

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Connectors for electrical and electronic equipment – Product requirements –
Part 3-124: Rectangular connectors – Detail specification for 10-way, shielded,
free and fixed connectors for I/O and data transmission with frequencies up to
500 MHz**

**Connecteurs pour équipements électriques et électroniques – Exigences de
produit –
Partie 3-124: Connecteurs rectangulaires – Spécification particulière pour les
fiches et les embases blindées à 10 voies pour les entrées/sorties et la
transmission de données à des fréquences jusqu'à 500 MHz**



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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 31.220.10

ISBN 978-2-8322-6608-3

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CONTENTS

FOREWORD	5
1 Scope	8
2 Normative references	8
3 Terms and definitions	10
4 Technical information	10
4.1 Systems of levels – Compatibility levels, according to IEC 61076-1:2006	10
4.1.1 Performance level	10
4.1.2 Compatibility levels according to IEC 61076	10
4.2 Classification into climatic categories	10
4.3 Clearance and creepage distances	11
4.4 Current carrying capacity	11
4.5 Marking	11
5 Dimensional information	11
5.1 General	11
5.2 Isometric view and common features	11
5.2.1 Common features	11
5.2.2 Reference system	11
5.3 Mating information – Contacts – mating conditions	12
5.4 Fixed connector	14
5.5 Free connector	20
5.6 Accessories	25
5.7 Mounting information for connectors	25
5.8 Gauges	25
6 Characteristics	26
6.1 General	26
6.2 Pin and pair grouping assignment	26
6.3 Classification into climatic category	28
6.4 Electrical characteristics	28
6.4.1 Voltage rating	28
6.4.2 Creepage and clearance distances	28
6.4.3 Voltage proof	29
6.4.4 Current carrying capacity	29
6.4.5 Contact and shield resistance	30
6.4.6 Initial insulation resistance	30
6.4.7 Impedance	30
6.5 Mechanical characteristics	31
6.5.1 Mechanical operation	31
6.5.2 Insertion and withdrawal forces	31
6.5.3 Polarization and coding method	31
6.5.4 Effectiveness of connector coupling devices	31
6.6 Transmission performance	32
6.6.1 General	32
6.6.2 Insertion loss	32
6.6.3 Return loss	32
6.6.4 Near-end crosstalk	32
6.6.5 Far-end crosstalk	33

6.6.6	Transverse conversion loss	33
6.6.7	Transverse conversion transfer loss	33
6.6.8	Transfer impedance	33
6.6.9	Propagation delay	33
6.6.10	Delay skew	33
7	Test schedule	34
7.1	General	34
7.2	Test procedures and measuring methods	34
7.3	Mounting of specimens	34
7.3.1	General	34
7.3.2	Arrangement for contact resistance measurement	34
7.3.3	Arrangement for dynamic stress tests	35
7.3.4	Wiring of specimens	36
7.4	Test schedules	36
7.4.1	Basic (minimum) test schedule	36
7.4.2	Full test schedule	36
Figure 1 – View showing typical fixed and free connectors		11
Figure 2 – Contact interface dimensions with terminated free connector		12
Figure 3a – Fixed connector Type A		14
Figure 3b – Fixed connector Type B		16
Figure 3c – Fixed connector Type C		18
Figure 3 – Fixed connectors		18
Figure 4a – Free connector Type A		20
Figure 4b – Free connector Type B		22
Figure 4c – Free connector Type C		24
Figure 4 – Free connectors		24
Figure 5a – Fixed connector pin assignment for Type A, front view of connector		26
Figure 5b – Free connector pin assignment for Type A, front view of connector		26
Figure 5c – Fixed connector pin assignment for Type B, front view of connector		26
Figure 5d – Free connector pin assignment for Type B, front view of connector		27
Figure 5e – Fixed connector pin assignment for Type C, front view of connector		27
Figure 5f – Free connector pin assignment for Type C, front view of connector		27
Figure 5 – Connector pin assignment		27
Figure 6 – De-rating diagram		30
Figure 7 – Contact resistance arrangement		35
Figure 8 – Arrangement for vibration test		36
Table 1 – Dimensions for Figure 2		12
Table 2 – Dimensions for Figure 3a		15
Table 3 – Dimensions for Figure 3b		17
Table 4 – Dimensions for Figure 3c		19
Table 5 – Dimensions for Figure 4a		21
Table 6 – Dimensions for Figure 4b		23
Table 7 – Dimensions for Figure 4c		25

Table 8 – Board connector pin assignment for 10/100 Mbit/s Ethernet (Type A connectors of Figure 5a and Figure 5b and Type C connectors of Figure 5e and Figure 5f)	27
Table 9 – Board connector pin assignment for 1/10 Gbit/s Ethernet: (Type A connectors of Figure 5a and Figure 5b and Type C connectors of Figure 5e and Figure 5f)	28
Table 10 – Climatic category.....	28
Table 11 – Creepage and clearance distances.....	29
Table 12 – Preferred values for the number of mating cycles	31
Table 13 – Test group P	37
Table 14 – Test group AP	38
Table 15 – Test group BP	40
Table 16 – Test group CP	41
Table 17 – Test group DP	42
Table 18 – Test group EP	43
Table 19 – Test group FP	44

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**CONNECTORS FOR ELECTRICAL AND ELECTRONIC EQUIPMENT –
PRODUCT REQUIREMENTS –****Part 3-124: Rectangular connectors – Detail specification for 10-way,
shielded, free and fixed connectors for I/O and data transmission
with frequencies up to 500 MHz**

FOREWORD

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This International Standard IEC 61076-3-124 has been prepared by subcommittee 48B: Electrical connectors, of IEC technical committee 48: Electrical connectors and mechanical structures for electrical and electronic equipment.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
48B/2711/FDIS	48B/2726/RVD

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

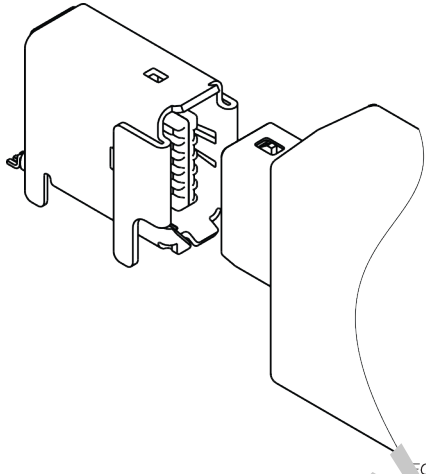
This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61076 series, published under the general title *Connectors for electrical and electronic equipment – Product requirements*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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

IEC SC 48B – Electrical connectors Specification available from: IEC General secretariat Or from the addresses shown on the inside cover.	IEC 61076-3-124 Ed. 1
ELECTRONIC COMPONENTS DETAIL SPECIFICATION in accordance with IEC 61076-1	
	10-way, shielded rectangular connectors male and female connectors for data transmission with frequencies up to 500 MHz solderless terminations, solder or printed board connections upon agreement between manufacturer and user rewirable – non-rewirable
NOTE The above axonometric view shows a type A connector pair (male fixed, printed board connector style, female free connector style) with coding edge on lower left corner viewed on the fixed connector mating side	free cable connectors straight and right-angle connectors fixed connectors are mounted on printed circuit board by means of soldering or press-in, the free connector is attached to wires by means of soldering, crimping, IDC or other termination technology. locking means to avoid unintended disengagement of mated connectors
	Performance levels: MPL 750 = 500 mating cycles MPL 2 500 = 2 500 mating cycles MPL 5 000 = 5 000 mating cycles other MPL upon agreement between manufacturer and user

CONNECTORS FOR ELECTRICAL AND ELECTRONIC EQUIPMENT – PRODUCT REQUIREMENTS –

Part 3-124: Rectangular connectors – Detail specification for 10-way, shielded, free and fixed connectors for I/O and data transmission with frequencies up to 500 MHz

1 Scope

This part of IEC 61076 covers 10-way, shielded, free and fixed rectangular connectors for data transmission with frequencies up to 500 MHz and specifies the common dimensions, mechanical, electrical and transmission characteristics and environmental requirements as well as test specifications respectively.

Connectors covered in this document are provided in three codings that differ only for the position of the polarization key and keyway, in view of their differently intended use:

- Connectors Type A and C are intended for 10/100 Mbit/s as well as for 1 / 2,5 / 5 / 10 Gbit/s Ethernet communication.
- Connectors Type B are intended for all other non-Ethernet applications such as signalling, serial or other industrial bus communication systems.

A-coding: The 45° cut corner used as polarization key and keyway system is located on the lower left corner of the male fixed connector (viewed from mating face) (Figures 5a, 5b).

B-coding: The 45° cut corner is located on the upper left corner of the male fixed connector (Figures 5c, 5d).

C-coding: There are two 45° corners located at the upper left and lower left corner (Figures 5e, 5f).

In this document, the three codings, A, B, and C are designated as “Type A”, “Type B” and “Type C”.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60050-581, *International Electrotechnical Vocabulary – Part 581: Electromechanical components for electronic equipment*

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

IEC 60068-2-38, *Environmental testing – Part 2-38: Tests – Test Z/AD: Composite temperature/humidity cyclic test*

IEC 60352 (all parts), *Solderless connections*

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