SLOVENSKI STANDARD
SIST EN 61754-27:2013

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Optični spojni elementi in pasivne komponente - Optični konektorski vmesniki - 27. del: Konektorska družina vrste M12-FO

Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 27: Type M12-FO connector famlily

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Steckgesichter von Lichtwellenleiter-Steckverbindern - Teil 27: Steckverbinderfamilie der Bauart M12-FO

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EUROPEAN STANDARD

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EN 61754-27

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English version

Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 27: Type M12-FO connector family
(IEC 61754-27:2013)

Dispositifs d'interconnexion et composants passifs à fibres optiques - Interfaces de connecteurs pour fibres optiques - Partie 27: Famille de connecteurs de type M12-FO (CEI 61754-27:2013)

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Steckgesichter von Lichtwellenleiter-Steckverbindern - Teil 27: Steckverbinderfamilie der Bauart M12-FO (IEC 61754-27:2013)

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 86B/3597/FDIS, future edition 1 of IEC 61754-27, prepared by IEC/TC 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 61754-27:2013.

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)	2014-03-20
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2016-06-20

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The text of the International Standard IEC 61754-27:2013 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 60793-2	NOTE	Harmonised as EN 60793-2.
IEC 61754-1	NOTE	Harmonised as EN 61754-1.
IEC 61755 Series	NOTE	Harmonised as EN 61755 Series (partly modified).
IEC 61755-1	NOTE	Harmonised as EN 61755-1.

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

Publication	Year	Title	EN/HD	Year
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	EN 60529	-
IEC 60793-2-30	-	Optical fibres - Part 2-30: Product specifications - Sectional specification for category A3 multimode fibres	EN 60793-2-30	-
IEC 60793-2-40	-	Optical fibres - Part 40: Product specifications - Sectional specification for category A4 multimode fibres	EN 60793-2-40	-
IEC 60793-2-50	-	Optical fibres - Part 2-50: Product specifications - Sectional specification for class B single-mode fibres	EN 60793-2-50	-
IEC 61076-2-101	-	Connectors for electronic equipment - Product requirements - Part 2-101: Circular connectors - Detail specification for M12 connectors with screw-locking	EN 61076-2-101	-
IEC 61755-3	Series	Fibre optic connector optical interfaces - Part 3: Optical interface	EN 61755-3	Series
ISO/IEC/TR 29106	-	Information technology - Generic cabling - Introduction to the MICE environmental classification	-	-

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NORME INTERNATIONALE

Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces – Part 27: Type M12-FO connector family

Dispositifs d'interconnexion et composants passifs à fibres optiques – Interfaces de connecteurs pour fibres optiques – Partie 27: Famille de connecteurs de type M12-FO

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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC CONNECTOR INTERFACES –

Part 27: Type M12-FO connector family

FOREWORD

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International Standard IEC 61754-27 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

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

FDIS	Report on voting
86B/3597/FDIS	86B/3626/RVD

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

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

A list of all parts of the IEC 61754 series, published under the general title, *Fibre optic interconnecting and passive components – Fibre optic connector interfaces*, can be found on the IEC website.

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

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site 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.

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC CONNECTOR INTERFACES –

Part 27: Type M12-FO connector family

1 Scope

This part of IEC 61754 defines the standard interface dimensions for the type M12-FO family of connectors.

This connector is of duplex plug/adaptor/plug configuration and designed for industrial environment as described in ISO/IEC TR 29106, severity class M_3 and I_3. Multiple designs for machines and equipment require solutions with different fibre types.

2 Normative references

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.

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

IEC 60793-2-30, *Optical fibres – Part 2-30: Product specifications – Sectional specification for category A3 multimode fibres*

IEC 60793-2-40, *Optical fibres – Part 2-40: Product specifications – Sectional specification for category A4 multimode fibres*

IEC 60793-2-50, *Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres*

IEC 61076-2-101, *Connectors for electronic equipment – Product requirements – Part 2-101: Circular connectors – Detail specification for M12 connectors with screw-locking*

IEC 61755-3 (all parts 3), *Fibre optic connector optical interfaces – Part 3: Optical interface*

ISO/IEC TR 29106, *Information technology – Generic cabling – Introduction to the MICE environmental classification*

3 Description

The M12-FO connector family is a duplex plug connector set of plug/adaptor configuration which is characterized by a 2,5 mm nominal ferrule diameter and can be used for fibres as described in Table 1.

This circular connector includes a housing with a M12-thread screw locking mechanism and a protection according to IEC 60529, IP 65 and IP 67. Electrical M12-connectors are typically used for industrial process, measurement and control. They are described and dimensioned in IEC 61076-2-101 and additional information for the optical connector is given in this standard.