SLOVENSKI STANDARD
SIST EN 61290-4-1:2017

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Nadomešča:
SIST EN 61290-4-1:2011

Optični ojačevalniki - Preskusne metode - 4-1. del: Prehodni parametri ojačenja - Dvovalovna metoda (IEC 61290-4-1:2016)

Optical amplifiers - Test methods - Part 4-1: Gain transient parameters - Two-wavelength method (IEC 61290-4-1:2016)

Lichtwellenleiter-Verstärker - Prüfverfahren - Teil 4-1: Transiente Verstärkerparameter - Zwei-Wellenlängen Verfahren

Amplificateurs optiques - Méthodes d'essai - Partie 4-1 : paramètres de gain transitoire - Méthode à deux longueurs d'onde

Ta slovenski standard je istoveten z: **EN 61290-4-1:2016**

ICS:

33.180.30	Optični ojačevalniki	Optic amplifiers

SIST EN 61290-4-1:2017 **en**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

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English Version

Optical amplifiers - Test methods - Part 4-1: Gain transient parameters - Two-wavelength method (IEC 61290-4-1:2016)

Amplificateurs optiques - Méthodes d'essai - Partie 4-1: Paramètres de gain transitoire - Méthode à deux longueurs d'onde (IEC 61290-4-1:2016)

Lichtwellenleiter-Verstärker - Prüfverfahren - Teil 4-1: Transiente Verstärkerparameter - Zwei-Wellenlängen-Verfahren (IEC 61290-4-1:2016)

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CENELEC

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 61290-4-1:2016 E

European foreword

The text of document 86C/1347/CDV, future edition 2 of IEC 61290-4-1, 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 61290-4-1:2016.

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)	2017-07-31
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2019-10-31

This document supersedes EN 61290-4-1:2011.

EN 61290-4-1:2016 includes the following significant technical changes with respect to EN 61290-4-1:2011:

a) Extended the applicability from only EDFAs to all OFAs;

b) Updated definitions for consistency with other documents in the EN 61290-4 Series.

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The text of the International Standard IEC 61290-4-1:2016 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 61290-1 Series	NOTE	Harmonized as EN 61290-1 Series.
IEC 61290-3-1	NOTE	Harmonized as EN 61290-3-1.
IEC 61290-3-2	NOTE	Harmonized as EN 61290-3-2.
IEC 61290-4-2	NOTE	Harmonized as EN 61290-4-2.

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 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu

Publication	Year	Title	EN/HD	Year
IEC 61291-1	-	Optical amplifiers - Part 1: Generic specification	EN 61291-1	-

IEC 61290-4-1

Edition 2.0 2016-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

**Optical amplifiers – Test methods –
Part 4-1: Gain transient parameters – Two-wavelength method**

**Amplificateurs optiques – Méthodes d'essai –
Partie 4-1: Paramètres de gain transitoire – Méthode à deux longueurs d'onde**

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FOREWORD

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International Standard IEC 61290-4-1 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition published in 2011. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) extended the applicability from only EDFAs to all OFAs;
b) updated definitions for consistency with other documents in the IEC 61290-4 series.

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

CDV	Report on voting
86C/1347/CDV	86C/1397/RVC

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

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 61290 series, published under the general title *Optical amplifiers – Test methods* 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 website 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

This part of IEC 61290-4 is devoted to optical amplifiers (OAs). The technology of OAs is quite new and still emerging; hence amendments and new editions to this document can be expected.

Background information on the transient phenomenon in erbium-doped fibre amplifiers and the consequences on fibre optic systems is provided in Annex A and on slew rate effects in Annex B.