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Fibre optic interconnecting devices and passive components - Fibre optic closures -- Part 1: Generic specification (IEC 62134-1:2009 (EQV))

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Fibre optic interconnecting devices and passive components - Fibre optic closures - Part 1: Generic specification

(IEC 62134-1:2009)

Dispositifs d'interconnexion et composants passifs à fibres optiques - Boitiers à fibres optiques - Partie 1: Spécification générique (CEI 62134-1:2009)

Lichtwellenleiter - Verbindungselemente und passive Bauteile - Lichtwellenleitergarnituren - Teil 1: Fachgrundspezifikation (IEC 62134-1:2009)

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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.

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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

The text of document 86B/2846/FDIS, future edition 2 of IEC 62134-1, 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 62134-1 on 2009-10-01.

This European Standard supersedes EN 62134-1:2002.

The main changes with respect to EN 62134-1:2002 are listed below:

– addition and rewording of some terms and definitions;

– reconsideration of type, style and variant in the requirements;

– removal of quality assessment procedures.

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)	2010-07-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2010-10-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62134-1:2009 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 61073-1	NOTE	Harmonized as EN 61073-1:2009 (not modified).
IEC 61756-1	NOTE	Harmonized as EN 61756-1:2006 (not modified).
IEC 61758-1	NOTE	Harmonized as EN 61758-1:2008 (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.

Publication	Year	Title	EN/HD	Year
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 60068	Series	Environmental testing	EN 60068	Series
IEC 60068-2-10	-[1)]	Environmental testing - Part 2-10: Tests - Test J and guidance: Mould growth	EN 60068-2-10	2005[2)]
IEC 60617	Data-base	Graphical symbols for diagrams	-	-
IEC 60695	Series	Fire hazard testing	EN 60695	Series
IEC 60695-1-1	-[1)]	Fire hazard testing - Part 1-1: Guidance for assessing the fire hazard of electrotechnical products - General guidelines	EN 60695-1-1	2000[2)]
IEC 60793-2	-[1)]	Optical fibres - Part 2: Product specifications - General	EN 60793-2	2008[2)]
IEC 60794-2	-[1)]	Optical fibre cables - Part 2: Indoor cables - Sectional specification	EN 60794-2	2003[2)]
IEC 60825-1	-[1)]	Safety of laser products - Part 1: Equipment classification and requirements	EN 60825-1	2007[2)]
IEC 61300-2	Series	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2: Tests	EN 61300-2	Series
IEC 61300-3	Series	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3: Examinations and measurements	EN 61300-3	Series
IEC 61753-1	-[1)]	Fibre optic interconnecting devices and passive components performance standard - Part 1: General and guidance for performance standards	EN 61753-1	2007[2)]
IEC 61754	Series	Fibre optic connector interfaces	EN 61754	Series
IEC/TR 61930	-[1)]	Fibre optic graphical symbology	-	-

[1)] Undated reference.

[2)] Valid edition at date of issue.

Publication	Year	Title	EN/HD	Year
IEC/TR 61931	-[1)]	Fibre optic - Terminology	-	-
IEC 62005	Series	Reliability of fibre optic interconnecting devices and passive components	EN 62005	Series
IEC QC 001002-3	2005	IEC Quality Assessment System for Electronic Components (IECQ) - Rules of Procedure - Part 3: Approval procedures	-	-
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 1101	-[1)]	Geometrical Product Specifications (GPS) - Geometrical tolerancing - Tolerances of form, orientation, location and run-out	EN ISO 1101	2005[2)]
ISO 4892-3	-[1)]	Plastics - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps	EN ISO 4892-3	2006[2)]
ISO 8601	-[1)]	Data elements and interchange formats - Information interchange - Representation of dates and times	-	-

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC CLOSURES –

Part 1: Generic specification

FOREWORD

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International Standard IEC 62134-1 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition published in 2002. It constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

– addition and rewording of some terms and definitions;
– reconsideration of type, style and variant in the requirements;
– removal of quality assessment procedures.

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

FDIS	Report on voting
86B/2846/FDIS	86B/2885/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 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.

INTRODUCTION

Closures comprise a broad component family that functions to protect, secure and store passive fibre optic components (such as splices or connectors) or other non-interconnecting devices (such as optical branching devices). They are installed at either indoor or outdoor locations, and provide access to the optical path of one or more cabled optical fibres. They also generally provide a fibre management system for the orderly management, routing, and storage of optical fibres. Configuration definitions may specify integrated functions, or permit grouped combinations of compatible independent sub-units. Specific classification requirements vary, and may or may not include isolation from environmental hazards (such as water ingress), structure codes (such as fire safety), or other appropriate considerations.

Closures are not intended to provide the primary packaging or structure for uncabled optical fibre splices (such as a rigid mechanical splice shell, or a fusion splice protection sleeve). Specification for those devices is defined in IEC 61073-1.

It is also intended that closures specified under this standard are not sufficiently characterized for continuous brine or deep-water submersion. Examples of this are oceanic or lake-crossing applications. Cables, closures and installation methods suited to this use are highly specialised and are not within the scope of this standard or supporting test procedures.

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC CLOSURES –

Part 1: Generic specification

1 Scope

This part of IEC 62134 establishes uniform generic requirements for fibre optic closures.

This standard does not cover test and measurement procedures, which are described in 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.

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 – Chapter 731: Optical fibre communication*

IEC 60068 (all parts), *Environmental testing*

IEC 60068-2-10, *Environmental testing – Part 2-10: Tests – Test J and guidance: Mould growth*

IEC 60617 (all parts), *Graphical symbols for diagrams*

IEC 60695 (all parts), *Fire hazard testing*

IEC 60695-1-1, *Fire hazard testing – Part 1-1: Guidance for assessing the fire hazard of electrotechnical products – General guidelines*

IEC 60793-2, *Optical fibres – Part 2: Product specifications*

IEC 60794-2, *Optical fibre cables – Part 2: Indoor cables – Sectional specification*

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

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

IEC 61300-3 (all parts), *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 3: Examinations and measurements*