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Irish Standard  
I.S. EN 50377-8-12:2010

Connector sets and interconnect components to be used in optical fibre communication systems - Product specifications -- Part 8-12: Type LSH-APC simplex terminated on IEC 60793-2-50 category B1.1 and B1.3 singlemode fibre with titanium composite ferrule for category U

## I.S. EN 50377-8-12:2010

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EUROPEAN STANDARD

**EN 50377-8-12**

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2010

ICS 33.180.20

English version

**Connector sets and interconnect components to be used in optical fibre communication systems - Product specifications -  
Part 8-12: Type LSH-APC simplex terminated on IEC 60793-2-50 category B1.1 and B1.3 singlemode fibre with titanium composite ferrule for category U**

Jeux de connecteurs et composants d'interconnexion à utiliser dans les systèmes de communication par fibres optiques - Spécifications de produits - Partie 8-12: Type LSH-APC simplex raccordé sur des fibres unimodales de catégorie B1.1 et B1.3 de la CEI 60793-2-50, avec fêrulle en composite de titane, pour utilisation en catégorie U

Steckverbindersätze und Verbindungsbaulemente für Lichtwellenleiter-Datenübertragungssysteme - Produktnormen - Teil 8-12: Bauart LSH-APC-Simplex zum Anschluss an Einmodenfasern der Typen B1.1 und B1.3 nach IEC 60793-2-50 mit Titanium-Komposit-Stift für die Kategorie U

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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

This European Standard was prepared by the Technical Committee CENELEC TC 86BXA, Fibre optic interconnect, passive and connectorised components. It was submitted to the formal vote and approved by CENELEC as EN 50377-8-12 on 2010-04-01.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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with the EN have to be withdrawn (dow) 2013-04-01
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**Connector sets and interconnect components  
to be used in optical fibre communication systems - Product specifications**

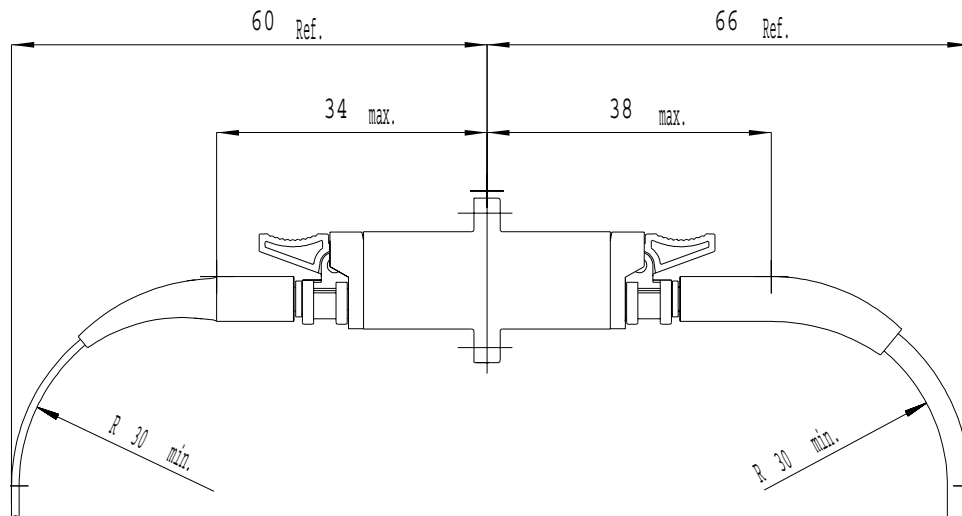
**Part 8-12: Type LSH-APC simplex terminated on IEC 60793-2-50 category B1.1 and B1.3  
single mode fibre with titanium composite ferrule for Category U**

Description		Application:	Performance
Coupling mechanism:	latched push-pull		For use in Category U (uncontrolled environment)
Configuration:	plug/adaptor/plug	Attenuation grades: (random mate)	B: $\leq 0,12$ dB mean $\leq 0,25$ dB for $> 97$ % of measurements C: $\leq 0,25$ dB mean $\leq 0,50$ dB for $> 97$ % of measurements
Fibre category:	EN 60793-2-50 type B1.1 and B1.3	Return loss grades:	1: $\geq 60$ dB (mated) $\geq 55$ dB (unmated)
Cable type:	see Table 3		

**Related documents:**

- EN 60794-2      Optical fibre cables – Part 2: Indoor cables – Sectional specification (IEC 60794-2)
- EN 61300 (series)      Fibre optic interconnecting devices and passive components – Basic test and measurement procedures (IEC 61300 series)
- EN 61753-1      Fibre optic interconnecting devices and passive components performance standard – Part 1: General and guidance for performance standards (IEC 61753-1)
- EN 61754-15      Fibre optic interconnecting devices and passive components – Fibre optic connector interfaces – Part 15: Type LSH connector family (IEC 61754-15)
- EN 61755-1      Fibre optic connector optical interfaces – Part 1: Optical interfaces for single mode non-dispersion shifted fibres – General and guidance (IEC 61755-1)
- EN 61755-3-8      Fibre optic interconnecting devices and passive components – Fibre optic connector optical interfaces – Part 3-8: Optical interface, 2,5 mm and 1,25 mm diameter cylindrical 8 degrees angled-APC composite ferrule using titanium as fibre surrounding material, single mode fibre (IEC 61755-3-8)

**Outline and maximum dimensions:**



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## 1 Scope

### 1.1 Product definition

This standard contains the initial, start of life dimensional, optical, mechanical and environmental performance requirements which a terminated and assembled singlemode resilient alignment sleeve LSH-APC 8° simplex connector set (plug-adaptor-plug), adaptor and patchcord must meet in order for it to be categorised as an EN standard product.

Since different variants and grades of performance are permitted, product marking details are given in 3.5.

### 1.2 Intermateability

Although all products conforming to the requirements of this standard will intermate, the resulting level of random attenuation performance will only be ensured in accordance with Table 1. The intention is that this will be true irrespective of the manufacturing source(s) of the product.

When intermating plug variants having different attenuation grades the resulting level of attenuation can not be assured to be any better than the worst attenuation grade.

The intermating of a grade C plug with a grade B plug will result in an uncertain level of random attenuation performance.

**Table 1 – Ensured level of random attenuation**

Plug variant/Attenuation grade	C	B
C	C	C
B	C	B

### 1.3 Operating environment

The tests selected combined with the severities and durations are representative of a Category U environment as defined in EN 61753-1.

### 1.4 Reliability

Whilst the anticipated service life expectancy of the product in this environment is 20 years, compliance with this standard does not guarantee the reliability of the product. This should be predicted using a recognised reliability assessment programme.

### 1.5 Quality assurance

Compliance with this standard does not guarantee the manufacturing consistency of the product. This should be maintained using a recognised quality assurance programme.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 60793-2-50	Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres (IEC 60793-2-50)
EN 61300-2-1	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-1: Tests - Vibration (sinusoidal) (IEC 61300-2-1)
EN 61300-2-2	Part 2-2: Tests – Mating durability (IEC 61300-2-2)



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