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Irish Standard I.S. EN 61535:2009

# Installation couplers intended for permanent connection in fixed installations (IEC 61535:2009 (EQV))

*Incorporating amendments/corrigenda issued since publication:* EN 61535:2009/A1:2013

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I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

<i>This document replaces:</i>	<i>This document is based on:</i> EN 61535:2009	<i>Publish</i> 3 July,		
This document was published under the authority of the NSAI and co 19 January, 2010	omes into effect on:		ICS number: 29.120.99	
1 Swift Square, F +353 Northwood, Santry E stan Dublin 9	8 1 807 3800 Sales: 3 1 807 3838 T +353 1 8 dards@nsai.ie F +353 1 8 W standard SAI.ie	57 6729		
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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

# EN 61535/A1

February 2013

ICS 29.120.99

English version

# Installation couplers intended for permanent connection in fixed installations (IEC 61535:2009/A1:2012)

Coupleurs d'installation pour connexions permanentes dans les installations fixes (CEI 61535:2009/A1:2012) Installationssteckverbinder für dauernde Verbindung in festen Installationen (IEC 61535:2009/A1:2012)

This amendment A1 modifies the European Standard EN 61535:2009; it was approved by CENELEC on 2012-06-20. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

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## Foreword

The text of document 23/577/FDIS, future edition 1 of IEC 61535:2009/A1, prepared by IEC/TC 23 "Electrical accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61535:2009/A1:2013.

The following dates are fixed:

document have to be withdrawn

•	latest date by which the document has to be implemented at national level by publication of an identical national	(dop)	2013-08-22
•	standard or by endorsement latest date by which the national	(dow)	2015-06-20
	standards conflicting with the	( )	

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## **Endorsement notice**

The text of the International Standard IEC 61535:2009/A1:2012 was approved by CENELEC as a European Standard without any modification.

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 61535

July 2009

ICS 29.120.99

English version

# Installation couplers intended for permanent connection in fixed installations (IEC 61535:2009)

Coupleurs d'installation pour connexions permanentes dans les installations fixes (CEI 61535:2009) Installationssteckverbinder für dauernde Verbindung in festen Installationen (IEC 61535:2009)

This European Standard was approved by CENELEC on 2009-05-01. 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.

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CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

# CENELEC

European Committee for Electrotechnical Standardization Comité Européen de Normalisation Electrotechnique Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

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### Foreword

The text of document 23/466/FDIS, future edition 1 of IEC 61535, prepared by IEC TC 23, Electrical accessories, was submitted to the IEC-CENELEC parallel vote.

A draft amendment, prepared by the CENELEC Reporting Secretariat SR 23, including a normative CENELEC annex to the future standard, was submitted to the formal vote.

The combined texts were approved by CENELEC as EN 61535 on 2009-05-01.

The following dates were fixed:

<ul> <li>latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement</li> </ul>	(dop)	2010-05-01		
<ul> <li>latest date by which the national standards conflicting with the EN have to be withdrawn</li> </ul>	(dow)	2012-05-01		
In this standard, the following print types are used:				

- requirements proper: in roman type.
- test specifications: in italic type.
- explanatory matter: in smaller roman type.

For this European Standard, any text concerning particular conditions in certain European countries – which are included in the main body of the International Standard – shall be disregarded and has been replaced by the normative Annex ZA, *Special national conditions*.

Annexes ZA and ZB have been added by CENELEC.

## **Endorsement notice**

The text of the International Standard IEC 61535:2009 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60309	NOTE	Harmonized in EN 60309 series (partially modified).
IEC 60320	NOTE	Harmonized in EN 60320 series (not modified).
IEC 60364-4-41	NOTE	Harmonized as HD 60364-4-41:2007 (modified).
IEC 61995	NOTE	Harmonized in EN 61995 series (partially modified).

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Add the following annexes:

# Annex ZA

(normative)

## Special national conditions

**Special national condition**: National characteristic or practice that cannot be changed even over a long period, e.g. climatic conditions, electrical earthing conditions.

NOTE If it affects harmonization, it forms part of the European Standard.

For the countries in which the relevant special national conditions apply these provisions are normative, for other countries they are informative.

#### Clause Special national condition

### 1 Germany and United Kingdom

Add the following text to the scope:

Where installation couplers have more than five wires, they shall meet the requirements of EN 61535 as though they were included in the scope and shall be tested in such a way that all of the mains voltage pins are subjected to the same level of testing.

#### I.S. EN 61535:2009 - 4 -

# Annex ZB

### (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.

Publication	<u>Year</u>	Title	EN/HD	<u>Year</u>
IEC 60068-2-31	2008	Environmental testing - Part 2-31: Tests - Test Ec: Rough handling shocks, primarily for equipment-type specimens	EN 60068-2-31	2008
IEC 60112	2003	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	EN 60112	2003
IEC 60364 (mod)	Series	Low-voltage electrical installations	HD 60364	Series
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993
A1	1999	(" 0000)	A1	2000
IEC 60664-1	2007	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	2007
IEC 60695-2-11	2000	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products	EN 60695-2-11	2001
IEC 60998-2-3 (mod)	2002	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-3: Particular requirements for connecting devices as separate entities with insulation- piercing clamping units	EN 60998-2-3	2004
IEC 60999-1	1999	Connecting devices - Electrical copper conductors - Safety requirements for screw- type and screwless-type clamping units - Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm <sup>2</sup> up to 35 mm <sup>2</sup> (included)	EN 60999-1	2000
IEC 61032	1997	Protection of persons and equipment by enclosures - Probes for verification	EN 61032	1998

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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## INSTALLATION COUPLERS INTENDED FOR PERMANENT CONNECTION IN FIXED INSTALLATIONS

## FOREWORD

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# This consolidated version of IEC 61535 consists of the first edition (2009) [documents 23/466/FDIS and 23/471/RVD] and its amendment 1 (2012) [documents 23/577/FDIS and 23/581/RVD]. It bears the edition number 1.1.

The technical content is therefore identical to the base edition and its amendment and has been prepared for user convenience. A vertical line in the margin shows where the base publication has been modified by amendment 1. Additions and deletions are displayed in red, with deletions being struck through.

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International Standard IEC 61535 has been prepared by technical committee 23: Electrical accessories.

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

In this standard the following print types are used:

- requirements proper: in roman type;
- test specifications: in italic type;
- Explanatory matter: in smaller roman type.

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the stability 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.

IMPORTANT – The "colour inside" logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this publication using a colour printer.

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## INSTALLATION COUPLERS INTENDED FOR PERMANENT CONNECTION IN FIXED INSTALLATIONS

### 1 Scope

This standard applies to two up to five wire installation couplers including earth, if provided, with a rated voltage up to and including 500 V a.c. and a rated connecting capacity up to and including 10 mm<sup>2</sup> for permanent connection in indoor electrical installations. Installation couplers with additional contacts for voltages other than mains voltages are outside the scope of this standard.

NOTE 1 Installation couplers according to this standard are used e.g. in prefabricated buildings, installation cavities, such as suspended floors and ceilings, or cable tray systems, cable ladder systems, cable ducting systems and cable trunking systems or in commercial show rooms, in partition walls and in any similar application or in furniture complying with IEC 60364-7-713.

NOTE 2 This standard may be used as a guide for installation couplers with additional contacts for voltages other than mains voltages.

NOTE 3 In the UK, where installation couplers have more than 5 wires, they shall meet the requirements of IEC 61535 as though they were included in the scope and shall be tested in such a way that all of the mains voltage pins are subjected to the same level of testing.

NOTE 4 In the USA, these installation couplers are not permitted to be used where they will not be visible after installation.

An installation coupler consists of an installation female connector and an installation male connector for permanent connection not intended to be engaged or disengaged under load nor to be engaged or disengaged other than during first installation or during reconfiguration or maintenance of the wiring system in which installation couplers have been installed. This means that installation couplers are only intended for infrequent use.

Installation couplers are not suitable for use in place of socket-outlet systems. Installation couplers are not suitable for use in place of devices for connecting luminaires (DCLs) according to IEC 61995 or luminaire supporting couplers (LSCs).

NOTE 5 For lower limits of in-service temperatures the necessary information is given in the manufacturer's installation instructions.

In locations where special conditions prevail, as in ships, vehicles and the like and in hazardous locations, for example where explosions are liable to occur, special constructions may be required.

NOTE 6 Particular requirements for installation couplers e.g. for. use at higher ambient temperatures, with higher mechanical durability (e.g. metal housings), with higher fire resistance and for use in control circuits (e.g. SELV), are under consideration.

NOTE 7 National rules may have requirements concerning the accessibility of installation couplers.

NOTE 8 Installation couplers are intended to be installed by instructed or skilled persons.

NOTE 9 National rules may specify who is allowed to carry out the connection and disconnection of installation couplers.

### 2 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.



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