
Spoji brez spajke - 6. del: Spoji, ki prebadajo izolacijo - Splošne zahteve, preskusne metode in praktični napotki (IEC 60352-6:2022)

Solderless connections - Part 6: Insulation piercing connections - General requirements, test methods and practical guidance (IEC 60352-6:2022)

Lötfreie Verbindungen - Teil 6: Durchdringverbindungen - Allgemeine Anforderungen, Prüfverfahren und Anwendungshinweise (IEC 60352-6:2022)

Connexions sans soudure - Partie 6: Connexions à percement d'isolant - Règles générales, méthodes d'essai et guide pratique (IEC 60352-6:2022)

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**Solderless connections - Part 6: Insulation piercing connections -
General requirements, test methods and practical guidance
(IEC 60352-6:2022)**

Connexions sans soudure - Partie 6: Connexions à
perçement d'isolant - Exigences générales, méthodes
d'essai et guide pratique
(IEC 60352-6:2022)

Lötfreie Verbindungen - Teil 6: Durchdringverbindungen -
Allgemeine Anforderungen, Prüfverfahren und
Anwendungshinweise
(IEC 60352-6:2022)

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European Committee for Electrotechnical Standardization
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Europäisches Komitee für Elektrotechnische Normung

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

EN IEC 60352-6:2023 (E)**European foreword**

The text of document 48B/3001/FDIS, future edition 2 of IEC 60352-6, 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 60352-6:2023.

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) 2023-10-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-01-11

This document supersedes EN 60352-6:1997 and all of its amendments and corrigenda (if any).

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Endorsement notice

The text of the International Standard IEC 60352-6:2022 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 60228:2004 | NOTE Harmonized as EN 60228:2005 (not modified) |
| IEC 60512-5-2:2002 | NOTE Harmonized as EN 60512-5-2:2002 (not modified) |
| IEC 60603-7:2020 | NOTE Harmonized as EN IEC 60603-7:2020 (not modified) |
| IEC 61984:2008 | NOTE Harmonized as EN 61984:2009 (not modified) |
| IEC 62430:2019 | NOTE Harmonized as EN IEC 62430:2019 (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.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-1	2013	Environmental testing - Part 1: General and guidance	EN 60068-1	2014
IEC 60512-1	2018	Connectors for electrical and electronic equipment - Tests and measurements - Part 1: Generic specification	EN IEC 60512-1	2018
IEC 60512-1-1	2002	Connectors for electronic equipment - Tests and measurements - Part 1-1: General examination - Test 1a: Visual examination	EN 60512-1-1	2002
IEC 60512-1-2	2002	Connectors for electronic equipment - Tests and measurements - Part 1-2: General examination - Test 1b: Examination of dimension and mass	EN 60512-1-2	2002
IEC 60512-2-1	2002	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	2002
IEC 60512-2-2	2003	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	2003
IEC 60512-2-5	2003	Connectors for electronic equipment - Tests and measurements - Part 2-5: Electrical continuity and contact resistance tests - Test 2e: Contact disturbance	EN 60512-2-5	2003
IEC 60512-6-4	2002	Connectors for electronic equipment - Tests and measurements - Part 6-4: Dynamic stress tests - Test 6d: Vibration (sinusoidal)	EN 60512-6-4	2002

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IEC 60512-9-2	2011	Connectors for electronic equipment - Tests and measurements - Part 9-2: Endurance tests - Test 9b: Electrical load and temperature	EN 60512-9-2	2012
IEC 60512-11-1	2019	Connectors for electrical and electronic equipment - Tests and measurements - Part 11-1: Climatic tests - Test 11a - Climatic sequence	EN IEC 60512-11-1	2019
IEC 60512-11-4	2002	Connectors for electronic equipment - Tests and measurements - Part 11-4: Climatic tests - Test 11d: Rapid change of temperature	EN 60512-11-4	2002
IEC 60512-11-7	2003	Connectors for electronic equipment - Tests and measurements - Part 11-7: Climatic tests - Test 11g: Flowing mixed gas corrosion test	EN 60512-11-7	2003
IEC 60512-11-9	2002	Connectors for electronic equipment - Tests and measurements - Part 11-9: Climatic tests - Test 11i: Dry heat	EN 60512-11-9	2002
IEC 60512-11-10	2002	Connectors for electronic equipment - Tests and measurements - Part 11-10: Climatic tests - Test 11j: Cold	EN 60512-11-10	2002
IEC 60512-11-12	2002	Connectors for electronic equipment - Tests and measurements - Part 11-12: Climatic tests - Test 11m: Damp heat, cyclic	EN 60512-11-12	2002
IEC 60512-16-20	1996	Electromechanical components for electronic equipment - Basic testing procedures and measuring methods - Part 16: Mechanical tests on contacts and terminations - Section 20: Test 16t: Mechanical strength (wired termination of solderless connections)	EN 60512-16-20	1996



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Solderless connections –
Part 6: Insulation piercing connections – General requirements, test methods
and practical guidance

Connexions sans soudure –
Partie 6: Connexions à percement d'isolant – Exigences générales, méthodes
d'essai et guide pratique

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SOLDERLESS CONNECTIONS –**Part 6: Insulation piercing connections –
General requirements, test methods and practical guidance****FOREWORD**

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IEC 60352-6 has been prepared by subcommittee 48B: Electrical connectors, of IEC technical committee 48: Electrical connectors and mechanical structures for electrical and electronic equipment. It is an International Standard.

This second edition cancels and replaces the first edition published in 1997. This edition constitutes a technical revision.

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

- a) axial load in 7.2.2 provided in a table in Annex A rather than as percentage of breaking load of the wire;
- b) different approach to measure contact resistance provided in 7.3.2.3.

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

Draft	Report on voting
48B/3001/FDIS	48B/3009/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.

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. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 60352 series, published under the general title *Solderless connections*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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

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INTRODUCTION

This part of IEC 60352 applies to solderless connections made by insulation piercing (IP) and includes requirements, tests and practical guidance information for such connection technology.

Two test schedules are provided:

- a qualification test schedule that applies to insulation piercing connections which conform to all pre-requisites of Clause 5, which are derived from experience with successful applications of such insulation piercing connections;
- an application test schedule that applies to insulation piercing connections made with suitable IP termination which are integral part of a component and are already fulfilling the pre-requisites of Clause 5.

IEC Guide 109 advocates the need to minimize the impact of a product on the natural environment throughout the product life cycle. IEC 62430 provides principles, requirements and guidance to implement environmentally conscious design.

It is understood that some of the materials permitted in this document may have a negative environmental impact. As technological advances lead to acceptable alternatives to these materials, they will be eliminated from this document.

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