BS EN 61754-31:2016

BSI Standards Publication

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

Part 31: Type N-FO connector family

Documents
Document Sharing Hub

Full document details: BS EN 61754-31:2016

National foreword

This British Standard is the UK implementation of EN 61754-31:2016. It is identical to IEC 61754-31:2016.

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 2016.
Published by BSI Standards Limited 2016

ISBN 978 0 580 87463 5
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 May 2016.

Amendments/corrigenda issued since publication

Date	Text affected

Documents
Document Sharing Hub

Full document details: BS EN 61754-31:2016

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61754-31

May 2016

ICS 33.180.20

English Version

Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 31: Type N-FO connector family (IEC 61754-31:2016)

Dispositifs d'interconnexion et composants passifs à fibres optiques - Interfaces de connecteurs à fibres optiques - Partie 31: Famille de connecteurs de type N-FO (IEC 61754-31:2016)

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Steckgesichter von Lichtwellenleiter-Steckverbindern - Teil 31: Steckverbinderfamilie der Bauart N-FO (IEC 61754-31:2016)

This European Standard was approved by CENELEC on 2016-02-23. 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.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2016 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

Ref. No. EN 61754-31:2016 E

AVA Documents Document Sharing Hub

Full document details: BS EN 61754-31:2016

European foreword

The text of document 86B/3961/FDIS, future edition 1 of IEC 61754-31, 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 61754-31:2016.

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) 2016-11-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-02-23

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 61754-31:2016 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60794-2-50	NOTE	Harmonized as EN 60794-2-50.

Documents
Document Sharing Hub
Full document details: BS EN 61754-31:2016

Annex ZA
(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 1 When 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.

Publication	Year	Title	EN/HD	Year
IEC 61754-1	-	Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces -- Part 1: General and guidance	EN 61754-1	-
IEC 61755-3	series	Fibre optic connector optical interfaces	EN 61755-3	series

Documents
Document Sharing Hub
Full document details: BS EN 61754-31:2016

CONTENTS

FOREWORD 3
INTRODUCTION 5
1 Scope 6
2 Normative references 6
3 Description 6
3.1 General 6
3.2 Two way system 6
3.3 Four way system 6
4 Interfaces 7
5 Two way connector interface 7
5.1 Two way plug connector interface 7
5.2 Two way socket connector interface 9
6 Four way connector interface 11
6.1 Four way plug connector interface 11
6.2 Four way socket connector interface 13
7 Endface geometry 15
8 Ferrule grades 16
9 Pin gauge for plug connector 16
Bibliography 18

Figure 1 – Two way plug connector (isometric view) 7
Figure 2 – Two way plug connector mating dimensions 8
Figure 3 – Two way socket connector (isometric view) 9
Figure 4 – Two way socket connector mating dimensions 10
Figure 5 – Four way plug connector (isometric view) 12
Figure 6 – Four way plug connector mating dimensions 12
Figure 7 – Four way socket connector (isometric view) 13
Figure 8 – Four way socket connector mating dimensions 14
Figure 9 – PC endface geometry (expanded view) 15
Figure 10 – Pin gauge for plug connector 16

Table 1 – Intermateability between plugs and sockets within the IEC 61754-31 series of interfaces 7
Table 2 – Two way plug connector dimensions 9
Table 3 – Two way socket connector dimensions 11
Table 4 – Four way plug connector dimensions 13
Table 5 – Four way socket connector dimensions 15
Table 6 – Endface dimensions 16
Table 7 – Ferrule grades 16
Table 8 – Pin gauge dimensions 17

Documents
Document Sharing Hub
Full document details: BS EN 61754-31:2016

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 31: Type N-FO 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.

International Standard IEC 61754-31 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

The text of this standard is based on the following documents:

FDIS	Report on voting
86B/3961/FDIS	86B/3973/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

Documents
Document Sharing Hub
Full document details: BS EN 61754-31:2016

A list of all parts in the IEC 61754 series, published under the general title *Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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

Documents
Document Sharing Hub
Full document details: BS EN 61754-31:2016