SLOVENSKI STANDARD
SIST EN IEC 62386-101:2023

01-februar-2023

Nadomešča:
SIST EN 62386-101:2015
SIST EN 62386-101:2015/A1:2018

Digitalni naslovljivi vmesnik za razsvetljavo - 101. del: Splošne zahteve - Sistemske komponente (IEC 62386-101:2022)

Digital addressable lighting interface - Part 101: General requirements - System components (IEC 62386-101:2022)

Digital adressierbare Schnittstelle für die Beleuchtung - Teil 101: Allgemeine Anforderungen - Systemkomponenten (IEC 62386-101:2022)

Interface d'éclairage adressable numérique - Partie 101: Exigences générales - Composants de système (IEC 62386-101:2022)

Ta slovenski standard je istoveten z: **EN IEC 62386-101:2022**

ICS:

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

SIST EN IEC 62386-101:2023 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62386-101

December 2022

ICS 29.140.50; 29.140.99

Supersedes EN 62386-101:2014;
EN 62386-101:2014/A1:2018

English Version

Digital addressable lighting interface - Part 101: General requirements - System components (IEC 62386-101:2022)

Interface d'éclairage adressable numérique - Partie 101: Exigences générales - Composants de système (IEC 62386-101:2022)

Digital adressierbare Schnittstelle für die Beleuchtung - Teil 101: Allgemeine Anforderungen - Systemkomponenten (IEC 62386-101:2022)

This European Standard was approved by CENELEC on 2022-12-21. 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.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye 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

European foreword

The text of document 34/947/FDIS, future edition 3 of IEC 62386-101, prepared by IEC/TC 34 "Lighting" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62386-101:2022.

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) 2023-09-21
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-12-21

This document supersedes EN 62386-101:2014 and all of its amendments and corrigenda (if any).

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.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 62386-101:2022 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 standard indicated:

CISPR 15	NOTE Harmonized as EN IEC 55015
IEC 60598-1:2020	NOTE Harmonized as EN IEC 60598-1:2021 (not modified) +A11:2022
IEC 61347 (series)	NOTE Harmonized as EN 61347 (series)
IEC 61547	NOTE Harmonized as EN 61547
IEC 63044 (series)	NOTE Harmonized as EN IEC 63044 (series)

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 Where 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.

Publication	Year	Title	EN/HD	Year
IEC 61347-1	2015	Lamp controlgear - Part 1: General and safety requirements	EN 61347-1	2015
+ A1	2017		+ A1	2021
IEC 62386-102	2022	Digital addressable lighting interface - Part 102: General requirements - Control gear	-	-
IEC 62386-103	2022	Digital addressable lighting interface - Part 103: General requirements - Control devices	-	-
IEC 62386-104	-	Digital addressable lighting interface - Part 104: General requirements - Wireless and alternative wired system components	EN IEC 62386-104	-
IEC 62386-105	-	Digital addressable lighting interface - Part 105: Particular requirements for control gear and control devices - Firmware Transfer	EN IEC 62386-105	-
IEC 62386-2XX	series	Digital addressable lighting interface - Part 2XX: Particular requirements for control gear	EN 62386-2XX	series
IEC 62386-3XX	series	Digital addressable lighting interface - Part 3XX: Particular requirements for control devices	EN 62386-3XX	series
IEC 61000-4-11	-	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase	EN IEC 61000-4-11	-
IEC 60664-1	-	Insulation coordination for equipment within low-voltage supply systems - Part 1: Principles, requirements and tests	EN IEC 60664-1	-
IEC 60990	2016	Methods of measurement of touch current and protective conductor current	EN 60990	2016

IEC 61643-11	-	Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods	EN 61643-11	-

IEC 62386-101

Edition 3.0 2022-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Digital addressable lighting interface – Part 101: General requirements – System components

Interface d'éclairage adressable numérique – Partie 101: Exigences générales – Composants de système

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 29.140.50; 29.140.99

ISBN 978-2-8322-5964-1

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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DIGITAL ADDRESSABLE LIGHTING INTERFACE –

Part 101: General requirements – System components

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.

IEC 62386-101 has been prepared by IEC technical committee 34: Lighting. It is an International Standard.

This third edition cancels and replaces the second edition published in 2014 and Amendment 1:2018. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) the scope has been updated;
b) safety and earthing have been updated and extended;
c) references have been updated;
d) the use of bus-power and external-power has been clarified;
e) polarity sensitivity for bus units including a bus power supply has been updated;

f) frame sizes of 32 bits are no longer reserved.

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

Draft	Report on voting
34/947/FDIS	34/988/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

This Part 101 of IEC 62386 is intended to be used in conjunction with:

- Part 102, which contains general requirements for the relevant product type (control gear), and with the appropriate Part 2xx (particular requirements for control gear);
- Part 103, which contains general requirements for the relevant product type (control devices), and the appropriate Part 3xx (particular requirements for control devices);
- Part 104, which contains general requirements for wireless and alternative wired system components;
- Part 105, which contains particular requirements for firmware transfer for control gear and control devices.

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 website under 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.

INTRODUCTION

IEC 62386 contains several parts, referred to as series. The IEC 62386 series specifies a bus system for control by digital signals of electronic lighting equipment. The IEC 62386-1xx 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. Parts 104 and 105 can be applied to control gear or control devices. Part 104 gives requirements for wireless and alternative wired system components. Part 105 describes firmware transfer. Part 150 gives requirements for an auxiliary power supply which can be stand-alone, or built into control gear or control devices.

The IEC 62386-2xx series extends 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 IEC 62386-3xx series extends 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 third edition of IEC 62386-101 is intended to be used in conjunction with IEC 62386-102 and with the various parts that make up the IEC 62386-2xx series for control gear, together with IEC 62386-103 and the various parts that make up the IEC 62386-3xx series of particular requirements for control devices. 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.

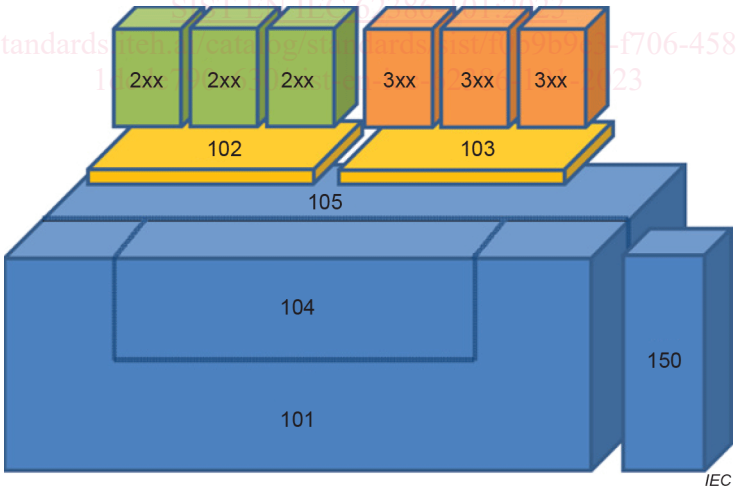

Figure 1 – IEC 62386 graphical overview

When this part of IEC 62386 refers to any of the clauses of the other parts of the IEC 62386-1xx series, the extent to which such a clause is applicable is specified. The other parts also include additional requirements, as necessary.

All numbers used in this document 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".