



NSAI
Standards

Irish Standard
I.S. EN 61076-3-117:2009

Connectors for electronic equipment -
Product requirements -- Part 3-117:
Rectangular connectors - Detail specification
for protective housings for use with 8-way
shielded and unshielded connectors for
industrial environments incorporating the IEC
60603-7 series interface - Variant 14 related
to IEC 61076-3-106 - Push pull coupling (IEC
61076-3-117:2009 (EQV))

I.S. EN 61076-3-117:2009

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EUROPEAN STANDARD

EN 61076-3-117

NORME EUROPÉENNE

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August 2009

ICS 31.220.10

English version

**Connectors for electronic equipment -
Product requirements -
Part 3-117: Rectangular connectors -
Detail specification for protective housings
for use with 8-way shielded and unshielded connectors
for industrial environments incorporating the IEC 60603-7 series interface -
Variant 14 related to IEC 61076-3-106 -
Push pull coupling
(IEC 61076-3-117:2009)**

Connecteurs
pour équipement électroniques -
Exigences de produits -
Partie 3-117: Connecteurs rectangulaires -
Spécification particulière
pour boîtiers de protection utilisés
avec des connecteurs blindés et non blindés
à 8 voies dans des environnements industriels
incorporant l'interface série CEI 60603-7 -
Variante 14 liée à la CEI 61076-3-106 -
Type d'accouplement pousser-tirer
(CEI 61076-3-117:2009)

Steckverbinder
für elektronische Einrichtungen -
Produktanforderungen -
Teil 3-117: Rechteckige Steckverbinder -
Bauartspezifikation für Schutzgehäuse
für die Anwendung mit 8-poligen geschirmten
und ungeschirmten Steckverbindern
für industrielle Umgebungen zur Aufnahme
der Schnittstelle der Reihe IEC 60603-7 -
Ausführung 14 zu IEC 61076-3-106 -
Push-pull-Kupplung
(IEC 61076-3-117:2009)

This European Standard was approved by CENELEC on 2009-07-01. 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: Avenue Marnix 17, B - 1000 Brussels

I.S. EN 61076-3-117:2009

EN 61076-3-117:2009

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Foreword

The text of document 48B/1996/FDIS, future edition 1 of IEC 61076-3-117, 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 61076-3-117 on 2009-07-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2010-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2012-07-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61076-3-117:2009 was approved by CENELEC as a European Standard without any modification.

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 | 2008 | International Electrotechnical Vocabulary (IEV) - Part 581: Electromechanical components for electronic equipment | - | - |
| IEC 60068-1 | - ¹⁾ | Environmental testing - Part 1: General and guidance | EN 60068-1 | 1994 ²⁾ |
| IEC 60068-2-14 | - ¹⁾ | Environmental testing - Part 2-14: Tests - Test N: Change of temperature | EN 60068-2-14 | 2009 ²⁾ |
| IEC 60068-2-30 | - ¹⁾ | Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle) | EN 60068-2-30 | 2005 ²⁾ |
| 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 | 2006 ²⁾ |
| IEC 60529 | 1989 | Degrees of protection provided by enclosures (IP Code) | EN 60529 + corr. May | 1991 1993 |
| IEC 60603-7 | Series | Connectors for electronic equipment | EN 60603-7 | Series |
| IEC 60664-1 | - ¹⁾ | Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests | EN 60664-1 | 2007 ²⁾ |
| IEC 61076-1 | 2006 | Connectors for electronic equipment - Product requirements - Part 1: Generic specification | EN 61076-1 | 2006 |
| IEC 61156 | Series | Multicore and symmetrical pair/quad cables for digital communications | - | - |

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**CONNECTORS FOR ELECTRONIC EQUIPMENT –
PRODUCT REQUIREMENTS –**

**Part 3-117: Rectangular connectors –
Detail specification for protective housings
for use with 8-way shielded and unshielded connectors for industrial
environments incorporating the IEC 60603-7 series interface –
Variant 14 related to IEC 61076-3-106 –
Push-pull coupling**

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 61076-3-117 has been prepared by subcommittee 48B: Connectors, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

This International Standard cancels and replaces IEC/PAS 61076-3-117 (2006).

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

| | |
|---------------|------------------|
| FDIS | Report on voting |
| 48B/1996/FDIS | 48B/2014/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.

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

A list of all parts of IEC 61076 series, under the general title *Connectors for electronic equipment – Product requirements*, can be found on the IEC website.

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

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

CONNECTORS FOR ELECTRONIC EQUIPMENT – PRODUCT REQUIREMENTS –

Part 3-117: Rectangular connectors – Detail specification for protective housings for use with 8-way shielded and unshielded connectors for industrial environments incorporating the IEC 60603-7 series interface – Variant 14 related to IEC 61076-3-106 – Push-pull coupling

1 Scope

This part of IEC 61076 covers rectangular protective housings with push-pull coupling for upgrading existing 8-way shielded and unshielded connectors utilizing the interface described in IEC 60603-7-2, IEC 60603-7-3, IEC 60603-7-4, IEC 60603-7-41, IEC 60603-7-5, IEC 60603-7-51, IEC 60603-7-7 and IEC 60603-7-71 to IP65 and IP67 ratings according to IEC 60529, for use in industrial environments.

Common mating configurations for all variants of the 8-way shielded and unshielded connectors are defined in IEC 60603-7. The mating dimensions for the housings under Clause 3 allow the mating conditions under IEC 60603-7 to be fulfilled.

This standard covers a further variant of IEC 61076-3-106 housing known as variant 14.

The fully assembled variant 14 connectors described in this document incorporate fixed and free connectors which are fully compliant with the relevant part of IEC 60603-7.

2 General data

2.1 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 60050-581:2008, *International Electrotechnical Vocabulary (IEV) – Part 581: Electro-mechanical components for electronic equipment*

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

IEC 60068-2-14, *Environmental testing – Part 2-14: Tests. Test N: Change of temperature*

IEC 60068-2-30, *Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12 h + 12 h cycle)*

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, *Degree of protection provided by enclosures (IP Code)*

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