the backplane.

The coding configuration is set by mounting the correct coding devices in their correct positions on the connectors.

Generally, two pairs of connectors are used, one at the top edge and one at the bottom edge of the plug-in unit.

They fit between the plug-in unit guides of the subrack and the ends of the multipole connector (see 2.3.2).

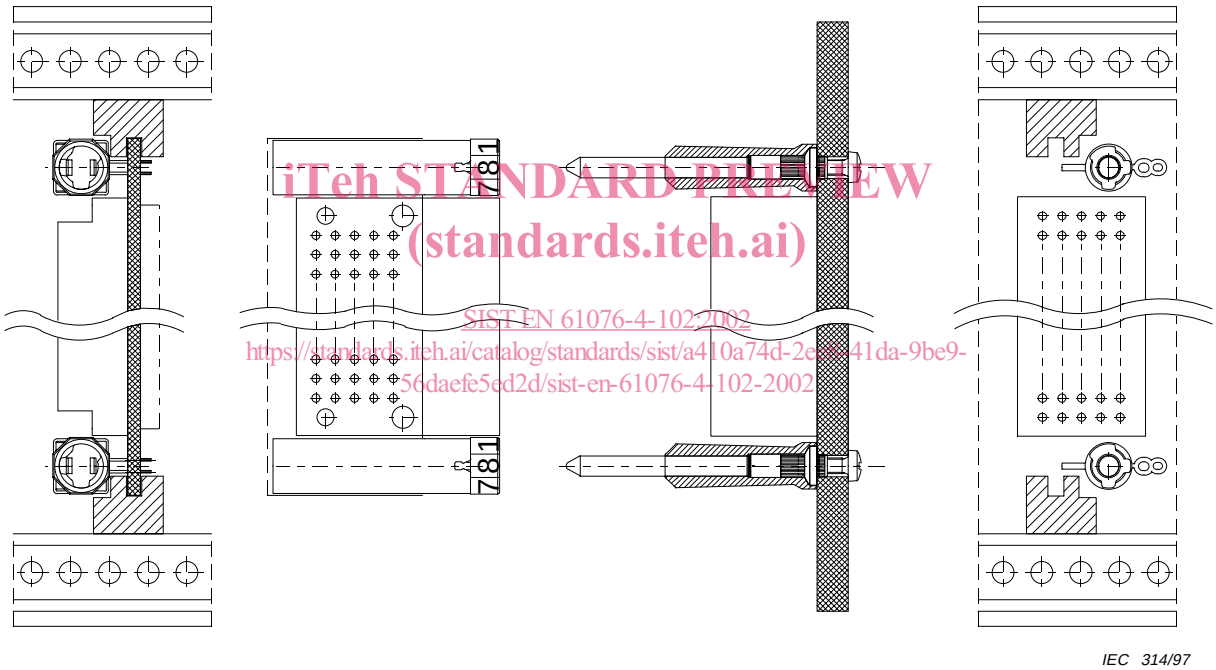


Figure 1 – Recommended method of mounting

1.2 *Ratings and characteristics*

Current rating:	15 A at 85 °C
Climatic category:	PL1: 55/125/56 PL2: 55/125/21
Printed board:	hole diameter: plated-through hole 0,94 mm to 1,09 mm board thickness: 1,4 mm min.
Backplane:	hole diameter: plated-through hole 2,75 mm to 2,85 mm board thickness: see 2.2.1.
Mechanical coding:	blocking force 250 N min. blocking distance: 15 mm before the stop of the plug-in unit.