

<b>STN</b>	<b>Optovláknové spájacie prvky a pasívne súčiastky Rozhrania optických konektorov Časť 6: Skupina konektorov typu MU</b>	<b>STN EN IEC 61754-6</b>  35 9244
------------	--	--

Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 6: Type MU connector family

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/22

Obsahuje: EN IEC 61754-6:2022, IEC 61754-6:2022

Oznámením tejto normy sa od 04.04.2023 ruší  
STN EN 61754-6 (35 9244) z júla 2014

**135225**

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN IEC 61754-6**

April 2022

ICS 33.180.20

Supersedes EN 61754-6:2013 and all of its amendments  
and corrigenda (if any)

English Version

Fibre optic interconnecting devices and passive components -  
Fibre optic connector interfaces - Part 6: Type MU connector  
family  
(IEC 61754-6:2022)

Dispositifs d'interconnexion et composants passifs  
fibroniques - Interfaces de connecteurs fibroniques -  
Partie 6: Famille de connecteurs de type MU  
(IEC 61754-6:2022)

Lichtwellenleiter - Verbindungselemente und passive  
Bauteile - Steckgesichter von Lichtwellenleiter-  
Steckverbindern - Teil 6: Steckverbinderfamilie der Bauart  
MU  
(IEC 61754-6:2022)

This European Standard was approved by CENELEC on 2022-04-04. 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 CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## EN IEC 61754-6:2022 (E)

### European foreword

The text of document 86B/4562/FDIS, future edition 3 of IEC 61754-6, 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 61754-6:2022.

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) 2023-01-04
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-04-04

This document supersedes EN 61754-6:2013 and all of its amendments and corrigenda (if any).

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

### Endorsement notice

The text of the International Standard IEC 61754-6:2022 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 61300-2-55 NOTE Harmonized as EN 61300-2-55

IEC 61755-3-1 NOTE Harmonized as EN 61755-3-1

IEC 61755-3-2 NOTE Harmonized as EN 61755-3-2

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61300-3-22	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-22: Examinations and measurements - Ferrule compression force	EN 61300-3-22	-
IEC 61754-1	-	Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 1: General and guidance	EN 61754-1	-



IEC 61754-6

Edition 3.0 2022-02

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces –  
Part 6: Type MU connector family**

**Dispositifs d'interconnexion et composants passifs fibroniques – Interfaces de connecteurs fibroniques –  
Partie 6: Famille de connecteurs de type MU**



**THIS PUBLICATION IS COPYRIGHT PROTECTED**  
**Copyright © 2022 IEC, Geneva, Switzerland**

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

IEC Secretariat  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland

Tel.: +41 22 919 02 11  
[info@iec.ch](mailto:info@iec.ch)  
[www.iec.ch](http://www.iec.ch)

#### About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

#### About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

#### IEC publications search - [webstore.iec.ch/advsearchform](http://webstore.iec.ch/advsearchform)

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, ...). It also gives information on projects, replaced and withdrawn publications.

#### IEC Just Published - [webstore.iec.ch/justpublished](http://webstore.iec.ch/justpublished)

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

#### IEC Customer Service Centre - [webstore.iec.ch/csc](http://webstore.iec.ch/csc)

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: [sales@iec.ch](mailto:sales@iec.ch).

#### IEC Products & Services Portal - [products.iec.ch](http://products.iec.ch)

Discover our powerful search engine and read freely all the publications previews. With a subscription you will always have access to up to date content tailored to your needs.

#### Electropedia - [www.electropedia.org](http://www.electropedia.org)

The world's leading online dictionary on electrotechnology, containing more than 22 300 terminological entries in English and French, with equivalent terms in 19 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

---

#### A propos de l'IEC

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

#### A propos des publications IEC

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

#### Recherche de publications IEC -

##### [webstore.iec.ch/advsearchform](http://webstore.iec.ch/advsearchform)

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études, ...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

#### IEC Just Published - [webstore.iec.ch/justpublished](http://webstore.iec.ch/justpublished)

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et une fois par mois par email.

#### Service Clients - [webstore.iec.ch/csc](http://webstore.iec.ch/csc)

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: [sales@iec.ch](mailto:sales@iec.ch).

#### IEC Products & Services Portal - [products.iec.ch](http://products.iec.ch)

Découvrez notre puissant moteur de recherche et consultez gratuitement tous les aperçus des publications. Avec un abonnement, vous aurez toujours accès à un contenu à jour adapté à vos besoins.

#### Electropedia - [www.electropedia.org](http://www.electropedia.org)

Le premier dictionnaire d'électrotechnologie en ligne au monde, avec plus de 22 300 articles terminologiques en anglais et en français, ainsi que les termes équivalents dans 19 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.



IEC 61754-6

Edition 3.0 2022-02

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

---

**Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces –  
Part 6: Type MU connector family**

**Dispositifs d'interconnexion et composants passifs fibroniques – Interfaces de connecteurs fibroniques –  
Partie 6: Famille de connecteurs de type MU**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

---

ICS 33.180.20

ISBN 978-2-8322-1077-9

**Warning! Make sure that you obtained this publication from an authorized distributor.  
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

## CONTENTS

FOREWORD .....	5
1 Scope .....	7
2 Normative references .....	7
3 Terms and definitions .....	7
4 Description .....	7
5 Interfaces .....	8
Annex A (informative) Configuration of type MU-A connector set .....	77
Annex B (informative) Configuration of type MU-B connector set .....	78
Annex C (informative) Floating 2-port connector plug .....	79
Annex D (informative) Panel dimensions .....	80
D.1 General .....	80
D.2 Simplex adaptor .....	80
D.3 4,5 mm duplex adaptor .....	80
D.4 6,25 mm duplex adaptor .....	81
D.5 Horizontal duplex adaptor .....	81
D.6 4,5 mm 8-port adaptor .....	82
Bibliography .....	83
Figure 1 – Simplex plug connector interface – Push/pull .....	11
Figure 2 – 4,5 mm duplex plug connector interface – Push/pull .....	14
Figure 3 – Simplex adaptor connector interface – Push/pull .....	17
Figure 4 – Pin gauge for resilient alignment sleeve .....	19
Figure 5 – 4,5 mm duplex adaptor connector interface – Push/pull .....	20
Figure 6 – 8-port adaptor connector interface – Push/pull .....	23
Figure 7 – Plug connector interface – For printed board housings .....	25
Figure 8 – Sleeve holder interface .....	27
Figure 9 – 2-port backplane housing interface .....	29
Figure 10 – 2-port printed board housing interface .....	33
Figure 11 – 8-port backplane housing interface .....	37
Figure 12 – 8-port printed board housing interface .....	41
Figure 13 – Simplex active device receptacle interface .....	45
Figure 14 – Detail of the mechanical stop for rigid bore alignment feature .....	47
Figure 15 – 4,5 mm duplex active device receptacle interface .....	48
Figure 16 – Detail of the mechanical stop for rigid bore alignment feature .....	50
Figure 17 – 6,25 mm duplex active device receptacle interface .....	51
Figure 18 – Detail of the mechanical stop for rigid bore alignment feature .....	53
Figure 19 – Plug connector interface – For printed board housings, APC .....	54
Figure 20 – Simplex plug connector interface – Push/pull, APC .....	57
Figure 21 – 4,5 mm duplex plug connector interface – Push/pull, APC .....	60
Figure 22 – 6,25 mm duplex plug connector interface – Push/pull, APC .....	63
Figure 23 – 6,25 mm duplex plug connector interface – Push/pull .....	66
Figure 24 – 6,25 mm duplex adaptor connector interface .....	69



Figure 25 – Horizontal duplex plug connector interface – Push/pull.....	71
Figure 26 – Horizontal duplex adaptor connector interface.....	74
Figure A.1 – Configuration of type MU-A connector set.....	77
Figure B.1 – Configuration of type MU-B connector set.....	78
Figure C.1 – Floating 2-port connector plug.....	79
Figure D.1 – Panel cut out.....	80
Figure D.2 – Panel cut out.....	80
Figure D.3 – Panel cut out.....	81
Figure D.4 – Panel cut out.....	81
Figure D.5 – Panel cut out.....	82
Table 1 – Interfaces.....	8
Table 2 – Intermateability of MU-A connectors.....	9
Table 3 – Intermateability of MU-B connectors.....	9
Table 4 – Intermateability of MU receptacles.....	10
Table 5 – Dimensions of the simplex plug connector interface.....	12
Table 6 – Grade of the simplex plug connector.....	13
Table 7 – Dimensions of the 4,5 mm duplex plug connector interface.....	15
Table 8 – Grade of the 4,5 mm duplex plug connector.....	16
Table 9 – Dimensions of the simplex adaptor connector interface.....	18
Table 10 – Grade of the simplex adaptor connector.....	19
Table 11 – Pin gauge dimensions.....	19
Table 12 – Dimensions of the 4,5 mm duplex adaptor connector interface.....	21
Table 13 – Grade of the 4,5 mm duplex adaptor connector.....	22
Table 14 – Dimensions of the 8-port adaptor connector interface.....	24
Table 15 – Grade of the 8-port adaptor connector.....	25
Table 16 – Dimensions of the plug connector interface.....	26
Table 17 – Grade of the plug connector.....	27
Table 18 – Dimensions of the sleeve holder interface.....	28
Table 19 – Grade of the sleeve holder.....	28
Table 20 – Dimensions of the 2-port backplane housing interface.....	31
Table 21 – Grade of the 2-port backplane housing.....	32
Table 22 – Dimensions of the 2-port printed board housing interface.....	35
Table 23 – Dimensions of the 8-port backplane housing interface.....	39
Table 24 – Grade of the 8-port backplane housing.....	40
Table 25 – Dimensions of the 8-port printed board housing interface.....	43
Table 26 – Dimensions of the simplex active device receptacle interface.....	46
Table 27 – Alignment feature grade.....	47
Table 28 – Dimensions of the mechanical stop for rigid bore alignment feature.....	47
Table 29 – Mechanical stop feature grade.....	48
Table 30 – Dimensions of the 4,5 mm duplex active device receptacle interface.....	49
Table 31 – Alignment feature grade.....	50
Table 32 – Dimensions of the mechanical stop for rigid bore alignment feature.....	50

Table 33 – Mechanical stop feature grade.....	51
Table 34 – Dimensions of the 6,25 mm duplex active device receptacle interface .....	52
Table 35 – Alignment feature grade .....	53
Table 36 – Dimensions of the mechanical stop for rigid bore alignment feature.....	53
Table 37 – Mechanical stop feature grade.....	54
Table 38 – Dimensions of the plug connector interface – For printed board housings, APC...55	
Table 39 – Dimensions of the simplex plug connector interfaces, APC.....	58
Table 40 – Dimensions of the 4,5 mm duplex plug connector interfaces, APC.....	61
Table 41 – Dimensions of the 6,25 mm duplex plug connector interface, APC.....	64
Table 42 – Dimensions of the 6,25 mm duplex plug connector interface.....	66
Table 43 – Grade of the 6,25 mm duplex plug connector.....	68
Table 44 – Dimensions of the 6,25 mm duplex adaptor connector interface .....	69
Table 45 – Grade of the 6,25 mm duplex adaptor connector .....	70
Table 46 – Dimensions of the horizontal duplex plug connector interface.....	72
Table 47 – Grade of the horizontal duplex plug connector.....	73
Table 48 – Dimensions of the horizontal duplex adaptor connector interface.....	75
Table 49 – Grade of the horizontal duplex adaptor connector.....	76
Table C.1 – Dimensions table for 2-port connector plug .....	79
Table D.1 – Dimensions for simplex adaptor .....	80
Table D.2 – Dimensions for 4,5 mm duplex adaptor .....	81
Table D.3 – Dimensions for 6,25 mm duplex adaptor .....	81
Table D.4 – Dimensions for horizontal duplex adaptor .....	82
Table D.5 – Dimensions for 4,5 mm 8-port adaptor .....	82

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

---

**FIBRE OPTIC INTERCONNECTING  
DEVICES AND PASSIVE COMPONENTS –  
FIBRE OPTIC CONNECTOR INTERFACES –****Part 6: Type MU connector family****FOREWORD**

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 61754-6 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics. It is an International Standard.

This third edition cancels and replaces the second edition published in 2013 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the test method IEC 61300-3-22 for the compression force of the ferrule was added;
- b) Annex D (informative) with cut out dimension requirements for testing the strength of mounted adaptors was added.

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

Draft	Report on voting
86B/4562/FDIS	86B/4585/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

A list of all parts of the IEC 61754 series, under the general title *Fibre optic interconnecting devices 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 document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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

## Part 6: Type MU connector family

### 1 Scope

This part of IEC 61754 specifies the standard interface dimensions for type MU family of connectors.

### 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 61300-3-22, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3-22: Examinations and measurements – Ferrule compression force*

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

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**