

Workmanship requirements for soldered electronic assemblies - Part 4: Terminal assemblies

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**Workmanship requirements for soldered electronic assemblies****Part 4: Terminal assemblies**

(IEC 61192-4:2002)

Exigences relatives à la qualité  
d'exécution des assemblages  
électroniques brasés  
Partie 4: Assemblage au moyen  
de bornes  
(CEI 61192-4:2002)

Anforderungen an die Ausführungsqualität  
von Lötabaupunkten  
Teil 4: Baupunkten mit Lötfestzpunkten  
(IEC 61192-4:2002)

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This European Standard was approved by CENELEC on 2003-03-01. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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

**CENELEC**

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 91/335/FDIS, future edition 1 of IEC 61192-4, prepared by IEC TC 91, Electronics assembly technology, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61192-4 on 2003-03-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2003-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-03-01

This standard should be used in conjunction with the following parts of EN 61192, under the general title *Workmanship requirements for soldered electronic assemblies*:

Part 1: General

Part 2: Surface-mount assemblies

Part 4: Terminal assemblies

Annexes designated "normative" are part of the body of the standard.

In this standard, annex ZA is normative.

Annex ZA has been added by CENELEC.

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The text of the International Standard IEC 61192-4:2002 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA

(normative)

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

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60194	- 1)	Printed board design, manufacture and assembly - Terms and definitions	-	-
IEC 60749	1996	Semiconductor devices - Mechanical and climatic test methods	EN 60749	1999
A2	2001		A2	2001
IEC 61189-3	- 1)	Test methods for electrical materials, printed boards and other interconnection structures and assemblies Part 3: Test methods for interconnection structures (printed boards) <a href="https://standards.iteh.ai/catalog/standards/61189-3/343754b4-3acd-44f8-ad74-855e3a838dac/sist-en-61192-4-2003">https://standards.iteh.ai/catalog/standards/61189-3/343754b4-3acd-44f8-ad74-855e3a838dac/sist-en-61192-4-2003</a>	EN 61189-3	1997 <sup>2)</sup>
IEC 61191-1	- 1)	Printed board assemblies Part 1: Generic specification - Requirements for soldered electrical and electronic assemblies using surface mount and related assembly technologies	EN 61191-1	1998 <sup>2)</sup>
IEC 61191-4	- 1)	Part 4: Sectional specification - Requirements for terminal soldered assemblies	EN 61191-4	1998 <sup>2)</sup>
IEC 61192-1	- 1)	Workmanship requirements for soldered electronic assemblies Part 1: General	EN 61192-1	2003 <sup>2)</sup>
IEC 61192-2	- 1)	Part 2: Surface-mount assemblies	-	-
IEC 61192-3	- 1)	Part 3: Through-hole mount assemblies	EN 61192-3	2003 <sup>2)</sup>

1) Undated reference.

2) Valid edition at date of issue.

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# NORME INTERNATIONALE INTERNATIONAL STANDARD

CEI  
IEC  
**61192-4**

Première édition  
First edition  
2002-11

## **Exigences relatives à la qualité d'exécution des assemblages électroniques brasés –**

### **Partie 4: Assemblage au moyen de bornes**

### **iTeh STANDARD PREVIEW**

### **Workmanship requirements for soldered electronic assemblies –**

SIST EN 61192-4:2003

<https://standards.iteh.ai/catalog/standards/sist/343754b4-3dcd-44f8-ad74-855e3a838dac/sist-en-61192-4-2003>  
**Part 4:  
Terminal assemblies**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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For price, see current catalogue*

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**WORKMANSHIP REQUIREMENTS  
FOR SOLDERED ELECTRONIC ASSEMBLIES –**

**Part 4: Terminal assemblies**

**FOREWORD**

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61192-4 has been prepared by IEC technical committee 91: Electronics assembly technology.

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

FDIS	Report on voting
91/335/FDIS	91/352/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.

This standard should be used in conjunction with the following parts of IEC 61192, under the general title, Workmanship requirements for soldered electronic assemblies:

- Part 1: General
- Part 2: Surface-mount assemblies
- Part 3: Through-hole mount assemblies

The committee has decided that the contents of this publication will remain unchanged until 2008. At this date, the publication will be

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

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## INTRODUCTION

This part of IEC 61192, combined with IEC 61192-1, is used to meet the end-product requirements defined in IEC 61191-1 and IEC 61191-4.

This standard may be used to enable the suppliers and users of terminal electronic assemblies to specify good manufacturing practices as part of a contract.

The respective requirements and guidelines for surface-mount assemblies, and through-hole attachment, are included in separate but related standards.

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