

Connectors for electronic equipment —

**Part 2-102: Circular connectors with
assessed quality — Detail specification
for plugs and jacks for external low
voltage power supply**

The European Standard EN 61076-2-102:2002 has the status of a
British Standard

ICS 31.220.10

National foreword

This British Standard is the official English language version of EN 61076-2-102:2002. It is identical with IEC 61076-2-102:2002.

The UK participation in its preparation was entrusted by Technical Committee EPL/48, Electromechanical components and mechanical structures for electronic equipment, to Subcommittee EPL/48/2, Connectors for electronic equipment, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

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This British Standard, having been prepared under the direction of the Electrotechnical Sector Policy and Strategy Committee, was published under the authority of the Standards Policy and Strategy Committee on 9 August 2002

Summary of pages

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Connectors for electronic equipment
Part 2-102: Circular connectors with assessed quality -
Detail specification for plugs and jacks
for external low voltage power supply
(IEC 61076-2-102:2002)

Connecteurs pour équipements
électroniques
Partie 2-102: Connecteurs circulaires
sous assurance de la qualité -
Spécification particulière pour fiches et
embases pour le raccordement d'une
alimentation externe à basse tension
(CEI 61076-2-102:2002)

Steckverbinder für elektronische
Einrichtungen
Teil 2-102: Rundsteckverbinder
mit bewerteter Qualität -
Bauartspezifikation für Buchsen und
Stöpsel für externe
Niederspannungs-Stromversorgung
(IEC 61076-2-102:2002)

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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

Foreword

The text of document 48B/1206/FDIS, future edition 1 of IEC 61076-2-102, 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 61076-2-102 on 2002-07-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
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- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2005-07-01

Les annexes appelées "normatives" font partie du corps de la norme.
Dans la présente norme, l'annexe ZA est normative.
L'annexe ZA a été ajoutée par le CENELEC.

Endorsement notice

The text of the International Standard IEC 61076-2-102:2002 was approved by CENELEC as a European Standard without any modification.

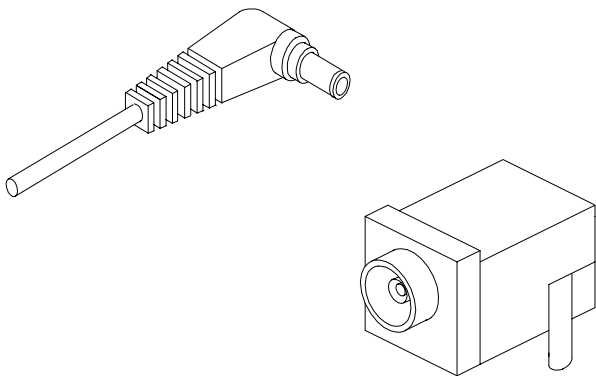
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CONNECTORS FOR ELECTRONIC EQUIPMENT –

Part 2-102: Circular connectors with assessed quality –
Detail specification for plugs and jacks for external
low voltage power supply

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC SC 48B – Connectors	IEC 61076-2-102 QC 480101XX0003
ELECTRONIC COMPONENTS OF ASSESSED QUALITY in accordance with IEC 61076-1: Generic specification	Blank detail specification IEC 61076-2-001
 <i>IEC 1256/02</i>	Jacks (fixed connector) and plugs (free connectors) for coupling an external low voltage power supply
	Five voltage classifications to prevent mismatching
	Performance level: 1 Assessment level: G Combination of performance level and assessment level: 1G

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

1 General information

1.1 Scope and object

This part of IEC 61076 applies to fixed connectors (jacks) and free connectors (plugs) for coupling an external low voltage power supply (hereinafter called plugs and jacks) to electronic products. The object of this part is to specify the dimensions, general requirements and tests for the jacks and plugs for use in electronic products.

1.2 Recommended method of mounting

The plug (free cable connector) shall be connected to the cable for low voltage supply.

Depending on the application, the jack (fixed connector) shall be fixed on internal printed circuit boards or attached to panels of electronic product.

1.2.1 Number of contacts

Not applicable.

1.3 Rating and characteristics

The jacks (fixed connectors) and plugs (free connectors) have five voltage classifications as shown below. The appearance, construction and dimensions of the classifications prevent mismatching.

Voltage classification

Voltage range:	$V \leq 3,15$
(d.c. nominal value)	$3,15 < V \leq 6,3$ $6,3 < V \leq 10,5$ $10,5 < V \leq 13,5$ $13,5 < V \leq 18,0$
Current rating:	2 A
Voltage proof:	500 V a.c. r.m.s.
Insulation resistance:	100 M Ω minimum (initial)
Contact resistance:	50 m Ω maximum (initial)
Climatic category:	10/070/04

1.4 Normative references

The following referenced documents are indispensable for the application 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 60068-1, *Environmental testing – Part 1: General and guidance*
Amendment 1

IEC 60410, *Sampling plans and procedures for inspection by attributes*

IEC 60512 (all parts): *Connectors for electronic equipment – Tests and measurements*

IEC 60512-1-100: *Connectors for electronic equipment – Tests and measurements – Part 1-100: General – Applicable publications*

IEC 61076-1, *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*

IEC 61076-2, *Connectors for use in d.c., low frequency analogue and digital high speed data applications – Part 2: Circular connectors with assessed quality – Sectional specification*

ISO 1302, *Technical drawings – Method of indicating surface texture*

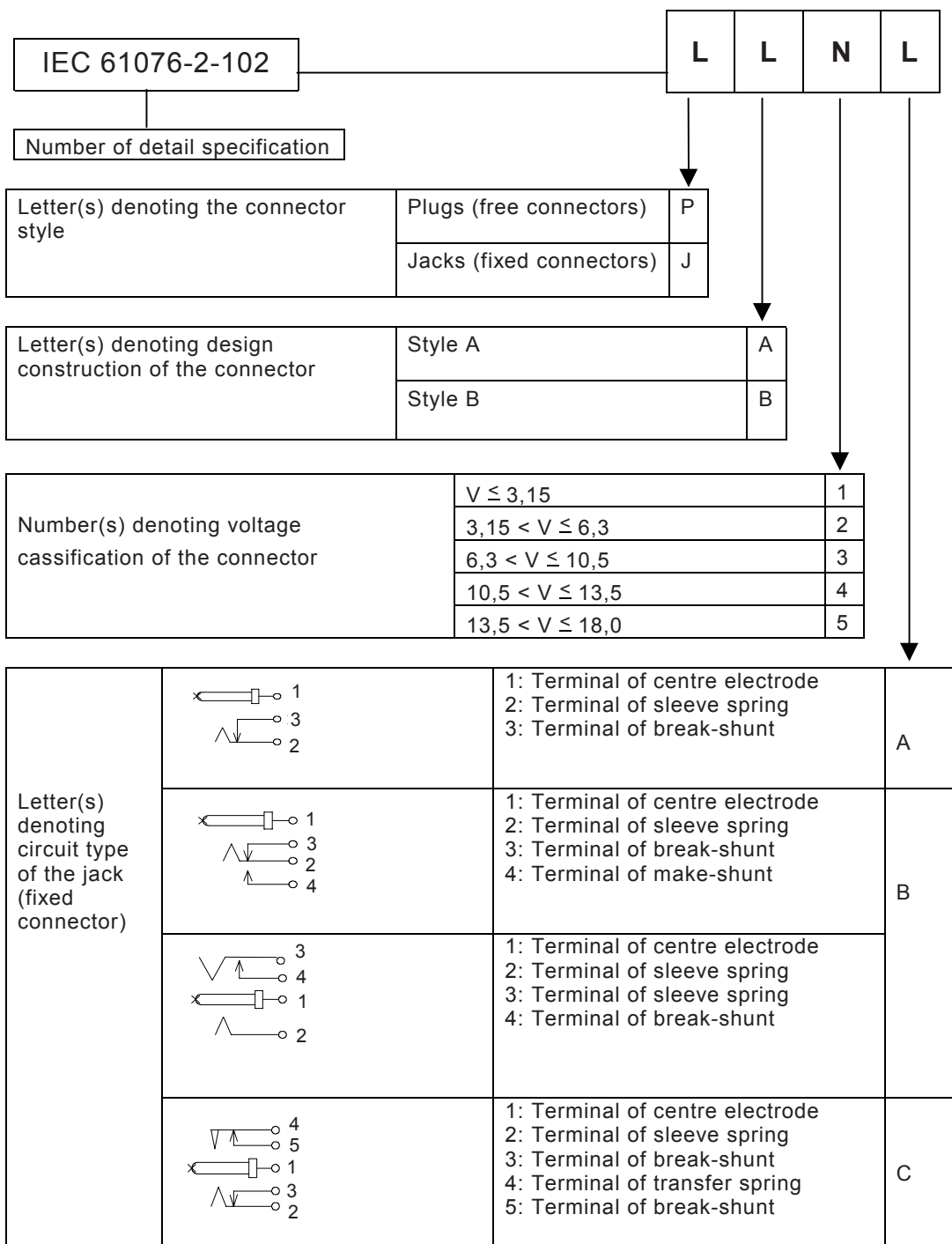
1.5 Marking

The marking of the connector (plug and jack) shall be in accordance with 2.6 of IEC 61076-2.

1.6 IEC type designation

The designation shall be derived in accordance with 2.5 of IEC 61076-2.

"L" stands for letter.
"N" stands for number.



EXAMPLE IEC 61076-2-102 PA2A: Plug (free connector)/style A/voltage classification 3,15<V≤6,3/circuit type A

1.7 Ordering information

For ordering connectors according to this detail specification, the type designation described in 1.6 shall be used.

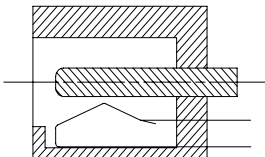
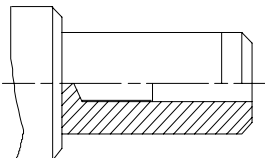
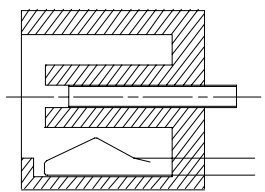
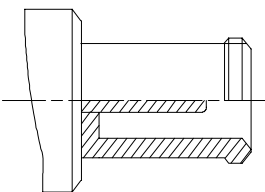
2 Technical information

2.1 Definitions

For the purpose of this part of IEC 61076, the definitions in 2.1 of IEC 61076-2 apply.

2.2 Survey of styles

Table 1 – Survey of styles

Jack (fixed connector)	Plug (free connector)	Style
		A
		B

IEC 1257/02

2.3 Information on application

See clause 3 and 4.2.1.

2.3.1 Complete connector (pairs)

The jacks and plugs shall be coupled with unified polarity for an external low voltage power supply to electronic products. The outside electrode of the plug shall have a negative (–) polarity and the centre electrode of the plug shall have a positive (+) polarity.

2.3.2 Jack (fixed connector)

Any jack shall be used to receive power.

2.3.3 Plug (free connector)

Any plug shall be used to supply power.