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**BS EN 61508-5:2010**



BSI Standards Publication

# Functional safety of electrical/ electronic/programmable electronic safety related systems

Part 5: Examples of methods for the determination  
of safety integrity levels

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This British Standard is the UK implementation of EN 61508-5:2010. It is identical to IEC 61508-5:2010. It supersedes BS EN 61508-5:2002 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee GEL/65, Measurement and control, to Subcommittee GEL/65/1, System considerations.

A list of organizations represented on this committee can be obtained on request to its secretary.

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

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#### **Amendments issued since publication**

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EUROPÄISCHE NORM

May 2010

ICS 25.040.40

Supersedes EN 61508-5:2001

English version

## Functional safety of electrical/electronic/programmable electronic safety-related systems -

### Part 5: Examples of methods for the determination of safety integrity levels

(IEC 61508-5:2010)

Sécurité fonctionnelle des systèmes électriques/électroniques/électroniques programmables relatifs à la sécurité -  
Partie 5: Exemples de méthodes pour la détermination des niveaux d'intégrité de sécurité  
(CEI 61508-5:2010)

Funktionale Sicherheit sicherheitsbezogener elektrischer/elektronischer/programmierbarer elektronischer Systeme -  
Teil 5: Beispiele zur Ermittlung der Stufe der Sicherheitsintegrität (safety integrity level)  
(IEC 61508-5:2010)

This European Standard was approved by CENELEC on 2010-05-01. 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, Croatia, 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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

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### Foreword

The text of document 65A/552/FDIS, future edition 2 of IEC 61508-5, prepared by SC 65A, System aspects, of IEC TC 65, Industrial-process measurement, control and automation, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61508-5 on 2010-05-01.

This European Standard supersedes EN 61508-5:2001.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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) | 2011-02-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn   | (dow) | 2013-05-01 |

Annex ZA has been added by CENELEC.

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### Endorsement notice

The text of the International Standard IEC 61508-5:2010 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 standards indicated:

|                       |      |   |
|-----------------------|------|---|
| [1] IEC 61511 series  | NOTE | Harmonized in EN 61511 series (not modified).       |
| [2] IEC 62061         | NOTE | Harmonized as EN 62061.                             |
| [3] IEC 61800-5-2     | NOTE | Harmonized as EN 61800-5-2.                         |
| [9] ISO/IEC 31010     | NOTE | Harmonized as EN 31010.                             |
| [10] ISO 10418:2003   | NOTE | Harmonized as EN 10418:2003 (not modified).         |
| [12] ISO 13849-1:2006 | NOTE | Harmonized as EN ISO 13849-1:2006 (not modified).   |
| [13] IEC 60601 series | NOTE | Harmonized in EN 60601 series (partially modified). |
| [14] IEC 61508-2      | NOTE | Harmonized as EN 61508-2.                           |
| [15] IEC 61508-3      | NOTE | Harmonized as EN 61508-3.                           |
| [16] IEC 61508-6      | NOTE | Harmonized as EN 61508-6.                           |
| [17] IEC 61508-7      | NOTE | Harmonized as EN 61508-7.                           |
| [18] IEC 61511-1      | NOTE | Harmonized as EN 61511-1.                           |

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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 61508-1        | 2010        | Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 1: General requirements          | EN 61508-1   | 2010        |
| IEC 61508-4        | 2010        | Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 4: Definitions and abbreviations | EN 61508-4   | 2010        |

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