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**Konektorski vmesniki optičnihvlaken – 19.-del: Družina konektorjev tipa SG  
(IEC 61754-19:2001)\***

Fibre optic connector interfaces - Part 19: Type SG connector family (IEC 61754-19:2001)

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EUROPEAN STANDARD

**EN 61754-19**

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2002

ICS 33.180.20

English version

**Fibre optic connector interfaces**  
**Part 19: Type SG connector family**  
(IEC 61754-19:2001)

Interfaces de connecteurs  
pour fibres optiques  
Partie 19: Famille de connecteurs  
de type SG  
(CEI 61754-19:2001)

Steckgesichter von Lichtwellenleiter-  
Steckverbindern  
Teil 19: Steckverbinderfamilie  
der Bauart SG  
(IEC 61754-19:2001)

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This European Standard was approved by CENELEC on 2001-12-01. 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.

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CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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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/1575/FDIS, future edition 1 of IEC 61754-19, 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 61754-9 on 2001-12-01.

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) 2002-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2004-12-01

The International Electrotechnical Commission (IEC) and CENELEC draw attention to the fact that it is claimed that compliance with this International Standard/European Standard may involve the use of a patent concerning SG connectors.

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The holder of this patent right has assured the IEC that he 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:

Minnesota Mining and Manufacturing Company, (3M)  
Building A 130-2N-34  
6801 River Place Boulevard  
Austin TX 78726-9000

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## Endorsement notice

The text of the International Standard IEC 61754-19:2001 was approved by CENELEC as a European Standard without any modification.

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC

61754-19

Première édition  
First edition  
2001-10

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**Interfaces de connecteurs pour fibres optiques –**

**Partie 19:  
Famille de connecteurs de type SG**

**STANDARD PREVIEW**  
**Fibre optic connector interfaces –**  
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**Part 19:  
Type SG connector family**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## FIBRE OPTIC CONNECTOR INTERFACES –

## Part 19: Type SG connector family

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61754-19 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/1575/FDIS	86B/1606/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.

IEC 61754 consists of multiple parts, under the general title *Fibre optic connector interfaces*.

- Part 1, entitled *General and guidance*, covers general information.
- Subsequent parts contain interfaces for various connector families.

The committee has decided that the contents of this publication will remain unchanged until 2004. At this date, the publication will be

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

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## FIBRE OPTIC CONNECTOR INTERFACES –

### Part 19: Type SG connector family

#### 1 Scope

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

#### 2 Description

The parent connector for the type SG connector family is a single position plug of plug/socket connector set configuration. The plug is characterized by duplex cantilevered optical fibres located within the plug interior. Plug optical fibres flex to mate with socket optical fibre ends. Mating socket optical fibres are positioned and aligned by integral V-grooves. Socket V-grooves capture, guide, and align the plug optical fibres during connector set engagement. The spring-release latch limits plug penetration into the socket; it is also a single position key preventing inverted assembly. Contaminant entry is restricted by an integral plug cover and socket door. Each is normally closed when de-mated, but self-actuate to open position for single-action connector set engagement.

#### 3 Interfaces

The following figures and tables define the standard interfaces for the type SG connector family. The standard interfaces contained in this standard are listed in the following:

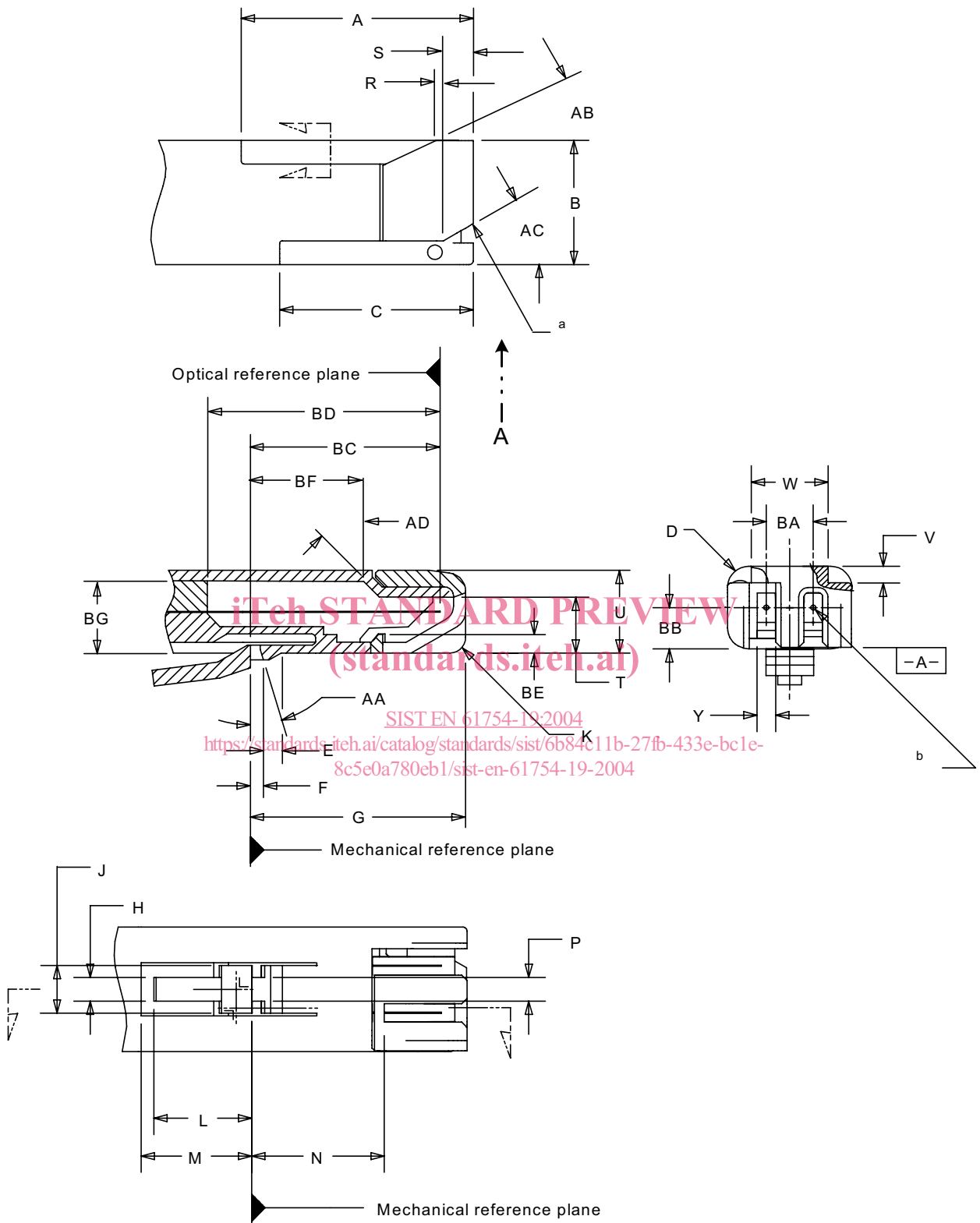
61754-19-1: duplex plug connector interface – 8° contact angle

61754-19-2: duplex socket connector interface – 8° contact angle

The following connectors are intermateable:

61754-19-1 mates with 61754-19-2.





- a Plug cover shown in open position (openings expose fibre ends). Transverse cover motion is self-actuated by entry/exit from socket.
- b Optical fibre (see table 1a, table footnote <sup>b</sup>).

**Figure 1a – Duplex plug connector interface**