

Digital addressable lighting interface - Part 102:
General requirements - Control gear

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

**Digital addressable lighting interface - Part 102: General
requirements - Control gear
(IEC 62386-102:2022)**

Interface d'éclairage adressable numérique - Partie 102:
Exigences générales - Appareillages de commande
(IEC 62386-102:2022)

Digital adressierbare Schnittstelle für die Beleuchtung - Teil
102: Allgemeine Anforderungen - Betriebsgeräte
(IEC 62386-102:2022)

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European foreword

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INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Digital addressable lighting interface –
Part 102: General requirements – Control gear**

**Interface d'éclairage adressable numérique –
Partie 102: Exigences générales – Appareillages de commande**



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

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Digital addressable lighting interface –
Part 102: General requirements – Control gear**

**Interface d'éclairage adressable numérique –
Partie 102: Exigences générales – Appareillages de commande**

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CONTENTS

FOREWORD	7
INTRODUCTION	9
1 Scope	11
2 Normative references	11
3 Terms and definitions	11
4 General	14
4.1 General	14
4.2 Version number	14
5 Electrical specification	15
6 Bus power supply	15
7 Transmission protocol structure	15
7.1 General	15
7.2 16-bit forward frame encoding	15
7.2.1 General	15
7.2.2 Address byte	15
7.2.3 Opcode byte	15
8 Timing	16
9 Method of operation	16
9.1 General	16
9.2 Control gear	16
9.2.1 General	16
9.2.2 Control gear phases	16
9.3 Dimming curve	17
9.4 Calculating "targetLevel"	20
9.5 Fading	20
9.5.1 General	20
9.5.2 Fade time	21
9.5.3 Fade rate	22
9.5.4 Extended fade time	23
9.5.5 Using the fade time	25
9.5.6 Using the fade rate	25
9.5.7 System response to changes during a fade	26
9.5.8 System response to changes during standby and startup	26
9.5.9 Stopping a fade	26
9.6 Min and max level	26
9.7 Commands	27
9.7.1 General	27
9.7.2 Level instructions without fade	27
9.7.3 Level instructions initiating a fade	28
9.7.4 Configuration instructions	28
9.7.5 Queries	28
9.7.6 Special commands	28
9.7.7 Application extended commands	28
9.8 Command iterations	28
9.8.1 General	28

9.8.2	Command iteration of "UP" and "DOWN" commands	28
9.8.3	DAPC SEQUENCE (deprecated)	29
9.9	Modes of operation	30
9.9.1	General	30
9.9.2	Operating mode 0x00: standard mode	30
9.9.3	Operating mode 0x01 to 0x7F: reserved	30
9.9.4	Operating mode 0x80 to 0xFF: manufacturer-specific modes	30
9.10	Memory banks	30
9.10.1	General	30
9.10.2	Memory map.....	31
9.10.3	Selecting a memory bank location	32
9.10.4	Protectable memory locations.....	32
9.10.5	Memory bank reading	32
9.10.6	Memory bank writing.....	34
9.10.7	Memory bank 0.....	35
9.10.8	Memory bank 1 (optional)	37
9.10.9	Manufacturer-specific memory banks.....	39
9.10.10	Reserved memory banks	39
9.11	Reset.....	39
9.11.1	Reset operation	39
9.11.2	Reset memory bank operation	39
9.12	System failure	40
9.13	Power on	40
9.14	Assigning short addresses	41
9.14.1	General	41
9.14.2	Random address allocation.....	41
9.14.3	Identification of a device	42
9.14.4	Direct address allocation	43
9.15	Failure state behaviour	43
9.16	Status information.....	43
9.16.1	General	43
9.16.2	Bit 0: Control gear failure.....	44
9.16.3	Bit 1: lamp failure	44
9.16.4	Bit 2: lamp on	46
9.16.5	Bit 3: limit error.....	46
9.16.6	Bit 4: fade running	46
9.16.7	Bit 5: reset state	46
9.16.8	Bit 6: missing short address.....	46
9.16.9	Bit 7: power cycle seen.....	46
9.17	Non-volatile memory	46
9.18	Device types and features.....	47
9.19	Using scenes	47
9.20	Current bus unit configuration	48
10	Declaration of variables	49
11	Definition of commands	52
11.1	General.....	52
11.2	Overview sheets	52
11.3	Level instructions.....	57
11.3.1	DAPC (<i>level</i>)	57

11.3.2	OFF	57
11.3.3	UP	57
11.3.4	DOWN	57
11.3.5	STEP UP	58
11.3.6	STEP DOWN	58
11.3.7	RECALL MAX LEVEL	58
11.3.8	RECALL MIN LEVEL	59
11.3.9	STEP DOWN AND OFF	59
11.3.10	ON AND STEP UP	59
11.3.11	ENABLE DAPC SEQUENCE	60
11.3.12	GO TO LAST ACTIVE LEVEL	60
11.3.13	CONTINUOUS UP	60
11.3.14	CONTINUOUS DOWN	60
11.3.15	GO TO SCENE (<i>sceneNumber</i>)	60
11.4	Configuration instructions	60
11.4.1	General	60
11.4.2	RESET	61
11.4.3	STORE ACTUAL LEVEL IN DTR0	61
11.4.4	SET OPERATING MODE (<i>DTR0</i>)	61
11.4.5	RESET MEMORY BANK (<i>DTR0</i>)	61
11.4.6	IDENTIFY DEVICE	61
11.4.7	SET MAX LEVEL (<i>DTR0</i>)	62
11.4.8	SET MIN LEVEL (<i>DTR0</i>)	62
11.4.9	SET SYSTEM FAILURE LEVEL (<i>DTR0</i>)	62
11.4.10	SET POWER ON LEVEL (<i>DTR0</i>)	63
11.4.11	SET FADE TIME (<i>DTR0</i>)	63
11.4.12	SET FADE RATE (<i>DTR0</i>)	63
11.4.13	SET EXTENDED FADE TIME (<i>DTR0</i>)	63
11.4.14	SET SCENE (<i>DTR0, sceneX</i>)	64
11.4.15	REMOVE FROM SCENE (<i>sceneX</i>)	64
11.4.16	ADD TO GROUP (<i>group</i>)	64
11.4.17	REMOVE FROM GROUP (<i>group</i>)	64
11.4.18	SET SHORT ADDRESS (<i>DTR0</i>)	64
11.4.19	ENABLE WRITE MEMORY	65
11.5	Queries	65
11.5.1	General	65
11.5.2	QUERY STATUS	65
11.5.3	QUERY CONTROL GEAR PRESENT	65
11.5.4	QUERY CONTROL GEAR FAILURE	65
11.5.5	QUERY LAMP FAILURE	65
11.5.6	QUERY LAMP POWER ON	65
11.5.7	QUERY LIMIT ERROR	65
11.5.8	QUERY RESET STATE	65
11.5.9	QUERY MISSING SHORT ADDRESS	65
11.5.10	QUERY VERSION NUMBER	66
11.5.11	QUERY CONTENT DTR0	66
11.5.12	QUERY DEVICE TYPE	66
11.5.13	QUERY NEXT DEVICE TYPE	66
11.5.14	QUERY PHYSICAL MINIMUM	66

11.5.15	QUERY POWER FAILURE	67
11.5.16	QUERY CONTENT DTR1	67
11.5.17	QUERY CONTENT DTR2	67
11.5.18	QUERY OPERATING MODE	67
11.5.19	QUERY LIGHT SOURCE TYPE	67
11.5.20	QUERY ACTUAL LEVEL.....	68
11.5.21	QUERY MAX LEVEL.....	68
11.5.22	QUERY MIN LEVEL.....	68
11.5.23	QUERY POWER ON LEVEL	68
11.5.24	QUERY SYSTEM FAILURE LEVEL.....	68
11.5.25	QUERY FADE TIME/FADE RATE	68
11.5.26	QUERY EXTENDED FADE TIME	68
11.5.27	QUERY MANUFACTURER SPECIFIC MODE	68
11.5.28	QUERY SCENE LEVEL (<i>sceneX</i>)	68
11.5.29	QUERY GROUPS 0-7	69
11.5.30	QUERY GROUPS 8-15	69
11.5.31	QUERY RANDOM ADDRESS (H)	69
11.5.32	QUERY RANDOM ADDRESS (M)	69
11.5.33	QUERY RANDOM ADDRESS (L)	69
11.5.34	READ MEMORY LOCATION (<i>DTR1</i> , <i>DTR0</i>).....	69
11.6	Application extended commands	69
11.6.1	General	69
11.6.2	QUERY EXTENDED VERSION NUMBER	70
11.7	Special commands	70
11.7.1	General	70
11.7.2	TERMINATE	70
11.7.3	DTR0 (<i>data</i>)	70
11.7.4	INITIALISE (<i>device</i>)	70
11.7.5	RANDOMISE	71
11.7.6	COMPARE.....	71
11.7.7	WITHDRAW.....	71
11.7.8	SEARCHADDRH (<i>data</i>)	71
11.7.9	SEARCHADDRM (<i>data</i>)	72
11.7.10	SEARCHADDRL (<i>data</i>)	72
11.7.11	PROGRAM SHORT ADDRESS (<i>data</i>)	72
11.7.12	VERIFY SHORT ADDRESS (<i>data</i>)	72
11.7.13	QUERY SHORT ADDRESS	72
11.7.14	ENABLE DEVICE TYPE (<i>data</i>)	73
11.7.15	DTR1 (<i>data</i>)	73
11.7.16	DTR2 (<i>data</i>)	73
11.7.17	WRITE MEMORY LOCATION (<i>DTR1</i> , <i>DTR0</i> , <i>data</i>)	73
11.7.18	WRITE MEMORY LOCATION – NO REPLY (<i>DTR1</i> , <i>DTR0</i> , <i>data</i>)	74
11.7.19	PING	74
Annex A	(informative) Examples of algorithms	75
A.1	Random address allocation	75
A.2	One single control gear connected to the control device	75
A.3	Using application extended commands	76
Annex B	(normative) High resolution dimmer	77
Bibliography		79

Figure 1 – IEC 62386 graphical overview	9
Figure 2 – Control gear directly operating a light source	16
Figure 3 – Dimming curve	18
Figure 4 – Level over time, fading up and down	21
Figure 5 – Timing and response when executing command iteration	29
Figure 6 – Correlation between " <i>lampFailure</i> ", " <i>lampOn</i> " and " <i>fadeRunning</i> " bits.....	45
Figure B.1 – Level behaviour in case of off-grid starting points	78
Table 1 – 16-bit command frame encoding.....	15
Table 2 – Dimming curve tolerance	18
Table 3 – Dimming curve	19
Table 4 – Fade times	22
Table 5 – Fade rates.....	23
Table 6 – Extended fade time – Base value	24
Table 7 – Extended fade time – Multiplier	24
Table 8 – Memory types.....	31
Table 9 – Basic memory map of memory banks	31
Table 10 – Memory map of memory bank 0.....	35
Table 11 – Memory map of memory bank 1.....	38
Table 12 – Power on timing	41
Table 13 – Control gear status.....	43
Table 14 – Scenes	48
Table 15 – Current bus unit configuration	49
Table 16 – Declaration of variables	50
Table 17 – Standard commands.....	52
Table 18 – Special commands	56
Table 19 – Light source type encoding.....	67
Table 20 – Device addressing with "INITIALISE (<i>device</i>)"	70

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DIGITAL ADDRESSABLE LIGHTING INTERFACE –**Part 102: General requirements – Control gear****FOREWORD**

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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:

- the scope has been updated;
- references have been updated;
- memory bank reading of multi-byte values has been added;
- memory bank 0 and common memory bank requirements have been updated;
- reserved memory banks have been updated;

- non-volatile memory (NVM) save time has been added, and SAVE PERSISTENT VARIABLES removed;
- version number has been updated;
- bus unit configuration has been added.

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

Draft	Report on voting
34/948/FDIS	34/989/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 102 of IEC 62386 is intended to be used in conjunction with Part 101, which contains general requirements for the relevant product type (system), and with the appropriate Part 2xx (particular requirements for control gear) containing clauses to supplement or modify the corresponding clauses in Part 101 and Part 102 in order to provide the relevant requirements for each type of product.

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.

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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 third edition of IEC 62386-102 is intended to be used in conjunction with IEC 62386-101 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 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.

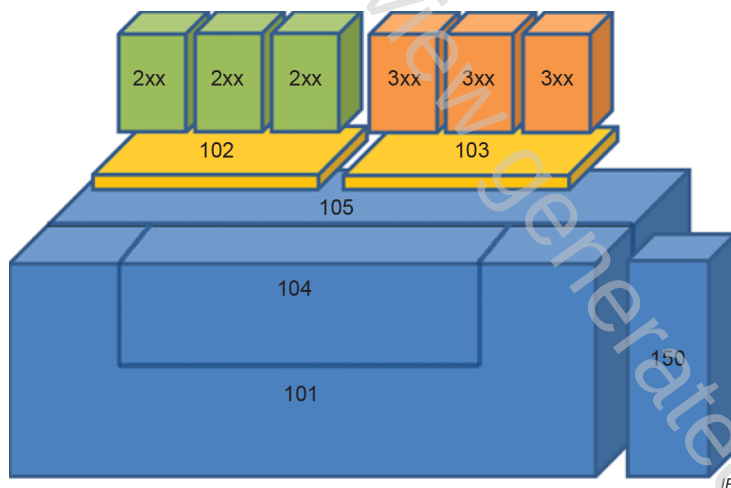


Figure 1 – IEC 62386 graphical overview

When this part of IEC 62386 refers to any of the clauses of the 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 and "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 102: General requirements – Control gear

1 Scope

This part of IEC 62386 is applicable to control gear for control by digital signals of electronic lighting equipment.

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 62386-103:2022, *Digital addressable lighting interface – Part 103: General requirements – Control devices*

IEC 62386-2xx (all parts), *Digital addressable lighting interface – Part 2xx: Particular requirements for control gear*

3 Terms and definitions

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

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

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

3.1

actual level

value representing the current light output

3.2

arc power

power supplied to the light sources (lamps)

3.3

broadcast

type of address used to simultaneously address all control gear in the system

3.4

broadcast unaddressed

type of address used to simultaneously address all control gear in the system that have no short address