



SLOVENSKI STANDARD
SIST EN 60874-1:2007

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SIST EN 186000-1:1999
SIST EN 60874-1:2001

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Connectors for optical fibres and cables -- Part 1: Generic specification (IEC 60874-1:2006)

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Steckverbinder für Lichtwellenleiter und Lichtwellenleiterkabel -- Teil 1:
Fachgrundspezifikation (IEC 60874-1:2006)

[SIST EN 60874-1:2007](#)

Connecteurs pour fibres et câbles optiques -- Partie 1: Spécification générique (IEC 60874-1:2006)

Ta slovenski standard je istoveten z: EN 60874-1:2007

ICS:

33.180.20 Ú[ç^: [çæ) ^Á æ |æ^Áæ Fibre optic interconnecting devices
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English version

**Connectors for optical fibres and cables -
Part 1: Generic specification
(IEC 60874-1:2006)**

Connecteurs pour fibres
et câbles optiques -
Partie 1: Spécification générique
(CEI 60874-1:2006)

Steckverbinder für Lichtwellenleiter
und Lichtwellenleiterkabel -
Teil 1: Fachgrundspezifikation
(IEC 60874-1:2006)

This European Standard was approved by CENELEC on 2006-12-01. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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/2370/FDIS, future edition 5 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 was approved by CENELEC as EN 60874-1 on 2006-12-01.

This European Standard supersedes EN 186000-1:1993 and EN 60874-1:1999.

The specific technical changes from EN 60874-1:1999 include the introduction of new expressions for intermateability and performance, of optical performance standards into the standardization system, and updating the normative references.

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) 2007-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2009-12-01

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 60874-1:2006 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 60874	NOTE	Harmonized as EN 60874 (series) (not modified).
IEC 61300-1	NOTE	Harmonized as EN 61300-1:2003 (not modified).
IEC 61300-2	NOTE	Harmonized as EN 61300-2 (series) (not modified).
IEC 61300-3	NOTE	Harmonized as EN 61300-3 (series) (not modified).
IEC 61754-2	NOTE	Harmonized as EN 61754-2:1997 (not modified).
IEC 61754-4	NOTE	Harmonized as EN 61754-4:1997 (not modified).
IEC 61754-13	NOTE	Harmonized as EN 61754-13:2006 (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC QC 001002-2	1998	IEC Quality Assessment System for Electronic Components (IECQ) - Rules of Procedure - Part 2: Documentation	-	-
IEC QC 001002-3	2005	IEC Quality Assessment System for Electronic Components (IECQ) - Rules of Procedure - Part 3: Approval procedures	-	-
IEC 60027	Series	Letter symbols to be used in electrical technology	EN 60027	Series
IEC 60050-731	- ¹⁾	International Electrotechnical Vocabulary (IEV) - Chapter 731: Optical fibre communication	-	-
IEC 60410	¹⁾	Sampling plans and procedures for inspection by attributes	-	-
IEC 60617	Data-base	Graphical symbols for diagrams	-	-
IEC 60695-11-5	- ¹⁾	Fire hazard testing - Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	EN 60695-11-5	2005 ²⁾
IEC 60825-1	- ¹⁾	Safety of laser products - Part 1: Equipment classification, requirements and user's guide	EN 60825-1	1994 ²⁾
IEC 61300	Series	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures	EN 61300	Series
IEC 61753-1	200X ³⁾	Fibre optic interconnecting devices and passive components performance standard - Part 1: General and guidance for performance standards	-	-
IEC 61754	Series	Fibre optic connector interfaces	EN 61754	Series

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

³⁾ To be published.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61755	Series	Fibre optic connector optical interfaces	EN 61755	Series
IEC/TR 61930	- ¹⁾	Fibre optic graphical symbology	-	-
IEC/TR 61931	- ¹⁾	Fibre optic - Terminology	-	-
ISO 129-1	- ¹⁾	Technical drawings - Indication of dimensions - and tolerances - Part 1: General principles	-	-
ISO 286-1	- ¹⁾	ISO system of limits and fits - Part 1: Bases of tolerances, deviations and fits	EN 20286-1	1993 ²⁾
ISO 370	1975	Toleranced dimensions - Conversion from inches into millimetres and vice versa	-	-
ISO 1101	- ¹⁾	Geometrical Product Specifications (GPS) - Geometrical tolerancing - Tolerances of form, orientation, location and run-out	EN ISO 1101	2005 ²⁾
ISO 8601	- ¹⁾	Data elements and interchange formats - Information interchange - Representation of dates and times	EN 28601	1992 ²⁾

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Fifth edition
2006-10

Connecteurs pour fibres et câbles optiques –

**Partie 1:
Spécification générique**

**Connectors for optical fibres and cables –
(standards.iteh.ai)**

**Part 1:
Generic specification**

<https://standards.iteh.ai/catalog/standards/sist/884393a8-b1b1-430c-99b1-85aafa0790c7/sist-en-60874-1-2007>

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International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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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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 fifth edition cancels and replaces the fourth edition published in 1999, and constitutes a technical revision. The specific technical changes from the previous edition include the introduction of new expressions for intermateability and performance, of optical performance standards into the standardization system, and updating the normative references.

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

FDIS	Report on voting
86B/2370/FDIS	86B/2412/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.

The QC number that appears on the front cover of this publication is the specification number in the IEC Quality Assessment System for Electronic Components (IECQ).

IEC 60874 consists of the following parts, under the general title *Connectors for optical fibres and cables*:

- Part 1: Generic specification
- Part 1-1: Blank detail specification – Environmental categories
- Part 10-1: Detail specification for fibre optic connector type BFOC/2,5 terminated to multimode fibre type A1
- Part 10-2: Detail specification for fibre optic connector type BFOC/2,5 terminated to single-mode fibre type B1
- Part 10-3: Detail specification for fibre optic adaptor type BFOC/2,5 for single and multimode fibre
- Part 14-1: Detail specification for fibre optic connector type SC/PC standard terminated to multimode fibre type A1a, A1b
- Part 14-2: Detail specification for fibre optic connector type SC/PC tuned terminated to single-mode fibre type B1
- Part 14-3: Detail specification for fibre optic adaptor (simplex) type SC for single-mode fibre
- Part 14-4: Detail specification for fibre optic adaptor (simplex) type SC for multi-mode fibre
- Part 14-5: Detail specification for fibre optic connector type SC-PC untuned terminated to single-mode fibre type B1
- Part 14-6: Detail specification for fibre optic connector - Type SC-APC 9° untuned terminated to single-mode fibre Type B1
- Part 14-7: Detail specification for fibre optic connector type SC-APC 9° tuned terminated to single-mode fibre Type B1
- Part 14-9: Fibre optic connector type SC-APC tuned 8° terminated on single mode fibre type B1 – Detail specification
- Part 14-10: Fibre optic pigtail or patch cord connector type SC-APC untuned 8° terminated on single mode fibre type B1 – Detail specification
- Part 17: Sectional specification for fibre optic connector – Type F-05 (friction lock)
- Part 19: Sectional specification for fibre optic connector - Type SC-D(uplex)

- Part 19-1: Fibre optic patch cord connector type SC-PC (floating duplex) standard terminated on multimode fibre type A1a, A1b – Detail specification
- Part 19-2: Fibre optic adaptor (duplex) type SC for single-mode fibre connectors – Detail specification
- Part 19-3: Fibre optic adaptor (duplex) type SC for multimode fibre connectors – Detail specification

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

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CONNECTORS FOR OPTICAL FIBRES AND CABLES –

Part 1: Generic specification

1 Scope

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

- connector set requirements;
- quality assessment procedures.

This part of IEC 60874 is divided into five 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;
- Clause 5 (Quality assessment procedures) contains all of the procedures that must be followed for IEC quality assessment of products covered by this standard.

NOTE 1 Clauses 1 to 4 are applicable generally and refer to all connector standards while Clause 5 relates to IEC qualification alone.

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

This standard does not cover test and measurement procedures, which are described in IEC 61300-1, IEC 61300-2 and IEC 61300-3.

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.

IECQ 001002-2:1998, *IEC Quality Assessment System for Electronic Components (IECQ) – Rules of procedure – Part 2: Documentation*

IECQ 001002-3:2005, *IEC Quality Assessment System for Electronic Components (IECQ) – Rules of procedure – Part 3: Approval procedures*

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

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

IEC 60410, *Sampling plans and procedures for inspection by attributes*