

STN	Digitálne adresovateľné rozhranie osvetlenia Časť 101: Všeobecné požiadavky Súčasti systému	STN EN IEC 62386-101 36 0597
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Digital addressable lighting interface - Part 101: General requirements - System components

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. 03/23

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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)

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EN IEC 62386-101:2022 (E)**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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-12-21

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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

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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

EN IEC 62386-101:2022 (E)

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



IEC 62386-101

Edition 3.0 2022-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE



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

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



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Edition 3.0 2022-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE



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

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

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CONTENTS

FOREWORD	7
INTRODUCTION	9
1 Scope	10
2 Normative references	10
3 Terms and definitions	11
4 General	16
4.1 Purpose	16
4.2 Version number	16
4.3 System structure and architecture	16
4.4 System information flow	17
4.5 Command types	17
4.6 Bus units	18
4.6.1 Transmitters and receivers in bus units	18
4.6.2 Control gear	18
4.6.3 Input device	18
4.6.4 Single-master application controller	19
4.6.5 Multi-master application controller	19
4.6.6 Sharing an interface	19
4.6.7 Power for operation	20
4.7 Bus power supply and load calculations	21
4.7.1 Current demand coverage	21
4.7.2 Maximum signal current compliance	21
4.7.3 Simplified system calculation	21
4.8 Wiring	21
4.8.1 Wiring structure	21
4.8.2 Wiring specification	21
4.9 Electrical safety requirements	22
4.9.1 General	22
4.9.2 Insulation	22
4.9.3 Electric strength	22
4.9.4 Limitation of the touch current from the device to the bus	22
4.10 Earthing of the bus	23
4.11 Power interruptions at bus units	23
4.11.1 Different levels of power interruptions	23
4.11.2 Short power interruptions of external power supply	23
4.11.3 External power cycle	24
4.11.4 Short interruptions of bus power supply	24
4.11.5 Bus power down	24
4.11.6 System start-up timing	24
5 Electrical specification	26
5.1 General	26
5.2 Marking of the interface	26
5.3 Capacitors between the interface and earth	26
5.4 Signal voltage rating	26
5.5 Signal current rating	27
5.6 Marking of bus powered bus unit	27

5.7	Signal rise time and fall time	28
6	Bus power supply	29
6.1	General.....	29
6.2	Marking of the bus power supply terminals.....	29
6.3	Capacitors between the interface and earth	29
6.4	Voltage rating	29
6.5	Current rating.....	30
6.5.1	General current rating.....	30
6.5.2	Single bus power supply current rating	30
6.5.3	Integrated bus power supply current rating	30
6.5.4	Dynamic behaviour of the bus power supply	30
6.6	Bus power supply timing requirements	32
6.6.1	Short power supply interruptions.....	32
6.6.2	Short circuit behaviour	32
7	Transmission protocol structure	33
7.1	General.....	33
7.2	Bit encoding.....	33
7.2.1	Start bit and data bit encoding	33
7.2.2	Stop condition encoding	33
7.3	Frame description	33
7.4	Frame types.....	34
7.4.1	16-bit forward frame	34
7.4.2	24-bit forward frame	34
7.4.3	32-bit forward frame	34
7.4.4	Reserved forward frame	34
7.4.5	Backward frame.....	34
7.4.6	Proprietary forward frames	34
8	Timing	35
8.1	Single-master transmitter timing.....	35
8.1.1	Single-master transmitter bit timing.....	35
8.1.2	Single-master transmitter frame sequence timing	35
8.2	Receiver timing.....	36
8.2.1	Receiver bit timing	36
8.2.2	Receiver bit timing violation	37
8.2.3	Receiver frame size violation	38
8.2.4	Receiver frame sequence timing	38
8.2.5	Reception of backward frames.....	38
8.3	Multi-master transmitter timing.....	39
8.3.1	Multi-master transmitter bit timing.....	39
8.3.2	Multi-master transmitter frame sequence timing.....	39
9	Method of operation.....	40
9.1	Dealing with frames and commands.....	40
9.1.1	General	40
9.1.2	Frame received or rejected	41
9.1.3	Frame accepted or ignored	41
9.1.4	Command accepted or ignored	41
9.1.5	Command executed or discarded.....	41
9.2	Collision avoidance, collision detection and collision recovery	42

9.2.1	General	42
9.2.2	Collision avoidance.....	42
9.2.3	Collision detection	42
9.2.4	Collision recovery	44
9.3	Transactions	45
9.4	Send-twice forward frames and send-twice commands	45
9.5	Command iteration.....	46
9.6	Usage of a shared interface	46
9.6.1	General	46
9.6.2	Backward frames	47
9.6.3	Forward frames	47
9.7	Use of multiple bus power supplies	47
10	Declaration of variables	47
11	Definition of commands	47
Annex A (informative)	Background information for systems	48
A.1	Wiring information.....	48
A.2	System architectures	49
A.2.1	General	49
A.2.2	Single-master architecture	49
A.2.3	Multi-master architecture with one application controller	50
A.2.4	Multi-master architecture with more than one application controller	51
A.2.5	Multi-master architecture with integrated input device.....	52
A.2.6	Multi-master architecture with integrated input device and power supply.....	53
A.3	Collision detection	54
A.4	Timing definition explanations.....	55
A.4.1	General	55
A.4.2	Receiver timing.....	55
A.4.3	Transmitter timing.....	55
A.4.4	Grey areas	56
A.5	Maximum current consumption calculation explanation	56
A.5.1	Single bus power supply	56
A.5.2	Multiple bus power supplies.....	57
A.5.3	Redundant bus power supplies	58
A.6	Communication layer overview.....	59
A.6.1	General	59
A.6.2	Physical layer	60
A.6.3	Data link layer	60
A.6.4	Network layer	60
A.6.5	Transport layer	60
A.6.6	Session layer.....	60
A.6.7	Presentation layer	60
A.6.8	Application layer.....	60
A.7	Effects of combining version number 1 and version number 2.y devices.....	60
Annex B (informative)	Touch current.....	62
Bibliography	63
Figure 1 – IEC 62386 graphical overview		9
Figure 2 – System structure example		17

Figure 3 – Communication between bus units (example).....	17
Figure 4 – Example of a shared interface.....	20
Figure 5 – Start-up timing example	25
Figure 6 – Maximum signal rise and fall time measurements.....	28
Figure 7 – Minimum signal rise and fall time measurements.....	29
Figure 8 – Bus power supply current behaviour.....	31
Figure 9 – Bus power supply voltage behaviour	32
Figure 10 – Frame example	33
Figure 11 – Bi-phase encoded bits.....	33
Figure 12 – Bit timing example.....	35
Figure 13 – Settling time illustration	35
Figure 14 – Receiver timing decision example	37
Figure 15 – Dealing with frames and commands	41
Figure 16 – Collision detection timing decision example.....	44
Figure 17 – Collision recovery example.....	45
Figure A.1 – Single-master architecture example	50
Figure A.2 – Multi-master architecture example with one application controller	51
Figure A.3 – Multi-master architecture example with two application controllers.....	52
Figure A.4 – Multi-master architecture example with integrated input device	53
Figure A.5 – Multi-master architecture example with integrated input device and bus power supply	54
Figure A.6 – Collision detection timing diagram.....	55
Figure A.7 – Transmitter and receiver timing illustration.....	56
Figure A.8 – Bus power supply current values.....	57
Figure A.9 – Current demand coverage.....	57
Figure A.10 – Combination of four bus power supplies.....	58
Figure A.11 – Redundant bus power supplies	58
Figure B.1 – Touch current from a bus unit	62
Figure B.2 – Summation of touch currents from several bus units	62
Table 1 – System components	16
Table 2 – Transmitters and receivers in bus units	18
Table 3 – Power-interruption timing of external power.....	23
Table 4 – Power-interruption timing of bus power.....	23
Table 5 – Short power interruptions	24
Table 6 – Start-up timing.....	25
Table 7 – System voltage levels.....	26
Table 8 – Receiver voltage levels	27
Table 9 – Transmitter voltage levels	27
Table 10 – Current rating	27
Table 11 – Signal rise and fall times	28
Table 12 – Bus power supply output voltage	30
Table 13 – Bus power supply current rating	30

Table 14 – Bus power supply dynamic behaviour	31
Table 15 – Short circuit timing behaviour	32
Table 16 – Transmitter bit timing.....	35
Table 17 – Transmitter settling time values	36
Table 18 – Receiver timing starting at the beginning of a logical bit	37
Table 19 – Receiver timing starting at an edge inside of a logical bit	37
Table 20 – Receiver settling time values	38
Table 21 – Multi-master transmitter bit timing.....	39
Table 22 – Multi-master transmitter settling time values	40
Table 23 – Checking a logical bit, starting at an edge at the beginning of the bit.....	43
Table 24 – Checking a logical bit, starting at an edge inside the bit	43
Table 25 – Collision recovery timing	44
Table 26 – Transmitter command iteration timing	46
Table 27 – Receiver command iteration timing	46
Table A.1 – Maximum cable length	49
Table A.2 – OSI layer model of the IEC 62386 series.....	59
Table A.3 – Effects of combining version number 1 and version number 2.y devices.....	61

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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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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.

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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. 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.

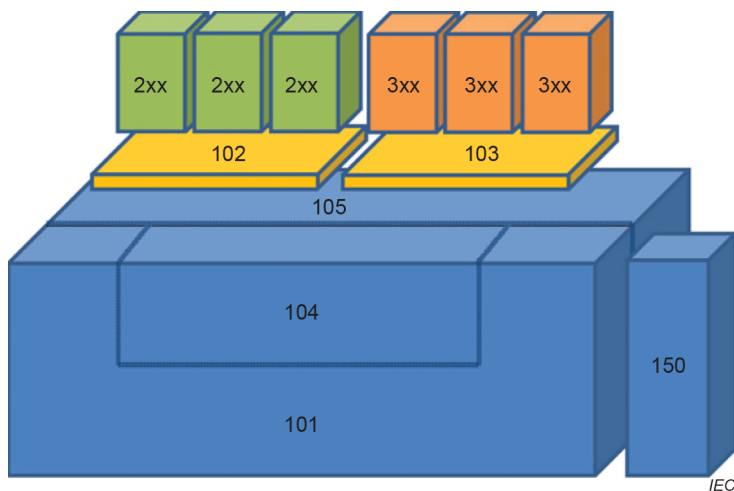


Figure 1 – IEC 62386 graphical overview

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".

DIGITAL ADDRESSABLE LIGHTING INTERFACE –

Part 101: General requirements – System components

1 Scope

This part of IEC 62386 is applicable to system components in a bus system for control by digital signals of electronic lighting equipment.

The control methods, algorithms and data exchange methods of application controllers used for lighting control are not within the scope of the IEC 62386 series. EMC requirements are not within the scope of the IEC 62386 series.

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 61347-1:2015, *Lamp controlgear – Part 1: General and safety requirements*
IEC 61347-1:2015/AMD1:2017

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*

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– 11 –

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