

BS EN 62077:2010



BSI Standards Publication

Fibre optic interconnecting devices and passive components — Fibre optic circulators — Generic specification

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National foreword

This British Standard is the UK implementation of EN 62077:2010. It is identical to IEC 62077:2010. It supersedes BS EN 62077:2001 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee GEL/86, Fibre optics, to Subcommittee GEL/86/2, Fibre optic interconnecting devices and passive components.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 July 2010.

Amendments issued since publication

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62077

May 2010

ICS 33.180.20

Supersedes EN 62077:2001

English version

**Fibre optic interconnecting devices and passive components -
Fibre optic circulators -
Generic specification
(IEC 62077:2010)**

Dispositifs d'interconnexion
et composants passifs à fibres optiques -
Circulateurs à fibres optiques -
Spécification générique
(CEI 62077:2010)

Lichtwellenleiter -
Verbindungselemente und passive
Bauteile - Lichtwellenleiterzirkulatoren -
Fachgrundspezifikation
(IEC 62077:2010)

This European Standard was approved by CENELEC on 2010-05-01. 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.

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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/2871/CDV, future edition 2 of IEC 62077, 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 62077 on 2010-05-01.

This standard supersedes EN 62077:2001.

The changes with respect to EN 62077:2001 are listed below:

- having substantially increased the number of terms;
- having added an informative annex for example of filtering technologies;
- having deleted quality assessment procedures.

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

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) | 2011-02-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2011-05-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62077:2010 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 60869-1	NOTE	Harmonized as EN 60869-1.
IEC 60874 series	NOTE	Harmonized in EN 60874 series (not modified).
IEC 61300-2 series	NOTE	Harmonized in EN 61300-2 series (not modified).
IEC 61300-3 series	NOTE	Harmonized in EN 61300-3 series (not modified).
IEC 61753 series	NOTE	Harmonized in EN 61753 series (not modified).
IEC 61754 series	NOTE	Harmonized in EN 61754 series (partially modified).
IEC 61754-2	NOTE	Harmonized as EN 61754-2.
IEC 61754-4	NOTE	Harmonized as EN 61754-4.
IEC 61754-13	NOTE	Harmonized as EN 61754-13.
IEC 62005 series	NOTE	Harmonized in EN 62005 series (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 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/TR 61282-9	-	Fibre optic communication system design guides - Part 9: Guidance on polarization mode dispersion measurements and theory	-	-
IEC 61300	Series	Fibre optic interconnecting devices and passive components - Basic test and measurement procedures	EN 61300	Series
IEC/TR 61930	-	Fibre optic graphical symbology	-	-
IEC/TS 62538	-	Categorization of optical devices	-	-
IEC Guide 102	-	Electronic components - Specification structures for quality assessment (Qualification approval and capability approval)	-	-
IECQ 01	-	IEC Quality Assessment System for Electronic Components (IECQ) - Basic Rules	-	-
IEC QC 001002-3	-	IEC Quality Assessment System for Electronic Components (IECQ) - Rules of Procedure - Part 3: Approval procedures	-	-
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	-	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 8601	-	Data elements and interchange formats - Information interchange - Representation of dates and times	-	-

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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – FIBRE OPTIC CIRCULATORS – GENERIC SPECIFICATION

1 Scope

This International Standard applies to circulators used in the field of fibre optics bearing all of the following features:

- they are non-reciprocal optical devices, in which each port is either an optical fibre or fibre optic connector;
- they are passive devices in accordance with the categorization and definition provided in IEC 62538;
- they have three or more ports for directionally transmitting optical power.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For update 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 (IEV) – Chapter 731: Optical fibre communication*

IEC 60617-SN, *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, requirements and user's guide*

IEC/TR 61282-9, *Fibre optic communication system design guides – Part 9: Guidance on polarization mode dispersion measurements and theory*

IEC 61300 (all parts), *Fibre optic interconnecting devices and passive components*

IEC 61930, *Fibre optic graphic symbology*

IEC/TS 62538, *Categorization of optical devices*

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

IECQ 01, *IEC Quality Assessment System for Electronic Components (IECQ Scheme) – Basic Rules*

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