

<b>STN</b>	<b>Digitálne adresovateľné rozhranie osvetlenia Časť 105: Osobitné požiadavky na ovládacie a riadiace zariadenia Prenos firmvéru</b>	<b>STN EN IEC 62386-105</b>
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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 označená vo Vestníku ÚNMS SR č. 09/20

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English Version

Digital addressable lighting interface - Part 105: Particular requirements for control gear and control devices - Firmware Transfer  
(IEC 62386-105:2020)

Interface d'éclairage adressable numérique - Partie 105:  
Exigences particulières pour appareillages et dispositifs de  
commande - Transfert du microprogramme  
(IEC 62386-105:2020)

Digital adressierbare Schnittstelle für die Beleuchtung - Teil  
105: Besondere Anforderungen für Betriebs- und  
Steuergeräte - Firmware Übertragung  
(IEC 62386-105:2020)

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Europäisches Komitee für Elektrotechnische Normung

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

**EN IEC 62386-105:2020 (E)****European foreword**

The text of document 34/675/FDIS, future edition 1 of IEC 62386-105, prepared by IEC/TC 34 "Lighting" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62386-105:2020.

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) 2021-01-30
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-04-30

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**Annex ZA**  
(normative)**Normative references to international publications  
with their corresponding European publications**

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NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://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	2018		+ A1	2018
IEC 62386-102	2014	Digital addressable lighting interface - Part 102: General requirements - Control gear	EN 62386-102	2014
+ A1	2018		+ A1	2018
IEC 62386-103	2014	Digital addressable lighting interface - Part 103: General requirements - Control devices	EN 62386-103	2014
+ A1	2018		+ A1	2018



IEC 62386-105

Edition 1.0 2020-03

# 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 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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International Standard IEC 62386-105 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
34/675/FDIS	34/688/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 105 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 the relevant product type (control gear), and with the appropriate Parts 2xx (particular requirements for control gear);
- Part 103, which contains general requirements for the relevant product type (control devices), and the appropriate Parts 3xx (particular requirements for 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 "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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## INTRODUCTION

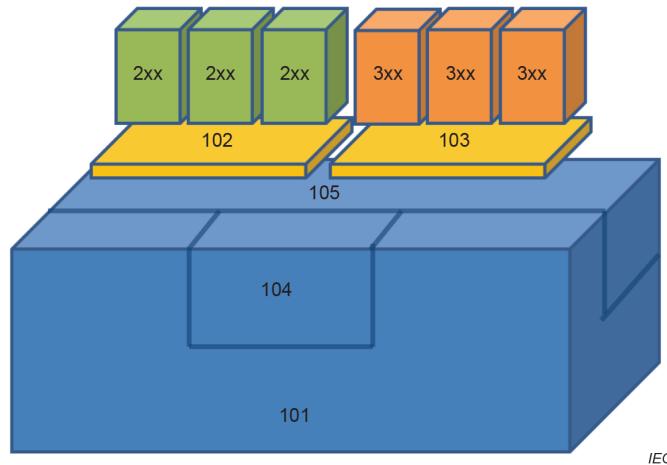
IEC 62386 contains several parts, referred to as series. The IEC 62386 series specifies a bus system for control by digital signals of electronic lighting equipment. The IEC 62386-1xx series includes the basic specifications. Part 101 contains general requirements for system components, Part 102 extends this information with general requirements for control gear and Part 103 extends it further with general requirements for control devices.

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 first 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 part of IEC 62386 refers to any of the clauses of the IEC 62386-1xx series, the extent to which such a clause is applicable and the order in which the tests are to be performed are 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"

## 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.

Typically, a bus unit according to IEC 62386 (all parts) contains firmware. There are circumstances where it might 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 is 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 62386-101:2014, *Digital addressable lighting interface – Part 101: General requirements – System components*  
IEC 62386-101:2014/AMD1:2018

IEC 62386-102:2014, *Digital addressable lighting interface – Part 102: General requirements – Control gear*  
IEC 62386-102:2014/AMD1:2018

IEC 62386-103:2014, *Digital addressable lighting interface – Part 103: General requirements – Control devices*  
IEC 62386-103:2014/AMD1:2018

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