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Standards

Irish Standard  
I.S. EN 61291-4:2012

# Optical amplifiers -- Part 4: Multichannel applications - Performance specification template (IEC 61291-4:2011 (EQV))

## I.S. EN 61291-4:2012

*Incorporating amendments/corrigenda issued since publication:*

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SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

<i>This document replaces:</i> EN 61291-4:2008	<i>This document is based on:</i> EN 61291-4:2012 EN 61291-4:2008	<i>Published:</i> 2 March, 2012 30 September, 2008
This document was published under the authority of the NSAI and comes into effect on:  13 March, 2012		ICS number: 33.180.30
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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61291-4**

March 2012

ICS 33.180.30

Supersedes EN 61291-4:2008

English version

**Optical amplifiers -  
Part 4: Multichannel applications -  
Performance specification template  
(IEC 61291-4:2011)**

Amplificateurs optiques -  
Partie 4: Applications multicanaux -  
Modèle de spécification de  
fonctionnement  
(CEI 61291-4:2011)

Lichtwellenleiter-Verstärker -  
Teil 4: Mehrkanalanwendungen -  
Vorlage für Leistungsspezifikationen  
(IEC 61291-4:2011)

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# CENELEC

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

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## I.S. EN 61291-4:2012

EN 61291-4:2012

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### Foreword

The text of document 86C/993/CDV, future edition 3 of IEC 61291-4, prepared by SC 86C, "Fibre optic systems and active devices", of IEC/TC 86, "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61291-4:2012.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2012-09-29
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2014-12-29

This document supersedes EN 61291-4:2008

EN 61291-4:2012 includes the following significant technical changes with respect to EN 61291-4:2008:

The transient parameter test methods, EN 61290-4 series, have been added to Tables 1, 2 and 3.

This standard is to be used in conjunction with EN 61291-1.

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

### Endorsement notice

The text of the International Standard IEC 61291-4:2011 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:

- |                  |      |                                |
|------------------|------|--------------------------------|
| IEC 61280 series | NOTE | Harmonized in EN 61280 series. |
| IEC 61291-2      | NOTE | Harmonized as EN 61291-2.      |

## Annex ZA (normative)

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

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.

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 60825-1	-	Safety of laser products - Part 1: Equipment classification and requirements	EN 60825-1	-
IEC 61290	Series	Optical amplifiers - Test methods	EN 61290	Series
IEC 61291-1	-	Optical amplifiers - Part 1: Generic specification	EN 61291-1	-
IEC 61291-5-2	-	Optical amplifiers - Part 5-2: Qualification specifications - Reliability qualification for optical fibre amplifiers	EN 61291-5-2	-

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **OPTICAL AMPLIFIERS –**

#### **Part 4: Multichannel applications – Performance specification template**

#### **FOREWORD**

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International Standard IEC 61291-4 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

This third edition cancels and replaces the second edition published in 2008 and constitutes a technical revision. The main significant changes are the following:

The transient parameter test methods, IEC 61290-4 series, have been added to Tables 1, 2, and 3.



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

CDV	Report on voting
86C/993/CDV	86C/1024/RVC

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 is to be used in conjunction with IEC 61291-1.

A list of all parts in the IEC 61291 series, published under the general title *Optical amplifiers*, can be found on the IEC website.

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.

**I.S. EN 61291-4:2012**

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## INTRODUCTION

This International Standard is devoted to the subject of optical amplifiers. The technology of optical amplifiers is still rapidly evolving, hence amendments and new editions to this standard can be expected. Each abbreviation introduced in this International Standard is generally explained in the text the first time it appears. However, for an easier understanding of the whole text, a list of abbreviations used in this International Standard is given in 3.3.

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