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## **Elektronikmontering – Kvalitetsbedömning – Del 2: Val av metod för stickprovskontroll av komponenter och moduler**

*Quality assessment systems –  
Part 2: Selection and use of sampling plans for inspection of  
electronic components and packages*

Som svensk standard gäller europastandarden EN 61193-2:2007. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61193-2:2007.

### **Nationellt förord**

Europastandarden EN 61193-2:2007

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 61193-2, First edition, 2007 - Quality assessment systems - Part 2: Selection and use of sampling plans for inspection of electronic components and packages**

utarbetad inom International Electrotechnical Commission, IEC.

### *Standarder underlättar utvecklingen och höjer elsäkerheten*

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

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### *Stora delar av arbetet sker internationellt*

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

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Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

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Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

### **SEK Svensk Elstandard**

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**Quality assessment systems -  
Part 2: Selection and use of sampling plans for inspection  
of electronic components and packages  
(IEC 61193-2:2007)**

Système d'assurance de la qualité -  
Partie 2: Choix et utilisation des plans  
d'échantillonnages pour le contrôle  
des composants électroniques  
et des boîtiers  
(CEI 61193-2:2007)

Qualitätsbewertungssysteme -  
Teil 2: Auswahl und Anwendung von  
Stichprobenanweisungen für die Prüfung  
elektrischer Bauelemente und Gehäuse  
(IEC 61193-2:2007)

This European Standard was approved by CENELEC on 2007-11-01. 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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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 91/690/FDIS, future edition 1 of IEC 61193-2, prepared by IEC TC 91, Electronics assembly technology, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61193-2 on 2007-11-01

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) 2008-08-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2010-11-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61193-2:2007 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

|           |      |                                             |
|-----------|------|---------------------------------------------|
| IEC 62421 | NOTE | Harmonized as EN 62421:2007 (not modified). |
|-----------|------|---------------------------------------------|

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## Annex ZA (normative)

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

The following referenced documents are indispensable for the application 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 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          | - <sup>1)</sup> | Printed board design, manufacture and assembly - Terms and definitions                                                                             | EN 60194     | 2006 <sup>2)</sup> |
| ISO 2859-1         | 1999            | Sampling procedures for inspection by attributes -<br>Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection | -            | -                  |
| ISO 3534-2         | 2006            | Statistics - Vocabulary and symbols -<br>Part 2: Applied statistics                                                                                | -            | -                  |

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<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.



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## QUALITY ASSESSMENT SYSTEMS –

### Part 2: Selection and use of sampling plans for inspection of electronic components and packages

#### 1 Scope

This part of IEC 61193 applies to the inspection of electronic components, packages, and also modules (referred to as “products” in this standard) for use in electronic and electric equipment. It specifies sampling plans for inspection by attributes on the assumption that the acceptance number is zero ( $A_c = 0$ ), including criteria for sample selection and procedures.

The zero acceptance number sampling plans provided by this standard apply to the inspection of products, that are manufactured under suitable process control with the target of a “zero-defect” quality level before sampling inspection.

In addition, this standard provides a method for the calculation of the expected value of the statistical verified quality limit (SVQL) at a confidence level of 60 %. Amongst other things, this method can be used to verify the effectiveness of the supplier’s process control.

NOTE In this standard the term “module” is used for products which are modules according to the definition in IEC 60194.

#### 2 Normative references

The following referenced documents are indispensable for the application 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 60194: *Printed board design, manufacture and assembly – Terms and definitions*

ISO 2859-1:1999, *Sampling procedures for inspection by attributes – Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

ISO 3534-2:2006, *Statistics – Vocabulary and symbols – Part 2: Applied statistics*

