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REDLINE VERSION

**Fiberoptik –
Anslutningsdon och passiva komponenter –
Provning och mätning –
Del 3-30: Undersökningar och mätningar –
Slutstyckesgeometri hos rektangulär ferrul**

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

En så kallad "Redline version" (RLV) innehåller både den fastställda IEC-standarderna och en ändringsmarkerad standard. Alla tillägg och borttagningar sedan den tidigare utgåvan är markerade med färg. Med en RLV sparar du mycket tid när du ska identifiera och bedöma aktuella ändringar i standarderna. SEK Svensk Elstandard kan bara ge ut en RLV i de fall den finns tillgänglig från IEC.

INTERNATIONAL STANDARD



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**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

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.

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.

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.

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.~~

There are no normative references in this document.

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Fiberoptik – Anslutningsdon och passiva komponenter – Provning och mätning – Del 3-30: Undersökningar och mätningar – Slutstyckesgeometri hos rektangulär ferrul

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

Som svensk standard gäller europastandarden EN IEC 61300-3-30:2021. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 61300-3-30:2021.

Nationellt förord

Europastandarden EN IEC 61300-3-30:2021

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 61300-3-30, Second edition, 2020 - Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-30: Examinations and measurements - Endface geometry of rectangular ferrule**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 61300-3-30, utgåva 1, 2004, gäller ej fr o m 2024-01-18.

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English Version

**Fibre optic interconnecting devices and passive components -
Basic test and measurement procedures - Part 3-30:
Examinations and measurements - Endface geometry of
rectangular ferrule
(IEC 61300-3-30:2020)**

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
(IEC 61300-3-30:2020)

Lichtwellenleiter - Verbindungselemente und passive
Bauteile - Grundlegende Prüf- und Messverfahren - Teil 3-
30: Untersuchungen und Messungen - Endflächen-
Geometrie einer rechteckigen Ferrule
(IEC 61300-3-30:2020)

This European Standard was approved by CENELEC on 2021-01-18. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

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

European foreword

The text of document 86B/4357/FDIS, future edition 2 of IEC 61300-3-30, prepared by SC 86B "Fibre optic interconnecting devices and passive components" of IEC/TC 86 "Fibre optics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61300-3-30:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2021-10-18 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2024-01-18 document have to be withdrawn

This document supersedes EN 61300-3-30:2003 and all of its amendments and corrigenda (if any).

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Endorsement notice

The text of the International Standard IEC 61300-3-30:2020 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 61300 (series)	NOTE	Harmonized as EN 61300 (series)
IEC 61755-3-31:2015	NOTE	Harmonized as EN 61755-3-31:2015 (not modified)
IEC 61755-3-32:2015	NOTE	Harmonized as EN 61755-3-32:2016 (not modified)

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 –
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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.