Irish Standard
I.S. EN 60874-1:2012

Fibre optic interconnecting devices and passive components - Connectors for optical fibres and cables -- Part 1: Generic specification (IEC 60874-1:2011 (EQV))

I.S. EN 60874-1:2012

Incorporating amendments/corrigenda issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

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English version

Fibre optic interconnecting devices and passive components - Connectors for optical fibres and cables - Part 1: Generic specification

(IEC 60874-1:2011)

Dispositifs d'interconnexion et composants passifs à fibres optiques - Connecteurs pour fibres et câbles optiques - Partie 1: Spécification générique (CEI 60874-1:2011)

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Steckverbinder für Lichtwellenleiter und Lichtwellenleiterkabel - Teil 1: Fachgrundspezifikation (IEC 60874-1:2011)

CENELEC

European Committee for Electrotechnical Standardization
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Europäisches Komitee für Elektrotechnische Normung

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Foreword

The text of document 86B/3272/FDIS, future edition 6 of IEC 60874-1, 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 60874-1:2012.

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)	2012-09-29
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2012-12-29

This document supersedes EN 60874-1:2007.

The specific technical changes from EN 60874-1:2007 include removal of quality assessment procedure, to add the definition of plug-socket configuration, to reconsider a drawing showing the relationship between EN 60874, EN 61753, EN 61754 series of standards, and updating the normative references.

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 60874-1:2011 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60874 series	NOTE	Harmonized in EN 60874 series.

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 60027	Series	Letter symbols to be used in electrical technology	EN 60027	Series
IEC 60050-731	-	International Electrotechnical Vocabulary (IEV) - Chapter 731: Optical fibre communication	-	-
IEC 60617	Data-base	Graphical symbols for diagrams	-	-
IEC 60695-11-5	-	Fire hazard testing - Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	EN 60695-11-5	-
IEC 60825-1	-	Safety of laser products - Part 1: Equipment classification and requirements	EN 60825-1	-
IEC 61300	Series	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures	EN 61300	Series
IEC 61753	Series	Fibre optic interconnecting devices and passive components performance standard	EN 61753	Series
IEC 61753-1	-	Fibre optic interconnecting devices and passive components performance standard - Part 1: General and guidance for performance standards	EN 61753-1	-
IEC 61754	Series	Fibre optic connector interfaces	EN 61754	Series
IEC 61755	Series	Fibre optic connector optical interfaces	EN 61755	Series
IEC/TR 61930	-	Fibre optic graphical symbology	-	-
IEC/TR 61931	-	Fibre optic - Terminology	-	-
ISO 129	-	Technical drawings - Dimensioning - General principles, definitions, methods of execution and special indications	-	-
ISO 286-1	-	ISO system of limits and fits - Part 1: Bases of tolerances, deviations and fits	EN ISO 286-1	-
ISO 1101	-	Geometrical Product Specifications (GPS) - Geometrical tolerancing - Tolerances of form, orientation, location and run-out	EN ISO 1101	-
ISO 8601	-	Data elements and interchange formats - Information interchange - Representation of dates and times	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – CONNECTORS FOR OPTICAL FIBRES AND CABLES –

Part 1: Generic specification

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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8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
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International Standard IEC 60874-1 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This sixth edition cancels and replaces the fifth edition published in 2006, and constitutes a technical revision. The specific technical changes from the previous edition include removal of quality assessment procedure, to add the definition of plug-socket configuration, to reconsider a drawing showing the relationship between IEC 60874, IEC 61753, IEC 61754 series of standards., and updating the normative references.

The text of this standard is based on the following documents:

FDIS	Report on voting
86B/3272/FDIS	86B/3304/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 of the IEC 60874 series, under the general title *Fibre optic interconnecting devices and passive components – Connectors for optical fibres and cables* 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.

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – CONNECTORS FOR OPTICAL FIBRES AND CABLES –

Part 1: Generic specification

1 Scope

This part of IEC 60874 applies to fibre optic connector sets and individual components (i.e. adaptors, plugs, sockets) for all types, sizes and structures of fibres and cables. It includes:

– connector set requirements;

This part of IEC 60874 is divided into four clauses:

– Clauses 1 (Scope), 2 (Normative references) and 3 (Terms and definitions) contain general information pertaining to this generic specification;
– Clause 4 (Requirements) contains all the requirements to be met by connectors covered by this specification. This includes requirements for classification, the IEC specification system, documentation, materials, workmanship, quality, performance, identification, and packaging.

NOTE 1 Clauses 1 to 4 are applicable generally and refer to all connector standards

NOTE 2 This part of IEC 60874 applies also to the connectors covered by the IEC 61753, IEC 61754, and IEC 61755 series.

This standard does not cover test and measurement procedures, which are described in the IEC 61300 series.

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.

IEC 60027 (all parts), *Letter symbols to be used in electrical technology*

IEC 60050-731, *International Electrotechnical Vocabulary – Chapter 731: Optical fibre communication*

IEC 60617, *Graphical symbols for diagrams*

IEC 60695-11-5, *Fire hazard testing – Part 11-5: Test flames – Needle-flame test method – Apparatus, confirmatory test arrangement and guidance*

IEC 60825-1, *Safety of laser products – Part 1: Equipment classification and requirements*

IEC 61300 (all parts), *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures*

IEC 61753 (all parts), *Performance standards*