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| <b>STN</b> | <b>Optovláknové aktívne súčiastky a prvky<br/>Normy na puzdro a rozhranie<br/>Časť 1: Všeobecne a návod</b> | <b>STN<br/>EN IEC 62148-1</b><br><br>35 9255 |
|------------|---|--|

Fibre optic active components and devices - Package and interface standards - Part 1: General and guidance

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/18

Obsahuje: EN IEC 62148-1:2018, IEC 62148-1:2017

Oznámením tejto normy sa od 16.02.2021 ruší  
STN EN 62148-1 (35 9255) zo septembra 2002

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EUROPEAN STANDARD

**EN IEC 62148-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2018

ICS 33.180.01

Supersedes EN 62148-1:2002

English Version

**Fibre optic active components and devices - Package and interface standards - Part 1: General and guidance  
(IEC 62148-1:2017)**

Composants et dispositifs actifs fibroniques - Normes de boîtier et d'interface - Partie 1: Généralités et recommandations  
(IEC 62148-1:2017)

Aktive Lichtwellenleiterbauelemente und -geräte - Gehäuse- und Schnittstellennormen - Teil 1: Allgemeines und Leitfadern  
(IEC 62148-1:2017)

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European Committee for Electrotechnical Standardization  
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Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**EN IEC 62148-1:2018****European foreword**

The text of document 86C/1406A/CDV, future edition 2 of IEC 62148-1, 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 IEC 62148-1:2018.

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) 2018-08-16
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2021-02-16

This document supersedes EN 62148-1:2002.

EN IEC 62148-1:2018 includes the following significant technical changes with respect to EN 62148-1:2002:

Addition of a free space optical coupling interface in Clause 5.

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**Endorsement notice**

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

|                  |      |                                |
|------------------|------|--------------------------------|
| IEC 60130 Series | NOTE | Harmonized in EN 60130 Series. |
| IEC 60191 Series | NOTE | Harmonized in EN 60191 Series. |
| IEC 60603 Series | NOTE | Harmonized in EN 60603 Series. |
| IEC 60603-1      | NOTE | Harmonized as EN 60603-1.      |
| IEC 60603-2      | NOTE | Harmonized as EN 60603-2.      |
| IEC 60603-3      | NOTE | Harmonized as EN 60603-3.      |
| IEC 60603-4      | NOTE | Harmonized as EN 60603-4.      |
| IEC 60603-5      | NOTE | Harmonized as EN 60603-5.      |
| IEC 60603-6      | NOTE | Harmonized as EN 60603-6.      |
| IEC 60603-7      | NOTE | Harmonized as EN 60603-7.      |
| IEC 60603-8      | NOTE | Harmonized as EN 60603-8.      |
| IEC 60603-12     | NOTE | Harmonized as EN 60603-12.     |
| IEC 60603-13     | NOTE | Harmonized as EN 60603-13.     |
| IEC 60603-14     | NOTE | Harmonized as EN 60603-14.     |
| IEC 60793 Series | NOTE | Harmonized in EN 60793 Series. |
| IEC 60874 Series | NOTE | Harmonized in EN 60874 Series. |
| IEC 61076 Series | NOTE | Harmonized in EN 61076 Series. |
| IEC 61300 Series | NOTE | Harmonized in EN 61300 Series. |

## **Annex ZA** (normative)

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

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where 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](http://www.cenelec.eu).

| <u>Publication</u> | <u>Year</u> | <u>Title</u>  | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|---|--------------|-------------|
| IEC 60191-1        | -           | Mechanical standardization of semiconductor devices - Part 1: General rules for the preparation of outline drawings of discrete devices | EN 60191-1   | -           |
| IEC 60794          | Series      | Optical fibre cables  | EN 60794     | Series      |
| IEC 61754          | Series      | Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces   | EN 61754     | Series      |
| IEC 62148          | Series      | Fibre optic active components and devices - Package and interface standards   | EN 62148     | Series      |
| ISO 1101           | -           | Geometrical product specifications (GPS) - Geometrical tolerancing - Tolerances of form, orientation, location and run-out              | EN ISO 1101  | -           |



IEC 62148-1

Edition 2.0 2017-08

# INTERNATIONAL STANDARD

**Fibre optic active components and devices – Package and interface standards –  
Part 1: General and guidance**





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IEC 62148-1

Edition 2.0 2017-08

# INTERNATIONAL STANDARD

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**Fibre optic active components and devices – Package and interface standards –  
Part 1: General and guidance**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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ICS 33.180.01

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **FIBRE OPTIC ACTIVE COMPONENTS AND DEVICES – PACKAGE AND INTERFACE STANDARDS –**

#### **Part 1: General and guidance**

#### **FOREWORD**

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International Standard IEC 62148-1 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 2002, and constitutes a technical revision.

This edition includes the following significant technical change with respect to the previous edition: addition of a free space optical coupling interface in Clause 5.

The text of this International Standard is based on the following documents:

| CDV           | Report on voting |
|---------------|------------------|
| 86C/1406A/CDV | 86C/1466/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 in the IEC 62148 series, published under the general title *Fibre optic active components and devices – Package and interface standards*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

## INTRODUCTION

Fibre optic active components and devices are used to convert electrical signals into optical signals or vice versa. The optical performance criteria are generally well specified for a number of internationally agreed application areas, for example, consulting ITU-T Recommendations originating in Study Group 15, *Networks, Technologies and Infrastructures for Transport, Access and Home*. Manufacturers using the standards are responsible for meeting the required performance and/or reliability and quality assurance under a recognized scheme.

# FIBRE OPTIC ACTIVE COMPONENTS AND DEVICES – PACKAGE AND INTERFACE STANDARDS –

## Part 1: General and guidance

### 1 Scope

This part of IEC 62148 aims to assure interchangeability in physical interfaces between fibre optic active components and devices supplied by different manufacturers, but it does not guarantee operation between such devices.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60191-1, *Mechanical standardization of semiconductor devices – Part 1: General rules for the preparation of outline drawings of discrete devices*

IEC 60794 (all parts), *Optical fibre cables*

IEC 61754 (all parts), *Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces*

IEC 62148 (all parts), *Fibre optic active components and devices – Package and interface standards*

ISO 1101, *Geometrical product specifications (GPS) – Geometrical tolerancing – Tolerances of form, orientation, location and run-out*

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