
**Optični spojni elementi in pasivne komponente - Vmesniki optičnih konektorjev - 3
-1. del: Parametri konektorjev za disperzijsko nespremenjena optična vlakna z
nekotnim fizičnim stikom 2,5 mm in cirkonijevimi cilindričnimi tulkami premera
1,25 mm (IEC 61755-3-1:2024)**

Fibre optic interconnecting devices and passive components - Connector optical interfaces - Part 3-1: Connector parameters of dispersion unshifted single-mode physically contacting fibres - non-angled 2,5 mm and 1,25 mm diameter cylindrical full zirconia ferrules (IEC 61755-3-1:2024)

Lichtwellenleiter-Verbindungselemente und passive Bauelemente - Optische Schnittstellen von Lichtwellenleiter-Steckverbindern - Teil 3-1: Steckverbinderkennwerte von nicht dispersionsverschobenen physikalisch kontaktierenden Einmoden-Fasern - nicht angeschrägte zylindrische Vollzirkonium-Ferrulen mit 2,5 mm und 1,25 mm Durchmesser (IEC 61755-3-1:2024)

Dispositifs d'interconnexion et composants passifs fibroniques - Interfaces optiques de connecteurs - Partie 3-1: Paramètres des connecteurs pour fibres unimodales à dispersion non décalée en contact physique - Ferrules cylindriques sans angle en zircone pleine de 2,5 mm et 1,25 mm de diamètre (IEC 61755-3-1:2024)

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Fibre optic interconnecting devices and passive components -
Connector optical interfaces - Part 3-1: Connector parameters of
dispersion unshifted single-mode physically contacting fibres -
Non-angled 2,5 mm and 1,25 mm diameter cylindrical full
zirconia ferrules
(IEC 61755-3-1:2024)

Dispositifs d'interconnexion et composants passifs
fibroniques - Interfaces optiques de connecteurs - Partie 3-1
: Paramètres des connecteurs pour fibres unimodales à
dispersion non décalée en contact physique - Ferrules
cylindriques sans angle en zircone pleine de 2,5 mm et 1,25
mm de diamètre
(IEC 61755-3-1:2024)

Lichtwellenleiter-Verbindungselemente und passive
Bauelemente - Optische Schnittstellen von Lichtwellenleiter-
Steckverbindern - Teil 3-1: Steckverbinderkennwerte von
nicht dispersionsverschobenen physikalisch
kontaktierenden Einmoden-Fasern - nicht angeschrägte
zylindrische Vollzirkonium-Ferrulen mit 2,5 mm und 1,25
mm Durchmesser
(IEC 61755-3-1:2024)

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Europäisches Komitee für Elektrotechnische Normung

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

EN IEC 61755-3-1:2024 (E)**European foreword**

The text of document 86B/4863/FDIS, future edition 2 of IEC 61755-3-1, 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 61755-3-1:2024.

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) 2025-02-16
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-05-16

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

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IEC 61755-2-4 NOTE Approved as EN 61755-2-4

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.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61755-1	2022	Fibre optic interconnecting devices and passive components - Connector optical interfaces for single-mode fibres - Part 1: Optical interfaces for dispersion unshifted fibres - General and guidance	EN IEC 61755-1	2022

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INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Fibre optic interconnecting devices and passive components – Connector optical interfaces –
Part 3-1: Connector parameters of dispersion unshifted single-mode physically contacting fibres – Non-angled 2,5 mm and 1,25 mm diameter cylindrical full zirconia ferrules**

**Dispositifs d'interconnexion et composants passifs fibroniques – Interfaces optiques de connecteurs –
Partie 3-1 : Paramètres des connecteurs pour fibres unimodales à dispersion non décalée en contact physique – Ferrules cylindriques sans angle en zircone pleine de 2,5 mm et 1,25 mm de diamètre**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING
DEVICES AND PASSIVE COMPONENTS –
CONNECTOR OPTICAL INTERFACES –****Part 3-1: Connector parameters of dispersion
unshifted single-mode physically contacting fibres –
Non-angled 2,5 mm and 1,25 mm diameter cylindrical full zirconia ferrules**

FOREWORD

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IEC 61755-3-1 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre Optics. It is an International Standard.

This second edition cancels and replaces the first edition published in 2006. This edition constitutes a technical revision.

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

- a) normative references have been added;
- b) the introduction of an additional optical interface with a different fibre core eccentricity profile. The previous revision of optical interface standard is named "Variant 1: with fibre core axis oriented towards the connector guide key". The additional optical interface is named "Variant 2: with fibre core axis not oriented towards the connector guide key";
- c) statements added related to interoperability, where both variants remain intermateable within a given performance grade and backwards compatible to IEC 61755-3-1:2006;
- d) The addition of Grade B and Grade C interface requirements for both variants;
- e) The addition of a descriptive statistic for the mean fibre core eccentricity (mean value) to describe the distribution of fibre core eccentricity to ensure interoperability;
- f) A new informative Annex B to give guidance on the expected attenuation when mated to a reference connector plug;
- g) A new informative Annex C to give guidance related to the simulation of optical interface attenuation;
- h) A new informative Annex D to give guidance related to estimation of mean fibre eccentricity limits for finite production batch sizes.

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

Draft	Report on voting
86B/4863/FDIS	86B/4889/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts of the IEC 61755 series, published under the general title *Fibre optic interconnecting devices and passive components – Connector optical interfaces for single-mode fibres*, can be found on the IEC website.

Future documents in this series will carry the new general title as cited above. Titles of existing documents in this series will be updated at the time of the next edition.

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

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- withdrawn, or
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