



**SLOVENSKI STANDARD**  
**SIST EN 61754-4:1997/A2:2002**  
**01-september-2002**

**Fibre optic connector for interfaces - Part 4: Type SC connector family - Amendment A2 (IEC 61754-4:1997/A2:2001)**

Fibre optic connector interfaces -- Part 4: Type SC connector family

Steckgesichter von Lichtwellenleiter-Steckverbindern -- Teil 4: Bauart SC Steckverbinderfamilie

Interfaces de connecteurs pour fibres optiques -- Partie 4: Famille de connecteurs du type SC

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SIST EN 61754-4:1997/A2:2002

Ta slovenski standard je istoveten z: **EN 61754-4:1997/A2:2001**

<https://standards.iteh.ai/catalog/standards/sist/c072122c-eb49-4e36-b95f-57754d9089c8/sist-en-61754-4-1997-a2-2002>

**ICS:**

33.180.20 Ú[ ç^: [ çæ) ^Á æ |æ^Á æ Fibre optic interconnecting devices  
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EUROPEAN STANDARD

**EN 61754-4/A2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2001

ICS 33.180.20

English version

**Fibre optic connector interfaces**  
**Part 4: Type SC connector family**  
(IEC 61754-4:1997/A2:2001)

Interfaces de connecteurs pour fibres  
optiques  
Partie 4: Famille de connecteurs  
du type SC  
(CEI 61754-4:1997/A2:2001)

Steckgesichter von Lichtwellenleiter-  
Steckverbindern  
Teil 4: Bauart SC Steckverbinderfamilie  
(IEC 61754-4:1997/A2:2001)

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This amendment A2 modifies the European Standard EN 61754-4:1997; it was approved by CENELEC on 2001-06-01. CENELEC members are bound to comply with the CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 Central Secretariat or to any CENELEC member.

This amendment 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 Central Secretariat has the same status as the official versions.

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

# CENELEC

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/1447/FDIS, future amendment 2 to IEC 61754-4:1997, 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 amendment A2 to EN 61754-4:1997 on 2001-06-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2002-03-01
- latest date by which the national standards conflicting  
with the amendment have to be withdrawn (dow) 2004-06-01

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## Endorsement notice

The text of amendment 2:2001 to the International Standard IEC 61754-4:1997 was approved by CENELEC as an amendment to the European Standard without any modification.

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC  
61754-4

1997

AMENDEMENT 2  
AMENDMENT 2  
2001-02

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Amendement 2

**Interfaces de connecteurs pour fibres optiques –**

**Partie 4:  
Famille de connecteurs du type SC**

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Amendment 2

[SIST EN 61754-4:1997/A2:2002](https://standards.iteh.ai/catalog/standards/sist-en-61754-4-1997-a2-2002)

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**Fibre optic connector interfaces –**

**Part 4:  
Type SC connector family**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

CODE PRIX  
PRICE CODE

**R**

*Pour prix, voir catalogue en vigueur  
For price, see current catalogue*

## FOREWORD

This amendment has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

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

FDIS	Report on voting
86B/1447/FDIS	86B/1500/RVD

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

The committee has decided that the contents of the base publication and its amendments will remain unchanged until 2002. At this date, the publication will be:

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

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### 2 Description

*Add, after the existing paragraph, the following new text:*

This part of IEC 61754 defines the standard interface dimensions of active device receptacles for the type SC connectors. The receptacles are used to retain the connector plug and mechanically maintain the optical datum target of the plugs at a defined position within the receptacle housings.

### 3 Interfaces

*Add, after Interface 4.2: simplex adaptor connector interface – push/pull, the following new standard interfaces:*

Interface 4-X1: simplex active device receptacle interface – for angled PC connector plug

Interface 4-X2: simplex active device receptacle interface – for PC connector plug

Interface 4-X3: duplex active device receptacle interface – for angled PC connector plug

Interface 4-X4: duplex active device receptacle interface – for PC connector plug

Add, after the last line "Interface 4-1 mates with Interface 4-2", the following new figures and tables:

<b>Interface</b>	<b>Interface 4-X1 (simplex, APC)</b>	<b>Interface 4-X2 (simplex, PC)</b>	<b>Interface 4-X3 (duplex, APC)</b>	<b>Interface 4-X4 (duplex, PC)</b>
Interface 4-1 (simplex plug, PC)	Not mate	Mate	Not mate	Mate
Interface 4-5 (simplex plug, APC)	Mate	Not mate	Mate	Not mate
Interface 4-3 (duplex plug, PC)	Not mate	Not mate	Not mate	Mate
Interface 4-8 (duplex plug, APC)	Not mate	Not mate	Mate	Not mate

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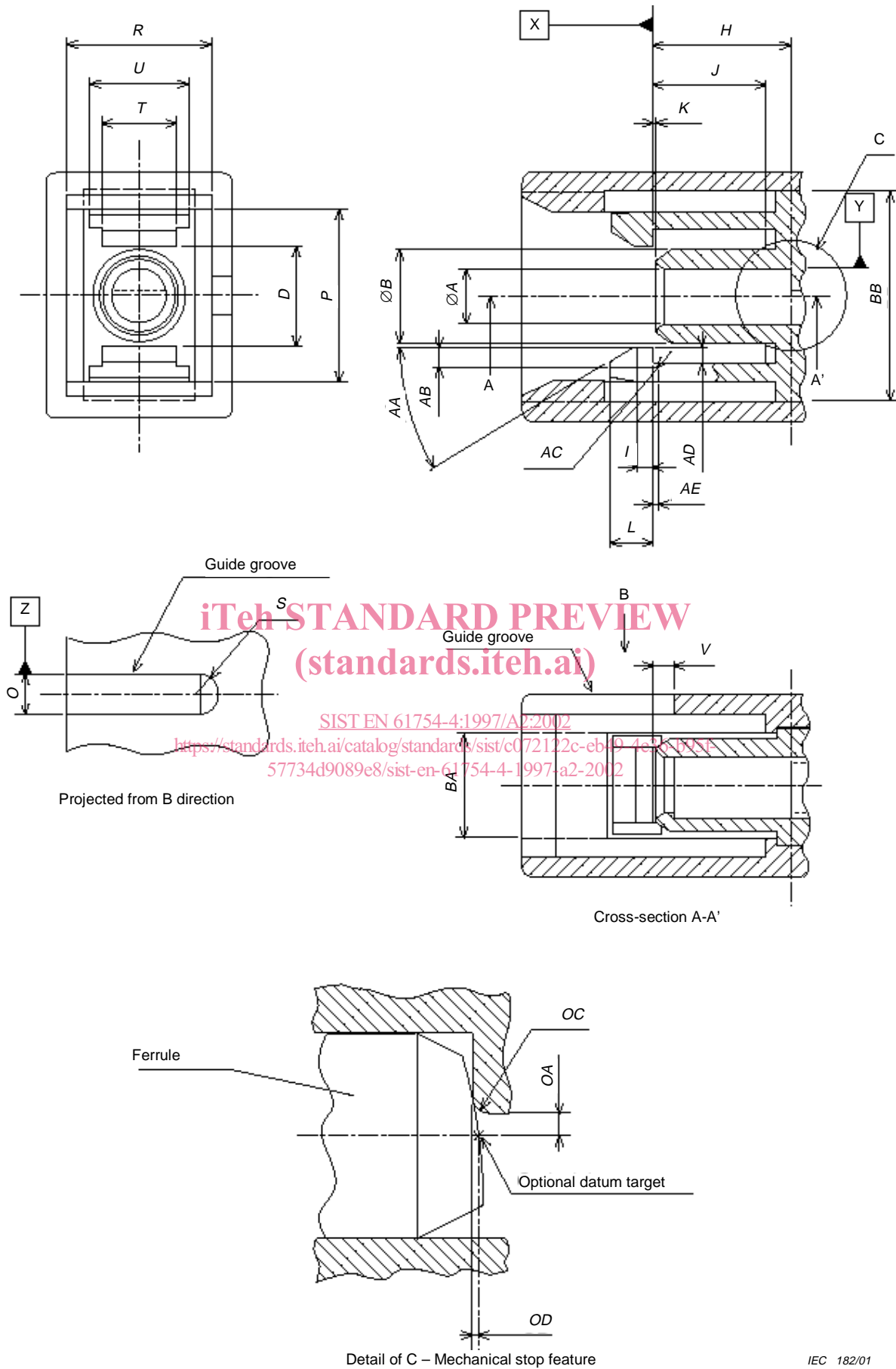


Figure 7a – Simplex active device receptacle interface for angled PC connector plug



**Table 7a – Dimensions of the simplex active device receptacle interface for angled PC connector plug**

Reference	Dimensions		Notes
	Minimum	Maximum	
A			See table 7b
B	4,39 mm	4,79 mm	
D	4,9 mm	5,5 mm	
H	6,9 mm	7,1 mm	1
I	0,4 mm	0,8 mm	
J	5,51 mm	5,90 mm	
K	0,06 mm	1,00 mm	
L	1,9 mm	2,1 mm	
O	2,0 mm	2,2 mm	
P	9,0 mm	9,2 mm	
R	7,4 mm	7,5 mm	
S	1,0 mm	1,1 mm	Radius
T	3,80 mm	4,04 mm	
U	5,0 mm	5,3 mm	
V	0,6 mm	1,6 mm	
AA	27°	33°	
AB	0,8 mm	1,0 mm	
AC	0,4 mm	0,6 mm	Radius
AD	0,7 mm	0,8 mm	
AE	0,4 mm	0,6 mm	
BA	5,4 mm	5,6 mm	2
BB	11,0 mm	11,2 mm	2
OA			1, see table 7d
OC	0 mm	0,05 mm	Radius
OD			1, see table 7d

NOTE 1 An example of a mechanical stop feature is shown in figure 7a. A mechanical stop feature is required in order to bring the fibre tip to the optical datum target. Due to the ferrule tip geometry variations, some means of providing a mechanical reference stop for all types is required. The mechanical stop feature incorporated into the reference should be capable of maintaining the optical datum target of both the fibre and the receptacle within the clearances specified in table 7d depending upon the application.

NOTE 2 This may be a structure as shown by a dashed line shown in figure 7a.

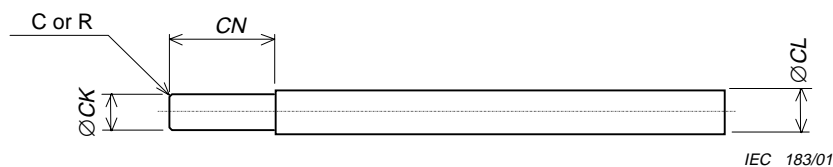
Table 7b – Alignment feature grade

Grade	Dimensions		Notes
	Minimum	Maximum	
1	2,500 mm	2,502 mm	1 and 2
2	2,501 mm	2,504 mm	1 and 2
3	2,501 mm	2,510 mm	1 and 2
4	2,501 mm	2,525 mm	1 and 2
5			Resilient sleeve, 2 and 3

NOTE 1 The connector alignment feature is a rigid bore.

NOTE 2 Add the grade number to the interface reference number.

NOTE 3 The connector alignment feature is a resilient sleeve. The feature accepts a gauge pin to the centre of the receptacle with a force of 2,9 N to 5,9 N. The centre of the receptacle is defined by the right side position of the dimension  $H$ . The measurement is performed using a single gauge pin.



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Figure 7b – Pin gauge for receptacle

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Table 7c – Pin gauge dimensions

Reference	Dimensions		Notes
	Minimum	Maximum	
CK	2,4985 mm	2,4995 mm	Surface roughness grade N4 (0,2 µm radius)
CL	2,8 mm	4,8 mm	
CN	7 mm	15 mm	

**Table 7d – Mechanical stop feature grade**

Grade	Dimensions		Dimensions $\mu\text{m}$	Notes
	OA minimum	OA maximum	OD clearance	
A	0,150 mm	0,2 mm	$\pm 15$	1 and 2
B	0,150 mm	0,35 mm	$\pm 40$	1 and 2
N	0,150 mm	–		1 and 2
X				2 and 3

NOTE 1 The connector alignment feature is a rigid bore.

NOTE 2 Add the grade number to the alignment feature grade number.

NOTE 3 The connector alignment feature is a resilient sleeve.

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