



SLOVENSKI STANDARD

SIST EN 61754-12:2001

01-februar-2001

Fibre optic interfaces - Part 12: Type FS connector family (IEC 61754-12:1999)

Fibre optic connector interfaces -- Part 12: Type FS connector family

Steckgesichter von Lichtwellenleiter-Steckverbindern -- Teil 12: Bauart FS
Steckverbinderfamilie

Interfaces de connecteurs pour fibres optiques -- Partie 12: Famille de connecteurs du
type FS

STANDARD PREVIEW
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Ta slovenski standard je istoveten z: **EN 61754-12:1999**

SIST EN 61754-12:2001
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ICS:

33.180.20	Povezovalne naprave za optična vlakna	Fibre optic interconnecting devices
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EUROPEAN STANDARD

EN 61754-12

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 1999

ICS 33.180.20

English version

Fibre optic connector interfaces
Part 12: Type FS connector family
(IEC 61754-12:1999)

Interfaces de connecteurs pour
fibres optiques
Partie 12: Famille de connecteurs
du type FS
(CEI 61754-12:1999)

Steckgesichter von
Lichtwellenleiter-Steckverbindern
Teil 12: Bauart FS Steckverbinderfamilie
(IEC 61754-12:1999)

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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 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 Central Secretariat has the same status as the official versions.

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CENELEC

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

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Foreword

The text of document 86B/1218/FDIS, future edition 1 of IEC 61754-12, 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 61754-12 on 1999-10-01.

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) 2000-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2002-10-01

Endorsement notice

The text of the International Standard IEC 61754-12:1999 was approved by CENELEC as a European Standard without any modification.

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NORME
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61754-12

Première édition
First edition
1999-08

Interfaces de connecteurs pour fibres optiques –

**Partie 12:
Famille de connecteurs de type FS**

STANDARD PREVIEW
Fibre optic connector interfaces –
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**Part 12:
Type FS connector family**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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For price, see current catalogue*

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC CONNECTOR INTERFACES –**Part 12: Type FS 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 61754-12 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/1218/FDIS	86B/1253/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 3.

FIBRE OPTIC CONNECTOR INTERFACES –

Part 12: Type FS connector family

1 Scope

This part of IEC 61754 defines the standard interface dimensions for the type FS connector family.

2 Description

The parent connector for the type FS connector family is a duplex connector set of plug and adaptor configuration. The plug has a pair of cylindrical spring loaded abutting ferrules of 2,5 mm nominal ferrule diameter. The optical alignment mechanism is a rigid bore or resilient sleeve contained within the adaptor. It includes a hand-released latch coupling. The plug has multiple keyway arrangements and the adaptor has multiple key configurations. The keying scheme is exclusionary and is used to limit mating between plug and adaptor to specific key combinations.

3 Interfaces

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This document contains the following standard interfaces:

Interface 12-1:	plug connector interface	A
Interface 12-2:	adaptor connector interface	A
Interface 12-3:	plug connector interface	B
Interface 12-4:	adaptor connector interface	B
Interface 12-5:	plug connector interface	M
Interface 12-6:	adaptor connector interface	M
Interface 12-7:	plug connector interface	S
Interface 12-8:	adaptor connector interface	S
Interface 12-9:	plug connector interface	SA
Interface 12-10:	adaptor connector interface	SA
Interface 12-11:	plug connector interface	SB
Interface 12-12:	adaptor connector interface	SB
Interface 12-13:	plug connector interface	SM
Interface 12-14:	adaptor connector interface	SM
Interface 12-15:	plug connector interface	SS
Interface 12-16:	adaptor connector interface	SS

4 Intermateable connectors

The following standards are intermateable; X denotes intermateable connectors.

Table 1a – Multimode key arrangements

		Adaptor					
Plug	Key	Key	A	B	M	S	
		Key	Variant	61754-12-2	61754-12-4	61754-12-6	61754-12-8
		A	61754-12-1	X	–	–	–
		B	61754-12-3	–	X	–	–
		M	61754-12-5	–	–	X	–
		S	61754-12-7	X	X	X	X

Table 1b – Single-mode key arrangements

		Adaptor					
Plug	Key	Key	SA	SB	SM	SS	
		Key	Variant	61754-12-10	61754-12-12	61754-12-14	61754-12-16
		SA	61754-12-9	X	–	–	–
		SB	61754-12-11	–	X	–	–
		SM	61754-12-13	–	–	X	–
		SS	61754-12-15	X	X	X	X

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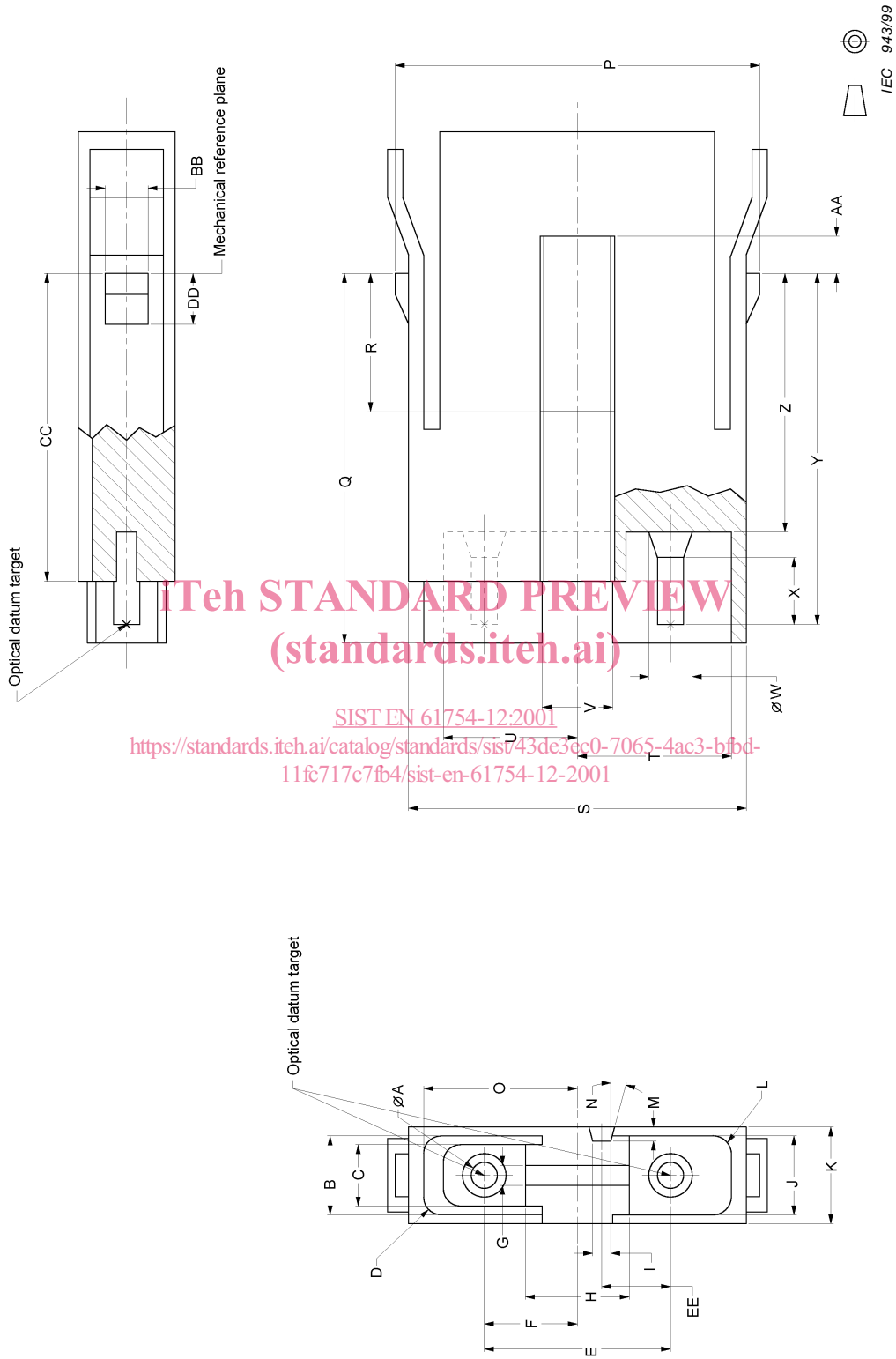


Figure 1 – Plug connector interface – Key type A

Table 2 – Dimensions of plug interface – Key type A

Reference	Minimum	Maximum	Basic	Notes
A	2,498 mm	2,5 mm		
B	7,10 mm	7,52 mm		
C	5,87 mm	6,15 mm		
D	1,65 mm	2,20 mm		Radius
E			17,78 mm	
F			8,89 mm	
G	1,9 mm	3,90 mm		
H	–	9,91 mm		
I	1,80 mm	2,25 mm		A key
J	7,57 mm	7,80 mm		
K	9,00 mm	9,25 mm		
L	–	1,78 mm		Radius
M	1,35 mm	–		A key
N	13°	17°		A key
O	–	14,68 mm		
P	34 mm	34,80 mm		2
Q	33,90 mm	35,31 mm		
R	13,21 mm	24 mm		3
S	32 mm	32,23 mm		
T	14,71 mm	15 mm		
U	12,8 mm	12,93 mm		
V	6,73 mm	7,3 mm		
W	3,25 mm	4,16 mm		
X	6,4 mm	8,7 mm		
Y		33,53 mm		1
Z	23,29 mm	24,69 mm		
AA	3,56 mm	–		
BB	2,5 mm	4,09 mm		
CC	28,62 mm	29,39 mm		
DD	2,5 mm	5,08 mm		
EE			6,61 mm	A key

NOTE 1 – The dimension is given in the free state. The ferrules shall be capable of moving to reduce the dimension to 32,84 mm. The plug ferrule end shall adhere to the optical reference plane with a static force of 6,7 N minimum to 13,3 N maximum per ferrule.

NOTE 2 – The dimension is given in the free state. Coupling latches shall be capable of moving to reduce the dimension to 32,52 mm.

NOTE 3 – Start of keying feature.

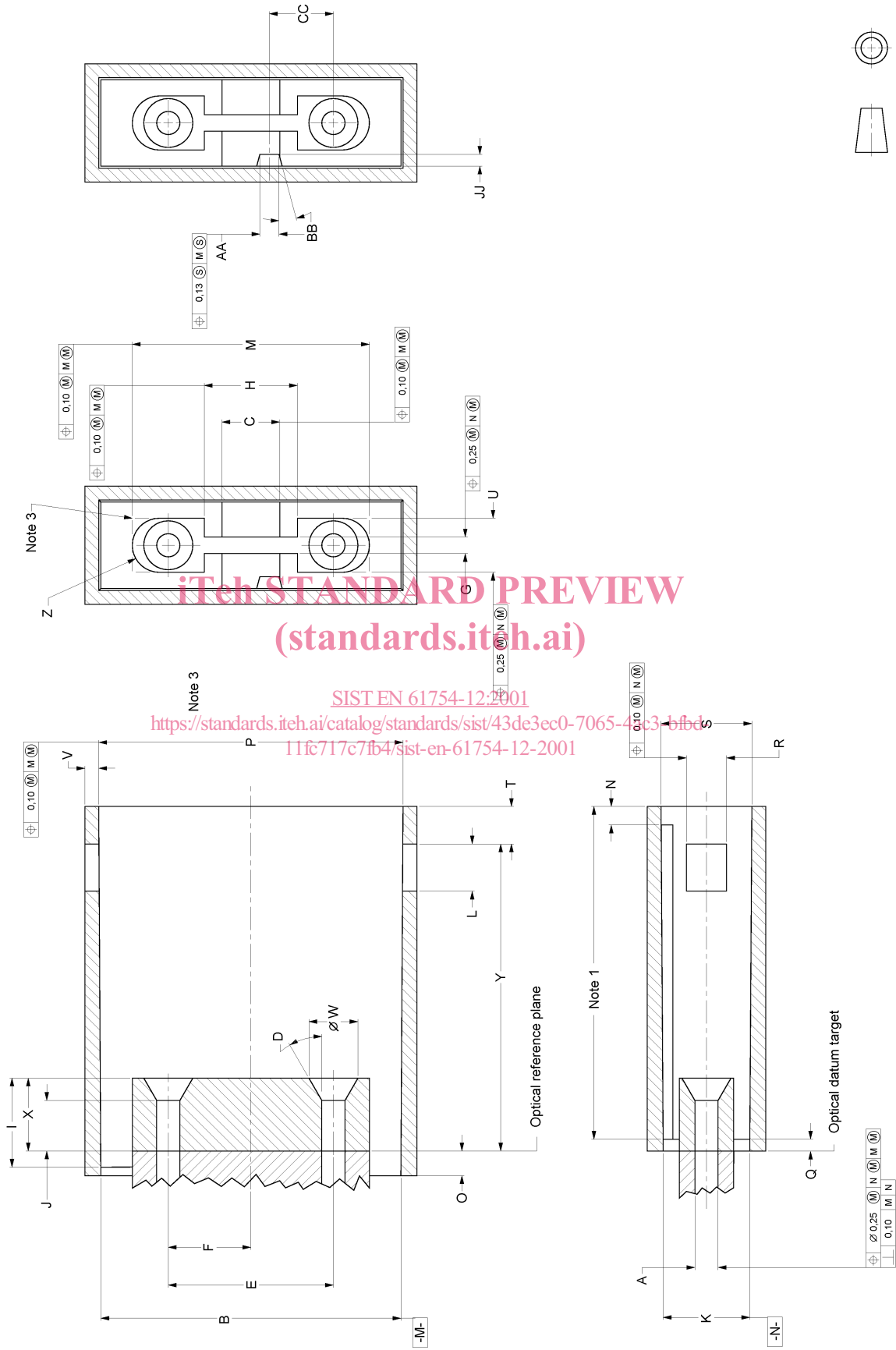


Figure 2 – Adaptor connector interface – Key type A

Table 3a – Dimensions of the adaptor interface – Key type A

Reference	Minimum	Maximum	Basic	Notes
A				See tolerance grade table
B	32,26 mm	32,36 mm		2
C	–	6,22 mm		
D	29°	31°		
E			17,78 mm	
F			8,89 mm	
G	–	1,78 mm		
H	10,03 mm	10,3 mm		
I	9,3 mm	9,9 mm		3
J	4,57 mm	6,35 mm		
K	9,27 mm	9,37 mm		
L	5,1 mm	5,5 mm		
M	–	25,53 mm		
N	1,17 mm	9,37 mm		
O	2,54 mm	2,8 mm		
P	32,52 mm	32,9 mm		
Q	1,14 mm	1,4 mm		
R	4,32 mm	4,8 mm		
S	9,53 mm	9,91 mm		
T	4,04 mm			
U	–	5,84 mm		
V	1,52 mm	–		
W	4,1 mm	–		
X	7,65 mm	8 mm		
Y	32,85 mm	33,45 mm		
Z	2,79 mm	–		Radius
AA	1,52 mm	1,78 mm		A key
BB	13°	17°		A key
CC			6,61 mm	A key
JJ	1,14 mm	1,27 mm		

NOTE 1 – Not specified.

NOTE 2 – Dimensions at optical reference plane.

NOTE 3 – The square corner feature is optional.