



NSAI
Standards

Irish Standard
I.S. EN IEC 61754-7-3:2019

Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 7-3: Type MPO connector family - Two fibre rows 16 fibre wide

I.S. EN IEC 61754-7-3:2019

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National Foreword

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EUROPEAN STANDARD

EN IEC 61754-7-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2019

ICS 33.180.20

English Version

**Fibre optic interconnecting devices and passive components -
Fibre optic connector interfaces - Part 7-3: Type MPO connector
family - Two fibre rows 16 fibre wide
(IEC 61754-7-3:2019)**

Dispositifs d'interconnexion et composants passifs à fibres
optiques - Interfaces de connecteurs à fibres optiques -
Partie 7-3: Famille de connecteurs de type MPO - Deux
rangées de 16 fibres
(IEC 61754-7-3:2019)

Lichtwellenleiter - Verbindungselemente und passive
Bauteile - Steckgesichter von Lichtwellenleiter-
Steckverbindern - Teil 7-3: Steckverbinderfamilie der Bauart
MPO - Zwei Faserreihen mit jeweils 16 Fasern
(IEC 61754-7-3:2019)

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EN IEC 61754-7-3:2019 (E)

European foreword

The text of document 86B/4176/FDIS, future edition 1 of IEC 61754-7-3, 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 61754-7-3:2019.

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IEC 61754-7-3

Edition 1.0 2019-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Fibre optic
connector interfaces –**

Part 7-3: Type MPO connector family –Two fibre rows 16 fibre wide

**Dispositifs d'interconnexion et composants passifs à fibres optiques – Interfaces
de connecteurs à fibres optiques –**

Partie 7-3: Famille de connecteurs de type MPO – Deux rangées de 16 fibres



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IEC 61754-7-3

Edition 1.0 2019-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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connector interfaces –**

Part 7-3: Type MPO connector family – Two fibre rows 16 fibre wide

**Dispositifs d'interconnexion et composants passifs à fibres optiques – Interfaces
de connecteurs à fibres optiques –**

Partie 7-3: Famille de connecteurs de type MPO – Deux rangées de 16 fibres

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

**Part 7-3: Type MPO connector family –
Two fibre rows 16 fibre wide**

FOREWORD

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International Standard IEC 61754-7-3 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/4176/FDIS	86B/4190/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 61754 series, published under the general title *Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces*, can be found on the IEC website.

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- replaced by a revised edition, or
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INTRODUCTION

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

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

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

Part 7-3: Type MPO connector family – Two fibre rows 16 fibre wide

1 Scope

This part of IEC 61754 defines the standard interface dimensions for type MPO family of connectors with two rows of 16 fibres.

2 Normative references

There are no normative references in this document.

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:

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4 Description

The parent connector for type MPO connector family is a multiway plug characterized by a rectangular ferrule normally 6,4 mm × 2,5 mm which utilizes two pins of 0,55 mm diameter as its alignment. The variant in this document provides a joint of 32 fibres by arraying them between two pin-positioning holes in the ferrule in a two-layer (two-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 male 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 female plug without pins, a male plug with pins fixed and an adaptor as shown in Figure 1. The female plug is intermateable with the male plug. There are two angled-interface plugs, one called down-angled and the other up-angled. They are defined for both male and female 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, two down-angled plugs or two up-angled plugs shall be connected. For aligned keyway adaptors with angled interfaces, one down-angled plug and one up-angled plug shall be connected.

Additionally, the female plug interface is intermateable with the active device receptacle.

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