IEC 62386-101

Edition 2.1 2018-05
CONSOLIDATED VERSION

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

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ICS 29.140.50; 29.140.99

ISBN 978-2-8322-5753-1

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DIGITAL ADDRESSABLE LIGHTING INTERFACE –

Part 101: General requirements – System components

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IEC 62386-101 edition 2.1 contains the second edition (2014-11) [documents 34C/1098/FDIS and 34C/1111/RVD] and its amendment 1 (2018-05) [documents 34/418/CDV and 34/502/RVC].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 62386-101 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

This second edition constitutes a technical revision.

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

a) collection of all bus timing requirements defined in IEC 62386-101:2009 and IEC 62386-102:2009 and rework of the timing requirements to facilitate the preparation of a future control devices standard, taking particular account of the requirements for multi-master systems. The 10 % tolerances have been replaced by minimum and maximum timing values;
b) integration of multi-master timing requirements;
c) extension of the defined forward frames;
d) addition of wiring requirements;
e) improvement of the bus power supply requirements;
f) improvement of test sequences and description of the test sequences in the form of pseudo code instead of flow charts.

This Part 101 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).

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 62386 series, under the general title: *Digital addressable lighting interface*, can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendment will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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INTRODUCTION

IEC 62386 contains several parts, referred to as series. The 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.

The 2xx parts extend 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 3xx parts extend 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 62386-101 is ~~published~~ intended to be used in conjunction with IEC 62386-102:2014 and IEC 62386-102:2014/AMD1:— and with the various parts that make up the IEC 62386-2xx series for control gear, together with IEC 62386-103:2014 and IEC 62386-103:2014/AMD1:— 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 standard is graphically represented in Figure 1 below.

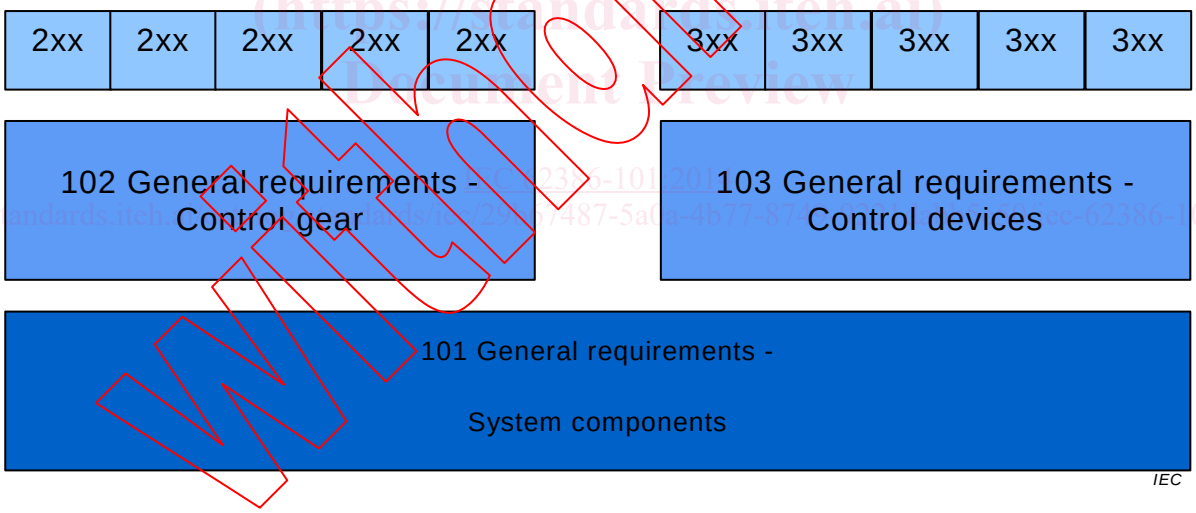

Figure 1 – IEC 62386 graphical overview

When this part of IEC 62386 refers to any of the clauses of the other two parts of the IEC 62386-1xx series, the extent to which such a clause is applicable and the order in which the tests are to be performed are specified. The other parts also include additional requirements, as necessary.

All numbers used in this International Standard 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, w here X is 0 or 1, "x" in binary numbers means "don't care".

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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 which is in line with the requirements of IEC 61347 (all parts), with the addition of DC supplies. ~~This electronic lighting equipment should be in line with the requirements of IEC 61347, with the addition of d.c. supplies.~~

NOTE Tests in this standard are type tests. Requirements for testing individual bus units during production are not included.

2 Normative references

The following documents~~, in whole or in part, are normatively referenced in this document and are indispensable for its application~~ 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 (all parts), *Lamp controlgear*~~

IEC 61347-1, *Lamp controlgear – Part 1: General and safety requirements*

IEC 62386-102:2014, *Digital addressable lighting interface – Part 102: General requirements – Control gear*
IEC 62386-102:2014/AMD1:—[1]

IEC 62386-103:2014, *Digital addressable lighting interface – Part 103: General requirements – Control devices*
IEC 62386-103:2014/AMD1:—[2]

IEC 61000-4-11, *Electromagnetic compatibility (EMC) – Part 4-11:Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

- IEC Electropedia: available at http://www.electropedia.org/
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