

INTERNATIONAL STANDARD

**Fibre optic interconnecting devices and passive components – Mechanical
splices and fusion splice protectors for optical fibres and cables –
Part 1: Generic specification**



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IEC 61073-1

Edition 4.0 2009-01

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

PRICE CODE

R

ICS 33.180.20

ISBN 978-2-88910-404-8

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS –
MECHANICAL SPLICES AND FUSION SPLICE PROTECTORS
FOR OPTICAL FIBRES AND CABLES –****Part 1: Generic specification**

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International Standard IEC 61073-1 has been prepared by subcommittee 86B: Fibre optic interconnecting devices and passive components, of IEC technical committee 86: Fibre optics.

This fourth edition cancels and replaces the third edition published in 1999. This edition constitutes a technical revision. The main changes with respect to the previous edition are as follows:

- terms and definitions have been reconsidered;
- style has been added in classification of requirement;
- environmental category has been deleted from classification of requirement;
- standardisation structure and standards interlink have been reconsidered.

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

FDIS	Report on voting
86B/2773/FDIS	86B/2805/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- withdrawn,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.

A bilingual version of this publication may be issued at a later date.

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – MECHANICAL SPLICES AND FUSION SPLICE PROTECTORS FOR OPTICAL FIBRES AND CABLES –

Part 1: Generic specification

1 Scope

This part of IEC 61073 applies to fibre optic splice hardware (mechanical splices and fusion splice protections) for optical fibres and cables.

It includes:

- fibre optic splice hardware requirements;
- quality assessment procedures.

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

References made to a specific clause or subclause of a standard include all subclauses of the reference unless otherwise specified.

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

IEC Guide 102, *Electronic components – Specification structures for quality assessment (Qualification approval and capability approval)*

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 (all parts), *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 60793-1 (all parts), *Optical fibres – Measurement methods and test procedures*

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

IEC 61300-1, *Fibre optic interconnecting devices and passive components – Basic test and measurement procedures – Part 1: General and guidance*

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*

IEC 61930: *Fibre optic graphical symbology*

IEC 61931, *Fibre optic – Terminology*

ISO 129-1, *Technical drawings – Indication of dimensions and tolerances – Part 1: General principles*

ISO 286-1, *ISO system of limits and fits – Part 1: Bases of tolerances, deviations and fits*

ISO 1101, *Geometrical Product Specifications (GPS) – Geometrical tolerancing – Tolerances of form, orientation, location and run-out*

ISO 8601, *Data elements and interchange formats – Information interchange – Representation of dates and times*

3 Terms and definitions

For the purposes of this document, the terms and definitions contained in IEC 60050-731, IEC 61931, and IEC 60874-1 as well as the following definitions apply.

3.1

cable joint

protective joint of two or more optical fibre cables. It may consist of fibre splices, organizers and closures

3.2

capillary mechanical splice

mechanical splice where the fibres are aligned by inserting them in a precision capillary tube

3.3

fibre splice

permanent or separable splice (see **separable splice**)

3.4

fusion splice

splice in which fibre ends are joined in a permanent manner by means of fusion

3.5

hybrid splice

cable splice with fibre splice(s) and electrical conductor splice(s)

3.6

interchangeable splice sets

splice sets are considered to be interchangeable when they both have the same installation geometry and functional performance

3.7

mechanical splice

splice in which the fibre ends are joined either permanently or separably by any mechanical means as long as the fibre ends are not fused together