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Installation couplers intended for permanent connection in fixed installations

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/24

Obsahuje: EN IEC 61535:2024, IEC 61535:2023

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EUROPEAN STANDARD

**EN IEC 61535**

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2024

ICS 29.120.99

Supersedes EN IEC 61535:2019

English Version

**Installation couplers intended for permanent connection in fixed installations  
(IEC 61535:2023)**

Coupleurs d'installation pour connexions permanentes dans  
les installations fixes  
(IEC 61535:2023)

Installationssteckverbinder für dauernde Verbindung in  
festen Installationen  
(IEC 61535:2023)

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## EN IEC 61535:2024 (E)

### European foreword

The text of document 23/1062/FDIS, future edition 3 of IEC 61535, prepared by IEC/TC 23 "Electrical accessories" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61535:2024.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2025-03-12
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2027-06-12

This document supersedes EN IEC 61535:2019 and all of its amendments and corrigenda (if any).

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This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZZ, which is an integral part of this document.

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### Endorsement notice

The text of the International Standard IEC 61535:2023 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 standard indicated:

IEC 60309 (series)	NOTE	Approved as EN IEC 60309 (series)
IEC 60320 (series)	NOTE	Approved as EN 60320 (series)
IEC 60364 (series)	NOTE	Approved as HD 60364 (series)
IEC 60364-4-41:2005	NOTE	Approved as HD 60364-4-41:2017 + A11:2017
IEC 60364-5-52:2009	NOTE	Approved as HD 60364-5-52:2011 + A11:2017
IEC 61995 (series)	NOTE	Approved as EN 61995 (series)

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cencenelec.eu](http://www.cencenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<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	2020	Method for determining the comparative and proof tracking indices of solid insulating materials under moist conditions	EN IEC 60112	2020
IEC 60529	– <sup>1)</sup>	Degrees of protection provided by enclosures (IP Code)	EN 60529 + A1 + A2	1991 2000 2013
IEC 60664-1	2020	Insulation co-ordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests	EN IEC 60664-1	2020
IEC 60695-2-11	– <sup>1)</sup>	Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products	EN 60695-2-11	2021
IEC 60998-2-3	– <sup>1)</sup>	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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<sup>1)</sup> Undated reference.

**EN IEC 61535:2024 (E)****Annex ZZ**  
(informative)**Relationship between this European standard and the safety objectives of Directive 2014/35/EU [2014 OJ L96] aimed to be covered**

This European standard has been prepared under a Commission's standardisation request relating to harmonised standards in the field of the Low Voltage Directive, M/511, to provide one voluntary means of conforming to safety objectives of Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZ.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding safety objectives of that Directive, and associated EFTA regulations.

**Table ZZ.1 — Correspondence between this European standard and Annex I of Directive 2014/35/EU [2014 OJ L96]**

<b>Safety objectives of Directive 2014/35/EU</b>	<b>Clause(s) / sub-clause(s) of this EN</b>	<b>Remarks / Notes</b>
(1)(a)	Clauses 1, 7, 8, Annex D, Annex E	
(1)(b)	Clauses 6.2, 6.3, 8.3, 8.4, 9, 11, 12, 19, 22, Annex A, Annex E	
(1)(c)	Clause 4	
(2)(a)	Clauses 9, 10, 12, 14, 16, 19.5, 20, 21, 23, Annex A	
(2)(b)	Clauses 11.2, 12.9, 15, 16, 17, 21.5	
(2)(c)	Clauses 10.1, 12, 24	
(2)(d)	Clauses 6, 10, 14, 21, 23, 24	
(3)(a)	Clauses 9.1, 12, 13, 18, 19.2, 19.3, 19.4, 20, 21.3, 21.4, 22	
(3)(b)	Clauses 13, 21, 24, 25, Annex F	
(3)(c)	Clauses 11.2, 12.2, 12.3	

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IEC 61535

Edition 3.0 2023-03

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Installation couplers intended for permanent connection in fixed installations**

**Coupleurs d'installation pour connexions permanentes dans les installations fixes**



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IEC Secretariat  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland

Tel.: +41 22 919 02 11  
[info@iec.ch](mailto:info@iec.ch)  
[www.iec.ch](http://www.iec.ch)

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IEC 61535

Edition 3.0 2023-03

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Installation couplers intended for permanent connection in fixed installations**

**Coupleurs d'installation pour connexions permanentes dans les installations fixes**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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INTERNATIONALE

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

This third edition cancels and replaces the second edition published in 2019. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) inclusion of a definition for "live part" based on IEC 61140;
- b) additional optional cross medial documentation, e.g. marking with QR-Code;
- c) corrections on the consistent use of the expressions "earth", "earthing contact", "earthing circuit" and "protective earth(ing)" throughout the document;
- d) addition of missing compliance provisions to 13.3;
- e) update of Figure D.1 of Annex D;
- f) inclusion of new Annex F for cold climate requirements.

The text of this International Standard is based on the following documents:

Draft	Report on voting
23/1062/FDIS	23/1066/RVD

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

The language used for the development of this International Standard is English.

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.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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

## INTRODUCTION

AC and DC installation couplers according to this document may be used, for example, in prefabricated buildings, commercial showrooms, installation cavities, such as suspended floors and ceilings, in partition walls and in any similar applications, or cable tray systems, cable ladder systems, cable ducting systems and cable trunking systems or in furniture complying with IEC 60364-7-713.

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

Particular requirements for installation couplers, for example, for use at higher or lower 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.

National rules can have requirements concerning the accessibility of installation couplers.

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

National rules can have requirements concerning installation couplers with metal conduits.

## INSTALLATION COUPLERS INTENDED FOR PERMANENT CONNECTION IN FIXED INSTALLATIONS

### 1 Scope

This document applies to two-wire, up to five-wire installation couplers, with or without earthing contact, if provided, with a rated voltage up to and including 500 V AC or 500 V DC and a rated connecting capacity up to and including 10 mm<sup>2</sup> and a rated current not exceeding 32 A for permanent connection in electrical installations. Installation couplers with additional contacts for voltages other than mains voltages are outside the scope of this document.

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 intended for infrequent use only.

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 (all parts) or in place of luminaire supporting couplers (LSCs).

Installation couplers complying with this document are suitable for use at ambient temperatures not normally exceeding +40 °C, but their average over a period of 24 h does not exceed +35 °C, with a lower limit of the ambient air temperature of –5 °C, either for indoor or outdoor use.

NOTE 1 Additional tests for use in cold climates are shown in Annex F, which is normative in following countries: FI. Necessary information can be given in the manufacturer's installation instructions.

NOTE 2 For other temperatures, necessary information can be 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 can be required.

NOTE 3 Installation couplers are intended to be installed by instructed or skilled persons.

NOTE 4 As a guide to using installation coupler systems, see Annex D.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60068-2-31:2008, *Environmental testing – Part 2-31: Tests – Test Ec: Rough handling shocks, primarily for equipment-type specimens*

IEC 60112, *Method for the determination of the proof and the comparative tracking indices of solid insulating materials*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*  
IEC 60529:1989/AMD1:1999  
IEC 60529:1989/AMD2:2013

IEC 60664-1:2020, *Insulation coordination for equipment within low-voltage supply systems – Part 1: Principles, requirements and tests*

IEC 60695-2-11, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end products (GWEPT)*

IEC 60998-2-3, *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*

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)*

IEC 61032:1997, *Protection of persons and equipment by enclosures – Probes for verification*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**