

Fibre optic connector interfaces —

Part 15: Type LSH connector family

The European Standard EN 61754-15:2001 has the status of a
British Standard

ICS 33.180.20

National foreword

This British Standard is the official English language version of EN 61754-15:2001. It is identical with IEC 61754-15:1999.

The UK participation in its preparation was entrusted by Technical Committee GEL/86, Fibre optics, to Subcommittee GEL/86/2, Interconnecting devices and passive components, which has the responsibility to:

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Part 15: Type LSH connector family
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Interfaces de connecteurs pour
fibres optiques
Partie 15: Famille de connecteurs
de type LSH
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Steckgesichter für Lichtwellenleiter-
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Teil 15: Bauart LSH Steckverbinderfamilie
(IEC 61754-15:1999)

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
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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
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- 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with the EN have to be withdrawn (dow) 2002-10-01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.

CONTENTS

	Page
Clause	
1 Scope	4
2 Description.....	4
3 Interfaces.....	4
Figures.....	5

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

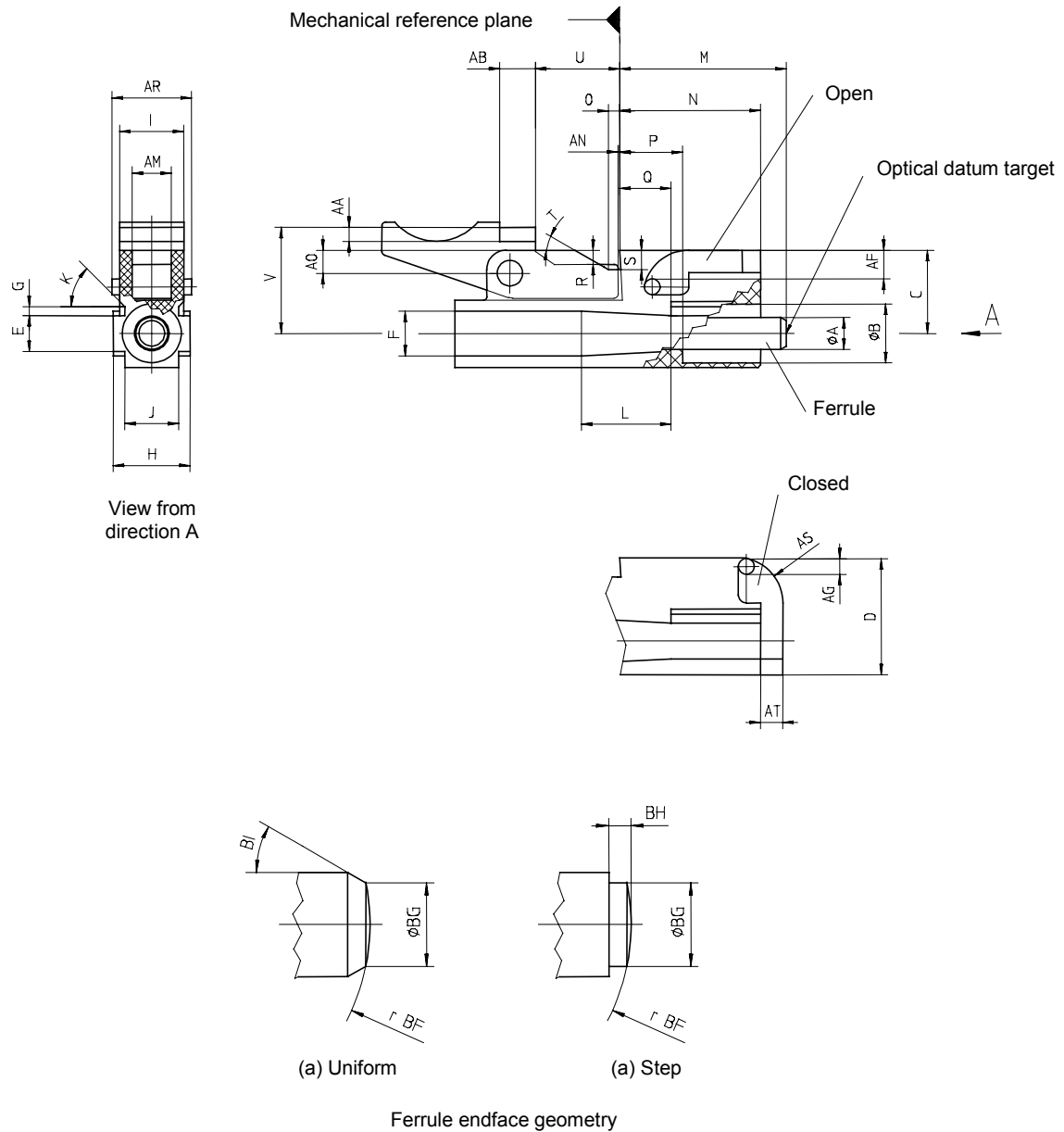
The pages that follow define the standard interfaces for the type LSH connector family.

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



IEC 967/99

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