
Digitalni naslovljivi vmesnik za razsvetljavo - 210. del: Posebne zahteve za krmilne naprave - Zaporedje (element tipa 9)

Digital addressable lighting interface - Part 210: Particular requirements for control gear - Sequencer (device type 9)

Digital adressierbare Schnittstelle für die Beleuchtung -- Teil 210: Besondere Anforderungen an Betriebsgeräte - Sequenzer (Gerätetyp 9)

Interface d'éclairage adressable numérique - Partie 210: Exigences particulières pour les appareillages de commande - Séquenceur (dispositifs de type 9)

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EUROPEAN STANDARD
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English version

**Digital addressable lighting interface -
Part 210: Particular requirements for control gear -
Sequencer (device type 9)
(IEC 62386-210:2011)**

Interface d'éclairage adressable
numérique -
Partie 210: Exigences particulières pour
les appareillages de commande -
Séquenceur (dispositifs de type 9)
(CEI 62386-210:2011)

Digital adressierbare Schnittstelle für die
Beleuchtung -
Teil 210: Besondere Anforderungen an
Betriebsgeräte -
Sequenzler (Gerätetyp 9)
(IEC 62386-210:2011)

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This European Standard was approved by CENELEC on 2011-05-25. 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, Croatia, 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

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Foreword

The text of document 34C/915/CDV, future edition 1 of IEC 62386-210, 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 62386-210 on 2011-05-25.

EN 62386-210 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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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) 2012-02-25
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2014-05-25

Annex ZA has been added by CENELEC.

iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of the International Standard IEC 62386-210:2011 was approved by CENELEC as a European Standard without any modification.

[SIST EN 62386-210:2011](https://standards.iteh.ai/catalog/standards/sist-en-62386-210-2011)

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.
IEC 60669-2-1	NOTE	Harmonized as EN 60669-2-1.
IEC 60921	NOTE	Harmonized as EN 60921.
IEC 60923	NOTE	Harmonized as EN 60923.
IEC 60925	NOTE	Harmonized as EN 60925.
IEC 60929	NOTE	Harmonized as EN 60929.
IEC 61347-1	NOTE	Harmonized as EN 61347-1.
IEC 61347-2-3	NOTE	Harmonized as EN 61347-2-3.
IEC 61547	NOTE	Harmonized as EN 61547.
CISPR 15	NOTE	Harmonized as EN 55015.

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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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Digital addressable lighting interface –
Part 210: Particular requirements for control gear – Sequencer (device type 9)**

**Interface d'éclairage adressable numérique –
Partie 210: Exigences particulières pour les appareillages de commande –
Séquenceur (dispositifs de type 9)**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

DIGITAL ADDRESSABLE LIGHTING INTERFACE –**Part 210: Particular requirements for control gear –
Sequencer (device type 9)**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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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- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62386-210 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/915/CDV	34C/938/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 210 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 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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INTRODUCTION

This first edition of IEC 62386-210 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 recognised.

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, specifies 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 210.

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 210: Particular requirements for control gear – Sequencer (device type 9)

1 Scope

This International Standard specifies a protocol and test procedures for the control by digital signals of electronic control gear working as automatic sequencers.

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

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<https://standards.iteh.ai/catalog/standards/sist/91b9394b-8248-471b-899-70c95d49ed/sist/62386-210-2011>

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 apply, with the following additional definitions.

3.1

multi channel device

device which provides more than one output for controlling light sources

NOTE The individual outputs can have different states at the same time.

3.2

point

tuple consisting of a sequencer fade time, a hold time and an arc power level for each output channel

NOTE A point is reached when the sequencer fade time of this point has expired.

3.3

next point

point following the current point in a sequence

3.4

previous point

point preceding the current point in a sequence

3.5

pointer

contents of a register used as reference to the starting point of a sequence

NOTE For this purpose, a register may be one of the scenes 0 to 15 or the POWER ON LEVEL or the SYSTEM FAILURE LEVEL.

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 specifications

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 is integrated with the 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:

Replacement:

9.2 Power-on

Control gear shall start to react properly to commands not later than 0,5 s after power-on. If no command affecting power level is received before 0,6 s after mains power-on, the gear shall proceed as follows:

If the pointer control register CONTROL 253 contains 0, the control gear shall go to POWER ON LEVEL immediately without fading, unless 'MASK' is stored as the POWER ON LEVEL, in which case the control gear shall go to the most recent arc power level or start the most recent sequence at its starting point.

If the pointer control register CONTROL 253 contains a value other than 0, then the contents of the POWER ON LEVEL shall be used as pointer to the starting point of a sequence. If the Pointer Control Register CONTROL 253 contains 'MASK', the control gear shall run through the sequence until stopped by command. Otherwise, the number of times the gear runs through the sequence shall be given by the contents of CONTROL 253.