

STN	Digitálne adresovateľné rozhranie osvetlenia Časť 105: Osobitné požiadavky na ovládacie a riadiace zariadenia Prenos firmvéru	STN EN IEC 62386-105 36 0597
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Digital addressable lighting interface - Part 105: Particular requirements for control gear and control devices - Firmware transfer

Táto norma obsahuje anglickú verziu európskej normy.

This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/25

Obsahuje: EN IEC 62386-105:2025, IEC 62386-105:2024

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EUROPÄISCHE NORM

EN IEC 62386-105

January 2025

ICS 29.140.50; 29.140.99

Supersedes EN IEC 62386-105:2020

English Version

**Digital addressable lighting interface - Part 105: Particular
requirements for control gear and control devices - Firmware
transfer
(IEC 62386-105:2024)**

Interface d'éclairage adressable numérique - Partie 105:
Exigences particulières pour appareillages et dispositifs de
commande - Transfert du microprogramme
(IEC 62386-105:2024)

Digital adressierbare Schnittstelle für die Beleuchtung - Teil
105: Besondere Anforderungen für Betriebs- und
Steuergeräte - Firmware Übertragung
(IEC 62386-105:2024)

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Europäisches Komitee für Elektrotechnische Normung

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

EN IEC 62386-105:2025 (E)**European foreword**

The text of document 34/1258/FDIS, future edition 2 of IEC 62386-105, prepared by TC 34 "Lighting" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62386-105:2025.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2026-01-31 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2028-01-31 document have to be withdrawn

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This document is read in conjunction with EN IEC 62386-101, EN IEC 62386-102, EN IEC 62386-103 and EN IEC 62386-104.

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 62386-105:2024 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 62386-250 NOTE Approved as EN IEC 62386-250

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.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62386-101	2022	Digital addressable lighting interface - Part 101: General requirements - System components	EN IEC 62386-101	2022
IEC 62386-102	2022	Digital addressable lighting interface - Part 102: General requirements - Control gear	EN IEC 62386-102	2022
IEC 62386-103	2022	Digital addressable lighting interface - Part 103: General requirements - Control devices	EN IEC 62386-103	2022



IEC 62386-105

Edition 2.0 2024-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Digital addressable lighting interface –
Part 105: Particular requirements for control gear and control devices –
Firmware transfer**

**Interface d'éclairage adressable numérique –
Partie 105: Exigences particulières pour appareillages et dispositifs de
commande – Transfert du microprogramme**

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IEC 62386-105

Edition 2.0 2024-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Digital addressable lighting interface –
Part 105: Particular requirements for control gear and control devices –
Firmware transfer**

**Interface d'éclairage adressable numérique –
Partie 105: Exigences particulières pour appareillages et dispositifs de
commande – Transfert du microprogramme**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

DIGITAL ADDRESSABLE LIGHTING INTERFACE –**Part 105: Particular requirements for control gear and control devices –
Firmware transfer****FOREWORD**

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IEC 62386-105 has been prepared by IEC technical committee 34: Lighting. It is an International Standard.

This second edition cancels and replaces the first edition published in 2020. This edition constitutes a technical revision.

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

- a) several commands have been modified, renamed and added;
- b) variables have been modified and added;
- c) recommendations for implementation within emergency control gear have been added;
- d) requirements for block acceptance have been changed;

- e) example process-flow diagrams have been added;
- f) requirements for restarting and power-on have been changed.

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

Draft	Report on voting
34/1258/FDIS	34/1281/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/publications.

This document is intended to be used in conjunction with:

- IEC 62386-101, which contains general requirements for system components;
- IEC 62386-102, which contains general requirements for the relevant product type (control gear), and with the appropriate parts of the IEC 62386-2xx series (particular requirements for control gear);
- IEC 62386-103, which contains general requirements for the relevant product type (control devices), and with the appropriate parts of the IEC 62386-3xx series (particular requirements for control devices);
- IEC 62386-104, which contains general requirements for wireless and alternative wired system components.

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, or
- revised.

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INTRODUCTION

IEC 62386 contains several parts, referred to as a 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. IEC 62386-101 contains general requirements for system components, IEC 62386-102 extends this information with general requirements for control gear and IEC 62386-103 extends it further with general requirements for control devices. IEC 62386-104 and IEC 62386-105 can be applied to control gear or control devices. IEC 62386-104 gives requirements for wireless and alternative wired system components. IEC 62386-105 describes firmware transfer. IEC 62386-150 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 second edition of IEC 62386-105 is intended to be used in conjunction with IEC 62386-101, IEC 62386-102 and 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.

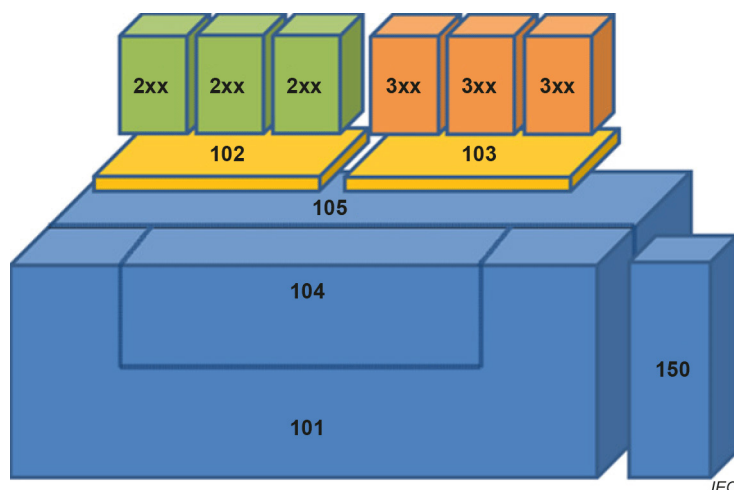


Figure 1 – IEC 62386 graphical overview

When this document refers to any of the clauses 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".

The following typographic expressions are used:

Variables: *variableName* or *variableName[3:0]*, giving only bits 3 to 0 of *variableName*;

Range of values: [lowest, highest];

Command: "COMMAND NAME".

Function or command parameters: *parameter name*.

DIGITAL ADDRESSABLE LIGHTING INTERFACE –

Part 105: Particular requirements for control gear and control devices – Firmware transfer

1 Scope

This part of IEC 62386 applies to control gear and control devices for control by digital signals of electronic lighting equipment.

Typically, a bus unit according to the IEC 62386 series contains firmware. There are circumstances where it can be necessary to change the firmware after production or shipping of the product, for example if the bus unit does not operate as intended. In such a case, a firmware update of a bus unit via the interface is beneficial.

This firmware update process is primarily designed to be a bug fix process, not a feature extension process. Nevertheless, the firmware update process can be used for feature extensions. But it is important that the risk of negative effects to the complete system be considered in detail.

NOTE Annex D provides a "Firmware update management check sheet" to support risk estimation.

2 Normative references

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.

IEC 62386-101:2022, *Digital addressable lighting interface – Part 101: General requirements – System components*

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*

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