

**Digital addressable lighting interface - Part 209:  
Particular requirements for control gear - Colour control  
(device type 8)**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 62386-209:2011 sisaldab Euroopa standardi EN 62386-209:2011 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 31.08.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 12.08.2011.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 62386-209:2011 consists of the English text of the European standard EN 62386-209:2011.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 31.08.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 12.08.2011.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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**Digital addressable lighting interface -  
Part 209: Particular requirements for control gear -  
Colour control (device type 8)  
(IEC 62386-209:2011)**

Interface d'éclairage adressable  
numérique -  
Partie 209: Exigences particulières pour  
les appareillages de commande -  
Commande de la couleur (Type de  
dispositif 8)  
(CEI 62386-209:2011)

Digital adressierbare Schnittstelle für die  
Beleuchtung -  
Teil 209: Besondere Anforderungen an  
Betriebsgeräte -  
Farbsteuerung (Gerätetyp 8)  
(IEC 62386-209:2011)

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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.

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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 34C/964/FDIS, future edition 1 of IEC 62386-209, 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 62386-209 on 2011-07-29.

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) 2012-04-29
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2014-07-29

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 62386-209:2011 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:

- |      |               |      |                             |
|------|---------------|------|-----------------------------|
| [1]  | IEC 60598-1   | NOTE | Harmonized as EN 60598-1.   |
| [2]  | IEC 60669-2-1 | NOTE | Harmonized as EN 60669-2-1. |
| [3]  | IEC 60921     | NOTE | Harmonized as EN 60921.     |
| [4]  | IEC 60923     | NOTE | Harmonized as EN 60923.     |
| [5]  | IEC 60929     | NOTE | Harmonized as EN 60929.     |
| [6]  | IEC 61347-1   | NOTE | Harmonized as EN 61347-1.   |
| [7]  | IEC 61347-2-3 | NOTE | Harmonized as EN 61347-2-3. |
| [8]  | IEC 61547     | NOTE | Harmonized as EN 61547.     |
| [9]  | IEC 62384     | NOTE | Harmonized as EN 62384.     |
| [10] | CISPR 15      | NOTE | Harmonized as EN 55015.     |
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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
CIE	1931	Commission internationale de l'Eclairage - Proceedings	-	-
CIE 17.4	1987	International Lighting Vocabulary	-	-

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## INTRODUCTION

This first edition of IEC 62386-209 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 209.

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'.

## DIGITAL ADDRESSABLE LIGHTING INTERFACE –

### Part 209: Particular requirements for control gear – Colour control (device type 8)

#### 1 Scope

This International Standard specifies a protocol and test procedures for the control by digital signals of electronic control gear that can change their light colour.

NOTE Tests in this standard are type tests. Requirements for testing individual control gear during production are not included.

#### 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*

CIE (1932), *Commission internationale de l'Eclairage proceedings, 1931. Cambridge University Press, Cambridge.*

CIE 17-4:1987, *International lighting vocabulary, ISBN 978 3 900734 07 7*

#### 3 Terms and definitions

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

##### **colour type**

mechanism to set a colour in an appropriate way

##### 3.2

##### **xy chromaticity**

colour type, representing the colour matching functions of a standard observer according to the Commission Internationale de L'Eclairage (CIE) basis for colorimetry of 1931

##### 3.3

##### **colour temperature**

##### $T_c$

colour type, representing the colour of a light source that matches the temperature of a black body radiator according to Planck's law