

<b>STN</b>	<b>Digitálne adresovateľné rozhranie osvetlenia Časť 103: Všeobecné požiadavky Riadiace zariadenia</b>	<b>STN EN IEC 62386-103</b>  36 0597
------------	--	--

Digital addressable lighting interface - Part 103: General requirements - Control devices

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

Obsahuje: EN IEC 62386-103:2022, IEC 62386-103:2022

Oznámením tejto normy sa od 21.12.2025 ruší  
STN EN 62386-103 (36 0597) z augusta 2015



EUROPEAN STANDARD

**EN IEC 62386-103**

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2022

ICS 29.140.50; 29.140.99

Supersedes EN 62386-103:2014;  
EN 62386-103:2014/A1:2018

English Version

**Digital addressable lighting interface - Part 103: General  
requirements - Control devices  
(IEC 62386-103:2022)**Interface d'éclairage adressable numérique - Partie 103:  
Exigences générales - Dispositifs de commande  
(IEC 62386-103:2022)Digital adressierbare Schnittstelle für die Beleuchtung - Teil  
103: Allgemeine Anforderungen - Steuergeräte  
(IEC 62386-103:2022)

This European Standard was approved by CENELEC on 2022-12-21. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**EN IEC 62386-103:2022 (E)****European foreword**

The text of document 34/946/FDIS, future edition 2 of IEC 62386-103, prepared by IEC/TC 34 "Lighting" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62386-103:2022.

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

This document supersedes EN 62386-103:2014 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

**Endorsement notice**

The text of the International Standard IEC 62386-103:2022 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 62386-104:2019 NOTE Harmonized as EN IEC 62386-104:2019 (not modified)

IEC 62386-103:2014 NOTE Harmonized as EN 62386-103:2014 (not modified)

## **Annex ZA** (normative)

### **Normative references to international publications with their corresponding European publications**

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

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	2022	Digital addressable lighting interface - Part 101: General requirements - System components	EN IEC 62386-101	2022
IEC 62386-102	2022	Digital addressable lighting interface - Part 102: General requirements - Control gear	EN IEC 62386-102	2022
IEC 62386-3XX	series	Digital addressable lighting interface - Part 3XX: Particular requirements for control devices	EN 62386-3XX	series





IEC 62386-103

Edition 2.0 2022-11

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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

**Interface d'éclairage adressable numérique –  
Partie 103: Exigences générales – Dispositifs de commande**



**THIS PUBLICATION IS COPYRIGHT PROTECTED****Copyright © 2022 IEC, Geneva, Switzerland**

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

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)

**About the IEC**

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

**About IEC publications**

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

**IEC publications search - [webstore.iec.ch/advsearchform](http://webstore.iec.ch/advsearchform)**

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, ...). It also gives information on projects, replaced and withdrawn publications.

**IEC Just Published - [webstore.iec.ch/justpublished](http://webstore.iec.ch/justpublished)**

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

**IEC Customer Service Centre - [webstore.iec.ch/csc](http://webstore.iec.ch/csc)**

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: [sales@iec.ch](mailto:sales@iec.ch).

**IEC Products & Services Portal - [products.iec.ch](http://products.iec.ch)**

Discover our powerful search engine and read freely all the publications previews. With a subscription you will always have access to up to date content tailored to your needs.

**Electropedia - [www.electropedia.org](http://www.electropedia.org)**

The world's leading online dictionary on electrotechnology, containing more than 22 300 terminological entries in English and French, with equivalent terms in 19 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

**A propos de l'IEC**

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

**A propos des publications IEC**

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

**Recherche de publications IEC - [webstore.iec.ch/advsearchform](http://webstore.iec.ch/advsearchform)**

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études, ...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

**IEC Just Published - [webstore.iec.ch/justpublished](http://webstore.iec.ch/justpublished)**

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et une fois par mois par email.

**Service Clients - [webstore.iec.ch/csc](http://webstore.iec.ch/csc)**

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: [sales@iec.ch](mailto:sales@iec.ch).

**IEC Products & Services Portal - [products.iec.ch](http://products.iec.ch)**

Découvrez notre puissant moteur de recherche et consultez gratuitement tous les aperçus des publications. Avec un abonnement, vous aurez toujours accès à un contenu à jour adapté à vos besoins.

**Electropedia - [www.electropedia.org](http://www.electropedia.org)**

Le premier dictionnaire d'électrotechnologie en ligne au monde, avec plus de 22 300 articles terminologiques en anglais et en français, ainsi que les termes équivalents dans 19 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.



IEC 62386-103

Edition 2.0 2022-11

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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

**Interface d'éclairage adressable numérique –  
Partie 103: Exigences générales – Dispositifs de commande**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

ICS 29.140.50; 29.140.99

ISBN 978-2-8322-5966-5

**Warning! Make sure that you obtained this publication from an authorized distributor.  
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

## 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, 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	SEARCHADDRL ( <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, DTR0, 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, offset, data</i> ) .....	68
11.10.19	DTR1:DTR0 ( <i>data1, data0</i> ).....	68
11.10.20	DTR2:DTR1 ( <i>data2, 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

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

## 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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 62386-103 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 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](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 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](http://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.

<p><b>IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.</b></p>
--

## INTRODUCTION

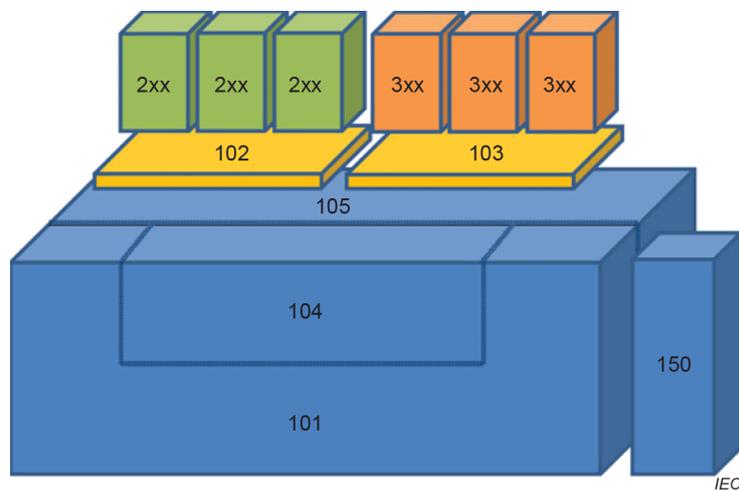
IEC 62386 contains several parts, referred to as series. The IEC 62386 series specifies a bus system for control by digital signals of electronic lighting equipment. The IEC 62386-1xx series includes the basic specifications. Part 101 contains general requirements for system components, Part 102 extends 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 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 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*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**