SLOVENSKI STANDARD
SIST EN 186300:2001

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Sectional specification: Connector sets for optical fibres and cables - Type MSC

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Rahmenspezifikation: Steckverbinder für Lichtwellenleiter und Lichtwellenleiterkabel - MSC Typ

Spécification intermédiaire: Jeux de connecteurs pour fibres et câbles optiques - Type MSC

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ICS:

33.180.20	Povezovalne naprave za optiļ na vlakna	Fibre optic interconnecting devices

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EUROPEAN STANDARD

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Descriptors: Electronic components, optical fibres, connectors, classifications, dimensions, quality assurance, quality control, tests, routine verification

English version

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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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 86BXA, Fibre optic connectors.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 186300 on 1998-01-01.

The following dates were fixed:

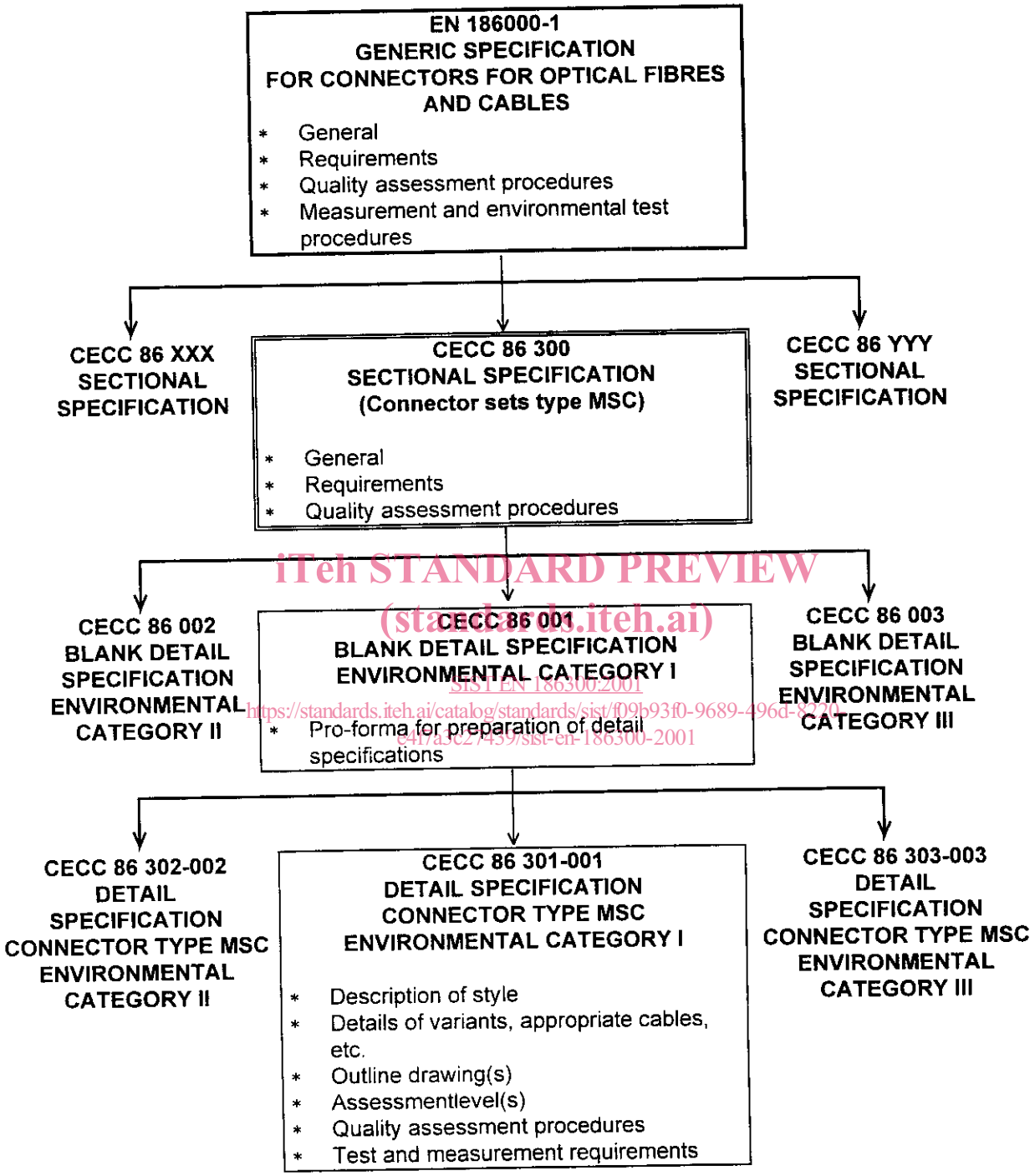
- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1999-08-01

- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1999-08-01

It is based, wherever possible, on the Publications of the International Electrotechnical Commission.

Document numbering for fibre optic connector specifications follows 2.2(1) of CECC 00 700, Sect. IV, in order to permit the issue of more than nine sectional specifications. The approved numbering system applicable to fibre optic connector specifications is illustrated in the diagram on next page.

CECC - SPECIFICATION SYSTEM



SECTION ONE - GENERAL

1 General

1.1 Scope

This sectional specification covers a family of single way fibre optic connector sets which are classified as type MSC. Type MSC is a connector set of the plug-adaptor-plug configuration. It features a push-pull coupling mechanism and cylindrical butting ferrules. The optical alignment mechanism is a split sleeve contained within the adaptor.

The specification contains the requirements for type MSC connector sets.

Detail specifications (DS's) shall be prepared using the following pro forma general blank detail specifications (BDS's) associated with the generic specification. For example:

- EN 186005 for environmental category V.

When completed, the DS(s) applicable to this SS shall be numbered in accordance with CECC 00 700 (Section IV) Issue 1, clause 4.2, as follows. For example:

- CECC 86 305-000,
  Type MSC,
  environmental category V.

1.2 Related documents

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below.

References made to a specific clause or sub-clause of a standard includes all sub-clauses to the reference unless otherwise specified.

EN 186000-1	1993	Generic specification: Connector sets of optical fibres and cables Part 1: Requirements, test methods and qualification approval procedures
IEC 60825-1	1993	Safety of laser products - Part 1: Equipment classification, requirements and user's guide
IEC 60825-2	1993	Safety of laser products - Part 2: Safety of optical fibre communication systems
ISO 128	1982	Technical drawings - General principles of presentation

1.3 Definitions

All necessary definitions are given in EN 186000-1.

1.4 Safety

1.4.1 Optical Fibre Connectors, when used as part of an Optical Fibre System, may emit/produce potentially hazardous radiation. The manufacturers of connectors are not obliged to mark them as such, but sufficient information should be made available in the manufacturer's literature to enable the system designer to assess the degree of hazard. This information shall be given prominence in the detail specification (DS).

1.4.2 The assembly instructions, included in the connector package, shall give a prominent warning to the assembler, of the necessary safe work practices.

1.4.3 The responsibility for the safe application of the connector lies with the system design engineer, who should refer to IEC 60825-1. As there is no safety guide for light emitting diodes (LED's), IEC 60825-1 shall apply to systems using these also.

1.4.4 DS's should give the following information in a prominent position :

WARNING

"Care should be taken when handling small diameter optical fibre, to prevent it puncturing the skin, especially in the eye area.

Direct viewing of the end of an optical fibre or a terminated optical fibre, while it is propagating energy is not recommended unless prior assurance has been obtained as to the safe energy of the output level".

1.5 Marking

See 2.6 of EN 186000-1.

SECTION TWO - REQUIREMENTS

2 Requirements

The requirements specified in Section two and Section three of EN 186000 apply.

The requirements for connector sets components covered by this specification are as specified herein and in the relevant DS.

2.1 Classification

The connector sets covered by this specification are classified as :

Type:

- type 1: MSC-PC,
- type 2: MSC-APC
- coupling mechanism: push-pull,

NOTE: Type 1 and type 2 are not intended to be used together.

Configurations:

- plug / adaptor / plug

Arrangements:

- kit,
- pigtail,
- patchcord.

Environmental categories: the DS-writer shall select the appropriate BDS for the chosen environmental category.

Assessment levels:

- level A,
- level B,
- level C.

The mating face dimensions for connector set configurations are given in Figures 1 and 2.

The applicable configuration, arrangement, style, variants, climatic category and assessment levels shall be specified in the DS.