

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Solderless connections –

Part 5: Press-in connections – General requirements, test methods and practical guidance

Connexions sans soudure –

Partie 5: Connexions insérées à force – Exigences générales, méthodes d'essai et guide pratique



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SOLDERLESS CONNECTIONS –**Part 5: Press-in connections –
General requirements, test methods and practical guidance****FOREWORD**

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International Standard IEC 60352-5 has been prepared by subcommittee 48B: Connectors, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

This fourth edition cancels and replaces the third edition published in 2008. This edition constitutes a technical revision.

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

- a) Enhancement of Annex A and further application remarks are added.
- b) Editorial changes throughout the standard to prevent the document from being misunderstood as specification for establishing press-in connection in total.
- c) Deletion of all tables with hole dimensions. Historically the hole dimensions were constrained because of the dimensions of the wire wrap and clip connections posts. Since

these connection technologies are no longer commonly used, the design requirements are no longer practical.

- d) Inclusion of additional figures and one table in 4.4.4 to define tolerance ranges for holes in test-boards and to illustrate them.
- e) Inclusion of a requirement for the thickness of the test-board in 4.4.

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

FDIS	Report on voting
48B/2276/FDIS	48B/2286/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.

The committee has decided that the contents of this publication 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- withdrawn,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.

INTRODUCTION

This part of IEC 60352 includes requirements, tests and practical guidance information.

Two test schedules are provided.

- a) The qualification test schedule applies to individual press-in connections (press-in zone).
They are tested to the specification provided by the manufacturer of the press-in termination (see 4.6) taking into account the requirements of Clause 4.
The qualification is independent of the application of the press-in zone in a component.
- b) The application test schedule applies to press-in connections which are part of a component and are already qualified to the qualification test schedule.
Test sequences focus on the performance of the press-in connection which is affected by the implementation in a component.

As the manufacturer of the press-in termination has to provide the main part of the information needed for qualification, the word "manufacturer" is used throughout this standard for simplicity.

IEC Guide 109 advocates the need to minimise the impact of a product on the natural environment throughout the product life cycle.

SOLDERLESS CONNECTIONS –

Part 5: Press-in connections – General requirements, test methods and practical guidance

1 Scope and object

This part of IEC 60352 is applicable to solderless press-in connections for use in telecommunication equipment and in electronic devices employing similar techniques.

The press-in connection consists of a termination having a suitable press-in zone which is inserted into a plated-through hole of a double-sided or multilayer printed board.

Information on materials and data from industrial experience is included in addition to the test procedures to provide electrically stable connections under prescribed environmental conditions.

The object of this part of IEC 60352 is to determine the suitability of press-in connections under mechanical, electrical and atmospheric conditions as specified by the manufacturer of the press-in termination and to provide a means of comparing test results when the tools used to make the connections are of different designs or manufacture.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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: Electromechanical components for electronic equipment*

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*
Amendment 1 (1992)

IEC 60352-1:1997, *Solderless connections – Part 1: Wrapped connections – General requirements, test methods and practical guidance*

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 61188-5-1: *Printed boards and printed board assemblies – Design and use – Part 5-1: Attachment (land/joint) considerations – Generic requirements*

IEC 61249 (all parts), *Materials for printed boards and other interconnecting structures*

IEC 62326-4:1996, *Printed boards – Part 4: Rigid multilayer printed boards with interlayer connections – Sectional specification*