

Fibre optic connector interfaces —

Part 10: Type Mini-MPO connector family

The European Standard EN 61754-10:2005 has the status of a
British Standard

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National foreword

This British Standard is the official English language version of EN 61754-10:2005. It is identical with IEC 61754-10:2005. It supersedes BS EN 61754-10:2001 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee GEL/86, Fibre optics, to Subcommittee GEL/86/2, Fibre optic interconnecting devices and passive components, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 18, an inside back cover and a back cover.

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Fibre optic connector interfaces
Part 10: Type Mini-MPO connector family
(IEC 61754-10:2005)

Interfaces de connecteurs
pour fibres optiques
Partie 10: Famille de connecteurs
de type Mini-MPO
(CEI 61754-10:2005)

Steckgesichter von
Lichtwellenleiter-Steckverbindern
Teil 10: Steckverbinderfamilie
der Bauart Mini-MPO
(IEC 61754-10:2005)

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CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 86B/2127/FDIS, future edition 2 of IEC 61754-10, 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 was approved by CENELEC as EN 61754-10 on 2005-10-01.

This European Standard supersedes EN 61754-10:2001.

Specific technical changes involve addition of intermateability dimensions for male plug connectors.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2006-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2008-10-01

The International Electrotechnical Commission (IEC) and CENELEC draw attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning Mini-MPO connectors.

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The text of the International Standard IEC 61754-10:2005 was approved by CENELEC as a European Standard without any modification.

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FIBRE OPTIC CONNECTOR INTERFACES –

Part 10: Type Mini-MPO connector family

1 Scope

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

2 Description

The parent connector for the type Mini-MPO connector family is a multiway plug connector characterized by a rectangular ferrule nominally $4,4 \times 2,5$ mm which utilises two pins of 0,7 mm diameter as its alignment. It is capable of joining up to four fibres by arraying them between two pin-positioning holes in the ferrule. 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 fixed pins and an adaptor as shown in Figure 1. The female plug is intermateable with the male plug.

3 Interfaces

This standard contains the following standard interfaces:

Interface 10-1: Mini-MPO female plug connector angled interface – Push/pull consisting of:

Interface 10-1-1	for single fibre
Interface 10-1-2	for two fibres with a pitch of 0,25 mm
Interface 10-1-3	for two fibres with a pitch of 0,75 mm
Interface 10-1-4	for four fibres with a pitch of 0,25 mm

Interface 10-2: Mini-MPO male plug connector angled interface – Push/pull consisting of:

Interface 10-2-1	for single fibre
Interface 10-2-2	for two fibres with a pitch of 0,25 mm
Interface 10-2-3	for two fibres with a pitch of 0,75 mm
Interface 10-2-4	for four fibres with a pitch of 0,25 mm

Interface 10-3: Mini-MPO adaptor interface – Push/pull

Interface 10-4: Mini-MPO female plug connector flat interface – Push/pull consisting of:

Interface 10-4-1	for single fibre
Interface 10-4-2	for two fibres with a pitch of 0,25 mm
Interface 10-4-3	for two fibres with a pitch of 0,75 mm
Interface 10-4-4	for four fibres with a pitch of 0,25 mm

Interface 10-5: Mini-MPO male plug connector flat interface – Push/pull consisting of:

- Interface 10-5-1 for single fibre
- Interface 10-5-2 for two fibres with a pitch of 0,25 mm
- Interface 10-5-3 for two fibres with a pitch of 0,75 mm
- Interface 10-5-4 for four fibres with a pitch of 0,25 mm

The following standards are intermateable.

Female plugs	Adaptors	Male plugs
10-1-1	10-3	10-2-1
10-1-2	10-3	10-2-2
10-1-3	10-3	10-2-3
10-1-4	10-3	10-2-4
10-4-1	10-3	10-5-1
10-4-2	10-3	10-5-2
10-4-3	10-3	10-5-3
10-4-4	10-3	10-5-4

NOTE Connector interfaces between two fibres and four fibres will intermate and will correctly align the lower defined numbers of optical datum targets.

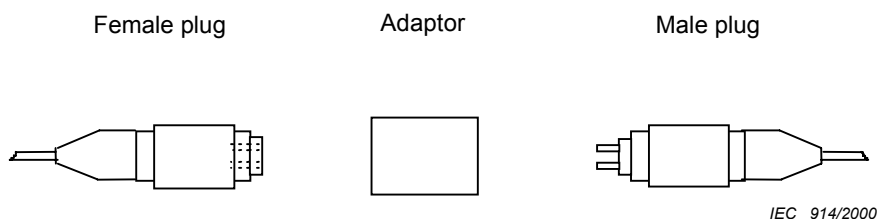


Figure 1 – Mini-MPO connector configurations