

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 écrantées à 10 voies pour les entrées/sorties et la transmission de données à des fréquences jusqu'à 500 MHz



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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**

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fiches et les embases écrantées 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

**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**

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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.

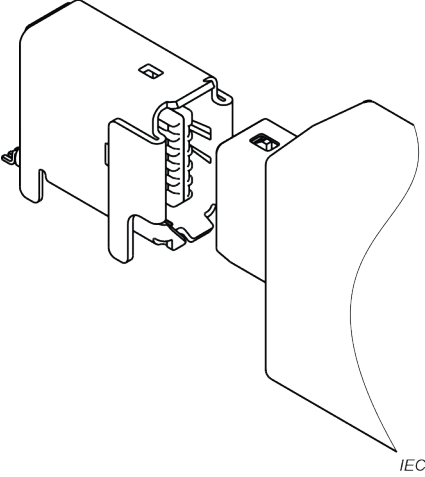
This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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- withdrawn,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

<p>IEC SC 48B – Electrical connectors</p> <p>Specification available from: IEC General secretariat Or from the addresses shown on the inside cover.</p>	<p>IEC 61076-3-124 Ed. 1</p>
<p>ELECTRONIC COMPONENTS</p> <p>DETAIL SPECIFICATION in accordance with IEC 61076-1</p>	
	<p>10-way, shielded rectangular connectors</p> <p>male and female connectors</p> <p>for data transmission with frequencies up to 500 MHz</p> <p>solderless terminations, solder or printed board connections upon agreement between manufacturer and user</p> <p>rewirable – non-rewirable</p>
<p>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</p>	<p>free cable connectors</p> <p>straight and right-angle connectors</p> <p>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.</p> <p>locking means to avoid unintended disengagement of mated connectors</p>
	<p>Performance levels:</p> <p>MPL 750 = 500 mating cycles</p> <p>MPL 2 500 = 2 500 mating cycles</p> <p>MPL 5 000 = 5 000 mating cycles</p> <p>other MPL upon agreement between manufacturer and user</p>

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*