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Non-wavelength-selective fibre optic branching devices - Part 1: Generic specification (IEC 60875-1:2000)

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EUROPEAN STANDARD

**EN 60875-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2001

ICS 33.180.20

Supersedes EN 60875-1:1998

English version

**Non-wavelength-selective fibre optic branching devices**  
**Part 1: Generic specification**  
(IEC 60875-1:2000)

Dispositifs de couplage pour fibres  
optiques ne dépendant pas  
de la longueur d'onde  
Partie 1: Spécification générique  
(CEI 60875-1:2000)

Lichtwellenleiter-Verzweiger  
(Wellenlängenunabhängig)  
Teil 1: Fachgrundspezifikation  
(IEC 60875-1:2000)

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This European Standard was approved by CENELEC on 2000-11-01. CENELEC members are bound to comply with the 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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/1361/FDIS, future edition 4 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 was approved by CENELEC as EN 60875-1 on 2000-11-01.

This European Standard supersedes EN 60875-1:1998.

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) 2001-08-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2003-11-01

Annexes designated "normative" are part of the body of the standard.  
Annexes designated "informative" are given for information only.  
In this standard, annex ZA is normative and annex A is informative.  
Annex ZA has been added by CENELEC.

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## iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of the International Standard IEC 60875-1:2000 was approved by CENELEC as a European Standard without any modification.

[SIST EN 60875-1:2002](https://standards.iteh.ai/catalog/standards/sist/931044ab-43f1-4411-8c95-9fa86a76e901/sist-en-60875-1-2002)

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068	NOTE: Harmonized in the EN 60068 and HD 323 series (not modified).
IEC 60874	NOTE: Partly harmonized as EN 60874 series.
IEC 61753	NOTE: Partly harmonized as EN 61753 series.
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 61574-13:1999 (not modified).
IEC 62005	NOTE: Harmonized as EN 62005 series.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 001001	1998	Basic rules of the IEC Quality Assessment System for Electronic Components (IECQ)	-	-
IEC QC 001002	Series	IEC Quality Assessment System for Electronic Components (IECQ) - Rules of Procedure	-	-
IEC 60027	Series	Letter symbols to be used in electrical technology	-	-
IEC 60050-731	1991	International Electrotechnical Vocabulary (IEV) Chapter 731: Optical fibre communication	-	-
IEC 60410	1973	Sampling plans and procedures for inspection by attributes	-	-
IEC 60617-12	1997	Graphical symbols for diagrams Part 12: Binary logic elements	EN 60617-12	1998
IEC 60695-2-2	1991	Fire hazard testing Part 2: Test methods Section 2: Needle-flame test	EN 60695-2-2	1994
IEC 60825	Series	Safety of laser products	EN 60825	Series

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**Dispositifs de couplage pour fibres optiques  
ne dépendant pas de la longueur d'onde –**

**Partie 1:  
Spécification générique**

**iTeh STANDARD PREVIEW**

**Non-wavelength-selective fibre optic  
branching devices –**

SIST EN 60875-1:2002

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**Part 1:  
Generic specification**

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International Electrotechnical Commission  
Международная Электротехническая Комиссия

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**NON-WAVELENGTH-SELECTIVE FIBRE OPTIC  
BRANCHING DEVICES –**

**Part 1: Generic specification**

**FOREWORD**

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
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- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60875-1 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 1996, and constitutes a technical revision.

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

FDIS	Report on voting
86B/1361/FDIS	86B/1401/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 3.

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).

Annex A is for information only.

The committee has decided that the contents of this publication will remain unchanged until 2008. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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## INTRODUCTION

This part of IEC 60875 is divided into three clauses:

- 1 General
- 2 Requirements
- 3 Quality assessment procedures

The first clause contains general information pertaining to this generic specification.

The second clause contains all the requirements to be met by branching devices covered by this standard. These include classification, IEC specification system, documentation, materials, workmanship, quality, performance, identification, and packaging.

The third clause contains those procedures which need to be followed for proper quality assessment of products as covered by this standard.

NOTE Test and measurement procedures are described in IEC 61300-1, IEC 61300-2 and IEC 61300-3.

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# NON-WAVELENGTH-SELECTIVE FIBRE OPTIC BRANCHING DEVICES –

## Part 1: Generic specification

### 1 General

#### 1.1 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 following:

- branching devices requirements;
- quality assessment procedures.

#### 1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60875. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 60875 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC QC 001001:1998, *IEC Quality Assessment System for Electronic Components (IECQ) – Basic Rules*

IEC QC 001002 (all parts), *IEC Quality Assessment System for Electronic Components (IECQ) – Rules of Procedure*

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

IEC 60050(731):1991, *International Electrotechnical Vocabulary (IEV) – Chapter 731: Optical fibre communication*

IEC 60410:1973, *Sampling plans and procedures for inspection by attributes*

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

IEC 60695-2-2:1991, *Fire hazard testing – Part 2: Test methods – Section 2: Needle-flame test*

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