



SLOVENSKI STANDARD

SIST EN 61988-1:2011

01-december-2011

Prikazovalniki s plazmo - 1. del: Izrazje in črkovni simboli

Plasma Display Panels - Part 1: Terminology and letter symbols

Plasmabildschirme - Teil 1: Terminologie und Buchstabensymbole

Panneaux d'affichage à plasma - Partie 1: Terminologie et symboles littéraux

Ta slovenski standard je istoveten z: EN 61988-1:2011

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ICS:

01.040.31	Elektronika (Slovarji)	Electronics (Vocabularies)
31.120	Elektronske prikazovalne naprave	Electronic display devices

SIST EN 61988-1:2011

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61988-1

September 2011

ICS 31.260

Supersedes EN 61988-1:2003

English version

**Plasma display panels -
Part 1: Terminology and letter symbols
(IEC 61988-1:2011)**

Panneaux d'affichage à plasma -
Partie 1: Terminologie et symboles
littéraires
(CEI 61988-1:2011)

Plasmabildschirme -
Teil 1: Terminologie und
Buchstabensymbole
(IEC 61988-1:2011)

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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.

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.

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 110/236/CDV, future edition 2 of IEC 61988-1, prepared by IEC/TC 110, Flat panel display devices, was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61988-1:2011.

This document supersedes EN 61988-1:2003.

EN 61988-1:2011 includes the following significant technical changes with respect to EN 61988-1:2003:

- Additional terms were added in Clause 3.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2012-05-30
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2014-08-30

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61988-2-1	201X ¹⁾	Plasma display panels - Part 2-1: Measuring methods - Optical and optoelectrical	EN 61988-2-1	201X ¹⁾

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¹⁾ At draft stage.

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IEC 61988-1

Edition 2.0 2011-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Plasma display panels – **STANDARD PREVIEW**
Part 1: Terminology and letter symbols
(standards.iteh.ai)

Panneaux d'affichage à plasma –
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https://standards.iteh.ai/catalog/standards/sist/en/61988-1/2011/426cd66-0004-4fdc-840e-1a77d76c3440/sist-en-61988-1-2011

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE **XA**
CODE PRIX

ICS 31.260

ISBN 978-2-88912-591-3

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

PLASMA DISPLAY PANELS –

Part 1: Terminology and letter symbols

FOREWORD

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International Standard IEC 61988-1 has been prepared by IEC technical committee 110: Flat panel display devices.

This second edition cancels and replaces the first edition published in 2003, and constitutes a technical revision. The main technical changes with regard to the previous edition are as follows:

- Additional terms were added in Clause 3.

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

CDV	Report on voting
110/236/CDV	110/286/RVC

Full information on the voting for the approval on 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 2.

A list of all the parts in the IEC 61988 series, under the general title *Plasma display panels*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

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PLASMA DISPLAY PANELS –

Part 1: Terminology and letter symbols

1 Scope

This part of IEC 61988 gives the preferred terms, their definitions and symbols for colour AC plasma display panels (AC PDP); with the object of using the same terminology when publications are prepared in different countries. Guidance on the technology is provided in the annexes.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61988-2-1:–, *Plasma display panels – Part 2-1: Measuring methods – Optical and optoelectrical*¹

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3 Terms and definitions (standards.iteh.ai)

For the purposes of this document, the following terms and definitions apply.

3.1 AC PDP

<https://standards.iteh.ai/catalog/standards/sist/d426cd66-0004-4fdc-840e-1a77d76c3440/sist-en-61988-1-2011>

NOTE See AC plasma display panel.

3.2 AC plasma display panel AC PDP

plasma display panel in which the gas discharge region is insulated from the electrodes that are driven with AC voltage pulses

3.3 address bias

V_{ba}

data bias

common voltage applied to all address electrodes during addressing

3.4 address cycle period

time interval between initiation of the closest spaced successive address pulses

3.5 address discharge

discharge that changes the state of a PDP subpixel

¹ Second edition, to be published.

3.6**address electrode**

data electrode

electrode, orthogonal to the scan electrode, that is used in driving the subpixels with the image data

3.7**address period**

time interval including the reset step and the address step

3.8**address pulse**

data pulse

incremental voltage pulse applied to a single address (data) electrode for addressing, to select a subpixel according to an image to be displayed

NOTE See scan pulse.

3.9**address step**

time interval needed to address all pixels in the panel in a given subfield as applied to the ADS method

3.10**address voltage**

V_a

data voltage

amplitude of the voltage pulses applied to the address (data) electrode during addressing (excludes the address bias on the electrode)

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3.11**address while display method**

AWD method

grey scale drive technique that addresses only a portion of the pixels of the panel in any time within a sustain period

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NOTE See also ADS.

3.12**addressability**

number of pixels in the horizontal and vertical directions, that can have their luminance changed

NOTE Usually expressed as the number of horizontal pixels by the number of vertical pixels. This term is not synonymous with resolution. See resolution.

3.13**addressing**

setting or changing the state of a subpixel with an address pulse

3.14**ADS method**

address, display-period separation method

grey scale drive technique that consists of addressing all the pixels in the panel in one time period and sustaining all the pixels in the panel in a separate time period

3.15**ageing**

manufacturing process consisting of operating the panel under conditions that stabilize its performance

3.16**annealing**

process of heating the glass above its annealing point and cooling at a controlled rate to minimize dimensional changes during subsequent high temperature cycles

3.17**anode**

positively charged surface of a device that collects electrons from the discharge

NOTE In an AC PDP, the cathode and anode exchange their roles on alternate half-cycles.

3.18**APL****average picture level**

time average of a video signal during the active scanning time integrated over a frame period, which is expressed as a percentage of the full white signal level while designating 0 % as the black signal level

NOTE There are two types of APL. See pre-gamma APL and post-gamma APL.

3.19**aspect ratio**

ratio of screen width to screen height

3.20**auto power control****APC**

circuit means to control the peak and/or average power of the display

3.21**auxiliary anode**

anode in a DC PDP whose discharge contributes to supply priming particles to ignite a discharge in a cell

3.22**back plate**

rear plate

plate furthest from the viewer

3.23**back-filling**

NOTE See filling.

3.24**bake**

NOTE See bakeout and baking.

3.25**bakeout**

high temperature processing of a vacuum system and/or PDP to assist in achieving low pressures

3.26**baking**

high temperature process used to evaporate water and decompose organic materials

NOTE Baking is used to clean the parts by dispersing unwanted material into the atmosphere.

3.27**barrier rib**

rib that separates the cells of the panel, electrically, optically and physically

NOTE The barrier ribs may extend from the front plate to the back plate and control the spacing between the plates.

3.28**binder burnout**

process during which organic binders are removed by decomposition and/or oxidation

3.29**black level luminance**

luminance of the panel in its minimum luminance state in a dark ambient

NOTE See 6.3.3.3 of IEC 61988-2-1:– (Ed. 2).

3.30**black matrix**

black material placed in the space between subpixel areas in order to improve contrast by reducing reflectivity

3.31**black stripe**

black material placed in the space between subpixel areas in order to improve contrast by reducing reflectivity, having the form of stripes

NOTE Black stripe is a specific type of black matrix contrast enhancement.

3.32**black uniformity, sampled**

uniformity of the black level luminance expressed in terms of the percentage non-uniformity (difference in luminance between measuring points divided by the average black level luminance) at the specified measuring points

3.33**BRCR-###**

NOTE See bright room contrast ratio ###.

3.34**breakdown voltage**

smallest voltage between the cathode and the anode causing a gas discharge to grow to a breakdown condition

3.35**bright defect**

defect in the image reproduction that appears brighter than the correct image

3.36**bright room contrast ratio ###****BRCR-###**

contrast ratio with ambient illumination on the screen other than the nominal 100/70 levels

NOTE The symbol ### describes the ambient illumination on the vertical plane/horizontal plane (see 6.4 of IEC 61988-2-1:– (Ed. 2)).

3.37**bright room contrast ratio 100/70****BRCR-100/70**

contrast ratio with an ambient illumination on the screen of 100 lx on the vertical plane and 70 lx on the horizontal plane

NOTE See 6.4 of IEC 61988-2-1:– (Ed. 2).

3.38**brightness**

visual and subjective quality of how bright an object appears, or how much visible light is coming off the object being perceived by the eye

NOTE See luminance.

3.39**bulk erase**

NOTE See full-screen erase.

3.40**bulk write**

NOTE See full-screen write.

3.41**burn-in**

process of increasing the reliability performance of hardware employing functional operation of every item in a prescribed environment with successive corrective maintenance at every failure during the early failure period

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3.42**bus electrode**

high conductivity electrode intimately connected along its length to the transparent electrode in order to reduce total resistance

3.43**cathode**

negatively charged surface of a device that emits secondary electrons to the discharge

NOTE In an AC PDP, the cathode and anode exchange their roles on alternate half-cycles.

3.44**cell**

physical structure of a subpixel or a subpixel itself (adjective – referring to the characteristics of a single cell)

3.45**cell defect**

cell showing a dark defect or a bright defect, or an unstable cell

3.46**cell pitch**

subpixel pitch

3.47**cell voltage**

V_c

time-dependent voltage across the gas in a plasma display cell