

SLOVENSKI STANDARD
SIST EN IEC 62836-216:2018
01-september-2018

**Digitalni naslovljivi vmesnik za razsvetljavo - 216. del: Posebne zahteve za krmilja -
Navedba obremenitve (naprava tipa 15) (IEC 62386-216:2018)**

Digital addressable lighting interface - Part 216: Particular requirements for control gear -
Load referencing (device type 15) (IEC 62386-216:2018)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: **EN IEC 62386-216:2018**
<https://standards.iteh.ai/catalog/standards/sist/c56c59c9-2086-45e0-8762-0d62f78b62be/sist-en-iec-62836-216-2018>

ICS:

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

SIST EN IEC 62836-216:2018 **en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN IEC 62836-216:2018](https://standards.iteh.ai/catalog/standards/sist/c56c59c9-2086-45e0-8762-0d62f78b62be/sist-en-iec-62836-216-2018)

<https://standards.iteh.ai/catalog/standards/sist/c56c59c9-2086-45e0-8762-0d62f78b62be/sist-en-iec-62836-216-2018>

EUROPEAN STANDARD

EN IEC 62386-216

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2018

ICS 29.140.50; 29.140.99

English Version

Digital addressable lighting interface - Part 216: Particular requirements for control gear - Load referencing (device type 15) (IEC 62386-216:2018)

Interface d'éclairage adressable numérique - Partie 216: Exigences particulières pour les appareillages de commande - Référence de charge (dispositifs de type 15) (IEC 62386-216:2018)

Digital adressierbare Schnittstelle für die Beleuchtung - Teil 216: Anforderungen für Betriebsgeräte - Last-Referenzierung (Gerätetyp 15) (IEC 62386-216:2018)

This European Standard was approved by CENELEC on 2018-05-28. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

SIST EN IEC 62386-216:2018

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 62386-216:2018 (E)**European foreword**

The text of document 34/491/FDIS, future edition 1 of IEC 62386-216, prepared by IEC/TC 34 "Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62386-216:2018.

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) 2019-02-28
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2021-05-28

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

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

The text of the International Standard IEC 62386-216:2018 was approved by CENELEC as a European Standard without any modification.

[SIST EN IEC 62836-216:2018](https://standards.iteh.ai/catalog/standards/sist-en-iec-62836-216-2018)

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

IEC 61347 (series)	NOTE	Harmonized as EN 61347 (series).
IEC 61347-1	NOTE	Harmonized as EN 61347-1.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62386-101	2014	Digital addressable lighting interface - Part 101: General requirements - System components	EN 62386-101	2014
+ A1 ¹	-		+ A1 ²	-
IEC 62386-102	2014	Digital addressable lighting interface - Part 102: General requirements - Control gear	EN 62386-102	2014
+ A1 ³		https://standards.iteh.ai/catalog/standards/sist/c56c59c9-2086-45e3-a1462-0d62f78b62be/sist-en-iec-62836-216-2018	+ A1 ⁴	-

¹ Under preparation. Stage at the time of publication: IEC CCDV 62386-101/AMD1:2018.

² Under preparation. Stage at the time of publication: EN 62386-101:2014/prA1:2017.

³ Under preparation. Stage at the time of publication: IEC CCDV 62386-102/AMD1:2018.

⁴ Under preparation. Stage at the time of publication: EN 62386-102:2014/FprA1:2018.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN IEC 62836-216:2018](https://standards.iteh.ai/catalog/standards/sist/c56c59c9-2086-45e0-8762-0d62f78b62be/sist-en-iec-62836-216-2018)

<https://standards.iteh.ai/catalog/standards/sist/c56c59c9-2086-45e0-8762-0d62f78b62be/sist-en-iec-62836-216-2018>



IEC 62386-216

Edition 1.0 2018-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Digital addressable lighting interface –
Part 216: Particular requirements for control gear – Load referencing
(device type 15)**

**Interface d'éclairage adressable numérique –
Partie 216: Exigences particulières pour les appareillages de commande –
Référence de charge (dispositifs de type 15)**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 29.140.50; 29.140.99

ISBN 978-2-8322-5613-8

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	7
2 Normative references	7
3 Terms and definitions	7
4 General	8
4.1 General.....	8
4.2 Version number	8
5 Electrical specification.....	8
6 Interface power supply	8
7 Transmission protocol structure	8
8 Timing	8
9 Method of operation.....	8
9.1 General.....	8
9.2 Reference measurement.....	8
9.3 Load referencing.....	9
9.4 Load deviation	10
9.5 Failure status.....	10
10 Declaration of variables.....	11
11 Definition of commands	11
11.1 General.....	11
11.2 Overview sheets.....	11
11.3 Application extended commands.....	12
11.3.1 General	12
11.3.2 Configuration instructions	12
11.3.3 Queries.....	12
11.4 Special commands.....	13
11.4.1 General	13
11.4.2 ENABLE DEVICE TYPE (<i>data</i>).....	13
Bibliography.....	14
Figure 1 – IEC 62386 graphical overview.....	5
Table 1 – Control gear failure status	10
Table 2 – Declaration of variables.....	11
Table 3 – Application extended commands for this device type	12

INTERNATIONAL ELECTROTECHNICAL COMMISSION

DIGITAL ADDRESSABLE LIGHTING INTERFACE –**Part 216: Particular requirements for control gear –
Load referencing (device type 15)**

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.
- 2) The formal decisions or agreements of 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 IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
<https://standards.iteh.ai/catalog/standards/sist/c56c59c9-2086-45e0-8762-0d62f78b62be/sist-en-iec-62836-216-2018>
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 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 62386-216 has been prepared by IEC technical committee 34: Lamps and related equipment.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
34/491/FDIS	34/513/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

This Part 216 of IEC 62386 is intended to be used in conjunction with:

- Part 101, which contains general requirements for system components;
- Part 102, which contains general requirements for control gear.

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

The committee has decided that the contents of this document 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 document. At this date, the document will be

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

IMPORTANT – The 'colour inside' logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN IEC 62836-216:2018

<https://standards.iteh.ai/catalog/standards/sist/c56c59c9-2086-45e0-8762-0d62f78b62be/sist-en-iec-62836-216-2018>

INTRODUCTION

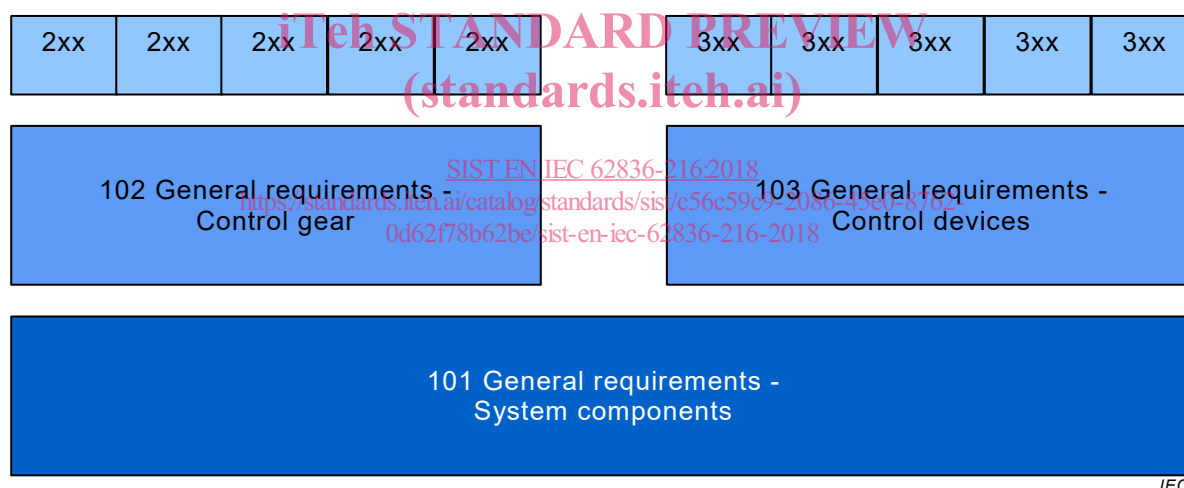
IEC 62386 contains several parts, referred to as series. The 1xx series includes the basic specifications. Part 101 contains general requirements for system components, Part 102 extends this information with general requirements for control gear and Part 103 extends it further with general requirements for control devices.

The 2xx parts extend the general requirements for control gear with lamp specific extensions (mainly for backward compatibility with Edition 1 of IEC 62386) and with control gear specific features.

The 3xx parts extend the general requirements for control devices with input device specific extensions describing the instance types as well as some common features that can be combined with multiple instance types.

This first edition of IEC 62386-216 is intended to be used in conjunction with IEC 62386-101:2014, IEC 62386-101:2014/AMD1:—, IEC 62386-102:2014 and IEC 62386-102:2014/AMD1:—. The division 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.

The setup of the standards is graphically represented in Figure 1 below.



IEC

Figure 1 – IEC 62386 graphical overview

This document, and the other parts that make up the IEC 62386-200 series, in referring to any of the clauses of IEC 62386-1XX, specifies the extent to which such a clause is applicable; the parts also include additional requirements, as necessary.

Where the requirements of any of the clauses of IEC 62386-1XX are referred to in this document 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 1XX apply, except any which are clearly inapplicable.

The standardization of the control interface for control gear is intended to achieve compatible co-existence between electronic control gear and lighting control devices, below the level of building management systems. This document describes a method of implementing control gear.