IEC 61754-6

Edition 3.0 2022-02
REDLINE VERSION

INTERNATIONAL STANDARD

colour inside

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

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 33.180.20

ISBN 978-2-8322-1085-5

Warning! Make sure that you obtained this publication from an authorized distributor.

® Registered trademark of the International Electrotechnical Commission

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 ~~set~~ 9
Table 3 – Intermateability of MU-B connectors ~~set~~ 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 14
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 56
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 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.

This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 61754-6:2013. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

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. The main document types developed by IEC are described in greater detail at 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 in the data related to the specific document. At this date, the document will be

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- withdrawn,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

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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

Part 6: Type MU connector family

1 Scope

This part of IEC 61754 ~~defines~~ 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 61755-3-1, *Fibre optic connector optical interfaces – Part 3-1:Optical interface, 2,5 mm and 1,25 mm diameter cylindrical full zirconia PC ferrule, single mode fibre*~~

~~IEC 61755-3-2, *Fibre optic connector optical interfaces – Part 3-2: Optical interface, 2,5 mm and 1,25 mm diameter cylindrical full zirconia ferrules for 8 degrees angled-PC single mode fibres*~~

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*

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



IEC 61754-6:2022-02(en-fr)

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. The main document types developed by IEC are described in greater detail at 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 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*

SOMMAIRE

AVANT-PROPOS 87
1 Domaine d'application 89
2 Références normatives 89
3 Termes et définitions 89
4 Description 89
5 Interfaces 90
Annexe A (informative) Configuration d'un jeu de connecteurs de type MU-A 159
Annexe B (informative) Configuration d'un jeu de connecteurs de type MU-B 160
Annexe C (informative) Fiche à 2 ports de type flottant 161
Annexe D (informative) Dimensions du panneau 162
D.1 Généralités 162
D.2 Raccord simplex 162
D.3 Raccord duplex de 4,5 mm 162
D.4 Raccord duplex de 6,25 mm 163
D.5 Raccord duplex horizontal 163
D.6 Raccord à 8 ports de 4,5 mm 164
Bibliographie 165

Figure 1 – Interface de fiches simplex – Pousser/tirer 93
Figure 2 – Interface de fiches duplex de 4,5 mm – Pousser/tirer 96
Figure 3 – Interface de raccord simplex – Pousser/tirer 99
Figure 4 – Broche calibrée pour manchon d'alignement élastique 101
Figure 5 – Interface de raccord duplex de 4,5 mm – Pousser/tirer 102
Figure 6 – Interface de raccord à 8 ports – Pousser/tirer 105
Figure 7 – Interface de fiches – pour boîtiers de carte imprimée 107
Figure 8 – Interface de support de manchon 109
Figure 9 – Interface de boîtier de fond de panier à 2 ports *(1 de 2)* 111
Figure 10 – Interface de boîtier de carte imprimée à 2 ports *(1 de 2)* 115
Figure 11 – Interface de boîtier de fond de panier à 8 ports *(1 de 2)* 119
Figure 12 – Interface de boîtier de carte imprimée à 8 ports *(1 de 2)* 123
Figure 13 – Interface d'embase simplex de dispositif actif 127
Figure 14 – Détail de la butée mécanique pour un élément d'alignement à alésage rigide 129
Figure 15 – Interface d'embase de dispositif actif duplex de 4,5 mm 130
Figure 16 – Détail de la butée mécanique pour un élément d'alignement à alésage rigide 132
Figure 17 – Interface d'embase de dispositif actif duplex de 6,25 mm 133
Figure 18 – Détail de la butée mécanique pour un élément d'alignement à alésage rigide 135
Figure 19 – Interface de fiches pour boîtiers de carte imprimée, APC *(1 de 2)* 136
Figure 20 – Interface de fiches simplex – Pousser/tirer, APC *(1 de 2)* 139
Figure 21 – Interface de fiches duplex de 4,5 mm – Pousser/tirer, APC *(1 de 2)* 142
Figure 22 – Interface de fiches duplex de 6,25 mm – Pousser/tirer, APC *(1 de 2)* 145

Figure 23 – Interface de fiches duplex de 6,25 mm – Pousser/tirer 148
Figure 24 – Interface de raccord duplex de 6,25 mm 151
Figure 25 – Interface de fiches duplex horizontale – Pousser/tirer 153
Figure 26 – Interface de raccord duplex horizontal 156
Figure A.1 – Configuration d'un jeu de connecteurs de type MU-A 159
Figure B.1 – Configuration d'un jeu de connecteurs de type MU-B 160
Figure C.1 – Fiche à 2 ports de type flottant 161
Figure D.1 – Découpe du panneau 162
Figure D.2 – Découpe du panneau 162
Figure D.3 – Découpe du panneau 163
Figure D.4 – Découpe du panneau 163
Figure D.5 – Découpe du panneau 164

Tableau 1 – Interfaces 90
Tableau 2 – Compatibilité d'accouplement des connecteurs MU-A 91
Tableau 3 – Compatibilité d'accouplement des connecteurs MU-B 91
Tableau 4 – Compatibilité d'accouplement des embases MU 92
Tableau 5 – Dimensions de l'interface de fiches simplex 94
Tableau 6 – Classe de la fiche simplex 95
Tableau 7 – Dimensions de l'interface de fiches duplex de 4,5 mm 97
Tableau 8 – Classe de la fiches duplex de 4,5 mm 98
Tableau 9 – Dimensions de l'interface de raccord simplex 100
Tableau 10 – Classe du raccord simplex 101
Tableau 11 – Dimensions de la broche calibrée 101
Tableau 12 – Dimensions de l'interface de raccord duplex de 4,5 mm 103
Tableau 13 – Classe du raccord duplex de 4,5 mm 104
Tableau 14 – Dimensions de l'interface de raccord à 8 ports 106
Tableau 15 – Classe du raccord à 8 ports 107
Tableau 16 – Dimensions de l'interface de fiche 108
Tableau 17 – Classe de la fiche 109
Tableau 18 – Dimensions de l'interface de support de manchon 110
Tableau 19 – Classe du support de manchon 110
Tableau 20 – Dimensions de l'interface de boîtier de fond de panier à 2 ports 113
Tableau 21 – Classe du boîtier de fond de panier à 2 ports 114
Tableau 22 – Dimensions de l'interface de boîtier de carte imprimée à 2 ports 117
Tableau 23 – Dimensions de l'interface de boîtier de fond de panier à 8 ports 121
Tableau 24 – Classe du boîtier de fond de panier à 8 ports 122
Tableau 25 – Dimensions de l'interface de boîtier de carte imprimée à 8 ports 125
Tableau 26 – Dimensions de l’interface d'embase simplex de dispositif actif 128
Tableau 27 – Classe d'élément d’alignement 129
Tableau 28 – Dimensions de la butée mécanique pour un élément d’alignement à alésage rigide 129
Tableau 29 – Classe d'élément de butée mécanique 130

Tableau 30 – Dimensions de l'interface d’embase de dispositif actif duplex de 4,5 mm 131
Tableau 31 – Classe d'élément d’alignement 132
Tableau 32 – Dimensions de la butée mécanique pour un élément d’alignement à alésage rigide 132
Tableau 33 – Classe d'élément de butée mécanique 133
Tableau 34 – Dimensions de l'interface d’embase de dispositif actif duplex de 6,25 mm 134
Tableau 35 – Classe d'élément d’alignement 135
Tableau 36 – Dimensions de la butée mécanique pour un élément d’alignement à alésage rigide 135
Tableau 37 – Classe d'élément de butée mécanique 136
Tableau 38 – Dimensions de l'interface de fiches pour boîtiers de carte imprimée, APC 138
Tableau 39 – Dimensions des interfaces de fiches simplex, APC 140
Tableau 40 – Dimensions des interfaces de fiches duplex de 4,5 mm, APC 143
Tableau 41 – Dimensions de l’interface de fiches duplex de 6,25 mm, APC 146
Tableau 42 – Dimensions de l'interface de fiches duplex de 6,25 mm 148
Tableau 43 – Classe de la fiche duplex de 6,25 mm 150
Tableau 44 – Dimensions de l'interface de raccord duplex de 6,25 mm 151
Tableau 45 – Classe du raccord duplex de 6,25 mm 152
Tableau 46 – Dimensions de l'interface de fiches duplex horizontale 154
Tableau 47 – Classe de la fiche duplex horizontale 155
Tableau 48 – Dimensions de l'interface de raccord duplex horizontal 157
Tableau 49 – Classe du raccord duplex horizontal 158
Tableau C.1 – Tableau de dimensions pour fiche à 2 ports 161
Tableau D.1 – Dimensions pour un raccord simplex 162
Tableau D.2 – Dimensions pour un raccord duplex de 4,5 mm 163
Tableau D.3 – Dimensions pour un raccord duplex de 6,25 mm 163
Tableau D.4 – Dimensions pour un raccord duplex horizontal 164
Tableau D.5 – Dimensions pour un raccord à 8 ports de 4,5 mm 164

COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

_____

DISPOSITIFS D'INTERCONNEXION ET COMPOSANTS PASSIFS FIBRONIQUES – INTERFACES DE CONNECTEURS FIBRONIQUES –

Partie 6: Famille de connecteurs de type MU

AVANT-PROPOS

1) La Commission Électrotechnique Internationale (IEC) est une organisation mondiale de normalisation composée de l'ensemble des comités électrotechniques nationaux (Comités nationaux de l'IEC). L'IEC a pour objet de favoriser la coopération internationale pour toutes les questions de normalisation dans les domaines de l'électricité et de l'électronique. À cet effet, l'IEC – entre autres activités – publie des Normes internationales, des Spécifications techniques, des Rapports techniques, des Spécifications accessibles au public (PAS) et des Guides (ci-après dénommés "Publication(s) de l'IEC"). Leur élaboration est confiée à des comités d'études, aux travaux desquels tout Comité national intéressé par le sujet traité peut participer. Les organisations internationales, gouvernementales et non gouvernementales, en liaison avec l'IEC, participent également aux travaux. L'IEC collabore étroitement avec l'Organisation Internationale de Normalisation (ISO), selon des conditions fixées par accord entre les deux organisations.
2) Les décisions ou accords officiels de l'IEC concernant les questions techniques représentent, dans la mesure du possible, un accord international sur les sujets étudiés, étant donné que les Comités nationaux de l'IEC intéressés sont représentés dans chaque comité d'études.
3) Les Publications de l'IEC se présentent sous la forme de recommandations internationales et sont agréées comme telles par les Comités nationaux de l'IEC. Tous les efforts raisonnables sont entrepris afin que l'IEC s'assure de l'exactitude du contenu technique de ses publications; l'IEC ne peut pas être tenue responsable de l'éventuelle mauvaise utilisation ou interprétation qui en est faite par un quelconque utilisateur final.
4) Dans le but d'encourager l'uniformité internationale, les Comités nationaux de l'IEC s'engagent, dans toute la mesure possible, à appliquer de façon transparente les Publications de l'IEC dans leurs publications nationales et régionales. Toutes divergences entre toutes Publications de l'IEC et toutes publications nationales ou régionales correspondantes doivent être indiquées en termes clairs dans ces dernières.
5) L'IEC elle-même ne fournit aucune attestation de conformité. Des organismes de certification indépendants fournissent des services d'évaluation de conformité et, dans certains secteurs, accèdent aux marques de conformité de l'IEC. L'IEC n'est responsable d'aucun des services effectués par les organismes de certification indépendants.
6) Tous les utilisateurs doivent s'assurer qu'ils sont en possession de la dernière édition de cette publication.
7) Aucune responsabilité ne doit être imputée à l'IEC, à ses administrateurs, employés, auxiliaires ou mandataires, y compris ses experts particuliers et les membres de ses comités d'études et des Comités nationaux de l'IEC, pour tout préjudice causé en cas de dommages corporels et matériels, ou de tout autre dommage de quelque nature que ce soit, directe ou indirecte, ou pour supporter les coûts (y compris les frais de justice) et les dépenses découlant de la publication ou de l'utilisation de cette Publication de l'IEC ou de toute autre Publication de l'IEC, ou au crédit qui lui est accordé.
8) L'attention est attirée sur les références normatives citées dans cette publication. L'utilisation de publications référencées est obligatoire pour une application correcte de la présente publication.
9) L'attention est attirée sur le fait que certains des éléments de la présente Publication de l'IEC peuvent faire l'objet de droits de brevet. L'IEC ne saurait être tenue pour responsable de ne pas avoir identifié de tels droits de brevets.

L'IEC 61754-6 a été établie par le sous-comité 86B: Dispositifs d'interconnexion et composants passifs à fibres optiques, du comité d'études 86 de l'IEC: Fibres optiques. Il s'agit d'une Norme internationale.

Cette troisième édition annule et remplace la deuxième édition parue en 2013. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

a) ajout de la méthode d'essai de l'IEC 61300-3-22 sur la force de compression de la férule;

b) ajout de l'Annexe D (informative) avec les exigences relatives aux dimensions des découpes pour réaliser les essais de résistance des raccords montés.

Le texte de cette Norme internationale est issu des documents suivants:

Projet	Rapport de vote
86B/4562/FDIS	86B/4585/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

Le présent document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous www.iec.ch/members_experts/refdocs. Les principaux types de documents développés par l'IEC sont décrits plus en détail sous www.iec.ch/standardsdev/publications.

Une liste de toutes les parties de la série IEC 61754, publiées sous le titre général *Dispositifs d'interconnexion et composants passifs fibroniques – Interfaces de connecteurs fibroniques*, peut être consultée sur le site web de l'IEC.

Les futures normes de cette série porteront dorénavant le nouveau titre général cité ci-dessus. Le titre des normes existant déjà dans cette série sera mis à jour lors de la prochaine édition.

Le comité a décidé que le contenu du présent document ne sera pas modifié avant la date de stabilité indiquée sur le site web de l'IEC sous webstore.iec.ch dans les données relatives au document recherché. À cette date, le document sera

- reconduit,
- supprimé,
- remplacé par une édition révisée, ou
- amendé.

DISPOSITIFS D'INTERCONNEXION ET COMPOSANTS PASSIFS FIBRONIQUES – INTERFACES DE CONNECTEURS FIBRONIQUES –

Partie 6: Famille de connecteurs de type MU

1 Domaine d'application

La présente partie de l'IEC 61754 spécifie les dimensions d'interfaces normalisées pour la famille de connecteurs de type MU.

2 Références normatives

Les documents suivants sont cités dans le texte de sorte qu'ils constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 61300-3-22, *Dispositifs d'interconnexion et composants passifs à fibres optiques – Méthodes fondamentales d'essais et de mesures – Partie 3-22: Examens et mesures – Force de compression des férules*

IEC 61754-1, *Dispositifs d'interconnexion et composants passifs à fibres optiques – Interfaces de connecteurs à fibres optiques – Partie 1: Généralités et lignes directrices*