BS EN 60875-1:2015



BSI Standards Publication

Fibre optic interconnecting devices and passive components — Non-wavelength-selective fibre optic branching devices

Part 1: Generic specification

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National foreword

This British Standard is the UK implementation of EN 60875-1:2015. It is identical to IEC 60875-1:2015. It supersedes BS EN 60875-1:2010, which is withdrawn.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.

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English Version

Fibre optic interconnecting devices and passive components - Non-wavelength-selective fibre optic branching devices - Part 1: Generic specification (IEC 60875-1:2015)

Dispositifs d'interconnexion et composants passifs à fibres optiques - Dispositifs de couplage à fibres optiques ne dépendant pas de la longueur d'onde - Partie 1: Spécification générique (IEC 60875-1:2015)

Lichtwellenleiter - Verbindungselemente und passive Bauteile - wellenlängenunabhängige Lichtwellenleiter-Verzweiger - Teil 1: Fachgrundspezifikation (IEC 60875-1:2015)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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European foreword

The text of document 86B/3806/CDV, future edition 6 of IEC 60875-1, 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 60875-1:2015.

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) 2016-03-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-06-11

This document supersedes EN 60875-1:2010.

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The text of the International Standard IEC 60875-1:2015 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 60068	NOTE	Harmonized in EN 60068 series.
IEC 60974	NOTE	Harmonized in EN 60974 series.
IEC 61300-1	NOTE	Harmonized as EN 61300-1.
IEC 61300-2	NOTE	Harmonized in EN 61300-2 series.
IEC 61300-3	NOTE	Harmonized in EN 61300-3 series.
IEC 61753	NOTE	Harmonized in EN 61753 series.
IEC 61754	NOTE	Harmonized in EN 61754 series.
IEC 62005	NOTE	Harmonized in EN 62005 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 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60027	series	Letter symbols to be used in electrical technology	EN 60027	-
IEC 60050	series	International electrotechnical vocabulary	-	-
IEC 60617	series	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	series	Safety of laser products	EN 60825	series
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	-	-
ISO 129-1	-	Technical drawings - Indication of dimensions and tolerances - Part 1: General principles	-	-
ISO 286-1	-	Geometrical product specifications (GPS) - ISO code system for tolerances on linear sizes - Part 1: Basis 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

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FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – NON-WAVELENGTH-SELECTIVE FIBRE OPTIC BRANCHING DEVICES –

Part 1: Generic specification

FOREWORD

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International Standard IEC 60875-1 has been prepared by subcommittee SC86B: 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 2010 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) removal of terms and definitions for splitter, coupler, symmetric non-wavelength-selective branching device, asymmetric non-wavelength-selective branching device;
b) addition of terms and definitions for bidirectional non-wavelength-selective branching device and non-bidirectional non-wavelength-selective branching device
c) removal of assessment level.

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

CDV	Report on voting
86B/3806/CDV	86B/3872/RVC

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 in the IEC 60875 series, published under the general title *Fibre optic interconnecting devices and passive components – Non-wavelength-selective fibre optic branching devices*, 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 website 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

FIBRE OPTIC INTERCONNECTING DEVICES AND PASSIVE COMPONENTS – NON-WAVELENGTH-SELECTIVE FIBRE OPTIC BRANCHING DEVICES –

Part 1: Generic specification

1 Scope

This part of IEC 60875 applies to non-wavelength-selective fibre optic branching devices, all exhibiting the following features:

– they are passive, in that they contain no optoelectronic or other transducing elements;
– they have three or more ports for the entry and/or exit of optical power, and share optical power among these ports in a predetermined fashion;
– the ports are optical fibres, or optical fibre connectors.

This standard establishes uniform requirements for the optical, mechanical and environmental properties.

2 Normative references

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.

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

IEC 60050 (all parts), *International Electrotechnical Vocabulary* (available at http://www.electropedia.org/)

IEC 60617 (all parts), *Graphical symbols for diagrams* (available at http://std.iec.ch/iec60617)

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

IEC 60825 (all parts), *Safety of laser products*

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

IEC TR 61930, *Fibre optic graphical symbology*

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

ISO 286-1, *Geometrical product specifications (GPS) – ISO code system for tolerances on linear sizes – Part 1: Basis of tolerances, deviations and fits*

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