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Spoji brez spajke - 9. del: Ultrazvočno varjeni priključki - Splošne zahteve, preskusne metode in praktični napotki (IEC 60352-9:2024)

Solderless connections - Part 9: Ultrasonically welded connections - General requirements, test methods and practical guidance (IEC 60352-9:2024)

Lötfreie Verbindungen - Teil 9: Ultraschallgeschweißte Verbindungen - Allgemeine Anforderungen, Prüfverfahren und praktische Hinweise (IEC 60352-9:2024)

Connexions sans soudure - Partie 9: Connexions soudées par ultrasons - Exigences générales, méthodes d'essai et guide pratique (IEC 60352-9:2024)

Ta slovenski standard je istoveten z: EN IEC 60352-9:2024

[SIST EN IEC 60352-9:2024](http://standards.slovenski-standard.si/standards/sist/60352-9:2024)

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Solderless connections - Part 9: Ultrasonically welded
connections - General requirements, test methods and practical
guidance
(IEC 60352-9:2024)

Connexions sans soudure - Partie 9: Connexions soudées
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und praktische Hinweise
(IEC 60352-9:2024)

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EN IEC 60352-9:2024 (E)**European foreword**

The text of document 48B/3080/FDIS, future edition 1 of IEC 60352-9, prepared by SC 48B "Electrical connectors" of IEC/TC 48 "Electrical connectors and mechanical structures for electrical and electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60352-9:2024.

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) 2024-12-28
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2027-03-28

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Endorsement notice

The text of the International Standard IEC 60352-9:2024 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 60721-3-1 NOTE Approved as EN IEC 60721-3-1

ISO 1463 NOTE Approved as EN ISO 1463

ISO 4063:2023 NOTE Approved as EN ISO 4063:2023 (not modified)

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-581	-	International Electrotechnical Vocabulary - Part 581: Electromechanical components for electronic equipment	-	-
IEC 60068-1	2013	Environmental testing - Part 1: General and guidance	EN 60068-1	2014
IEC 60068-2-1	-	Environmental testing - Part 2-1: Tests - Test A: Cold	EN 60068-2-1	-
IEC 60068-2-2	-	Environmental testing - Part 2-2: Tests - Test B: Dry heat	EN 60068-2-2	-
IEC 60068-2-6	-	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	-
IEC 60068-2-14	-	Environmental testing - Part 2-14: Tests - Test N: Change of temperature	EN IEC 60068-2-14	-
IEC 60068-2-30	-	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	EN 60068-2-30	-
IEC 60068-2-60	-	Environmental testing - Part 2-60: Tests - Test Ke: Flowing mixed gas corrosion test	EN 60068-2-60	-
IEC 60228	-	Conductors of insulated cables	-	-
IEC 60512-1	-	Connectors for electrical and electronic equipment - Tests and measurements - Part 1: Generic specification	EN IEC 60512-1	-
IEC 60512-1-1	-	Connectors for electronic equipment - Tests and measurements - Part 1-1: General examination - Test 1a: Visual examination	EN 60512-1-1	-
IEC 60512-1-2	-	Connectors for electronic equipment - Tests and measurements - Part 1-2: General examination - Test 1b: Examination of dimension and mass	EN 60512-1-2	-

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IEC 60512-2-1	-	Connectors for electronic equipment - Tests and measurements - Part 2-1: Electrical continuity and contact resistance tests - Test 2a: Contact resistance - Millivolt level method	EN 60512-2-1	-
IEC 60512-2-2	-	Connectors for electronic equipment - Tests and measurements - Part 2-2: Electrical continuity and contact resistance tests - Test 2b: Contact resistance - Specified test current method	EN 60512-2-2	-
IEC 60512-2-5	-	Connectors for electronic equipment - Tests and measurements - Part 2-5: Electrical continuity and contact resistance tests - Test 2e: Contact disturbance	EN 60512-2-5	-
IEC 60512-3-1	-	Connectors for electronic equipment - Tests and measurements - Part 3-1: Insulation tests - Test 3a: Insulation resistance	EN 60512-3-1	-
IEC 60512-4-1	-	Connectors for electronic equipment - Tests and measurements - Part 4-1: Voltage stress tests - Test 4a: Voltage proof	EN 60512-4-1	-
IEC 60512-5-2	-	Connectors for electronic equipment - Tests and measurements - Part 5-2: Current-carrying capacity tests - Test 5b: Current-temperature derating	EN 60512-5-2	-
IEC 60512-6-4	-	Connectors for electronic equipment - Tests and measurements - Part 6-4: Dynamic stress tests - Test 6d: Vibration (sinusoidal)	EN 60512-6-4	-
IEC 60512-11-1	-	Connectors for electrical and electronic equipment - Tests and measurements - Part 11-1: Climatic tests - Test 11a - Climatic sequence	EN IEC 60512-11-1	-
IEC 60512-11-4	-	Connectors for electronic equipment - Tests and measurements - Part 11-4: Climatic tests - Test 11d: Rapid change of temperature	EN 60512-11-4	-
IEC 60512-11-7	-	Connectors for electronic equipment - Tests and measurements - Part 11-7: Climatic tests - Test 11g: Flowing mixed gas corrosion test	EN 60512-11-7	-
IEC 60512-11-9	-	Connectors for electronic equipment - Tests and measurements - Part 11-9: Climatic tests - Test 11i: Dry heat	EN 60512-11-9	-
IEC 60512-11-10	-	Connectors for electronic equipment - Tests and measurements - Part 11-10: Climatic tests - Test 11j: Cold	EN 60512-11-10	-
IEC 60512-11-12	-	Connectors for electronic equipment - Tests and measurements - Part 11-12: Climatic tests - Test 11m: Damp heat, cyclic	EN 60512-11-12	-

EN IEC 60352-9:2024 (E)

IEC 60512-16-4	-	Connectors for electronic equipment - Tests and measurements - Part 16-4: Mechanical tests on contacts and terminations - Test 16d: Tensile strength (crimped connections)	EN 60512-16-4	-
IEC 60512-16-7	-	Connectors for electronic equipment - Tests and measurements - Part 16-7: Mechanical tests on contacts and terminations - Test 16g: Measurement of contact deformation after crimping	EN 60512-16-7	-
IEC 60947-1	2020	Low-voltage switchgear and controlgear - Part 1: General rules	EN IEC 60947-1	2021
IEC 60999-1	-	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 ² up to 35 mm ² (included)	EN 60999-1	-
IEC 61191-1	2018	Printed board assemblies - Part 1: Generic specification - Requirements for soldered electrical and electronic assemblies using surface mount and related assembly technologies	EN IEC 61191-1	2018
ISO 1463	2021	Metallic and oxide coatings - Measurement of coating thickness - Microscopical method	EN ISO 1463	2021
ISO 6722-1	-	Road vehicles - 60 V and 600 V single-core cables - Part 1: Dimensions, test methods and requirements for copper conductor cables	-	-
ISO 6722-2	-	Road vehicles - 60 V and 600 V single-core cables - Part 2: Dimensions, test methods and requirements for aluminium conductor cables	-	-
ISO 10447	-	Resistance welding - Test of welds - Peel and chisel testing of resistance spot and projection welds	EN ISO 10447	-
ISO 21747	2006	Statistical methods - Process performance - and capability statistics for measured quality characteristics	-	-



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