

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Connectors for electrical and electronic equipment –
Part 1: Detail specification for two-way, shielded or unshielded, free and fixed
connectors – Mechanical mating information, pin assignment and additional
requirements for Type 1 copper LC style**

**Connecteurs pour équipements électriques et électroniques –
Partie 1: Spécification particulière pour les fiches et les embases
bidirectionnelles, écrantées ou non écrantées – Informations sur l'accouplement
mécanique, brochage et exigences supplémentaires pour connecteur LC de type
1 à doigts de guidage en cuivre**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

CONNECTORS FOR ELECTRICAL AND ELECTRONIC EQUIPMENT –**Part 1: Detail specification for two-way, shielded or unshielded, free and fixed connectors – Mechanical mating information, pin assignment and additional requirements for Type 1 copper LC style**

FOREWORD

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International Standard IEC 63171-1 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/2783/FDIS	48B/2799/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 63171 series, published under the general title *Connectors for electrical and electronic components*, can be found on the IEC website.

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- withdrawn,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
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INTRODUCTION

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning contact mating surface dimensions given in 5.1.

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The holder of the patent right on contact mating surface dimensions in 5.1 has assured the IEC that they are willing to give free licences to applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with the IEC

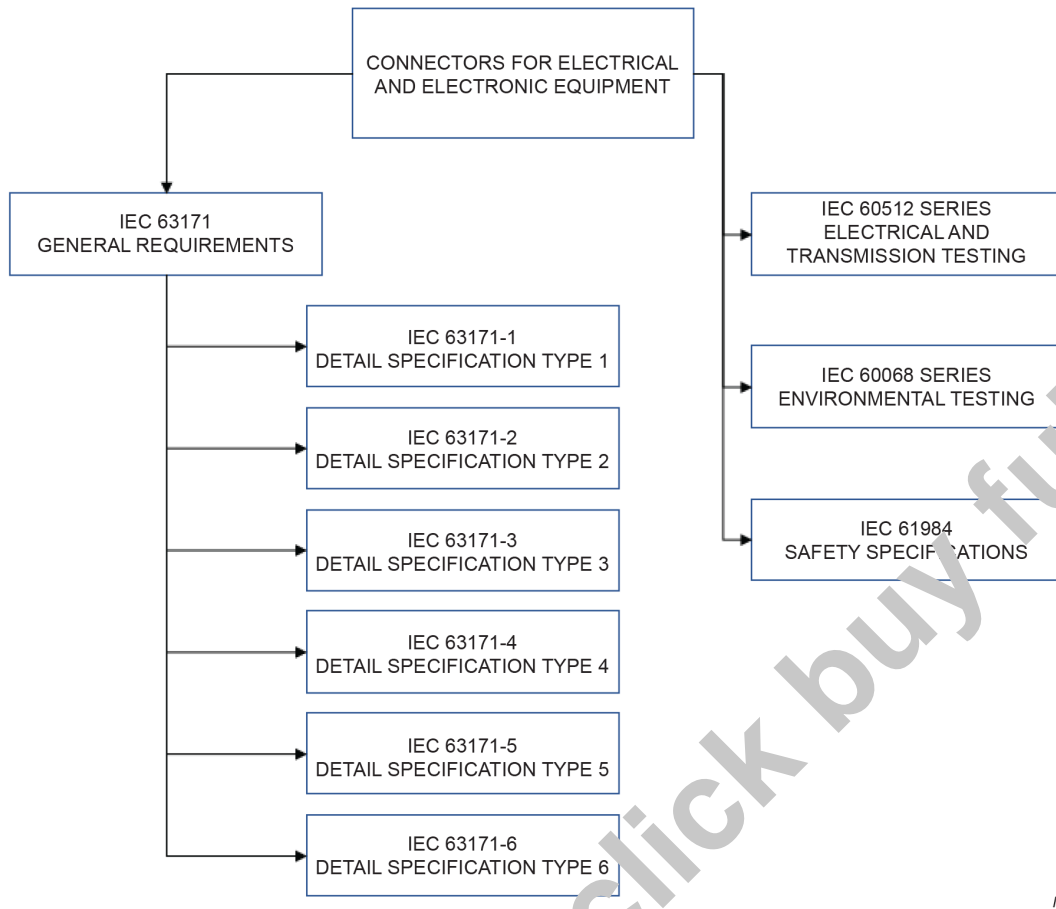
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IEC 63171 is the base specification of the whole series. Subsequent specifications do not duplicate information given in the base document, but list only additional requirements. For complete specification regarding a component of a higher number document the base numbered documents should be considered as well. The following diagram (see Figure 1) shows the interrelation of the documents.



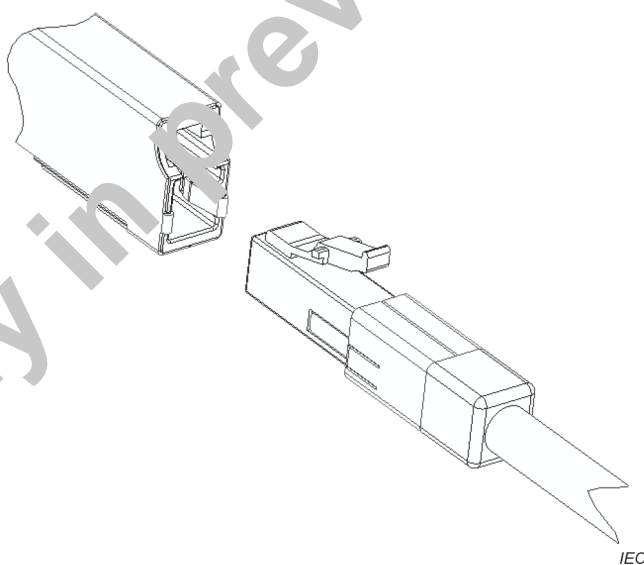
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Figure 1 – Relationships between the IEC 63171 series and its related references

International Electrotechnical Commission

IEC 63171-1 Ed1

Subcommittee 48B: Electrical connections



Two-way, free and fixed connectors for data transmission up to 600 MHz (and with current carrying capacity up to 2,0 A at 60° C.)

Fixed connectors are mounted on printed circuit board or bulk head, the free connector is terminated on shielded or unshielded wire.

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View showing typical fixed and free connectors

Figure 2 – Connector overview

CONNECTORS FOR ELECTRICAL AND ELECTRONIC EQUIPMENT –

Part 1: Detail specification for two-way, shielded or unshielded, free and fixed connectors – Mechanical mating information, pin assignment and additional requirements for Type 1 copper LC style

1 Scope

This part of IEC 63171 covers two-way, shielded or unshielded, free and fixed connectors for data transmission with frequencies up to 600 MHz and with current carrying capacity up to 2,0 A at 60 °C. It is intended to specify the common dimensions, mechanical, electrical, signal integrity, environmental characteristics, reliability specifications and corresponding tests for these connectors.

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 reference document (including any amendments) applies.

IEC 60050-581, *International Electrotechnical Vocabulary (IEV) – Chapter 581: Electromechanical components for electronic equipment*

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

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

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

IEC 60512-1-2, *Connectors for electronic equipment – Tests and measurements – Part 1-2: General examination – Test 1b: Examination of dimension and mass*

IEC 60512-2-1, *Connectors for electronic equipment – Tests and measurements – Part 2-1: Electrical continuity and contact resistance tests – Test 2a: Contact resistance – Millivolt level method*

IEC 60512-2-5, *Connectors for electronic equipment – Tests and measurements – Part 2-5: Electrical continuity and contact resistance tests – Test 2e: Contact disturbance*

IEC 60512-3-1, *Connectors for electronic equipment – Tests and measurements – Part 3-1: Insulation tests – Test 3a: Insulation resistance*

IEC 60512-4-1, *Connectors for electronic equipment – Tests and measurements – Part 4-1: Voltage stress tests – Test 4a: Voltage proof*

IEC 60512-5-2, *Connectors for electronic equipment – Tests and measurements – Part 5-2: Current-carrying capacity tests – Test 5b: Current-temperature derating*