

This is a preview of "BS EN 61754-20:2012". [Click here to purchase the full version from the ANSI store.](#)

BS EN 61754-20:2012



BSI Standards Publication

Fibre optic interconnecting devices and passive components — Fibre optic connector interfaces

Part 20: Type LC connector family

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

raising standards worldwide™



This is a preview of "BS EN 61754-20:2012". [Click here to purchase the full version from the ANSI store.](#)

This British Standard is the UK implementation of EN 61754-20:2012. It is identical to IEC 61754-20:2012. It supersedes BS EN 61754-20:2002 which is withdrawn.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.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2012

Published by BSI Standards Limited 2012

ISBN 978 0 580 57893 9

ICS 33.180.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 August 2012.

Amendments issued since publication

Date	Text affected
-------------	----------------------

This is a preview of "BS EN 61754-20:2012". [Click here to purchase the full version from the ANSI store.](#)

EUROPÄISCHE NORM

August 2012

ICS 33.180.20

Supersedes EN 61754-20:2002

English version

**Fibre optic interconnecting devices and passive components -
Fibre optic connector interfaces -
Part 20: Type LC connector family
(IEC 61754-20:2012)**

Dispositifs d'interconnexion
et composants passifs à fibres optiques -
Interfaces de connecteurs
pour fibres optiques -
Partie 20: Famille de connecteurs
de type LC
(CEI 61754-20:2012)

Lichtwellenleiter - Verbindungselemente
und passive Bauteile - Steckgesichter
von Lichtwellenleiter- Steckverbindern -
Teil 20: Steckverbinderfamilie
der Bauart LC
(IEC 61754-20:2012)

This European Standard was approved by CENELEC on 2012-05-10. 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

This is a preview of "BS EN 61754-20:2012". [Click here to purchase the full version from the ANSI store.](#)

The text of document 86B/3343/FDIS, future edition 2 of IEC 61754-20, prepared by IEC/SC 86B "Fibre optic interconnecting devices and passive components" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61754-20:2012.

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) 2013-02-10
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2013-05-10

This document supersedes EN 61754-20:2002.

EN 61754-20:2012 includes the following significant technical changes with respect to EN 61754-20:2002:

The changes are to reconsider the whole document and to add Interface IEC 61754-20-9 to IEC 61754-20-16 for plastic optical fibre (POF).

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

Endorsement notice

The text of the International Standard IEC 61754-20:2012 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 60793-2-40 | NOTE | Harmonised as EN 60793-2-40. |
| IEC 60794-2-50 | NOTE | Harmonised as EN 60794-2-50. |

This is a preview of "BS EN 61754-20:2012". [Click here to purchase the full version from the ANSI store.](#)

(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61755-3	Series	Fibre optic interconnecting devices and passive components - Fibre optic connector optical interfaces	EN 61755-3	Series

This is a preview of "BS EN 61754-20:2012". [Click here to purchase the full version from the ANSI store.](#)

CONTENTS

INTRODUCTION.....	5
1 Scope.....	6
2 Normative references.....	6
3 Description	6
4 Interfaces	6
Annex A (informative) Additional adaptor dimensional information.....	22
Bibliography	26
Figure 1 – Plug connector interface reference planes	8
Figure 2 – Detail A of Figure 1 – Plug connector interface – Expanded view drawings not-to-scale.....	9
Figure 3 – Plug connector interface	10
Figure 4 – APC plug connector interface.....	11
Figure 5 – Duplex plug interface	12
Figure 6 – Simplex adaptor interface	14
Figure 7 – Junior (Jr.) adaptor interface (optional – note g of Table 3)	15
Figure 8 – Duplex adaptor interface.....	16
Figure 9 – Active device receptacle interface.....	18
Figure 10 – Duplex active device receptacle interface.....	19
Figure 11 – Pin gauge for active device receptacle	20
Figure A.1 – Simplex adaptor	22
Figure A.2 – Duplex square flange adaptor.....	23
Figure A.3 – Duplex rectangular flange adaptor	24
Figure A.4 –Quad rectangular flange adaptor.....	25
Table 1 – Plug to Adaptor/Receptacle Intermateability	7
Table 2 – Plug to Plug Intermateability.....	8
Table 3 – Dimensions of the plug connector interface	12
Table 4 – Plug connector interface – Ferrule grade.....	13
Table 5 – Dimensions of the adaptor interface.....	16
Table 6 – Dimensions of the active device receptacle	19
Table 7 – Active device receptacle interface – Alignment sleeve grade	20
Table 8 – Pin gauge grade	21
Table A.1 – Dimensions of simplex adaptor	22
Table A.2 – Dimensions of duplex square flange adaptor.....	23
Table A.3 – Dimensions of duplex rectangular flange adaptor	24
Table A.4 – Dimensions for quad rectangular flange adaptor	25

This is a preview of "BS EN 61754-20:2012". [Click here to purchase the full version from the ANSI store.](#)

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 a patent concerning IEC 61754-20.

IEC takes 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 IEC. Information may be obtained from:

OFS Fitel LLC, Inc.,
2000 NE Expressway,
Norcross, GA 30071
USA

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 shall not be held responsible for identifying any or all such patent rights.

ISO (www.iso.org/patents) and IEC (http://www.iec.ch/tctools/patent_decl.htm) maintain on-line data bases of patents relevant to their standards. Users are encouraged to consult the data bases for the most up to date information concerning patents.

This is a preview of "BS EN 61754-20:2012". [Click here to purchase the full version from the ANSI store.](#)

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

Part 20: Type LC connector family

1 Scope

This International Standard defines the standard interface dimensions for the type LC family of connectors.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 series, *Fibre optic interconnecting devices and passive components – Fibre optic connector optical interfaces*

3 Description

The parent connector for type LC connector family is a simplex plug connector set of plug/adaptor/plug configuration which is characterized by:

- A 1,25 mm nominal diameter ferrule or, in the case of 1 mm OD POF, the fibre acts as the ferrule.
- The connector includes a single coupling latch and a ferrule spring loaded in the direction of the optical axis
- The plug 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.
- The optical alignment mechanism of the connectors is a rigid bore sleeve or a resilient sleeve.

Drawings and dimensions provided consist of those minimum features that are functionally critical during the mating and unmating sequences of the plug with its adapter/receptacle counterpart component. The provided dimensions might cause intermateability problems with plugs not compliant to the standard.

4 Interfaces

This standard contains the following standard interfaces:

Interface 20-1: simplex plug connector interface – PC

Interface 20-2: simplex adaptor interface

Interface 20-3: simplex active device receptacle interface

Interface 20-4: duplex plug connector interface – PC

Interface 20-5: duplex adaptor interface