



SLOVENSKI STANDARD SIST EN 61754-15:2002

01-september-2002

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SIST EN 186270:1999

Fibre optic connector for interfaces - Part 15: Type LSH connector family (IEC 61754-15:1999)

Fibre optic connector interfaces -- Part 15: Type LSH connector family

Steckgesichter für Lichtwellenleiter-Steckverbinder -- Teil 15: Bauart LSH Steckverbinderfamilie

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Interfaces de connecteurs pour fibres optiques -- Partie 15: Famille de connecteurs de type LSH

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Ta slovenski standard je istoveten z: EN 61754-15:2001

ICS:

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

EN 61754-15

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2001

ICS 33.180.20

English version

Fibre optic connector interfaces
Part 15: Type LSH connector family
(IEC 61754-15:1999)

Interfaces de connecteurs pour
fibres optiques
Partie 15: Famille de connecteurs
de type LSH
(CEI 61754-15:1999)

Steckgesichter für Lichtwellenleiter-
Steckverbinder
Teil 15: Bauart LSH Steckverbinderfamilie
(IEC 61754-15:1999)

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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/1214/FDIS, future edition 1 of IEC 61754-15, 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 61754-15 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) 2002-02-01
- 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with the EN have to be withdrawn (dow) 2002-10-01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 61754-15:1999 was approved by CENELEC as a European Standard without any modification.

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

61754-15

Première édition
First edition
1999-09

Interfaces de connecteurs pour fibres optiques –

**Partie 15:
Famille de connecteurs de type LSH**

STANDARD PREVIEW
Fibre optic connector interfaces –
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Type LSH connector family**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC CONNECTOR INTERFACES –

Part 15: Type LSH connector family

FOREWORD

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International Standard IEC 61754-15 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/1214/FDIS | 86B/1251/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.

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.

FIBRE OPTIC CONNECTOR INTERFACES –

Part 15: Type LSH connector family

1 Scope

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

2 Description

The parent connector for the type LSH connector family is a single-position plug connector which is characterized by a 2,5 mm nominal ferrule diameter. It includes a push-click-pull coupling mechanism, which is spring-loaded relative to the ferrule in the direction of the optical axis. The optical alignment mechanism of the connectors is of a resilient sleeve style.

3 Interfaces

The pages that follow define the standard interfaces for the type LSH connector family.

This standard contains the following standard interfaces:

- 61754-15-1 Simplex plug connector PC-interface
- 61754-15-2 Simplex adaptor interface
- 61754-15-3 Duplex plug connector PC-interface
- 61754-15-4 Duplex adaptor interface
- 61754-15-5 Simplex plug connector interface – APC 8°
- 61754-15-6 Duplex plug connector interface – APC 8°
- 61754-15-7 Active device interface

The following standards are intermateable.

| Plugs | Adaptors | | Active device |
|------------|------------|------------|---------------|
| | 61754-15-2 | 61754-15-4 | 61754-15-7 |
| 61754-15-1 | Mate | Mate | Mate |
| 61754-15-3 | Not mate | Mate | Not mate |
| 61754-15-5 | Mate | Mate | Mate |
| 61754-15-6 | Not mate | Mate | Not mate |

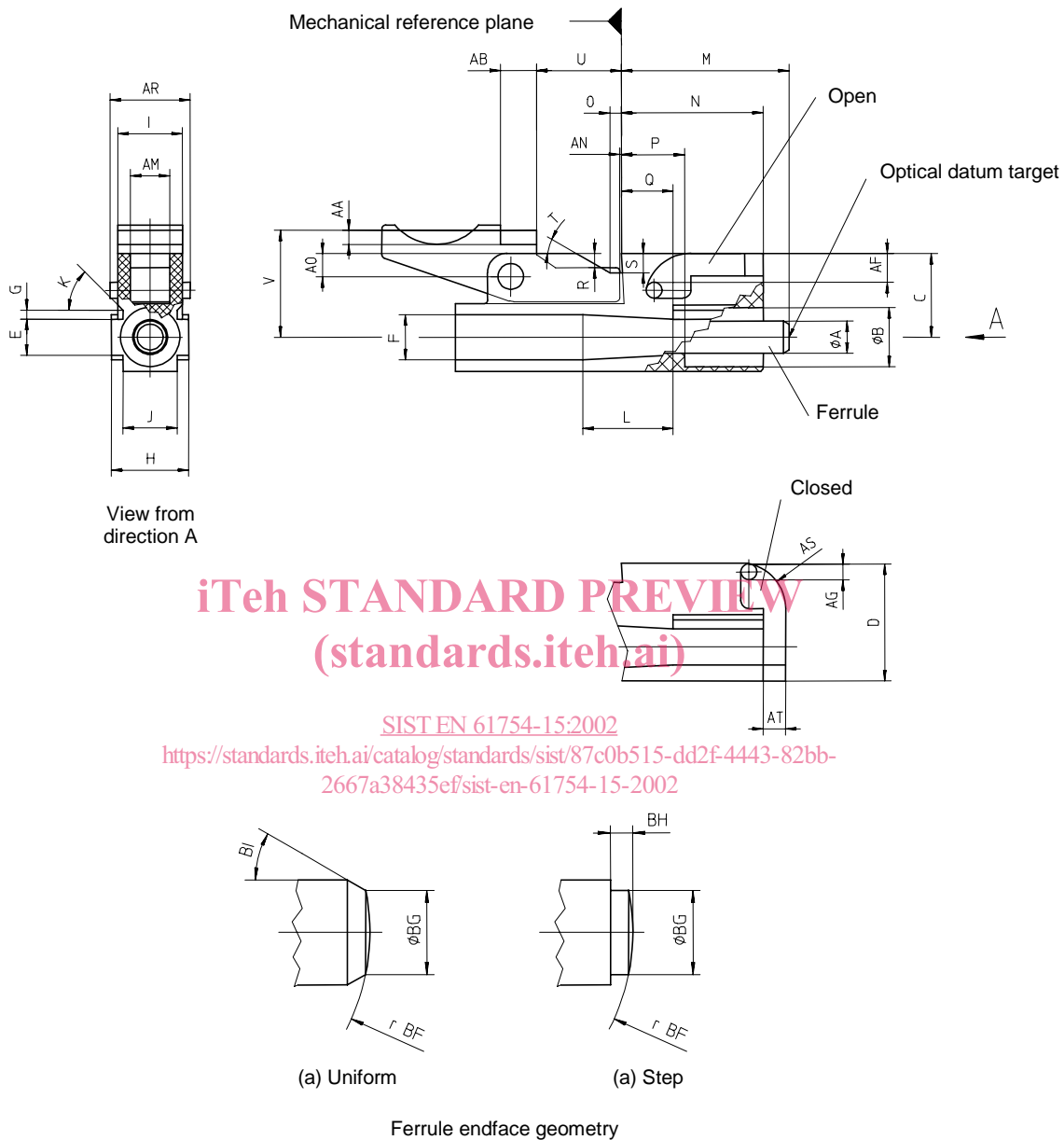


Figure 1 – Simplex plug connector interface

Table 1a – Dimensions of the simplex plug connector interface

| Reference | Dimensions | | | Notes |
|-----------|------------|-------|----------|-----------------------------|
| | Minimum | Basic | Maximum | |
| A | – | | – | 1 See table 1b |
| B | 4,45 mm | | 4,55 mm | Diameter |
| C | 6,25 mm | | 6,29 mm | |
| D | 8,82 mm | | 8,88 mm | |
| E | 2,75 mm | | 2,79 mm | |
| F | 2,95 mm | | 2,99 mm | |
| G | 0,67 mm | | 1 mm | |
| H | 5,95 mm | | 5,98 mm | |
| I | 4,93 mm | | 4,98 mm | |
| J | 4,13 mm | | 4,18 mm | |
| K | 45° | | 60° | |
| L | 6,1 mm | | 6,5 mm | |
| M | 12,05 mm | | 12,2 mm | 2 |
| N | 10,9 mm | | 11,05 mm | |
| O | 0,9 mm | | 1,5 mm | |
| P | 4,5 mm | | 5 mm | |
| Q | 3,9 mm | | 4,1 mm | |
| R | 1,2 mm | | 1,5 mm | |
| S | 1,25 mm | | 1,35 mm | |
| T | 25° | | 36° | |
| U | 6,8 mm | | 7,2 mm | |
| V | 8,2 mm | | 8,4 mm | |
| AA | 0,9 mm | | 1,3 mm | |
| AB | 2,5 mm | | 2,8 mm | |
| AF | 2,21 mm | | 2,25 mm | |
| AG | 1,15 mm | | 1,2 mm | |
| AM | 3 mm | | 3,1 mm | |
| AN | 0,1 mm | | 0,3 mm | |
| AO | 1,5 mm | | 2 mm | |
| AR | 6,1 mm | | 6,2 mm | |
| AS | 2,8 mm | | 3,5 mm | |
| AT | 1,65 mm | | 1,7 mm | |
| BF | 10 mm | | 25 mm | Radius 3, 4 |
| BG | – | | – | Diameter, 1 See table 1b |
| BI | – | 30° | – | 5 |
| BH | 0,2 mm | | 0,5 mm | 5 |

Table 1a – Dimensions of the simplex plug connector interface (concluded)

NOTE 1 – A chamfer or radius is allowed to a maximum depth of 1 mm from the ferrule endface.

NOTE 2 – Dimension M is given for plug endface when not mated. It is movable by a certain axial compression force, with direct contacting endfaces, and therefore dimension M is variable. Ferrule compression force shall be 7,8 N to 11,8 N when the dimension M is 11,9 mm to 12 mm.

NOTE 3 – Uniform (a) or step (b).

NOTE 4 – Dome eccentricity is defined as the distance between the ferrule center and the vertex of the spherical polished endface relative to a plane perpendicular to the ferrule's axis. Dome eccentricity shall be less than 50 µm.

NOTE 5 – BH applies only to step (b), BI applies only to uniform (a).

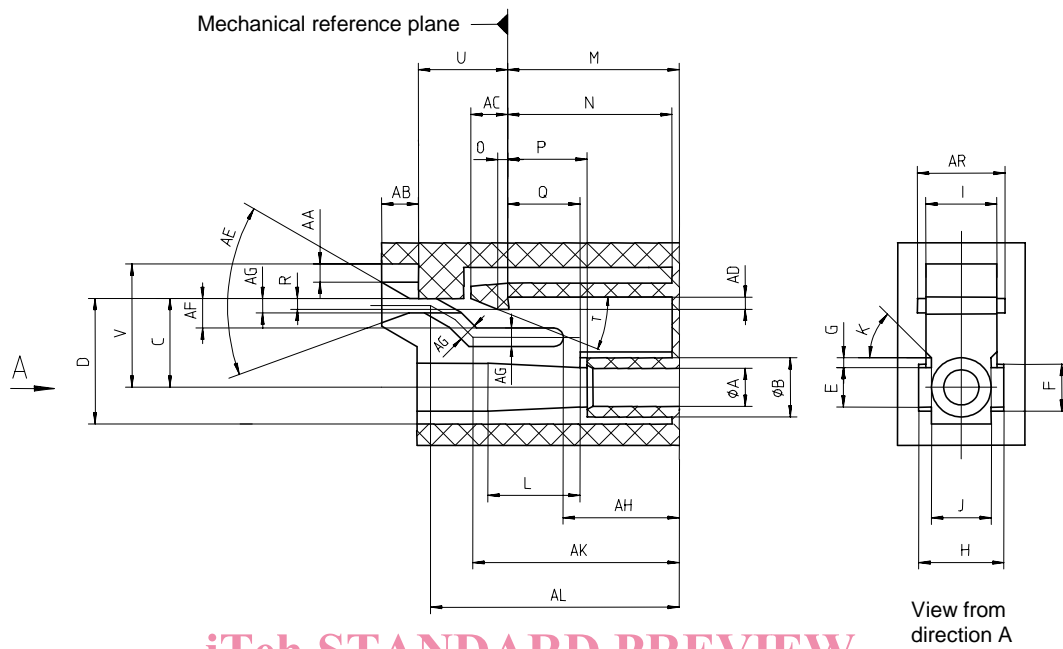
Table 1b – Ferrule and endface grade table for simplex plug connector interface

| Grade | A | | BG (a) Uniform | | BG (b) Step | |
|-------|-----------|-----------|-------------------|---------|----------------|---------|
| | Minimum | Maximum | Minimum | Maximum | Minimum | Maximum |
| 1 | 2,4990 mm | 2,4995 mm | 1,75 mm | 2,26 mm | 1,7 mm | 1,9 mm |
| 2 | 2,4985 mm | 2,4995 mm | 1,75 mm | 2,26 mm | 1,7 mm | 1,9 mm |

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Figure 2a ~~IS Simplex adaptor~~ interface

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