



SLOVENSKI STANDARD

SIST EN 186270:1999

01-maj-1999

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

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Rahmenspezifikation: Steckverbinder für Lichtwellenleiter und Lichtwellenleiterkabel - Bauart LSH

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

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Ta slovenski standard je istoveten z: **EN 186270:1997**

SIST EN 186270:1999
<https://standards.iteh.ai/catalog/standards/sist/a5e052bc-5a7e-4d2f-8889-6f7b3aed1cb9/sist-en-186270-1999>

ICS:

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SIST EN 186270:1999

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 186270

November 1997

Descriptors: Quality, electronic components, connectors

English version

**Sectional Specification:
Connector sets for optical fibres and cables
Type LSH**

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

Rahmenspezifikation:
Steckverbinder für Lichtwellenleiter und
Lichtwellenleiterkabel - Typ LSH

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This European Standard was approved by CENELEC on 1994-10-16. CENELEC members are bound to comply with the 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 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

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FOREWORD

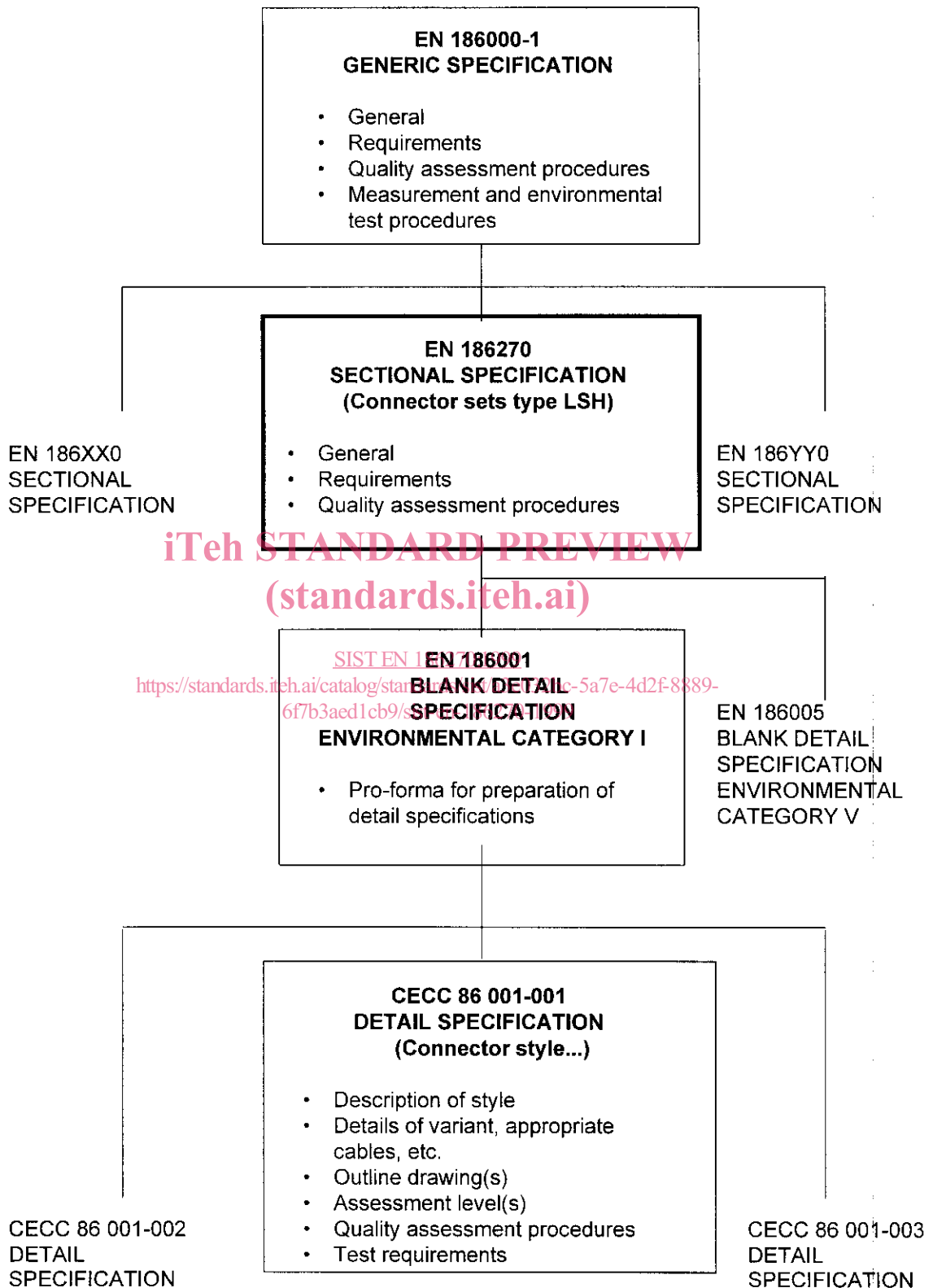
This European Standard was prepared by the Technical Committee CENELEC TC 86BXA (former WG 26 of CLC/TC CECC), Fibre optic connectors.

The text of the draft based on document CECC(Secretariat)3552 was submitted to the formal vote; together with the voting report, circulated as document CECC(Secretariat)3623, it was approved as EN 186270 on 1994-10-16.

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) 1998-08-15
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1999-08-15

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 (SSs). The approved numbering system applicable to fibre optic connector specifications is illustrated in the following diagram:



1 General

1.1 Scope

This SS covers a family of single way fibre optic connector sets which are classified as type LSH. Type LSH is a connector set of plug-adaptor-plug configuration. It features a locked latch push-pull coupling mechanism and a cylindrical butting ferrule. The optical alignment mechanism may be a split sleeve or a rigid bore contained within the adaptor.

This specification contains the requirements for type LSH connector sets.

Detail specifications (DSs) shall be prepared using the following pro forma general blank detail specifications (BDS). For example:

EN 186000-1
Environmental category V

When completed, the DSs 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 86 275-XXX
Type LSH
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. Members of CECC, IEC and ISO maintain registers of currently valid International Standards.

References made to a specific clause or subclause of a standard includes all subclauses to the reference unless otherwise specified.

EN 186000-1	Generic specification GS for connector sets for optical fibres and cables. Part 1.
IEC 825:	Radiation safety of laser products, equipment classification, requirements and user's guide
ISO 128:	Technical drawings - General principles of presentation
ISO 8015:	Technical drawings; fundamental tolerancing principle

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 DS.

- 1.4.2 The assembly instructions, included in the connector package, shall give a prominent warning to the assembler, of the necessary 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. 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 level of the energy output”.

1.5 Marking

See 2.6 of EN 186000-1.

2 Requirements

The requirements specified in Section two and Section three of EN 186000-1 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 LSH
- coupling mechanism: locked latch push-pull
- configurations:
 - plug / adaptor / plug
 - plug / socket.

Arrangements:

- kit
- pigtail
- patchcord.

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Environmental categories:

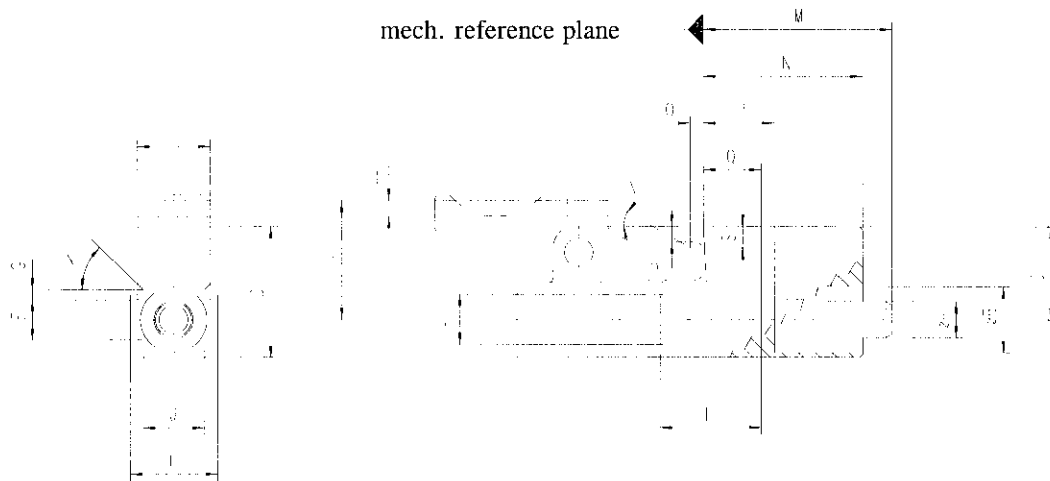
The DS-writer shall select the appropriate BDS for chosen environmental category
<https://standards.iteh.ai/catalog/standards/sist/7e-4d2f-8889-6f7b3aed1cb9/sist-en-186270-1999>

Assessment levels:

- level A
- level B
- level C.

The single limit (maximum or minimum) mating face dimensions for connector set configurations are given in Figures 1, 2 and 3, which use 90° projection method according to ISO 128.

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



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REF.	MIN.	MAX.	Note	REF.	MIN.	MAX.	Note
A	-	2,4995	1)	K	45°	-	
B	4,45	-		L	6,10	-	
C	-	6,29		M	12,05	-	2)
D	-	8,88		N	-	11,05	
E	-	2,79		O	0,90	-	
F	-	2,98		P	-	5,00	
G	0,67	-		Q	-	4,10	
H	-	5,98		R	1,20	-	
I	-	4,98		S	1,25	-	
J	-	4,18		T	-	36°	

Notes:

- 1) The optical alignment feature may be a rigid bore or a resilient alignment sleeve. When a resilient alignment sleeve is used, the dimensional requirement may be replaced by a gauge insertion and/or retention requirement in the DS.
- 2) Dimension M shown in figure 1 is given for a plug endface when not mated. It is noticed that a ferrule is movable by a certain axial compression force with direct contacting endfaces and therefore dimension M is variable. This dimension after contacting shall be equal or less than 12 mm.

Figure 1 - Plug mating face single limit dimensions