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Interested committees:

Title: BS EN 61754-7-5 Ed.1.0 Fibre optic interconnecting devices and passive components # Fibre optic connector interfaces
Part 7-5: Type MPO connector family-Three fibre rows

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



86B/4623/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER: IEC 61754-7-5 ED1	
DATE OF CIRCULATION: 2022-06-03	CLOSING DATE FOR COMMENTS: 2022-08-26
SUPERSEDES DOCUMENTS: 86B/4542/NP, 86B/4590A/RVN	

IEC SC 86B : FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS	
SECRETARIAT: Japan	SECRETARY: Mr Shigeru Tomita
OF INTEREST TO THE FOLLOWING COMMITTEES:	PROPOSED HORIZONTAL STANDARD: ☐ Other TC/SCs are requested to indicate their interest, if any, in this CD to the secretary.
FUNCTIONS CONCERNED: ☐ EMC ☐ ENVIRONMENT ☐ QUALITY ASSURANCE ☐ SAFETY	

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

TITLE:

Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 7-5: Type MPO connector family - Three fibre rows 8 and 12 fibre wide

NOTE FROM TC/SC OFFICERS:

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING
DEVICES AND PASSIVE COMPONENTS –
FIBRE OPTIC CONNECTOR INTERFACES –****Part 7-X: Type MPO connector family-Three fibre rows 8 and 12 fibre wide****FOREWORD**

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International Standard IEC 61754-7-5 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

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

FDIS	Report on voting
86B/XX/FDIS	86B/XX/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.

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

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

- 93 • reconfirmed,
- 94 • withdrawn,
- 95 • replaced by a revised edition, or
- 96 • amended.

97

98 The National Committees are requested to note that for this document the stability date
99 is 20XX..

100 THIS TEXT IS INCLUDED FOR THE INFORMATION OF THE NATIONAL COMMITTEES AND WILL BE DELETED
101 AT THE PUBLICATION STAGE.

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INTRODUCTION

105 The International Electrotechnical Commission (IEC) draws attention to the fact that it is
106 claimed that compliance with this document may involve the use of patents concerning MPO
107 connectors.

108 The IEC takes no position concerning the evidence, validity and scope of this patent right.

109 The holders of these patent rights have assured the IEC that they are willing to negotiate
110 licences under reasonable and non-discriminatory terms and conditions with applicants
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112 registered with the IEC. Information may be obtained from:

113 Director of Licensing Intellectual Property Department
114 Huawei Technologies Co., Ltd.
115 Administration Building, Huawei Industrial Co., Ltd., Bantian, Longgang District
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123 most up to date information concerning patents.

124

FIBRE OPTIC INTERCONNECTING

DEVICES AND PASSIVE COMPONENTS –

FIBRE OPTIC CONNECTOR INTERFACES –

Part 7-5: Type MPO connector family-Three fibre rows 8 and 12 fibre wide

1. Scope

This part of IEC 61754 defines the standard interface dimensions for the type MPO family of connectors with three rows of fibres.

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 61754-1, *Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 1: General and guidance*

3. Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4. Description

The parent connector for the type MPO connector family is a multiway plug connector characterized by a rectangular ferrule normally 6,4 mm × 2,5 mm which utilizes two pins of 0,7 mm diameter as its alignment. The variant in this document provides a joint of 24 and 36 fibres by arraying them between two pin-positioning holes in the ferrule in a three-layer (three-row) arrangement. The connector includes a push-pull coupling mechanism and a ferrule spring loaded in the direction of the optical axis. The connector has a single pinned key which may be used to orient and limit the relative position between the connector and the component to which it is mated.

Connector interfaces are configured using a unpinned plug without pins, a pinned plug with pins fixed and an adaptor as shown in Figure 1. The unpinned plug is intermateable with the pinned plug. There are two angled-interface plugs, one called down-angled and the other up-angled. They are defined for both pinned and unpinned plugs. The up and down descriptors refer to the tilt direction of the ferrule's angled end-face relative to the fibre axis when looking toward the end-face with the plug's key feature on the top. For down-angled plugs, the angled surface faces slightly downward. For up-angled plugs, the angled surface faces slightly upward. These different angles affect intermateability for the two adaptor types. An opposed keyway adaptor mates two plugs with the keys in opposite orientations, for example one side keyway-up and the other keyway-down. In contrast, an aligned keyway adaptor mates two plugs with the keys at the same orientation. When using an opposed keyway adaptor with angled interfaces, the