SLOVENSKI STANDARD
SIST EN 61966-4:2001

01-marec-2001

Multimedia system and equipment - Colour measurement and management - Part 4: Equipment using liquid crystal display panels (IEC 61966-4:2000)

Multimedia systems and equipment - Colour measurement and management -- Part 4: Equipment using liquid crystal display panels

Multimediasysteme und -geräte - Farbmessung und Farbmanagement -- Teil 4: Geräte mit Flüssigkristallanzeigen

Systèmes et appareils multimédia - Mesure et gestion de la couleur -- Partie 4: Appareils utilisant des afficheurs à cristaux liquides

Ta slovenski standard je istoveten z: **EN 61966-4:2000**

ICS:

17.180.20	Barve in merjenje svetlobe	Colours and measurement of light
33.160.60	Večpredstavni (multimedijski) sistemi in oprema za telekonference	Multimedia systems and teleconferencing equipment

SIST EN 61966-4:2001 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61966-4

April 2000

ICS 33.120; 33.160.60

English version

Multimedia systems and equipment - Colour measurement and management Part 4: Equipment using liquid crystal display panels (IEC 61966-4:2000)

Systèmes et appareils multimédia
Mesure et gestion de la couleur
Partie 4: Appareils utilisant des
afficheurs à cristaux liquides
(CEI 61966-4:2000)

Multimediasysteme und -geräte
Farbmessung und Farbmanagement
Teil 4: Geräte mit Flüssigkristallanzeigen
(IEC 61966-4:2000)

This European Standard was approved by CENELEC on 2000-04-01. 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 61966-4:2000 E

Foreword

The text of document 100/119/FDIS, future edition 1 of IEC 61966-4, prepared by IEC TC 100, Audio, video and multimedia systems and equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61966-4 on 2000-04-01.

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) 2001-01-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2003-04-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61966-4:2000 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 60050-845	1987	International Electrotechnical Vocabulary (IEV) Chapter 845: Lighting	-	-
ISO/CIE 10527	1991	CIE standard colorimetric observers	-	-
CIE 15.2	1986	Colorimetry	-	-
CIE 63	1984	The spectroradiometric measurement of light sources	-	-
ISO 9241-8	1997	Ergonomic requirements for office work with visual display terminals (VDTs) Part 8: Requirements for displayed colours	EN ISO 9241-8	1997

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
61966-4

Première édition
First edition
2000-03

Systèmes et appareils multimédia – Mesure et gestion de la couleur –

Partie 4: Appareils utilisant des afficheurs à cristaux liquides

Multimedia systems and equipment – Colour measurement and management –

Part 4: Equipment using liquid crystal display panels

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 W

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

CONTENTS

Clause Page

Page

INTERNATIONAL ELECTROTECHNICAL COMMISSION

MULTIMEDIA SYSTEMS AND EQUIPMENT – COLOUR MEASUREMENT AND MANAGEMENT –

Part 4: Equipment using liquid crystal display panels

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 specifications, 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 61966-4 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

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

FDIS	Report on voting
100/119/FDIS	100/132/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.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

IEC 61966 consists of the following parts, under the general title: Multimedia systems and equipment – Colour measurement and management:

– Part 1: General
– Part 2-1: Colour management – Default RGB colour space – sRGB
– Part 3: Equipment using cathode ray tubes
– Part 4: Equipment using liquid crystal display panels
– Part 5: Equipment using plasma display panels
– Part 6: Equipment for use on digital data projections
– Part 7: Colour printers
– Part 8: Multimedia colour scanners
– Part 9: Digital cameras
– Part 10: Colour image in network systems
– Part 11: Impaired video in network systems

The committee has decided that the contents of this publication will remain unchanged until 2002. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

MULTIMEDIA SYSTEMS AND EQUIPMENT – COLOUR MEASUREMENT AND MANAGEMENT –

Part 4: Equipment using liquid crystal display panels

1 Scope

A series of characteristics for colour reproduction and management, and the associated methods of measurement for use in multimedia systems and equipment, are applicable to the assessment of colour reproduction. This part of IEC 61966 deals with equipment using transmissive-type liquid crystal display (LCD) panels to display colour images for use in multimedia applications.

The methods of measurement standardized in this part are designed to make possible the objective performance assessment and characterization of colour reproduction of LCDs which accept red – green – blue analogue or digital signals from electrical input terminals and output colour images on LCD screens. For LCDs to which analogue signals are applicable, the corresponding digital signals are taken into account. The measured results are intended to be used for the purpose of colour management in multimedia systems.

This part of IEC 61966 defines input test signals, measurement conditions and methods of measurement, so as to make possible the colour management and comprehensive comparison of the results of measurements.

Colour control within equipment is outside the scope of this part. It does not specify limiting values for various parameters.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61966. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 61966 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60050(845):1987, *International Electrotechnical Vocabulary (IEV) – Chapter 845: Lighting* / CIE 17.4: 1987, *International Lighting Vocabulary (joint IEC/CIE publication)*

ISO/CIE 10527:1991, *CIE standard colorimetric observers*

CIE 15.2:1986, *Colorimetry*

CIE 63:1984, *The spectroradiometric measurement of light sources*

ISO 9241-8:1997, *Ergonomic requirements for office work with visual display terminals (VDTs) – Part 8: Requirements for displayed colours*