



# INTERNATIONAL STANDARD



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Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –  
Part 3-30: Examinations and measurements – ~~Polish angle and fibre position on single ferrule multifibre connectors~~ Endface geometry of rectangular ferrule

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

#### Part 3-30: Examinations and measurements – ~~Polish angle and fibre position on single ferrule multifibre connectors~~ Endface geometry of rectangular ferrule

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International Standard IEC 61300-3-30 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition published in 2003. This edition constitutes a technical revision.

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

- a) measurement of the individual fibre tip radii;
- b) introduction of the geometry limit (GL) metric;
- c) introduction of the minus coplanarity metric;
- d) new method for measuring the core dips;
- e) all measurement regions are now identical for MM and SM fibres;
- f) the ferrule surface angle sign convention has been changed.

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

FDIS	Report on voting
86B/4357/FDIS	86B/4378/RVD

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 61300 series, published under the general title *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*, can be found on the IEC website.

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# FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –

## Part 3-30: Examinations and measurements – ~~Polish angle and fibre position on single ferrule multifibre connectors~~ Endface geometry of rectangular ferrule

### 1 Scope

This part of IEC 61300 describes a ~~procedure to assess~~ method of measuring the end face geometry ~~in guide pin based multifibre ferrules and connectors~~ of rectangular multifibre ferrules having an IEC defined optical interface. The primary attributes are fibre position relative to the end face, either ~~undercut~~ withdrawal or protrusion, end face angle relative to the guide pin bores, fibre tip radii and core dip for multimode fibres.

### 2 Normative references

~~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.~~

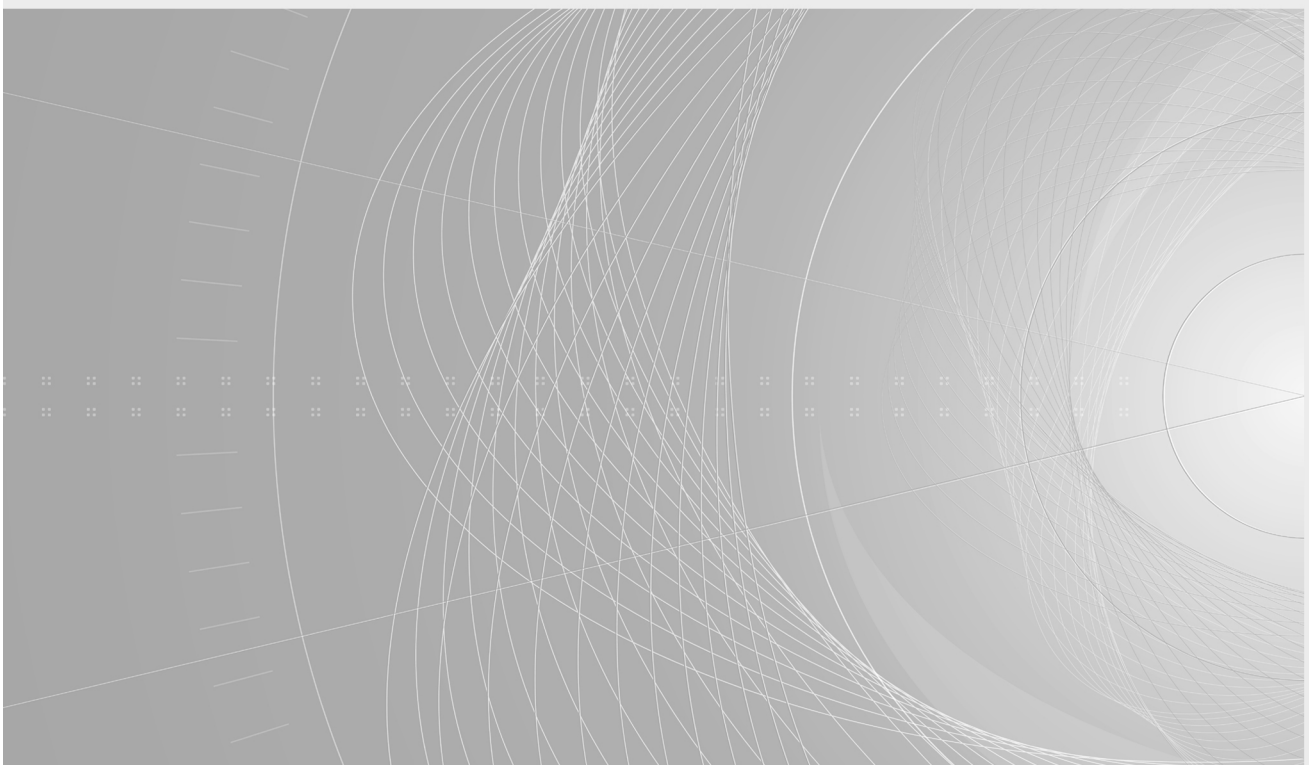
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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Basic test and measurement procedures –  
Part 3-30: Examinations and measurements – Endface geometry of rectangular ferrule**

**Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures –  
Partie 3-30: Examens et mesures – Géométrie de la face terminale de la ferrule rectangulaire**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### **FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – BASIC TEST AND MEASUREMENT PROCEDURES –**

#### **Part 3-30: Examinations and measurements – Endface geometry of rectangular ferrule**

#### FOREWORD

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**FIBRE OPTIC INTERCONNECTING DEVICES  
AND PASSIVE COMPONENTS –  
BASIC TEST AND MEASUREMENT PROCEDURES –**

**Part 3-30: Examinations and measurements –  
Endface geometry of rectangular ferrule**

**1 Scope**

This part of IEC 61300 describes a method of measuring the end face geometry of rectangular multifibre ferrules having an IEC defined optical interface. The primary attributes are fibre position relative to the end face, either withdrawal or protrusion, end face angle relative to the guide pin bores, fibre tip radii and core dip for multimode fibres.

**2 Normative references**

There are no normative references in this document.

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## COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

### DISPOSITIFS D'INTERCONNEXION ET COMPOSANTS PASSIFS FIBRONIQUES – PROCÉDURES FONDAMENTALES D'ESSAIS ET DE MESURES –

#### Partie 3-30: Examens et mesures – Géométrie de la face terminale de la ferrule rectangulaire

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Cette deuxième édition annule et remplace la première édition parue en 2003. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

- a) mesurage des rayons des pointes individuelles des fibres;
- b) introduction de la métrique de limite de géométrie (GL);
- c) introduction de la métrique de coplanarité négative;
- d) nouvelle méthode de mesure de l'inclinaison du cœur;
- e) toutes les régions de mesurage sont désormais identiques pour les fibres MM et SM;
- f) la convention du signe de l'angle de surface de la ferrule a été modifiée.

Le texte de cette Norme internationale est issu des documents suivants:

FDIS	Rapport de vote
86B/4357/FDIS	86B/4378/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cette Norme internationale.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2.

Une liste de toutes les parties de la série IEC 61300, publiées sous le titre général *Dispositifs d'interconnexion et composants passifs fibroniques – Procédures fondamentales d'essais et de mesures*, peut être consultée sur le site Internet de l'IEC.

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# **DISPOSITIFS D'INTERCONNEXION ET COMPOSANTS PASSIFS FIBRONIQUES – PROCÉDURES FONDAMENTALES D'ESSAIS ET DE MESURES –**

## **Partie 3-30: Examens et mesures – Géométrie de la face terminale de la ferrule rectangulaire**

### **1 Domaine d'application**

Cette partie de l'IEC 61300 décrit une méthode de mesure de la géométrie de la face terminale des ferrules rectangulaires multifibres ayant une interface optique définie par l'IEC. Les attributs primaires sont la position relative de la fibre par rapport à la face terminale, soit en enfoncement, soit en excroissance, et l'angle relatif de la face terminale par rapport aux forages de la broche de guidage, les rayons des pointes des fibres et l'inclinaison du cœur pour des fibres multimodales.

### **2 Références normatives**

Le présent document ne contient aucune référence normative.