Sectional Specification: Connector sets for optical fibres and cables - Type MF

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 186310:2002 sisaldab Euroopa standardi EN 186310:1999 ingliskeelset teksti. Käesolev dokument on jõustatud 18.12.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 186310:2002 consists of the English text of the European standard EN 186310:1999. This document is endorsed on 18.12.2002 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This specification covers Type MF fibre optic connector sets.The specification contains the requirements for Type MF connector sets to fix into a housing suitable for back plane use.	**Scope:** This specification covers Type MF fibre optic connector sets.The specification contains the requirements for Type MF connector sets to fix into a housing suitable for back plane use.

ICS 33.180.20

Võtmesõnad: cables, connector sets, optical fibres

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 186310

April 1999

ICS 33.180.20

English version

Sectional Specification: Connector sets for optical fibres and cables - Type MF

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

Rahmenspezifikation: Steckverbindungssätze für Lichtwellenleiter und Lichtwellenleiter-Kabel - Bauart MF

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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.

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CENELEC

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

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Ref. No. EN 186310:1999 E

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 186310 on 1999-04-01.

The following dates were fixed:

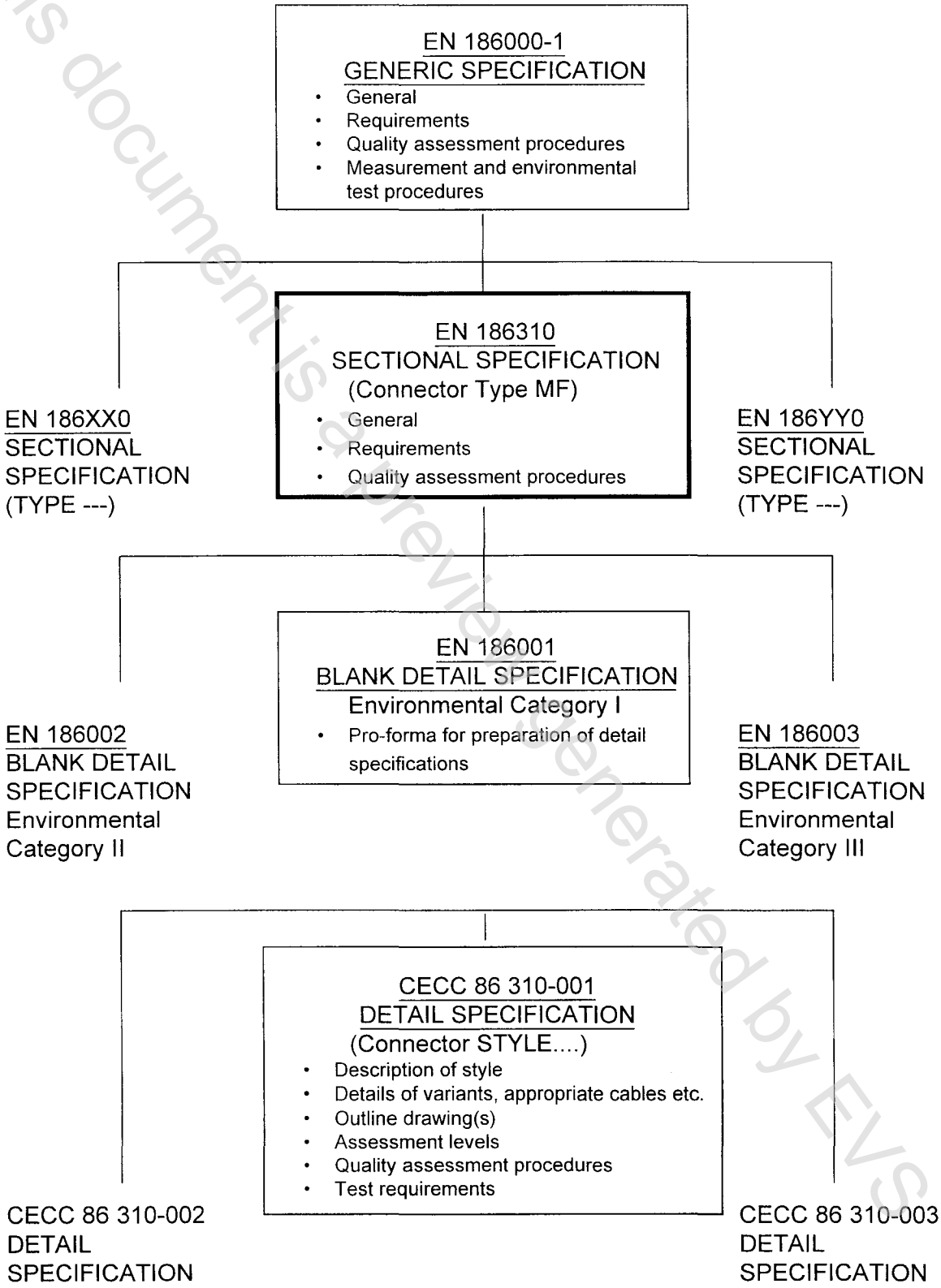
- latest date by which the EN has to be implemented at national level by publication of an identical national standard* or by endorsement (dop) 2000-04-01

- latest date by which the national standards* conflicting with the EN have to be withdrawn (dow) 2000-04-01

* national standard (excluding national implementation of IECQ Specifications)

Contents

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 connector specifications is illustrated in the following diagram:



1 General

1.1 Scope

This specification covers Type MF fibre optic connector sets. Type MF defines a multiway connector characterised by a rectangular ferrule nominally 6,4 mm x 2,5 mm which utilises two pins of 0,7 mm diameter as its alignment technology. It is applicable to a joint of multiple fibres by arranging them between two pin-positioning holes in the plug. The connector includes a push-pull coupling mechanism and a ferrule spring loaded in the direction of the optical axis. The connector has a single male key which may be used to orientate and limit the relative position between the connector and the component to which it is mated.

The specification contains the requirements for Type MF connector sets to fix into a housing suitable for back plane use (see Annex A).

It provides mating dimensions for single ferrules (MF-A1/MF-A2) into an adaptor (MF-A3) which ensure ferrules will come together.
Mating dimensions for location of ferrules (MF-B1/MF-A2) into multiway backshells (MF-B2/MF-B3).
It does not provide/supply mating dimensions of the multiway backshells, nor does it ensure that ferrules in multiway backshells will come together.

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

Environmental
Category II
EN 186002

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

CECC 86 310-XXX
Type MF
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 subclause of a standard include all subclauses to the reference unless otherwise specified.

EN 186000-1	Generic Specification: Connector sets for optical fibres and cables -- Part 1: Requirements, test methods and qualification approval procedures
IEC 60825	(seires) Safety of laser products

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. As there is no safety guide for light emitting diodes (LEDs), IEC 60825 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 EN 186000-1.