

INTERNATIONAL STANDARD

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**Digital addressable lighting interface –
Part 103: General requirements – Control devices**

**Interface d'éclairage adressable numérique –
Partie 103: Exigences générales – Dispositifs 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 24-bit forward frame encoding.....	15
7.2.1 Frame format for instructions and queries.....	15
7.2.2 Frame format for event messages.....	17
8 Timing	18
9 Method of operation.....	18
9.1 General.....	18
9.2 Device features.....	18
9.3 Application controller	18
9.3.1 General	18
9.3.2 Single-master application controller.....	19
9.3.3 Multi-master application controller.....	19
9.4 Input device	20
9.5 Instances of input devices.....	20
9.5.1 General	20
9.5.2 Instance number.....	20
9.5.3 Instance type.....	20
9.5.4 Instance features.....	20
9.5.5 Instance groups.....	21
9.6 Commands excluding event messages.....	21
9.6.1 General	21
9.6.2 Device commands	22
9.6.3 Instance commands.....	22
9.6.4 Feature commands.....	22
9.7 Event messages	23
9.7.1 Response to event messages	23
9.7.2 Device power cycle event	23
9.7.3 Input notification event	23
9.7.4 Event message filter.....	24
9.8 Input signal, measured value and “ <i>inputValue</i> ”	24
9.8.1 General	24
9.8.2 Input resolution.....	24
9.8.3 Getting the input value.....	25
9.8.4 Notification of changes	26

9.9	System failure	26
9.10	Operating a control device	26
9.10.1	Enable/disable the application controller	26
9.10.2	Application controller always active	26
9.10.3	Enable/disable event messages	27
9.10.4	Quiescent mode	27
9.10.5	Modes of operation	27
9.11	Memory banks	28
9.11.1	General	28
9.11.2	Memory map	29
9.11.3	Selecting a memory bank location	30
9.11.4	Protectable memory locations	30
9.11.5	Memory bank reading	30
9.11.6	Memory bank writing	32
9.11.7	Memory bank 0	33
9.11.8	Memory bank 1 (optional)	36
9.11.9	Manufacturer-specific memory banks	37
9.11.10	Reserved memory banks	37
9.12	Reset	38
9.12.1	Reset operation	38
9.12.2	Reset memory bank operation	38
9.13	Power on behaviour	38
9.13.1	Power on	38
9.13.2	Power cycle notification	39
9.14	Priority use	39
9.14.1	General	39
9.14.2	Priority of input notifications	39
9.15	Assigning short addresses	40
9.15.1	General	40
9.15.2	Random address allocation	40
9.15.3	Identification of a device	40
9.16	Exception handling	41
9.17	Device capabilities and status information	41
9.17.1	Device capabilities	41
9.17.2	Device status	41
9.17.3	Instance status	42
9.18	Non-volatile memory	42
9.19	Instance types and configuration	42
9.20	Current bus unit configuration	43
10	Declaration of variables	43
11	Definition of commands	45
11.1	General	45
11.2	Overview sheets	45
11.3	Event messages	52
11.3.1	INPUT NOTIFICATION (<i>device/instance, event</i>)	52
11.3.2	POWER NOTIFICATION (<i>device</i>)	52
11.4	Device control instructions	52
11.4.1	General	52
11.4.2	IDENTIFY DEVICE	52

11.4.3	RESET POWER CYCLE SEEN	53
11.5	Device configuration instructions.....	53
11.5.1	General	53
11.5.2	RESET	53
11.5.3	RESET MEMORY BANK (<i>DTR0</i>)	54
11.5.4	SET SHORT ADDRESS (<i>DTR0</i>)	54
11.5.5	ENABLE WRITE MEMORY	54
11.5.6	ENABLE APPLICATION CONTROLLER	54
11.5.7	DISABLE APPLICATION CONTROLLER	54
11.5.8	SET OPERATING MODE (<i>DTR0</i>)	54
11.5.9	ADD TO DEVICE GROUPS 0-15 (<i>DTR2:DTR1</i>)	55
11.5.10	ADD TO DEVICE GROUPS 16-31 (<i>DTR2:DTR1</i>)	55
11.5.11	REMOVE FROM DEVICE GROUPS 0-15 (<i>DTR2:DTR1</i>).....	55
11.5.12	REMOVE FROM DEVICE GROUPS 16-31 (<i>DTR2:DTR1</i>).....	55
11.5.13	START QUIESCENT MODE	55
11.5.14	STOP QUIESCENT MODE	55
11.5.15	ENABLE POWER CYCLE NOTIFICATION	55
11.5.16	DISABLE POWER CYCLE NOTIFICATION	55
11.5.17	SET EVENT PRIORITY (<i>DTR0</i>).....	55
11.6	Device queries	56
11.6.1	General	56
11.6.2	QUERY DEVICE CAPABILITIES.....	56
11.6.3	QUERY DEVICE STATUS	56
11.6.4	QUERY APPLICATION CONTROLLER ERROR	56
11.6.5	QUERY INPUT DEVICE ERROR	56
11.6.6	QUERY MISSING SHORT ADDRESS.....	57
11.6.7	QUERY VERSION NUMBER.....	57
11.6.8	QUERY CONTENT <i>DTR0</i>	57
11.6.9	QUERY NUMBER OF INSTANCES.....	57
11.6.10	QUERY CONTENT <i>DTR1</i>	57
11.6.11	QUERY CONTENT <i>DTR2</i>	57
11.6.12	QUERY RANDOM ADDRESS (H)	57
11.6.13	QUERY RANDOM ADDRESS (M).....	57
11.6.14	QUERY RANDOM ADDRESS (L).....	57
11.6.15	READ MEMORY LOCATION (<i>DTR1</i> , <i>DTR0</i>).....	57
11.6.16	QUERY APPLICATION CONTROLLER ENABLED	58
11.6.17	QUERY OPERATING MODE	58
11.6.18	QUERY MANUFACTURER SPECIFIC MODE	58
11.6.19	QUERY QUIESCENT MODE.....	58
11.6.20	QUERY DEVICE GROUPS 0-7	58
11.6.21	QUERY DEVICE GROUPS 8-15	58
11.6.22	QUERY DEVICE GROUPS 16-23	58
11.6.23	QUERY DEVICE GROUPS 24-31	58
11.6.24	QUERY POWER CYCLE NOTIFICATION	58
11.6.25	QUERY EXTENDED VERSION NUMBER(<i>DTR0</i>)	58
11.6.26	QUERY RESET STATE	59
11.6.27	QUERY APPLICATION CONTROLLER ALWAYS ACTIVE	59
11.6.28	QUERY FEATURE TYPE.....	59
11.6.29	QUERY NEXT FEATURE TYPE.....	59

11.6.30	QUERY EVENT PRIORITY	59
11.7	Instance control instructions	59
11.8	Instance configuration instructions	59
11.8.1	General	59
11.8.2	ENABLE INSTANCE	60
11.8.3	DISABLE INSTANCE	60
11.8.4	SET PRIMARY INSTANCE GROUP (<i>DTR0</i>)	60
11.8.5	SET INSTANCE GROUP 1 (<i>DTR0</i>)	60
11.8.6	SET INSTANCE GROUP 2 (<i>DTR0</i>)	60
11.8.7	SET EVENT SCHEME (<i>DTR0</i>)	60
11.8.8	SET EVENT PRIORITY (<i>DTR0</i>)	61
11.8.9	SET EVENT FILTER (<i>DTR2:DTR1:DTR0</i>)	61
11.8.10	SET INSTANCE TYPE (<i>DTR0</i>)	61
11.8.11	SET INSTANCE CONFIGURATION (<i>DTR0, DTR2:DTR1</i>)	61
11.9	Instance queries	62
11.9.1	General	62
11.9.2	QUERY INSTANCE TYPE	62
11.9.3	QUERY RESOLUTION	62
11.9.4	QUERY INSTANCE ERROR	62
11.9.5	QUERY INSTANCE STATUS	62
11.9.6	QUERY INSTANCE ENABLED	62
11.9.7	QUERY PRIMARY INSTANCE GROUP	62
11.9.8	QUERY INSTANCE GROUP 1	63
11.9.9	QUERY INSTANCE GROUP 2	63
11.9.10	QUERY EVENT SCHEME	63
11.9.11	QUERY INPUT VALUE	63
11.9.12	QUERY INPUT VALUE LATCH	63
11.9.13	QUERY EVENT PRIORITY	63
11.9.14	QUERY FEATURE TYPE	63
11.9.15	QUERY NEXT FEATURE TYPE	64
11.9.16	QUERY EVENT FILTER 0-7	64
11.9.17	QUERY EVENT FILTER 8-15	64
11.9.18	QUERY EVENT FILTER 16-23	64
11.9.19	QUERY INSTANCE CONFIGURATION (<i>DTR0</i>)	64
11.9.20	QUERY AVAILABLE INSTANCE TYPES	65
11.10	Special commands	65
11.10.1	General	65
11.10.2	TERMINATE	65
11.10.3	INITIALISE (<i>device</i>)	65
11.10.4	RANDOMISE	65
11.10.5	COMPARE	66
11.10.6	WITHDRAW	66
11.10.7	SEARCHADDRH (<i>data</i>)	66
11.10.8	SEARCHADDRM (<i>data</i>)	66
11.10.9	SEARCHADDRRL (<i>data</i>)	67
11.10.10	PROGRAM SHORT ADDRESS (<i>data</i>)	67
11.10.11	VERIFY SHORT ADDRESS (<i>data</i>)	67
11.10.12	QUERY SHORT ADDRESS	67
11.10.13	WRITE MEMORY LOCATION (<i>DTR1, DTR0, data</i>)	67

11.10.14	WRITE MEMORY LOCATION – NO REPLY (<i>DTR1</i> , <i>DTR0</i> , <i>data</i>)	68
11.10.15	DTR0 (<i>data</i>)	68
11.10.16	DTR1 (<i>data</i>)	68
11.10.17	DTR2 (<i>data</i>)	68
11.10.18	DIRECT WRITE MEMORY (<i>DTR1</i> , <i>offset</i> , <i>data</i>)	68
11.10.19	DTR1:DTR0 (<i>data1</i> , <i>data0</i>)	68
11.10.20	DTR2:DTR1 (<i>data2</i> , <i>data1</i>)	69
11.10.21	SEND TESTFRAME (<i>data</i>)	69
Bibliography		70
Figure 1 – IEC 62386 graphical overview		9
Table 1 – 24-bit command frame encoding		16
Table 2 – Instance byte in a command frame		16
Table 3 – 24-bit event message frame encoding		17
Table 4 – Instance types		20
Table 5 – Feature types		21
Table 6 – Instance group variables		21
Table 7 – Device address information in power cycle event		23
Table 8 – Event addressing schemes		23
Table 9 – Measured value ($\approx 50\%$) versus resolution and “ <i>inputValue</i> ”		25
Table 10 – Example of querying sequence to read a 4-byte input value		25
Table 11 – Memory types		29
Table 12 – Basic memory map of memory banks		29
Table 13 – Memory map of memory bank 0		34
Table 14 – Memory map of memory bank 1		36
Table 15 – Control device capabilities		41
Table 16 – Control device status		42
Table 17 – Instance status		42
Table 18 – Current bus unit configuration		43
Table 19 – Declaration of device variables		44
Table 20 – Declaration of instance variables		45
Table 21 – Instance event messages		45
Table 22 – Device event messages		46
Table 23 – Standard commands		47
Table 24 – Special commands (implemented by both application controller and input device)		51
Table 25 – Device addressing with “INITIALISE (<i>device</i>)”		65

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DIGITAL ADDRESSABLE LIGHTING INTERFACE –**Part 103: General requirements –
Control devices****FOREWORD**

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This second edition cancels and replaces the first 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) quiescent mode has been updated;
- c) non-volatile memory (NVM) save time has been added, and SAVE PERSISTENT VARIABLES command removed;
- d) memory bank 0 has been modified, and common memory bank requirements have been added;

- e) IDENTIFY DEVICE has been updated;
- f) version number has been changed;
- g) bus unit configuration has been added; and
- h) instance types and configuration have been added.

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

Draft	Report on voting
34/946/FDIS	34/990/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 103 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 Parts 3xx (particular requirements for control devices) containing clauses to supplement or modify the corresponding clauses in Part 101 and Part 103 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.

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. 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 62386-103 is intended to be used in conjunction with IEC 62386-101 and with the various parts that make up the IEC 62386-3xx series of particular requirements for control devices, and can be used together with IEC 62386-102 and with the various parts that make up the IEC 62386-2xx series for control gear. 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.

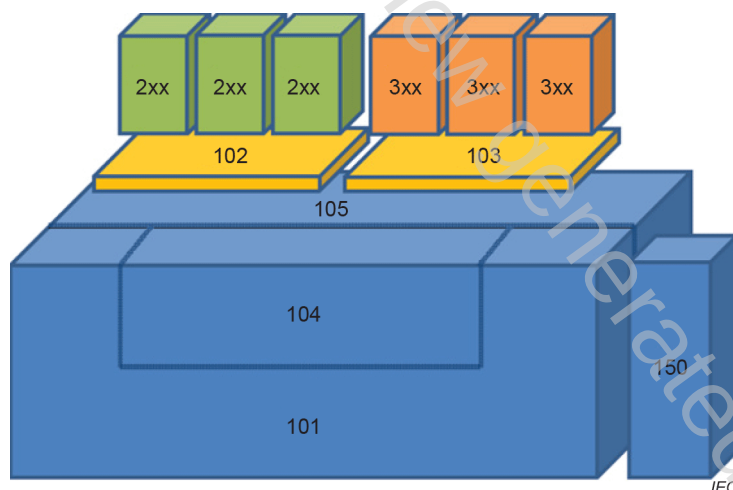


Figure 1 – IEC 62386 graphical overview

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 XXXXXXXXXb 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 103: General requirements – Control devices

1 Scope

This part of IEC 62386 is applicable to control devices 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 62386-102:2022, *Digital addressable lighting interface – Part 102: General requirements – Control gear*

IEC 62386-3xx (all parts), *Digital addressable lighting interface – Part 3xx: Particular requirements for control devices*

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

broadcast

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

3.2

broadcast unaddressed

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

3.3

device command

command which addresses the control device and has a value of 0xFE in the instance byte of the command frame but is not an event message