SLOVENSKI STANDARD

SIST EN 61076-2-101:2004

november 2004

Konektorji za elektronsko opremo - 2-101. del: Okrogli konektorji - Podrobna specifikacija za okrogle konektorje M8 z navojnim ali zaskočnim stikanjem in konektorje M12 z navojnim stikanjem za nizke napetosti (IEC 61076-2-101:2003)

Connectors for electronic equipment - Part 2-101: Circular connectors - Detail specification for circular connectors M8 with screw- or snap-locking, M12 with screw-locking for low voltage applications (IEC 61076-2-101:2003)

ICS 31.220.10

Referenčna številka
SIST EN 61076-2-101:2004(en)

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61076-2-101

December 2003

ICS 31.220.10

English version

Connectors for electronic equipment
Part 2-101: Circular connectors –
Detail specification for circular connectors
M8 with screw- or snap-locking,
M12 with screw-locking for low voltage applications
(IEC 61076-2-101:2003)

Connecteurs pour équipements électroniques
Partie 2-101: Connecteurs circulaires - Spécification particulière pour les connecteurs circulaires M8 à vis ou à encliquetage, M12 à vis pour applications basse tension
(CEI 61076-2-101:2003)

Steckverbinder für elektronische Einrichtungen
Teil 2-101: Rundsteckverbinder - Bauartspezifikation für Rundsteckverbinder M8 mit Schraub- oder Rastverriegelung und M12 mit Schraubverriegelung für Niederspannungsanwendungen
(IEC 61076-2-101:2003)

This European Standard was approved by CENELEC on 2003-12-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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

Ref. No. EN 61076-2-101:2003 E

Foreword

The text of document 48B/1362/FDIS, future edition 1 of IEC 61076-2-101, 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 61076-2-101 on 2003-12-01.

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) 2004-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-12-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annex ZA is normative and annex A is informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61076-2-101:2003 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60050-581	- [1]	International Electrotechnical Vocabulary (IEV) Chapter 581: Electromechanical components for electronic equipment	-	-
IEC 60068-1 + corr. October + A1	1988 1988 1992	Environmental testing Part 1: General and guidance	EN 60068-1	1994
IEC 60352	Series	Solderless connections	EN 60352	Series
IEC 60512	Series	Connectors for electronic equipment - Tests and measurements	EN 60512	Series
IEC 60512-1-100	- [1]	Connectors for electronic equipment - Tests and measurements Part 1-100: General - Applicable publications	EN 60512-1-100	2001 [2]
IEC 60529	- [1]	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991 [2]
IEC 60664-1	1992	Insulation coordination for equipment within low-voltage systems Part 1: Principles, requirements and tests	EN 60664-1 [3]	2003
IEC 60998-2-1 (mod)	- [1]	Connecting devices for low-voltage circuits for household and similar purposes Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units	EN 60998-2-1	1993 [2]

1) Undated reference.

2) Valid edition at date of issue.

3) EN 60664-1 includes A1:2000 + A2:2002.

Publication	Year	Title	EN/HD	Year
IEC 60999	Series	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units	EN 60999	Series
IEC 61076-1	1995	Connectors with assessed quality, for use in d.c., low frequency analogue and in digital high-speed data applications Part 1: Generic specification - Capability approval	EN 61076-1	1995
A1	1996		A1	1996
IEC 61076-2	- [1)]	Part 2: Circular connectors with assessed quality - Sectional specification	EN 61076-2	1999 [2)]
IEC 61076-2-001	- [1)]	Part 2-001: Circular connectors - Blank detail specification	EN 61076-2-001	2001 [2)]
ISO 1302	- [1)]	Geometrical Product Specifications (GPS) - Indication of surface texture in technical product documentation	EN ISO 1302	2002 [2)]

NORME INTERNATIONALE

INTERNATIONAL STANDARD

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Première édition
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Connecteurs pour équipements électroniques –

Partie 2-101: Connecteurs circulaires – Spécification particulière pour les connecteurs circulaires M8 à vis ou à encliquetage, M12 à vis pour applications basse tension

Connectors for electronic equipment – Part 2-101: Circular connectors – Detail specification for circular connectors M8 with screw- or snap-locking, M12 with screw-locking for low voltage applications

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch

Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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CONNECTORS FOR ELECTRONIC EQUIPMENT –

Part 2-101: Circular connectors – Detail specification for circular connectors M8 with screw- or snap-locking, M12 with screw-locking for low voltage applications

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

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International Standard IEC 61076-2-101 has been prepared by subcommittee 48B: Connectors, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

This bilingual version (2004-04) replaces the English version.

The text of this standard is based on the following documents:

FDIS	Report on voting
48B/1362/FDIS	48B/1384/RVD

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

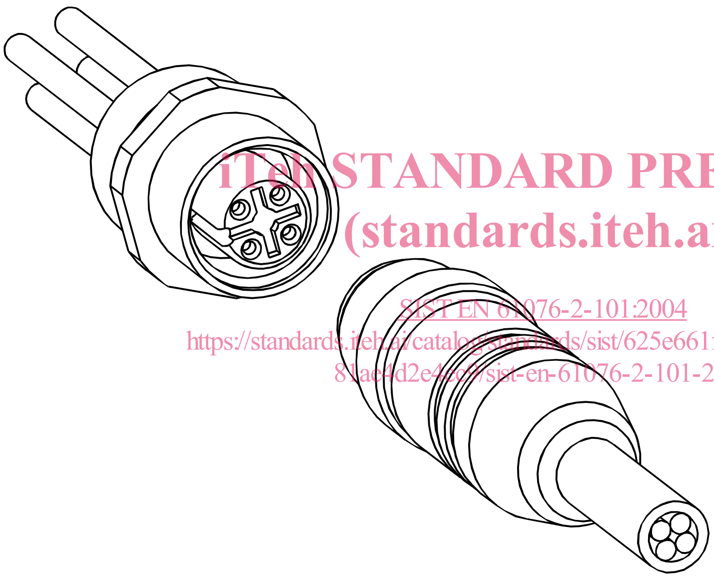
The French version of this standard has not been voted upon.

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

The committee has decided that the contents of this publication will remain unchanged until 2005. At this date, the publication will be

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

CONNECTORS FOR ELECTRONIC EQUIPMENT – Part 2-101: Circular connectors – Detail specification for circular connectors M8 with screw- or snap-locking, M12 with screw-locking for low voltage applications

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC SC 48B – Connectors	IEC 61076-2-101
ELECTRONIC COMPONENTS in accordance with IEC 61076-1	Blank detail specification IEC 61076-2-001
 IEC 2336/03	Circular connectors M8/∅8 mm 3 and 4 poles M12 2 to 8 poles Pin and socket connectors Rewireable – Non-rewireable
	Free cable connectors Straight and right angle connectors Fixed connectors Flange mounting Single hole mounting Pin sockets
	Assessment level: B, G
Information on the availability of components qualified to this detail specification is given in the qualified products list.	

1 General information

Throughout this detail specification dimensions are in mm.

1.1 Scope

This part of IEC 61076 describes circular connectors for use in industrial control circuits devices like switchgear and controlgear. These connectors consist of fixed and free connectors either rewireable or non-rewireable, M8 with screw-locking or ∅ 8 mm with snap-locking, M12 with screw-locking.

Male connectors have round contacts ∅ 0,8 mm and ∅ 1,0 mm.

1.2 Recommended method of termination

The contact terminations shall be of the following types: screw, crimp, solder, insulation piercing or insulation displacement.

1.2.1 Number of contacts or contact cavities

Connectors type D	M12	2 to 8 contacts
Connectors type E	M8/ ∅ 8 mm	3 and 4 contacts

1.3 Ratings and characteristics

Rated voltage:	Connectors type D:	2 to 4 poles	250 V AC/DC
		5 poles	60 V AC/DC
		6 to 8 poles	30 V AC/DC
	Connectors type E:	3 poles	60 V AC/DC
		4 poles	30 V AC/DC
Current rating:	Type D	2 to 5 poles	= 4 A
		6 to 8 poles	= 2 A
	Type E	3 poles	= 3 A
		4 poles	= 3 A
Insulation resistance:	> 10^8 Ω		
Climatic category:	see 4.1 and Table 8		
Contact spacing:	see Clause 3		

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

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 60050-581, *International Electrotechnical Vocabulary – Electromechanical components for electronic equipment*

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*
Amendment 1 (1992)

IEC 60352 (all parts), *Solderless connections*

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 60529:1989, *Degrees of protection provided by enclosures (IP code)*

IEC 60664-1:1992, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 60998-2-1, *Connecting devices for low-voltage circuits for household and similar purposes – Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units*

IEC 60999 (all parts), *Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units*

IEC 61076-1:1995, *Connectors with assessed quality, for use in d.c., low frequency analogue and in digital high speed data applications – Part 1: Generic specification*
Amendment 1 (1996)

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*

IEC 61076-2-001, *Connectors for electronic equipment – Part 2-001: Circular connectors – Blank detail specification*

ISO 1302, *Geometrical Product Specifications (GPS) – Indication of surface texture in technical product documentation*

1.5 Marking

The marking of the connector and the package shall be in accordance with 2.6 of IEC 61076-2.