

BS EN 61076-2-105:2008



BSI Standards Publication

Connectors for electronic equipment — Product requirements —

Part 2-105: Circular connectors — Detail specification for M5 connectors with screw-locking

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National foreword

This British Standard is the UK implementation of EN 61076-2-105:2008. It is identical to IEC 61076-2-105:2008.

The UK participation in its preparation was entrusted to Technical Committee EPL/48, Electromechanical components and mechanical structures for electronic equipment.

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

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EN 61076-2-105

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English version

**Connectors for electronic equipment -
Product requirements -
Part 2-105: Circular connectors -
Detail specification for M5 connectors with screw-locking
(IEC 61076-2-105:2008)**

Connecteurs pour équipements
électroniques -
Exigences de produit -
Partie 2-105: Connecteurs circulaires -
Spécification particulière
pour connecteurs M5 à vis
(CEI 61076-2-105:2008)

Steckverbinder für elektronische
Einrichtungen -
Produktanforderungen -
Teil 2-105: Rundsteckverbinder -
Bauartspezifikation für Steckverbinder M5
mit Schraubverriegelung
(IEC 61076-2-105:2008)

This European Standard was approved by CENELEC on 2008-08-01. 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.

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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

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Foreword

The text of document 48B/1909/FDIS, future edition 1 of IEC 61076-2-105, 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 61076-2-105 on 2008-08-01.

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) 2009-05-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2011-08-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61076-2-105:2008 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 61076-2-001 NOTE Harmonized as EN 61076-2-001:2001 (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

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

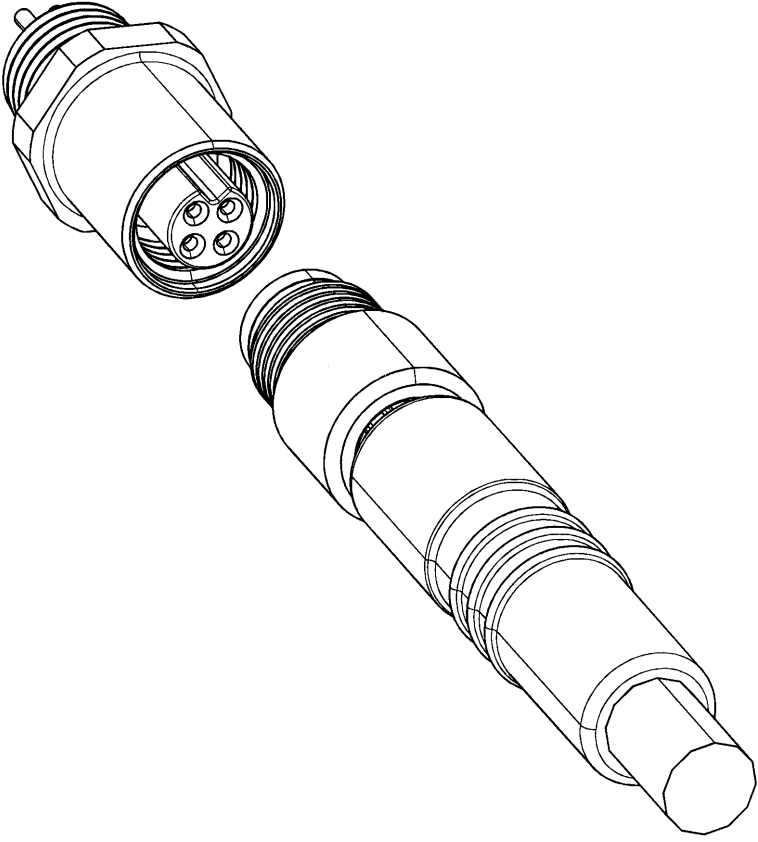
<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-581	- ¹⁾	International Electrotechnical Vocabulary (IEV) - Chapter 581: Electromechanical components for electronic equipment	-	-
IEC 60068-1 + corr. October A1	1988 1988 1992	Environmental testing - Part 1: General and guidance	EN 60068-1	1994
IEC 60068-2-60	1995	Environmental testing - Part 2: Tests - Test Ke: Flowing mixed gas corrosion test	EN 60068-2-60	1996
IEC 60352	Series	Solderless connections	EN 60352	Series
IEC 60512	Series	Connectors for electronic equipment - Tests and measurements	EN 60512	Series
IEC 60529 A1	1989 1999	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May A1	1991 1993 2000
IEC 60664-1	2007	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	2007
IEC 60998-2-1 (mod)	2002	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	2004
IEC 60999	Series	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units	EN 60999	Series
IEC 61076-1	2006	Connectors for electronic equipment - Product requirements - Part 1: Generic specification	EN 61076-1	2006
IEC 61984	2001	Connectors - Safety requirements and tests	EN 61984	2001
ISO 1302	2002	Geometrical Product Specifications (GPS) - Indication of surface texture in technical product documentation	-	-

¹⁾ Undated reference.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC SC 48B – Connectors	IEC 61076-2-105
ELECTRONIC COMPONENTS DETAIL SPECIFICATION in accordance with IEC 61076-1:2006	
 IEC 1248/08	Circular connectors M5 3 to 4 way Male and female contacts Non-rewireable (fixed connector could also be rewirable)
	Free cable connectors Straight and right angle connectors Fixed connectors Single hole mounting

CONNECTORS FOR ELECTRONIC EQUIPMENT ± PRODUCT REQUIREMENTS ±

Part 2-105: Circular connectors ± Detail specification for M5 connectors with screw-locking

1 General information

Throughout this standard dimensions are in mm.

1.1 Scope

This part of IEC 61076 describes circular connectors with M5 screw-locking, typically used for industrial process measurement and control.

NOTE M5 is the dimension of the thread of the screw locking mechanism of these circular connectors.

These connectors consist of fixed non-rewirable or rewirable and free connectors non-rewireable.

Male connectors have round contacts $\varnothing$ 0,48 mm.

1.2 Recommended method of termination

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

1.2.1 Number of contacts or contact cavities

3 and 4 contacts.

1.3 Ratings and characteristics

Rated voltage	3 contacts	60 V d.c. or a.c.
	4 contacts	60 V d.c. or a.c.

Current rating	3 contacts	1 A
	4 contacts	1 A

Insulation resistance : $10^8 \Omega$ min.

Climatic category : see 4.1 Table 4

Contact spacing : see Clause 3

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 ± Part 581: Electromechanical components for electronic equipment*

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

IEC 60068-2-60:1995, *Environmental testing ± Part 2: Tests ± Test Ke: Flowing mixed gas corrosion test*

IEC 60352 (all parts), *Solderless connections*

IEC 60512 (all parts), *Connectors for electronic equipment ± Tests and measurements*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code) Amendment 1 (1999)*

IEC 60664-1:2007, *Insulation coordination for equipment within low-voltage systems ± Part 1: Principles, requirements and tests*

IEC 60998-2-1:2002, *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 61076-1:2006, *Connectors for electronic equipment ± Product requirements ± Part 1: Generic Specification*

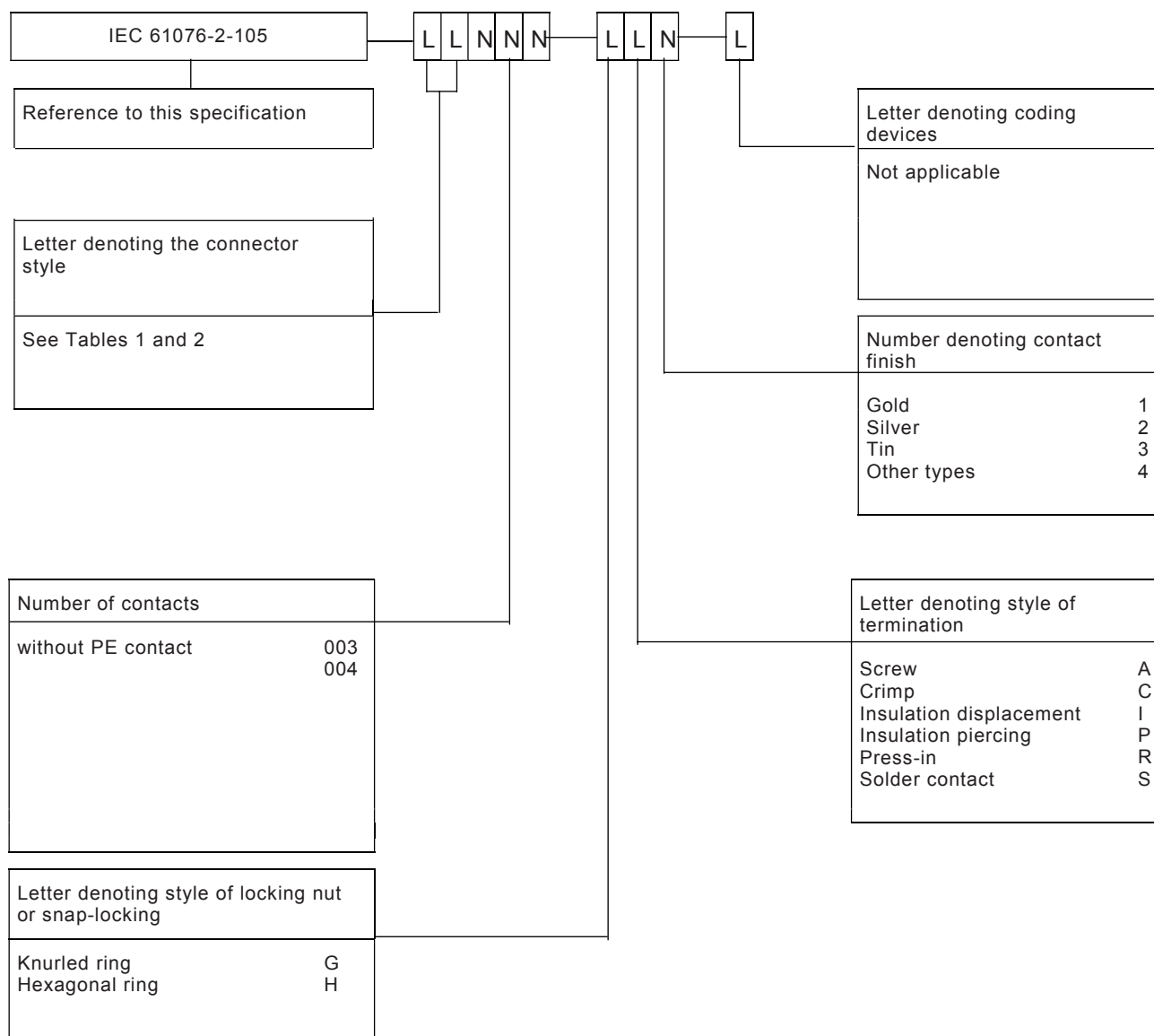
IEC 61984:2001, *Connectors ± Safety requirements and tests*

ISO 1302:2002, *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 2.7 of IEC 61076-1.

1.6 IEC type designation



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

1.7 Ordering information

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

Example: MF 004 – GS1

Free connector, non-rewireable, right angled version, 4 ways, with knurled ring, female solder termination contacts, contact area gold finish.

1.8 Safety aspects

For safety aspects, IEC 61984 shall be considered unless otherwise specified.