

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



**Digital addressable lighting interface –  
Part 202: Particular requirements for control gear – Self-contained emergency  
lighting (device type 1)**

**Interface d'éclairage adressable numérique –  
Partie 202: Exigences particulières pour les appareillages de commande –  
Blocs autonomes d'éclairage de secours (dispositifs de type 1)**



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IEC Secretariat  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland

Tel.: +41 22 919 02 11  
[info@iec.ch](mailto:info@iec.ch)  
[www.iec.ch](http://www.iec.ch)

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## CONTENTS

FOREWORD.....	5
INTRODUCTION.....	7
1 Scope.....	9
2 Normative references .....	9
3 Terms and definitions .....	9
4 General .....	12
4.1 General.....	12
4.2 Version number .....	12
4.3 Power supply of bus units .....	12
4.4 Power interruption at bus units.....	13
4.4.1 General .....	13
4.4.2 Power interruptions of external power supply.....	13
4.4.3 Communication requirements in rest mode and emergency mode .....	13
4.4.4 Endurance of REST MODE.....	13
5 Electrical specification .....	13
6 Interface power supply .....	13
7 Transmission protocol structure .....	13
8 Timing .....	14
9 Method of operation.....	14
9.1 General.....	14
9.2 Command execution .....	14
9.3 Non-controllable control gear .....	14
9.3.1 General .....	14
9.3.2 Command execution of non-controllable control gear.....	14
9.3.3 Status bits of non-controllable control gear .....	15
9.4 Emergency level .....	15
9.4.1 General .....	15
9.4.2 Emergency operation light output and emergency level .....	15
9.4.3 Emergency physical maximum and minimum level .....	15
9.4.4 Configuring emergency level.....	16
9.4.5 Testing of emergency level.....	16
9.5 Mode transition timing and behaviour.....	16
9.6 System failure.....	18
9.7 Modes of operation .....	18
9.7.1 General .....	18
9.7.2 Normal mode .....	19
9.7.3 Inhibit mode.....	20
9.7.4 Emergency mode.....	21
9.7.5 Extended emergency mode.....	22
9.7.6 Rest mode .....	23
9.7.7 Mode 'Function test in progress' .....	24
9.7.8 Mode 'Duration test in progress' .....	25
9.7.9 Mode 'Battery cut-off' .....	27
9.8 Emergency test functions and configuration .....	27
9.8.1 General .....	27
9.8.2 Automatic testing.....	27

9.8.3	Automatic test execution status .....	30
9.8.4	Querying test results.....	31
9.8.5	Extended test duration.....	31
9.8.6	Timing definitions .....	32
9.9	Protection functionalities in emergency mode .....	33
9.10	Emergency mode and operating modes .....	33
9.11	Hardwired emergency inputs.....	33
9.11.1	General .....	33
9.11.2	Hardwired inhibit input.....	33
9.11.3	Hardwired switch .....	33
9.12	Control gear status and capabilities .....	34
9.12.1	General .....	34
9.12.2	Modification to " <i>lampOn</i> " .....	34
9.12.3	Rated duration and battery charge .....	34
9.12.4	Emergency status .....	34
9.12.5	Emergency mode.....	35
9.12.6	Emergency features.....	36
9.12.7	Emergency failure status .....	37
9.12.8	Hardwired switch status.....	38
9.12.9	Emergency lamp operation time.....	38
9.13	Restricting device type support .....	39
9.14	Installation inhibit.....	39
9.15	Memory banks .....	39
9.15.1	General .....	39
9.15.2	Accuracy of measurements.....	39
9.15.3	Rounding of measurement values .....	39
9.15.4	Refresh rate of memory bank values.....	40
9.15.5	No overflow of counters .....	40
9.15.6	Memory bank 208: Emergency control gear information .....	40
10	Declaration of variables .....	45
10.1	General.....	45
10.2	Impact on control gear variables depending on control gear type .....	45
10.3	Control gear variables for all self-contained control gear.....	46
11	Definition of commands .....	47
11.1	General.....	47
11.2	Overview sheets .....	47
11.3	Level instructions .....	50
11.4	Configuration instructions .....	50
11.4.1	General .....	50
11.4.2	IDENTIFY DEVICE .....	50
11.5	Queries.....	50
11.5.1	General .....	50
11.5.2	QUERY ACTUAL LEVEL.....	50
11.6	Application extended commands .....	50
11.6.1	General .....	50
11.6.2	Configuration instructions .....	51
11.6.3	Queries.....	55
11.7	Special commands.....	58
11.7.1	General .....	58

11.7.2	ENABLE DEVICE TYPE ( <i>data</i> ).....	58
Annex A	(informative) Enabling or re-enabling installation inhibit .....	59
A.1	General.....	59
A.2	Re-enabling installation inhibit .....	59
A.3	Modifying or cancelling installation inhibit operation .....	59
	Bibliography.....	60
Figure 1	– IEC 62386 graphical overview .....	7
Figure 2	– Modes and transitions .....	19
Figure 3	– Timing diagram for function and duration tests .....	28
Figure 4	– Duration test execution time out example .....	31
Table 1	– Mode transition behaviour .....	17
Table 2	– Bus power interruption behaviour .....	18
Table 3	– Normal mode.....	20
Table 4	– Inhibit mode .....	21
Table 5	– Emergency mode .....	22
Table 6	– Extended emergency mode .....	23
Table 7	– Rest mode.....	24
Table 8	– Mode 'Function test in progress' .....	25
Table 9	– Mode 'Duration test in progress' .....	26
Table 10	– Mode 'Battery cut-off' .....	27
Table 11	– " <i>extendedDuration</i> " .....	32
Table 12	– Timing definitions .....	32
Table 13	– " <i>emergencyStatus</i> " .....	35
Table 14	– " <i>emergencyMode</i> ".....	36
Table 15	– " <i>emergencyFeatures</i> " .....	36
Table 16	– " <i>emergencyFailureStatus</i> " .....	37
Table 17	– " <i>hardwiredSwitchStatus</i> " .....	38
Table 18	– Memory bank 208: Self-contained emergency control gear information.....	40
Table 19	– Modifications of control gear variables.....	45
Table 20	– Declaration of additional variables.....	46
Table 21	– Application extended commands .....	48
Table 22	– Perform DTR selected function.....	55
Table 23	– Query selected variable.....	56

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**DIGITAL ADDRESSABLE LIGHTING INTERFACE –****Part 202: Particular requirements for control gear –  
Self-contained emergency lighting (device type 1)**

## FOREWORD

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IEC 62386-202 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 2009. This edition constitutes a technical revision.

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

- a) scope updated,
- b) hardwired switch operation can be disabled,
- c) installation inhibit feature added,
- d) memory bank added,
- e) modes of operation clarified, with some changes and additions,
- f) command added to enter extended emergency mode,

g) command added to extend time in duration test mode.

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

Draft	Report on voting
34/986/FDIS	34/1000/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

This Part 202 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 website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

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

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## INTRODUCTION

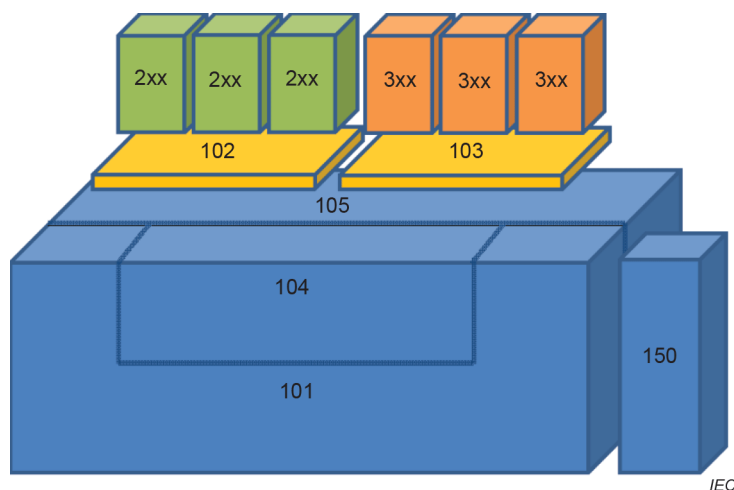
IEC 62386 contains several parts, referred to as series. The IEC 62386 series specifies a bus system for control by digital signals of electronic lighting equipment. The IEC 62386-1xx series includes the basic specifications. Part 101 contains general requirements for system components, Part 102 extends this information with general requirements for control gear and Part 103 extends it further with general requirements for control devices. Part 104 and Part 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 second edition of IEC 62386-202 is intended to be used in conjunction with IEC 62386-101 and IEC 62386-102 and with the various parts that make up the IEC 62386-2xx series for control gear, and can be used 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 recognised.

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 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 and "x" in binary numbers means "don't care". Where a variable is referred by a bit number, bit 0 is the least significant bit.

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 202: Particular requirements for control gear – Self-contained emergency lighting (device type 1)

### 1 Scope

This part of IEC 62386 is applicable to control gear for control by digital signals of electronic lighting equipment which is associated with self-contained emergency lighting as described in IEC 61347-2-7 with additional control interface for configuring emergency operation.

This document is only applicable to control gear complying with IEC 62386-102.

This document does not apply to centrally supplied emergency lighting control gear, which is specified in IEC 62386-220.

### 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*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62386-101 and IEC 62386-102 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

#### 3.1

##### **battery cut-off**

mode of operation in which the normal supply is disconnected and the battery voltage is below the battery cut-off voltage

Note 1 to entry: Reaching this point can trigger the device to protect against extensive discharge as defined in IEC 61347-2-7:2011, 3.4 and IEC 61347-2-7:2011/AMD2:2021, 3.4.

#### 3.2

##### **battery cut-off voltage**

battery voltage, below which the battery can no longer power the control gear or lamp(s)