



# SLOVENSKI STANDARD

## SIST EN 62386-208:2009

01-november-2009

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**Digitalni naslovljivi vmesnik za razsvetljavo - 208. del: Posebne zahteve za krmilja - Stikalna funkcija (naprava tipa 7) (IEC 62386-208:2009)**

Digital addressable lighting Interface - Part 208: Particular requirements for control gear - Switching function (device type 7) (IEC 62386-208:2009)

Digital adressierbare Schnittstelle für die Beleuchtung - Teil 208: Besondere Anforderungen an Betriebsgeräte - Schaltfunktion (Gerätetyp 7) (IEC 62386-208:2009)

Interface d'éclairage adressable numérique -- Partie 208: Exigences particulières pour les appareillages de commande - Fonction de commutation (dispositifs de type 7) (CEI 62386-208:2009)

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**Ta slovenski standard je istoveten z: EN 62386-208:2009**

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29.140.50	Instalacijski sistemi za razsvetljavo	Lighting installation systems
35.200	Vmesniška in povezovalna oprema	Interface and interconnection equipment

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**en,fr**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 62386-208**

August 2009

ICS 29.140.50; 29.140.99

English version

**Digital addressable lighting interface -  
Part 208: Particular requirements for control gear -  
Switching function (device type 7)  
(IEC 62386-208:2009)**

Interface d'éclairage  
adressable numérique -  
Partie 208: Exigences particulières  
pour les appareillages de commande -  
Fonction de commutation  
(dispositifs de type 7)  
(CEI 62386-208:2009)

Digital adressierbare Schnittstelle  
für die Beleuchtung -  
Teil 208: Besondere Anforderungen  
an Betriebsgeräte -  
Schaltfunktion (Gerätetyp 7)  
(IEC 62386-208:2009)

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This European Standard was approved by CENELEC on 2009-07-01. 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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

**CENELEC**

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

**Central Secretariat: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 34C/821/CDV, future edition 1 of IEC 62386-208, prepared by SC 34C, Auxiliaries for lamps, of IEC TC 34, Lamps and related equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62386-208 on 2009-07-01.

This Part 208 is intended to be used in conjunction with EN 62386-101 and EN 62386-102, which contain general requirements for the relevant product type (control gear or control devices).

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) 2010-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2012-07-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 62386-208:2009 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60598-1	NOTE Harmonized as EN 60598-1:2008 (modified).
IEC 60669-2-1	NOTE Harmonized as EN 60669-2-1:2004 (modified).
IEC 60921	NOTE Harmonized as EN 60921:2004 (not modified).
IEC 60923	NOTE Harmonized as EN 60923:2005 (not modified).
IEC 60925	NOTE Harmonized as EN 60925:1991 (not modified).
IEC 60929	NOTE Harmonized as EN 60929:2006 (not modified).
IEC 61347-1	NOTE Harmonized as EN 61347-1:2008 (modified).
IEC 61347-2-3	NOTE Harmonized as EN 61347-2-3:2001 (not modified).
IEC 61547	NOTE Harmonized as EN 61547:2009 (not modified).
CISPR 15	NOTE Harmonized as EN 55015:2006 (not modified).

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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 62386-101	2009	Digital addressable lighting interface - Part 101: General requirements - System	EN 62386-101	2009
IEC 62386-102	2009	Digital addressable lighting interface - Part 102: General requirements - Control gear	EN 62386-102	2009

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Edition 1.0 2009-06

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Digital addressable lighting interface –  
Part 208: Particular requirements for control gear – Switching function  
(device type 7)**

**Interface d'éclairage adressable numérique –  
Partie 208: Exigences particulières pour les appareillages de commande –  
Fonction de commutation (dispositif de type 7)**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**DIGITAL ADDRESSABLE LIGHTING INTERFACE –****Part 208: Particular requirements for control gear –  
Switching function (device type 7)**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62386-208 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

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

CDV	Report on voting
34C/821/CDV	34C/842/RVC

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 2.

This Part 208 is intended to be used in conjunction with IEC 62386-101 and IEC 62386-102, which contain general requirements for the relevant product type (control gear or control devices).

A list of all parts of the IEC 62386 series, under the general title *Digital addressable lighting interface*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC website 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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## INTRODUCTION

This first edition of IEC 62386-208 is published in conjunction with IEC 62386-101 and IEC 62386-102. The division of IEC 62386 into separately published parts provides for ease of future amendments and revisions. Additional requirements will be added as and when a need for them is recognized.

This International Standard, and the other parts that make up the IEC 62386-200 series, in referring to any of the clauses of IEC 62386-101 or IEC 62386-102, specify the extent to which such a clause is applicable and the order in which the tests are to be performed. The parts also include additional requirements, as necessary. All parts that make up the IEC 62386-200 series are self-contained and therefore do not include references to each other.

Where the requirements of any of the clauses of IEC 62386-101 or IEC 62386-102 are referred to in this International Standard by the sentence "The requirements of IEC 62386-1XX, clause 'n' apply", this sentence is to be interpreted as meaning that all requirements of the clause in question of Part 101 or Part 102 apply, except any which are inapplicable to the specific type of lamp control gear covered by Part 208.

All numbers used in this International Standard are decimal numbers unless otherwise noted. Hexadecimal numbers are given in the format 0xVV, where VV is the value. Binary numbers are given in the format XXXXXXXXb or in the format XXXX XXXX, where X is 0 or 1; "x" in binary numbers means "don't care".

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## DIGITAL ADDRESSABLE LIGHTING INTERFACE –

### Part 208: Particular requirements for control gear – Switching function (device type 7)

#### 1 Scope

This International Standard specifies a protocol and test methods for the control by digital signals of electronic control gear that switches its output only on and off.

#### 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 62386-101:2009, *Digital addressable lighting interface – Part 101: General requirements – System*

IEC 62386-102:2009, *Digital addressable lighting interface — Part 102: General requirements – Control gear*

#### 3 Terms and definitions **(standards.iteh.ai)**

For the purposes of this document, the terms and definitions given in Clause 3 of IEC 62386-101:2009 and Clause 3 of IEC 62386-102:2009 shall apply, with the following additional definitions.

##### 3.1

##### **virtual arc power level**

value calculated by the control gear during virtual dimming. It corresponds to the actual level of a dimmable control gear

##### 3.2

##### **virtual dimming**

attribute of the control gear for treating arc power commands in the same way as a dimmable control gear. It provides virtual dimming by calculating a virtual arc power level in accordance with the appropriate fading definition, thus requiring the output state to change when the virtual arc power level reaches or passes a threshold

##### 3.3

##### **up switch-on threshold**

value against which the virtual arc power level is continually compared, the output of the control gear being switched on whenever the virtual arc power level reaches or passes this level whilst increasing

##### 3.4

##### **up switch-off threshold**

value against which the virtual arc power level is continually compared, the output of the control gear being switched off whenever the virtual arc power level reaches or passes this level whilst increasing

**3.5****down switch-on threshold**

value against which the virtual arc power level is continually compared, the output of the control gear being switched on whenever the virtual arc power level reaches or passes this level whilst decreasing

**3.6****down switch-off threshold**

value against which the virtual arc power level is continually compared, the output of the control gear being switched off whenever the virtual arc power level reaches or passes this level whilst decreasing

**4 General description**

The requirements of Clause 4 of IEC 62386-101:2009 and Clause 4 of IEC 62386-102:2009 shall apply.

**5 Electrical specification**

The requirements of Clause 5 of IEC 62386-101:2009 and Clause 5 of IEC 62386-102:2009 shall apply.

**6 Interface power supply**

The requirements of Clause 6 of IEC 62386-101:2009 and Clause 6 of IEC 62386-102:2009 shall apply if a power supply unit is integrated into the switching control gear.

**7 Transmission protocol structure**

The requirements of Clause 7 of IEC 62386-101:2009 and Clause 7 of IEC 62386-102:2009 shall apply.

**8 Timing**

The requirements of Clause 8 of IEC 62386-101:2009 and Clause 8 of IEC 62386-102:2009 shall apply.

**9 Method of operation**

The requirements of Clause 9 of IEC 62386-101:2009 and Clause 9 of IEC 62386-102:2009 shall apply with the following exceptions:

*Amendments to Clause 9 of IEC 62386-102:2009:*

**9.2 Power-On**

*Addition:*

If no command affecting power level is received before 0,6 s after mains power-on, the control gear shall set the virtual arc power level (VAPL) to the POWER-ON LEVEL immediately without fading.