

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 001: Blank detail specification

The European Standard EN 61076-4-001:1996 has the status of a
British Standard

ICS 31.220.10

Committees responsible for this British Standard

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- BSI Quality Assurance
- Federation of the Electronics Industry
- Ministry of Defence
- Premises Cabling Association

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National foreword

This Section of BS EN 61076 has been prepared by Subcommittee EPL/48/2, and is the English language version of EN 61076-4-001:1996 *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 001: Blank detail specification*, published by the European Committee for Electrotechnical Standardization (CENELEC). It is identical with IEC 1076-4-001:1996, published by the International Electrotechnical Commission (IEC).

Cross-references

Publication referred to	Corresponding British Standard
EN 60068-2-60:1996 (IEC 68-2-60:1995)	BS EN 60068 <i>Environmental testing-</i> BS EN 60068-2-60:1996 <i>Test Ke. Flowing mixed gas corrosion test</i>
EN 61076-1:1995 (IEC 1076-1:1995)	BS EN 61076 <i>Connectors with assessed quality, for use in d.c., low frequency analogue and in digital high-speed data applications</i>
EN 61076-4:1996 (IEC 1076-4:1995)	BS EN 61076-1:1996 <i>Generic specification</i> BS EN 61076-4:1997 <i>Sectional specification — Printed board connectors</i>

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 64, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

ICS 31.220.10

Descriptors: Printed board connectors with assessed quality, blank detail specification

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 001: Blank detail specification

(IEC 1076-4-001:1996)

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 001: Spécification particulière
cadre
(CEI 1076-4-001:1996)

Steckverbinder mit bewerteter Qualität
für Gleichspannungs- und
Niederfrequenzanwendungen sowie
digitale Anwendungen mit hoher
Übertragungsrate
Teil 4: Steckverbinder für gedruckte
Schaltungen
Hauptabschnitt 001: Vordruck für
Bauartspezifikation
(IEC 1076-4-001:1996)

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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.

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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

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Foreword

The text of document 48B/465/FDIS, future edition 1 of IEC 1076-4-001, 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 61076-4-001 on 1996-10-01.

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) 1997-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1997-07-01

Annexes designated “normative” are part of the body of the standard.

In this standard, Annex A, Annex B and Annex ZA are normative.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 1076-4-001:1996 was approved by CENELEC as a European Standard without any modification.

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Introduction

In prior years, IEC subcommittee 48B had prepared detail specifications as part of a two-level document system. When the IECQ system was introduced, SC48B was urged to consider changing to the four-level specification system as described in IEC Guide 102. This blank detail specification is part of that four-level document system.

This blank detail specification is a supplementary document to the sectional specification IEC 1076-4 and contains requirements for style, lay-out and minimum content of detail specifications.

For the scope and definition of this blank detail specification, see **1.2.2** of IEC 1076-1 and **1.1** of IEC 1076-4. Detail specifications not complying with these requirements shall not be considered as being in accordance with the IECQ system, nor shall they be so described.

The complete requirements for the printed board connectors described herein should correspond to this blank detail specification and the current issues of IEC 1076-1 and IEC 1076-4.

In the preparation of detail specifications, the contents of **1.2.3** of IEC 1076-1 should be taken into account.

Guidance notes

The following pages give a recommended layout of a detail specification. The contents of this page give guidance on the information which should, wherever possible, be given on the first page of a detail specification (see IEC Guide 102).

The numbers between brackets on the first page of the detail specification correspond to the following information:

Identification of the detail specification

- [1] The International Electrotechnical Commission or the national standards organisation under whose authority the detail specification is drafted.
- [2] The IEC or national standards number of the detail specification, date of issue, and any further information required by the national system.
- [3] The number and issue of the IEC or national generic specification.
- [4] The number and issue of the IEC blank detail specification.

Identification of the connector

- [5] A short description of the type of connector.
- [6] Information on typical construction of the connector; for example it should be stated whether the connector is suitable for mounting on printed boards.
- [7] Outline drawing, preferably of isometric or similar projection, from which the connector may be clearly identified.
- [8] Information on performance level(s) and assessment level(s) specified in the document.
- [9] Reference data on the most important properties, to allow comparison between the various connector types.

[1]	Detail specification number [2]
Generic specification number Electronic components of assessed quality in accordance with: [3]	Blank detail specification number [4]
Outline drawing [7]	Product description [5]
	[6]
	[8] Performance level(s): Assessment level(s): Combination of performance levels and assessment levels:
[9] Information on the availability of components qualified to this detail specification is given in the qualified products list.	

1 General data

1.1 Recommended method of mounting

See Annex A for guide on the application of these connectors in mechanical structures according to IEC 917.

1.1.1 Number of contacts or contact cavities

1.2 Ratings and characteristics

Rated voltage	Current rating at 70 °C
Insulation resistance	Climatic category
Printed board thickness	Contact spacing

Guidance notes

1.3 Normative references

1.4 Marking

The marking of the connector and the package shall be in accordance with **2.6** of IEC 1076-4.

1.3 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this section of IEC 1076-4. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this section of IEC 1076-4 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 68-2-60TTD:1990, *Environmental testing — Part 2: Tests — Test Ke: Corrosion tests in artificial atmosphere at very low concentration of polluting gas(es)*.

IEC 1076-1:1995, *Connectors with assessed quality, for use in d.c., low-frequency analogue and in digital high-speed data applications — Part 1: Generic specification*.

IEC 1076-4:1995, *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*.

1.4 Marking

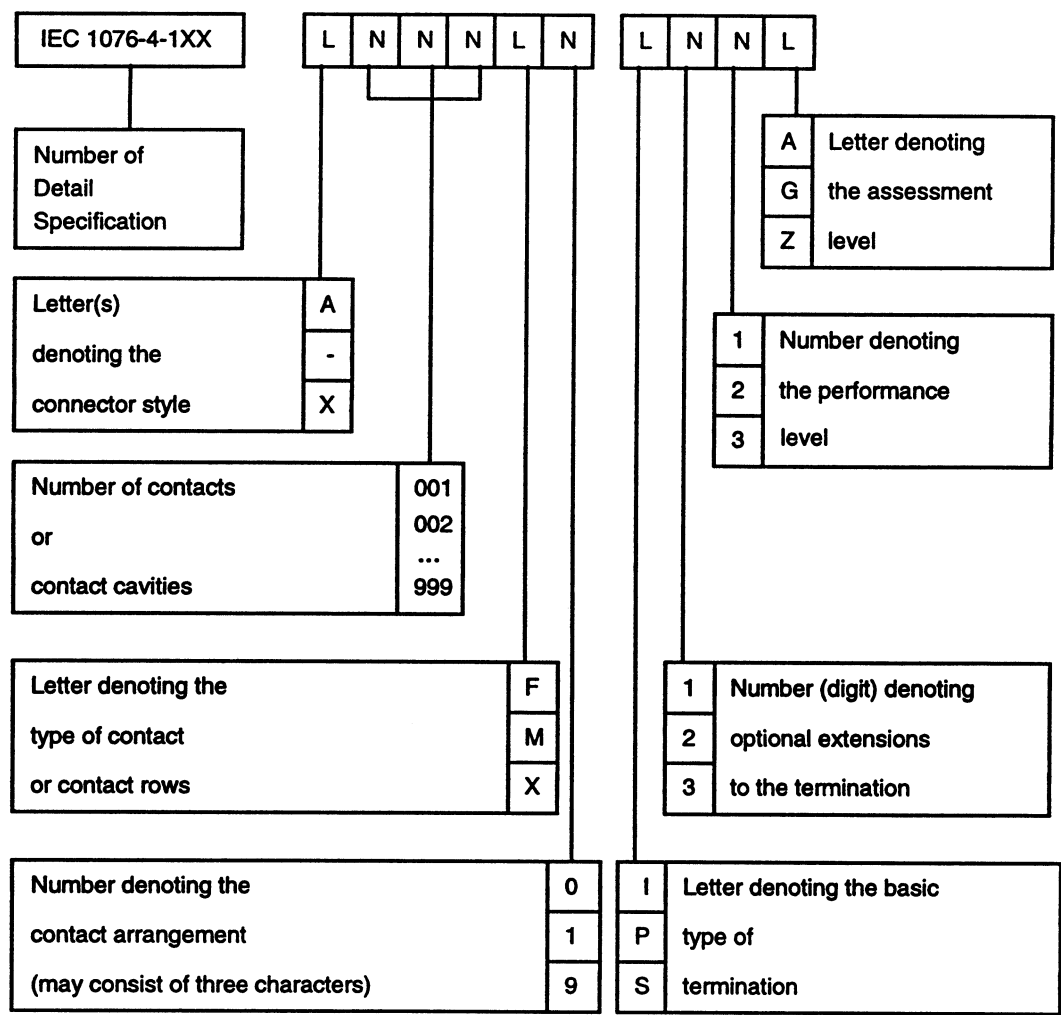
The marking of the connector and the package shall be in accordance with **2.6** of IEC 1076-4.

Guidance notes

1.5 IEC type designation

The designation shall be derived in accordance with 2.5 of IEC 1076-4:

Example:



1.6 Ordering information

For ordering connectors according to this detail specification, the type designation described in 1.5 shall be used.

1.5 IEC type designation

1.6 Ordering information

Guidance notes

2 Technical information

The detail specification shall contain information which contributes to a proper application of the connectors.

It will also provide further details for a better understanding of the detail specification.

2.1 Definitions

In addition to the terminology used in and applicable to the detail specification, as stated in **2.1** of IEC 1076-4, it is recommended that those definitions which are unique to the connectors specified in the detail specification be listed.

2.2 Survey of styles and variants

Should the detail specification be applicable to a range of styles and/or variants, a survey of the range covered shall be included in the form of a table in the detail specification. The table shown, Table 1, may be amended to include additional and/or alternative details if this is applicable to describe the styles and variants.

NOTE Tables used in detail specifications should be numbered in sequence, the numbering in this standard has been used as an example, and therefore numbered as “x”.

2.3 Information on application

If required, rules and recommendations for the use of the connectors specified in the detail specification shall, unless sufficiently covered by dimensional information in clause **3**, be listed for:

2.3.1 *Complete connectors (pairs)*

2.3.2 *Fixed board connectors*

2.3.3 *Free board connectors*

2 Technical information

2.1 Definitions

2.2 Survey of styles and variants

Table 1 — Styles and variants

Connector style and number of contacts	Style reference letter				

2.3 Information on application

2.3.1 Complete connectors (pairs)

2.3.2 Fixed board connectors

2.3.3 Free board connectors

Guidance notes

2.3.4 Accessories

When accessories provide an essential support to the application of the connectors, the features and use shall be outlined in the detail specification, where applicable.

2.3.4.1 Special contacts

In case special contacts are used in conjunction with the contacts specified in the detail specification, information on these contacts shall be presented “for information only”, given the fact that no detail specification of such contacts has been published.

Special contacts are defined as usually removable contacts for high-current, high-voltage, R.F., filter or F.O. applications.

2.3.4.2 Coding devices

When coding devices are used, which are not an integral part of the connector, separate information shall be given in the detail specification.

2.3.4.3 Mounting devices

When mounting devices are recommended which do not form an integral part of the connector, information on these devices shall be presented in the detail specification for reference only.

2.3.5 Shielding/grounding

When shielding and/or grounding features are offered, which cannot be considered as an integral part of the connector or an accessory, information shall be given in the detail specification.

2.3.6 Basic type of terminations

When different types of terminations are possible, information on the use of them shall be presented in the detail specification in a tabular form.

More detailed dimensional information may be provided by those parts of the detail specification which describe the dimensions of fixed and free board connectors.

If no significant differences exist between terminations of fixed and free connectors, the information may be included in this clause instead.

2.4 Contact arrangements

When different contact arrangements for connector inserts are possible and influence the intended application of the connector, information shall be given in the detail specification, preferably in the form of drawings or tables.

These arrangements shall be specified by the appropriate combination of the IEC type designation specified in 1.5 of the detail specification.

2.3.4 Accessories

2.3.4.1 *Special contacts*

2.3.4.2 *Coding devices*

2.3.4.3 *Mounting devices*

2.3.5 Shielding/grounding

2.3.6 Basic type of terminations

2.4 Contact arrangements

Guidance notes

3 Dimensional information

In order to facilitate the comparison of various specifications, a uniform presentation of drawing information is recommended in accordance with **2.7.1** of IEC 1076-1:

Drawings and dimensions shall cover:

- a) isometric view showing the basic design, including common characteristics of related connectors;
- b) fixed board connectors;
- c) free board connectors and/or board edge of printed boards;
- d) mating information;
- e) accessories;
- f) mounting information for fixed board connectors;
- g) mounting information for free board connectors, if applicable;
- h) mounting information for connectors with accessories;
- i) testing gauges, probes and test panels.

3.1 General

It shall be stated in the detail specification if original dimensions are millimetres or inches.

It shall be stated in the detail specification if drawings are shown in first angle or in third angle projection.

The system of lettering shall be as described in **2.7.1.1** of IEC 1076-1.

The following statement shall be included in the detail specification:

The shape of the connectors may deviate from those given in the following drawings as long as the specified dimensions are not influenced.

Wherever practical, the same dimension letters shall be used for corresponding dimensions of fixed and free connectors.

3.2 Isometric view and common features

An isometric view should be included and should show the main characteristics of the design including common features, if applicable.

It is convenient to show the dimension reference, the dimension and the feature description in the form of a table, see Table 2.

3 Dimensional information

3.1 General

The shape of the connectors may deviate from those given in the following drawings as long as the specified dimensions are not influenced.

3.2 Isometric view and common features

Table 2 — Isometric view and common features

Reference	Dimension	Feature description