SLOVENSKI STANDARD
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Sectional Specification: Connector sets for optical fibres and cables - Type F-SMA

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Rahmenspezifikation: Steckverbindersätze für Lichtwellenleiter und Lichtwellenleiterkabel - Bauart F-SMA

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

Ta slovenski standard je istoveten z: **EN 186100:1994**

ICS:

33.180.20	Povezovalne naprave za optiļ na vlakna	Fibre optic interconnecting devices

SIST EN 186100:1999 **en**

EUROPEAN STANDARD
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EN 186 100

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Descriptors: Quality, electronic components, connectors sets

English version

Sectional Specification:

Connector Sets for Optical Fibres and Cables. Type F-SMA

Spécification intermédiaire:
Jeux de connecteurs pour fibres et câbles optiques.
Type F-SMA

Rahmenspezifikation:
Steckverbindersätze für Lichtwellenleiter und Lichtwellenleiterkabel.
Bauart F-SMA

This European Standard was approved by the CENELEC Electronic Components Committee (CECC) on 26 December 1993. CENELEC members are bound to comply with 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 General Secretariat of the CECC 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 CECC General Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and United Kingdom. The membership of the CECC is identical, with the exception of the national electrotechnical committees of Greece, Iceland and Luxembourg.

CECC

CENELEC Electronic Components Committee

Comité des Composants Electroniques du CENELEC

CENELEC- Komitee für Bauelemente der Elektronik

General Secretariat: Gartenstr. 179, D-60596 Frankfurt am Main

FOREWORD

The CENELEC Electronic Components Committee (CECC) is composed of those member countries of the European Committee for Electrotechnical Standardization (CENELEC) who wish to take part in a harmonized System for electronic components of assessed quality.

The object of the System is to facilitate international trade by the harmonization of the specifications and quality assessment procedures for electronic components, and by the grant of an internationally recognized Mark, or Certificate, of Conformity. The components produced under the System are thereby acceptable in all member countries without further testing.

This European Standard was prepared by CECC WG 26, 'Fibre Optic Connectors'.

The text of the draft based on document CECC 86 100 Issue 1 : 1992 was submitted to the formal vote for conversion to a European Standard; together with the voting report, circulated as document CECC(Secretariat)3467 it was approved by CECC as EN 186 100 on 26 December 1993.

The following dates were fixed:

-	latest date of announcement of the EN at national level	(doa)	**1994-05-02**
-	latest date of publication of an identical national standard*	(dop)	**1994-11-02**
-	latest date of withdrawal of conflicting national standards*	(dow)	**1995-11-02**

* National Standard (excluding National implementation of IECQ Specifications)

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This specification has been formally approved by the CECC, and has been prepared for those countries taking part in the System who wish to issue national harmonized specifications for fibre optic connectors and accessories series F-SMA. It should be read in conjunction with the current regulations for the CECC System.

At the date of printing of this specification, the member countries of the CECC are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom, and copies of it can be obtained from the addresses shown on the blue fly sheet.

PREFACE

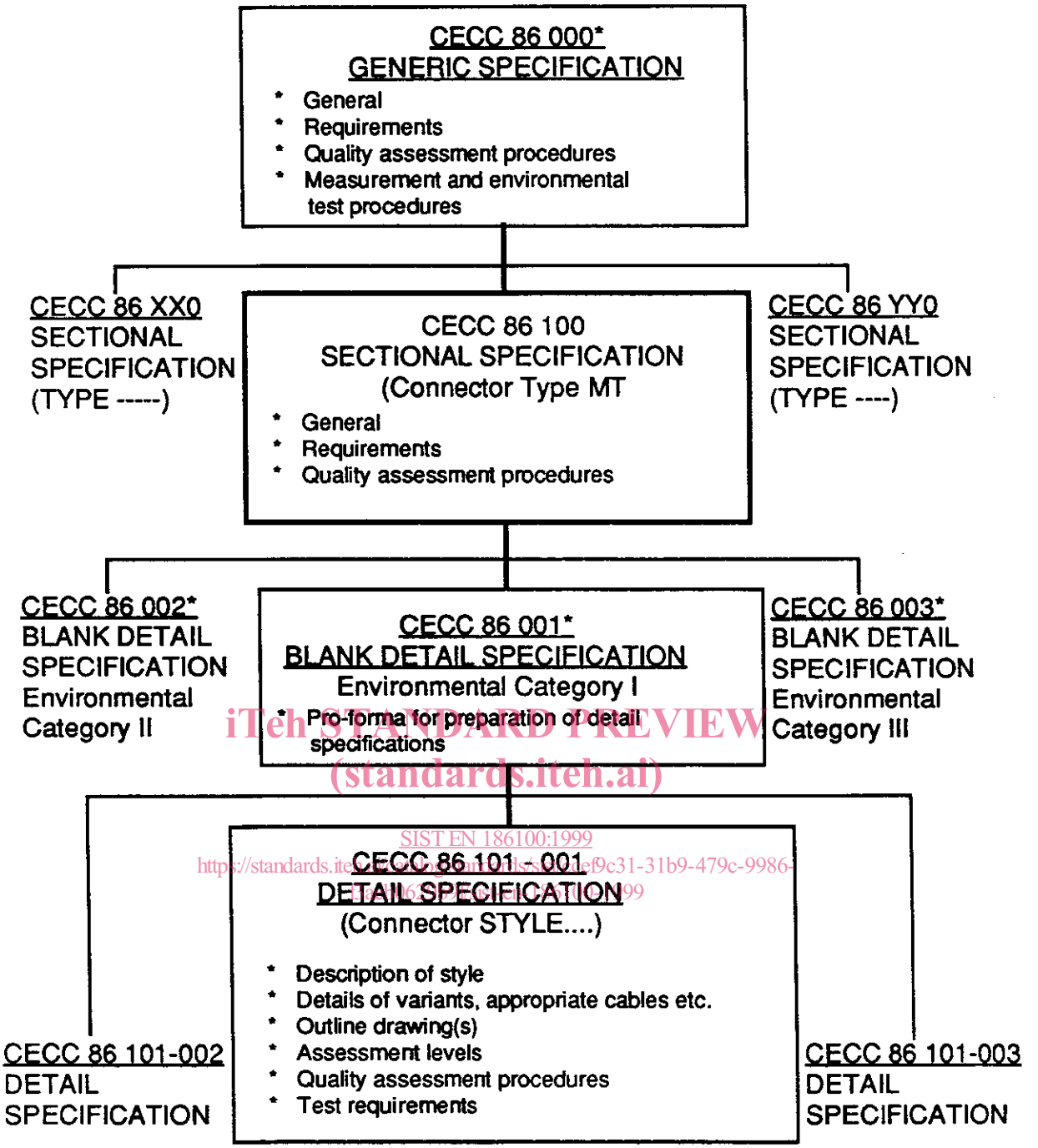
This specification was prepared by CECC WG26 "Fibre Optic Connectors".

It was based, wherever possible, on the Publications of the International Electrotechnical Commission (IEC).

The text of this specification was circulated to the CECC for voting in the document indicated below and was ratified by the President of the CECC for printing as a CECC Specification.

Document	Date of Voting	Report on the Voting
CECC (Secretariat) 2519	January 1989	CECC (Secretariat) 2664

Document numbering for fibre optic connector specifications follows 2.2(1) of CECC 00 700: Section 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 following diagram:-



*** Editorial note:**

Still in voting as EN specifications at date of publication of this specification (December 1992).

SECTION ONE - GENERAL

1.0 General

1.1 Scope

This specification covers Type F-SMA fibre optic connector sets. Type F-SMA defines a singleway connector characterized by a $^1/_4$ 36 UNS screw thread coupling mechanism and a cylindrical ferrule of 3,175 mm nominal diameter.

The specification contains the requirements for Type F-SMA connector sets.

Detail specifications shall be prepared using the following proforma general blank detail specifications associated with the generic specification. For example:-

CECC 86 002

Environmental Category II

When completed, the detail specifications (DSs) applicable to this sectional specification (SS) shall be re-numbered in accordance with CECC 00 700 (Section IV) Issue 1, clause 4.2, as follows:-

CECC 86 102-XXX

Type F-SMA
Environmental Category II

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.

CECC 86 000	Generic specification for connectors for optical fibres and cables.
IEC 825	Radiation safety of laser products, equipment classification, requirements, and user's guide

1.3 Definitions

All necessary definitions are given in CECC 86 000.

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 825. As there is no safety guide for light emitting diodes (LEDs), IEC 825 shall apply to systems using these also.

1.4.4 DSs 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 CECC 86 000.

SECTION TWO - REQUIREMENTS

2. Requirements

The requirements specified in Section 2 and Section 3 of CECC 86 000 apply.

The requirements for connector set 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 F-SMA
- screw thread coupling
- configurations - plug/adaptor/plug
  - plug/socket.

Arrangements

- kit
- pigtail
- patch cord.

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 limit dimensions for each connector set configuration are given in Figures 1, 2 and 3.

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

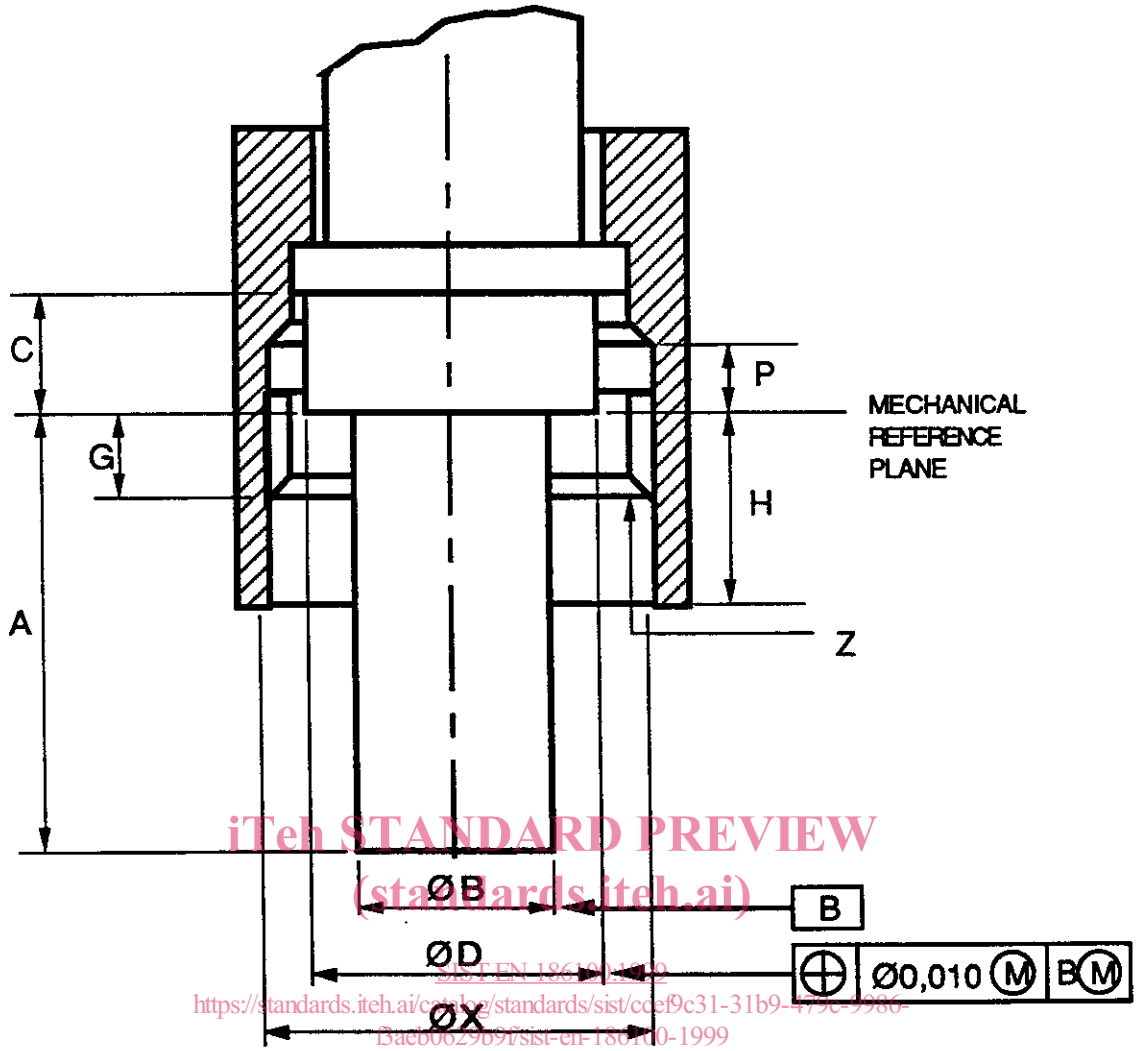


Figure 1 - Plug mating face limit dimensions