SLOVENSKI STANDARD
SIST EN 61757-1:2001

01-februar-2001

Fibre optic sensors - Part 1: Generic specification (IEC 61757-1:1998)

Fibre optic sensors -- Part 1: Generic specification

LWL-Sensoren -- Teil 1: Fachgrundspezifikation

Capteurs à fibres optiques -- Partie 1: Spécification générique

Ta slovenski standard je istoveten z: **EN 61757-1:1999**

ICS:

33.180.99	Druga oprema za optična vlakna	Other fibre optic equipment

SIST EN 61757-1:2001 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61757-1

January 1999

ICS 33.180.99

English version

Fibre optic sensors
Part 1: Generic specification
(IEC 61757-1:1998)

Capteurs à fibres optiques
Partie 1: Spécification générique
(CEI 61757-1:1998)

LWL-Sensoren
Teil 1: Fachgrundspezifikation
(IEC 61757-1:1998)

This European Standard was approved by CENELEC on 1999-01-01. 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

Ref. No. EN 61757-1:1999 E

Foreword

The text of document 86C/222/FDIS, future edition 1 of IEC 61757-1, prepared by SC 86C, Fibre optic systems and active devices, of IEC TC 86, Fibre optics, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61757-1 on 1999-01-01.

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) 1999-10-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2001-10-01

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.

Endorsement notice

The text of the International Standard IEC 61757-1:1998 was approved by CENELEC as a European Standard without any modification.

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.

Publication	Year	Title	EN/HD	Year
IEC 60027	series	Letter symbols to be used in electrical technology	HD 245	series-
IEC 60060-1 + corr. March	1989 1990	High-voltage test techniques Part 1: General definitions and test requirements	HD 588.1 S1	1991
IEC 60068-1 + corr. October + A1	1988 1988 1992	Environmental testing Part 1: General and guidance	EN 60068-1	1994
IEC 60068-2-1	1990	Part 2: Tests - Tests A: Cold	EN 60068-2-1	1993
IEC 60068-2-2	1974	Part 2: Tests - Test B: Dry heat	EN 60068-2-2[1)]	1988
IEC 60068-2-3 + A1	1969 1984	Part 2: Tests - Test Ca: Damp heat, steady state	HD 323.2.3 S2	1987
IEC 60068-2-5	1975	Part 2: Tests - Test Sa: Simulated solar radiation at ground level	HD 323.2.5 S1	1988
IEC 60068-2-6 + corr. March	1995 1995	Part 2: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	1995
IEC 60068-2-9 + A1	1975 1984	Part 2: Tests - Guidance for solar radiation testing	HD 323.2.9 S2	1987
IEC 60068-2-10	1988	Part 2: Tests - Test J and guidance: Mould growth	HD 323.2.10 S3	1988
IEC 60068-2-11	1981	Part 2: Tests - Test Ka: Salt mist	HD 323.2.11 S1	1988
IEC 60068-2-13	1983	Part 2: Tests - Test M: Low air pressure	HD 323.2.13 S1	1987

1) EN 60068-2-2 includes supplement A:1976 to IEC 60068-2-2.

Publication	Year	Title	EN/HD	Year
IEC 60068-2-14 + A1	1984 1986	Part 2: Tests - Test N: Change of temperature	HD 323.2.14 S2	1987
IEC 60068-2-27	1987	Part 2: Tests - Test Ea and guidance: Shock	EN 60068-2-27	1993
IEC 60068-2-29 + corrigendum	1987	Part 2: Tests - Test Eb and guidance: Bump	EN 60068-2-29	1993
IEC 60068-2-42	1982	Part 2: Tests - Test Kc: Sulphur dioxide test for contacts and connections	-	-
IEC 60068-2-43	1976	Part 2: Tests - Test Kd: Hydrogen sulphide test for contacts and connections	-	-
IEC 60143	series	Series capacitors for power systems	EN 60143	series
IEC 60255-3 (mod)	1989	Electrical relays Part 3: Single input energizing quantity measuring relays with dependent or independent time	EN 60255-3 + corr. January	1998 1998
IEC 60617	series	Graphical symbols for diagrams	EN 60617	series
IEC 60695-2-2	1991	Fire hazard testing Part 2: Test methods Section 2: Needle-flame test	EN 60695-2-2	1994
IEC 60794-1	1996	Optical fibre cables Part 1: Generic specification	-	-
IEC 60825-1	1993	Safety of laser products Part 1: Equipment classification, requirements and user's guide	EN 60825-1 + A11 + corr. February	1994 1996 1995
IEC 60874-1	1993	Connectors for optical fibres and cables Part 1: Generic specification	-	-
IEC 61000-4-2	1995	Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques -- Section 2: Electrostatic discharge immunity test	EN 61000-4-2	1995
IEC 61000-4-3 (mod)	1995	Part 4: Testing and measurement techniques -- Section 3: Radiated, audio-frequency, electromagnetic field immunity test	EN 61000-4-3	1996
IEC 61000-4-4	1995	Part 4: Testing and measurement techniques -- Section 4: Electrical fast transient/burst immunity test	EN 61000-4-4	1995

Publication	Year	Title	EN/HD	Year
IEC 61000-4-5	1995	Part 4: Testing and measurement techniques -- Section 5: Surge immunity test	EN 61000-4-5	1995
IEC QC 001001	1986	Basic rules of the IEC Quality Assessment System for Electronic Components (IECQ)	-	-
IEC QC 001002	1986	Rules of procedure of the IEC Quality Assessment System for Electronic Components (IECQ)	-	-
ISO 129	1985	Technical drawings - Dimensioning - General principles, definitions, methods of execution and special indications	-	-
ISO 286-1	1988	ISO system of limits and fits Part 1: Bases of tolerances, deviations and fit	-	-
ISO 370	1975	Toleranced dimensions - Conversion from inches into millimetres and vice versa	-	-
ISO 1101	1983	Technical drawings - Geometrical tolerancing - Tolerancing of form, orientation, location and run-out - Generalities, definitions, symbols, indications on drawings	-	-

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
61757-1

QC 890000

Première édition
First edition
1998-11

Capteurs à fibres optiques –

Partie 1: Spécification générique

Fibre optic sensors –

Part 1: Generic specification

International Electrotechnical Commission 3, rue de Varembé Geneva, Switzerland
Telefax: +41 22 919 0300 e-mail: inmail@iec.ch IEC web site http: //www.iec.ch

Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE U

Pour prix, voir catalogue en vigueur
For price, see current catalogue

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIBRE OPTIC SENSORS –
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 reports or guides and they are accepted by the National Committees in that sense.
4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
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 61757-1 has been prepared by subcommittee 86C: Fibre optic systems and active devices, of IEC technical committee 86: Fibre optics.

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

FDIS	Report on voting
86C/222/FDIS	86C/227/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.

Annex A is for information only.

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).

INTRODUCTION

This part of IEC 61757 is a generic specification and reflects the work accomplished, especially concerning general test methods and classification for fibre optic sensors. The purpose of this generic specification is to promote international trade, eliminate misunderstandings or confusion between manufacturers and buyers, and provide assistance to the purchaser in selecting consistently high quality products for his or her particular application.

This generic specification has been designed to be used as a common working and discussion tool by the vendor of components and subassemblies intended to be integrated in fibre optic sensors, as well as by designers, manufacturers and users of fibre optic sensors.

Annex A gives examples of fibre optic sensors to better illustrate the classification scheme. The examples given are illustrative only and are not limitative, nor do they constitute a recommendation or endorsement of a particular transduction principle.