

**Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces -- Part 7: Type MPO connector family**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 61754-7:2008 sisaldab Euroopa standardi EN 61754-7:2008 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 19.08.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 20.06.2008.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 61754-7:2008 consists of the English text of the European standard EN 61754-7:2008.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 19.08.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 20.06.2008.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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**Võtmesõnad:** adapters, connection technology, connectors, dimensions, electric plugs, electrical engineering, enclosures, fasteners, fibre optics, guide books, measurement, optical fibres, optical waveguides, pins (nails), plugs, tolerances, tolerances (measurement)

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Aru 10 Tallinn 10317 Eesti; [www.evs.ee](http://www.evs.ee); Telefon: 605 5050; E-post: [info@evs.ee](mailto:info@evs.ee)

English version

**Fibre optic interconnecting devices and passive components -  
Fibre optic connector interfaces -  
Part 7: Type MPO connector family  
(IEC 61754-7:2008)**

Dispositifs d'interconnexion  
et composants passifs à fibres optiques -  
Interfaces de connecteurs  
pour fibres optiques -  
Partie 7: Famille de connecteurs  
de type MPO  
(CEI 61754-7:2008)

Lichtwellenleiter -  
Verbindungselemente  
und passive Bauteile -  
Steckgesichter von  
Lichtwellenleiter-Steckverbindern -  
Teil 7: Steckverbinderfamilie  
der Bauart MPO  
(IEC 61754-7:2008)

This European Standard was approved by CENELEC on 2008-04-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

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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/2581/CDV, future edition 3 of IEC 61754-7, 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 61754-7 on 2008-04-01.

This European Standard supersedes EN 61754-7:2005.

Specific technical changes involve the addition of an aligned key adaptor interface definition to address all existing MPO applications

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) | 2009-01-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn   | (dow) | 2011-04-01 |

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 MPO connectors.

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

The holder of this patent right has assured the IEC that he/she is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with the IEC. Information may be obtained from:

Intellectual Property Department,  
Nippon Telegraph and Telephone Corporation,  
20-2 Nishi-shinjuku 3-Chome Shinjuku,  
Tokyo 163-14, Japan.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights other than those identified above. IEC and CENELEC shall not be held responsible for identifying any or all such patent rights.

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## Endorsement notice

The text of the International Standard IEC 61754-7:2008 was approved by CENELEC as a European Standard without any modification.

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

## Part 7: Type MPO connector family

### 1 Scope

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

### 2 Description

The parent connector for 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. It is applicable to a joint of multiple fibres up to 12 fibres by arraying them between two pin-positioning holes in the ferrule. Furthermore, it is capable of joining up to 24 fibres by arraying them with a two layer 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.

Moreover, connector interfaces between the female plug and the male plug are configured by applying a backplane housing and a printed board housing instead of the adaptor.

### 3 Interfaces

This standard contains the following standard interfaces:

Interface 7-1: MPO female plug connector angled interface – Push/pull consisting of:

Interface 7-1-1 for 2 to 12 fibres

Interface 7-1-2 for 16 to 24 fibres

Interface 7-2: MPO male plug connector angled interface – Push/pull consisting of:

Interface 7-2-1 for 2 to 12 fibres

Interface 7-2-2 for 16 to 24 fibres

Interface 7-3: MPO adaptor interface – Push/pull

Interface 7-4: MPO female plug connector flat interface – Push/pull consisting of:

Interface 7-4-1 for 2 to 12 fibres

Interface 7-4-2 for 16 to 24 fibres

Interface 7-5: MPO male plug connector flat interface – Push/pull consisting of:

Interface 7-5-1 for 2 to 12 fibres

Interface 7-5-2 for 16 to 24 fibres

Interface 7-6: MPO backplane housing interface – Self-retaining

Interface 7-7: MPO printed board housing interface – Self-retaining