Irish Standard
I.S. EN 62664-1-1:2013

Fibre optic interconnecting devices and passive components - Fibre optic connector product specifications -- Part 1-1: LC-PC duplex multimode connectors terminated on IEC 60793-2 -10 category A1a fibre (IEC 62664-1 -1:2013 (EQV))

I.S. EN 62664-1-1:2013

Incorporating amendments/corrigenda issued since publication:

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Údarás um Chaighdeáin Náisiúnta na hÉireann

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62664-1-1

May 2013

ICS 33.180.20

English version

Fibre optic interconnecting devices and passive components - Fibre optic connector product specifications - Part 1-1: LC-PC duplex multimode connectors terminated on IEC 60793-2-10 category A1a fibre

(IEC 62664-1-1:2013)

Dispositifs d'interconnexion et composants passifs à fibres optiques - Spécifications de produits pour connecteurs à fibres optiques - Partie 1-1: Connecteurs multimodaux duplex LC-PC câblés sur une fibre de catégorie A1a selon la CEI 60793-2-10 (CEI 62664-1-1:2013)

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Lichtwellenleiter - Steckverbinder Produktnormen - Teil 1-1: LC-PC-Duplex Mehrmoden-Steckverbinder zum Anschluss an Fasern der Kategorie A1a nach IEC 60793-2-10 (IEC 62664-1-1:2013)

This European Standard was approved by CENELEC on 2013-03-27. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 86B/3550/FDIS, future edition 1 of IEC 62664-1-1, 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 approved by CENELEC as EN 62664-1-1:2013.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2013-12-27
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2016-03-27

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

Endorsement notice

The text of the International Standard IEC 62664-1-1:2013 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60794-2-11	NOTE	Harmonised as EN 60794-2-11.
IEC 60794-2-50	NOTE	Harmonised as EN 60794-2-50.
IEC 61300 series	NOTE	Harmonised in EN 61300 series.
IEC 61300-3-23	NOTE	Harmonised as EN 61300-3-23.
IEC 61300-3-35	NOTE	Harmonised as EN 61300-3-35.
IEC 61753-022-2	NOTE	Harmonised as EN 61753-022-2.
IEC 61754-20	NOTE	Harmonised as EN 61754-20.
ISO 8015	NOTE	Harmonised as EN ISO 8015.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60793-2-10	-	Optical fibres - Part 2-10: Product specifications - Sectional specification for category A1 multimode fibres	EN 60793-2-10	-
IEC 61300-2-1	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-1: Tests - Vibration (sinusoidal)	EN 61300-2-1	-
IEC 61300-2-2	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-2: Tests - Mating durability	EN 61300-2-2	-
IEC 61300-2-4	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-4: Tests - Fibre/cable retention	EN 61300-2-4	-
IEC 61300-2-6	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-6: Tests - Tensile strength of coupling mechanism	EN 61300-2-6	-
IEC 61300-2-12	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-12: Tests - Impact	EN 61300-2-12	-
IEC 61300-2-17	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-17: Tests - Cold	EN 61300-2-17	-
IEC 61300-2-18	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-18: Tests - Dry heat - High temperature endurance	EN 61300-2-18	-
IEC 61300-2-19	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-19: Tests - Damp heat (steady state)	EN 61300-2-19	-
IEC 61300-2-22	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-22: Tests - Change of temperature	EN 61300-2-22	-

Publication	Year	Title	EN/HD	Year
IEC 61300-2-42	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-42: Tests - Static side load for connectors	EN 61300-2-42	-
IEC 61300-2-44	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-44: Tests - Flexing of the strain relief of fibre optic devices	EN 61300-2-44	-
IEC 61300-3-6	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-6: Examinations and measurements - Return loss	EN 61300-3-6	-
IEC 61300-3-28	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-28: Examinations and measurements - Transient loss	EN 61300-3-28	-
IEC 61300-3-34	-	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-34: Examinations and measurements - Attenuation of random mated connectors	EN 61300-3-34	-
IEC 62614	-	Fibre optics - Launch condition requirements for measuring multimode attenuation	EN 62614	-
ISO/IEC 11801	-	Information technology - Generic cabling for customer premises	-	-

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC CONNECTOR PRODUCT SPECIFICATIONS –

Part 1-1: LC-PC duplex multimode connectors terminated on IEC 60793-2-10 category A1a fibre

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. 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 62664-1-1 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/3550/FDIS	86B/3592/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.

A list of all parts in the IEC 62664 series, published under the general title *Fibre optic interconnecting devices and passive components – Fibre optic connector product specifications,* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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.

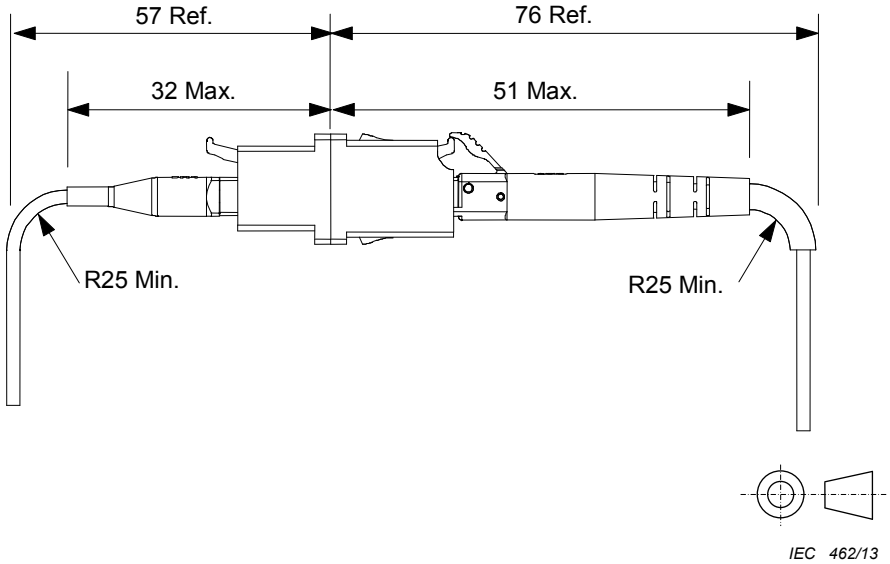
COVER SHEET

Connector sets and interconnect components to be used in optical fibre communication systems – Product specifications

Part 1-1: LC-PC duplex multimode terminated on IEC 60793-2-10 category A1a fibre

Description		Performance	
Coupling mechanism:	latch push-pull	Application:	For use in customer premises IEC category C environment
Configuration:	plug/adaptor/plug	Random mate attenuation:	Grade B_M: 0,60 dB for ≥ 97% and 0,35 dB mean @ 850 nm Grade C_M: 1,0 dB for ≥ 97% and 0.50 dB mean @ 850 nm
Fibre category:	IEC 60793-2-10, category A1a		
Cable type	see Clause 4	Random mate return loss:	≥ 20 dB

Outline and maximum dimensions:



IEC 462/13

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC CONNECTOR PRODUCT SPECIFICATIONS –

Part 1-1: LC-PC duplex multimode connectors terminated on IEC 60793-2-10 category A1a fibre

1 Scope

This International Standard contains the initial, start-of-life dimensional, optical, mechanical and environmental performance requirements which a terminated and assembled multimode resilient alignment sleeve LC-PC duplex connector set (plug/adaptor/plug) should meet in order for it to be categorized as an International Standard product.

Since different variants are permitted, product marking details are given in 3.6.

2 Normative references

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

IEC 60793-2-10, *Optical fibres - Part 2-10: Product specifications – Sectional specification for category A1 multimode fibres*

IEC 61300-2-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-1: Tests – Vibration (sinusoidal)*

IEC 61300-2-2, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures - Part 2-2: Tests - Mating durability*

IEC 61300-2-4, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-4: Tests – Fibre/cable retention*

IEC 61300-2-6, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-6: Tests – Tensile strength of coupling mechanism*

IEC 61300-2-12, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-12: Tests – Impact*

IEC 61300-2-17, *Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-17: Tests - Cold*

IEC 61300-2-18, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-18: Tests – Dry heat – High temperature endurance*

IEC 61300-2-19, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-19: Tests – Damp heat (steady state)*

IEC 61300-2-22, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 2-22: Tests – Change of temperature*