



SLOVENSKI STANDARD
SIST EN 61496-1:2005/A1:2009
01-januar-2009

Varnost strojev - Električno občutljiva varovalna oprema - 1. del: Splošne zahteve in preskusi (IEC 61496-1:2004/A1:2007 + corrigendum Jul. 2008)

Safety of machinery - Electro-sensitive protective equipment -- Part 1: General requirements and tests

Sicherheit von Maschinen - Berührungslos wirkende Schutzeinrichtungen -- Teil 1: Allgemeine Anforderungen und Prüfungen

Sécurité des machines - Equipements de protection électro-sensibles -- Partie 1: Prescriptions générales et essais

[SIST EN 61496-1:2005/A1:2009](https://standards.iteh.ai/catalog/standards/sist/4ebfed0f-cd8a-4ce9-8dde-1cae0c20efe9/sist-en-61496-1-2005-a1-2009)
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Ta slovenski standard je istoveten z: EN 61496-1:2004/A1:2008

ICS:

13.110	Varnost strojev	Safety of machinery
31.260	Optoelektronika, laserska oprema	Optoelectronics. Laser equipment

SIST EN 61496-1:2005/A1:2009 **en,fr,de**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61496-1/A1

August 2008

ICS 13.110; 29.260.99

English version

**Safety of machinery -
Electro-sensitive protective equipment -
Part 1: General requirements and tests**
(IEC 61496-1:2004/A1:2007 + corrigendum 2008)

Sécurité des machines -
Equipements de protection
électro-sensibles -
Partie 1: Prescriptions générales et essais
(CEI 61496-1:2004/A1:2007
+ corrigendum 2008)

Sicherheit von Maschinen -
Berührungslos wirkende
Schutzeinrichtungen -
Teil 1: Allgemeine Anforderungen
und Prüfungen
(IEC 61496-1:2004/A1:2007
+ Corrigendum 2008)

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This amendment A1 modifies the European Standard EN 61496-1:2004: it was approved by CENELEC on 2008-06-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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 44/560/FDIS, future amendment 1 to IEC 61496-1:2004, prepared by IEC TC 44, Safety of machinery - Electrotechnical aspects, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 61496-1:2004 on 2008-06-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2009-03-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2011-06-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of amendment 1:2007 to the International Standard IEC 61496-1:2004 with its corrigendum July 2008 was approved by CENELEC as an amendment to the European Standard without any modification.

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

IEC/TS 62046

NOTE Harmonized as CLC/TS 62046:2005 (not modified).

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Annex ZA
(normative)**Normative references to international publications
with their corresponding European publications**

Addition to Annex ZA of EN 61496-1:2004:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62061	- ¹⁾	Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems	EN 62061	2005 ²⁾

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¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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IEC 61496-1

Edition 2.0 2007-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

**Safety of machinery – Electro-sensitive protective equipment –
Part 1: General requirements and tests**

**Sécurité des machines – Equipements de protection électro-sensibles –
Partie 1: Prescriptions générales et essais**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

H

FOREWORD

This amendment has been prepared by IEC technical committee 44: Safety of machinery – Electrotechnical aspects.

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

FDIS	Report on voting
44/560/FDIS	44/568/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the maintenance result 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.

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The contents of the corrigendum of July 2008 have been included in this copy.

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Page 11

1 Scope

Add, after the third paragraph, the following new paragraph:

While a data interface can be used to control optional safety-related ESPE functions (Annex A), this standard does not provide specific requirements. Requirements for these safety-related functions can be determined by consulting other standards (for example, IEC 61508, IEC/TS 62046, IEC 62061, and ISO13849-1).

2 Normative references

Add, to the existing list, the title of the following standard:

IEC 62061, *Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems*

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3 Terms and definitions

Replace definition 3.5 by the following new definition:

3.5 electro-sensitive protective equipment ESPE

assembly of devices and/or components working together for protective tripping or presence-sensing purposes and comprising as a minimum

- a sensing device;
- controlling/monitoring devices;
- output signal switching devices and/or a safety-related data interface

NOTE 1 The safety-related control system associated with the ESPE, or the ESPE itself, may further include a secondary switching device, muting functions, stopping performance monitor, etc. (see Annex A).

NOTE 2 A safety-related communication interface can be integrated in the same enclosure as the ESPE.

3.16 muting

temporary automatic suspension of a safety function(s) by safety-related parts of the control system

NOTE For ESPE-muting, see Clause A.7.

Replace, on page 19, definitions 3.17 and 3.18 by the following new definitions:

3.17 OFF-state

state of the output(s) of the ESPE in which the machine under control is caused to stop running and is prevented from starting (for example, the output circuit is interrupted and disables the flow of current)

3.18 ON-state

state of the output(s) of the ESPE in which the machine under control is allowed to run (for example, the output circuit is complete and enables the flow of current)

3.21 response time

Add, after the text of definition 3.21, the following new notes:

NOTE 1 When an ESPE includes a safety-related data interface, the response time is defined at the output of the safety-related data interface.

NOTE 2 When a safety-related communication interface is included in the ESPE enclosure, then the response time is defined at the output of the safety-related communication interface. In this case, the response time is also dependent on the protocol and architecture of the communication network.

NOTE 3 If an ESPE has both a safety-related data interface and OSSDs, the ESPE can have a different response time for the safety-related data interface and for the OSSDs.

Add, on page 21, after definition 3.28, the following new definitions:

3.29 safety-related data interface

direct connection (peer-to-peer) interface between the output of the ESPE and the safety-related communication interface that is used to represent the status of the OSSD(s)

NOTE 1 A data interface will not have addressing capability.

NOTE 2 The safety-related data interface can be bi-directional.