
Vmesniki optičnih konektorjev – 23. del: Konektorska družina tipa LX.5 (IEC 61754-23:2005)

Fibre optic connector interfaces - Part 23: Type LX.5 connector family (IEC 61754-23:2005)

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EUROPEAN STANDARD

EN 61754-23

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2005

ICS 33.180.20

English version

Fibre optic connector interfaces
Part 23: Type LX.5 connector family
(IEC 61754-23:2005)

Interfaces de connecteurs
pour fibres optiques
Partie 23: Famille de connecteurs
de type LX.5
(CEI 61754-23:2005)

Steckgesichter von Lichtwellenleiter-
Steckverbindern
Teil 23: Steckverbinderfamilie
der Bauart LX.5
(IEC 61754-23:2005)

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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/2108/FDIS, future edition 1 of IEC 61754-23, 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 61754-23 on 2005-07-01.

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) 2006-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2008-07-01

Endorsement notice

The text of the International Standard IEC 61754-23:2005 was approved by CENELEC as a European Standard without any modification.

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

61754-23

Première édition
First edition
2005-06

Interfaces de connecteurs pour fibres optiques –

Partie 23:

Famille de connecteurs de type LX.5

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Fibre optic connector interfaces –
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Part 23:

Type LX.5 connector family

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FIBRE OPTIC CONNECTOR INTERFACES –

Part 23: Type LX.5 connector family

FOREWORD

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International Standard IEC 61754-23 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/2108/FDIS	86B/2134/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.

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 the maintenance result date indicated on the IEC web site 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.

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FIBRE OPTIC CONNECTOR INTERFACES –

Part 23: Type LX.5 connector family

1 Scope

This part of IEC 61754 defines the standard interface dimensions for the type LX.5 family of connectors.

2 Description

The parent connector for the type LX.5 connector family is a single position plug connector set of plug/adaptor configuration which is characterized by a 1,25 mm nominal diameter 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 of a resilient sleeve style.

3 Interfaces

The subsequent pages define the standard interfaces for the type LX.5 connector family. This document contains the following standard interfaces.

Interface 23-1: Simplex plug connector interface – PC

Interface 23-2: Simplex adaptor connector interface

Interface 23-3: Duplex plug connector interface – PC

Interface 23-4: Duplex adaptor connector interface

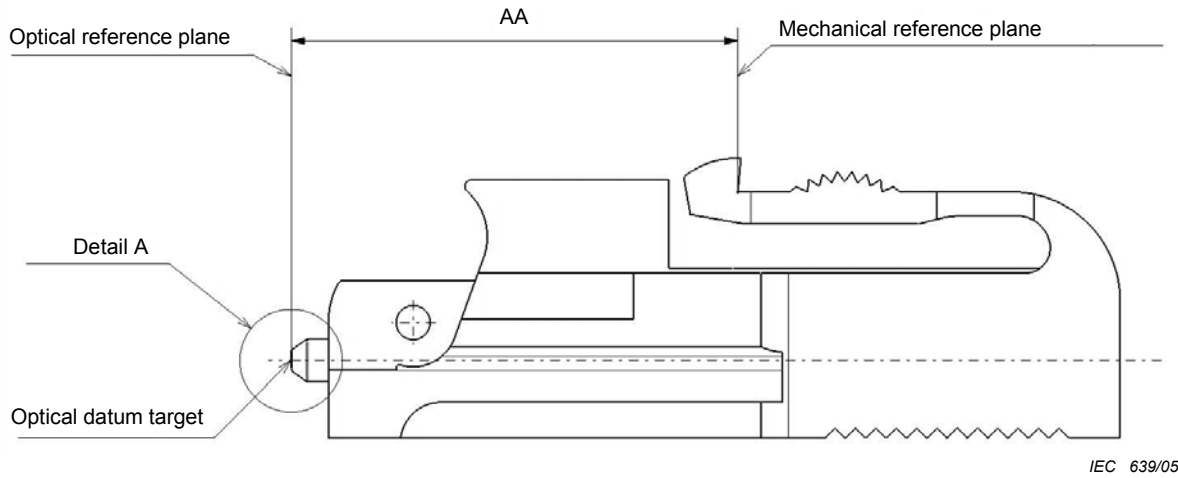
Interface 23-5: Simplex plug connector interface – APC 8°

Interface 23-6: duplex plug connector interface – APC 8°

The following plugs and adaptors are intermateable.

Plugs (polishing condition)	Adaptors Interfaces	
	61754-23-2	61754-23-4
Interface 23-1	Mate	Mate
Interface 23-3	Not mate	Mate
Interface 23-5	Mate	Mate
Interface 23-6	Not mate	Mate

Plugs (polishing condition)	Adaptors interfaces			
	61754-23-1	61754-23-3	61754-23-5	61754-23-6
Interface 23-1	Mate	Mate	Not mate	Not mate
Interface 23-3	Mate	Mate	Not mate	Not mate
Interface 23-5	Not mate	Not mate	Mate	Mate
Interface 23-6	Not mate	Not mate	Mate	Mate



NOTE Shown without shutter to make features more visible (see Figure 2b for shutter details)

Figure 1 – Plug connector interface reference planes

The plug of interface 23-1 and interface 23-3 has a ferrule with a spherically polished endface, and realizes physical contact (PC).

Table 1 – Dimensions of the PC polished end face

Reference	Dimensions mm		Notes
	Minimum	Maximum	
A	-	-	Diameter, see Table 4
AE	0,6	0,85	Pedestal diameter
AF	7	25	Radius
AG	32,5	37,5	Degrees

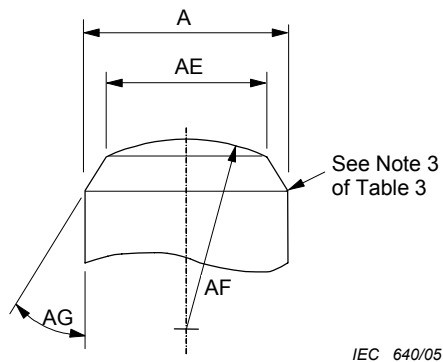


Figure 1a – Detail A of Figure 1 – PC polish plug connector interface – Expanded view drawing not-to-scale

The plug of interface 23-5 and interface 23-6 has a ferrule with a spherically polished angled endface which may take any of the APC forms shown in detail A of Figure 1 and realizes a physical contact.

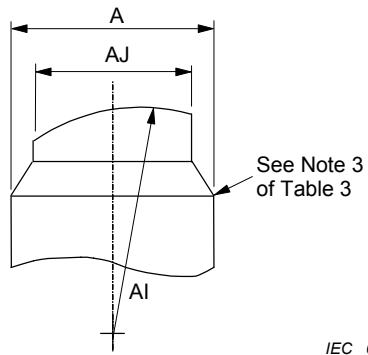


Figure 1b)1 – APC polish, stepped

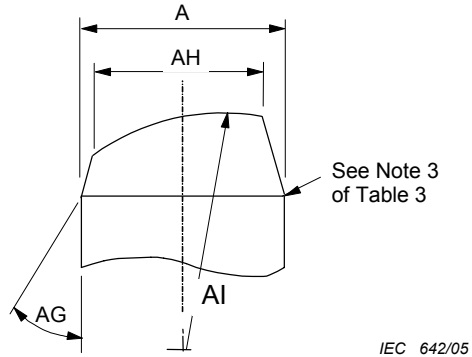


Figure 1b)2 – APC polish conical

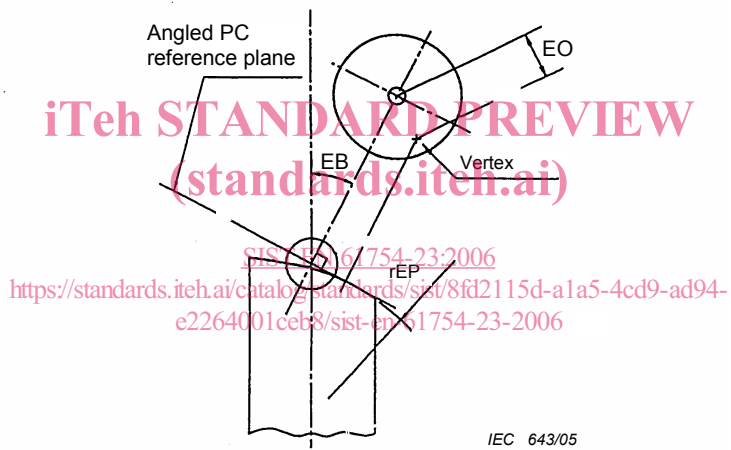


Figure 1b)3 – APC ferrule endface geometry

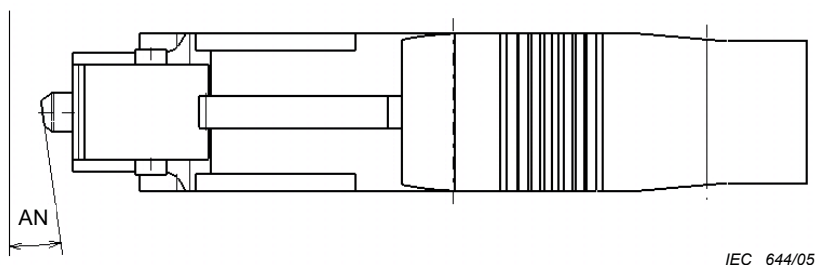


Figure 1b)4 – Top view

Figure 1b – Detail A of Figure 1 – APC polish plug connector interface – Expanded view drawings not-to-scale