AS/NZS 62386.302:2020

Australian/New Zealand Standard™

Digital addressable lighting interface

Part 302: Particular requirements — Input devices — Absolute input device (IEC 62386-302:2017 (ED. 1.0) MOD)

AS/NZS 62386.302:2020

This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee EL-041, Lamps and Related Equipment. It was approved on behalf of the Council of Standards Australia on 5 November 2020 and by the New Zealand Standards Approval Board on 4 November 2020.

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The following are represented on Committee EL-041:

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Better Regulation Division
CHOICE
Consumer Electronics Suppliers Association
Consumers' Federation of Australia
Department of Industry, Science, Energy and Resources
Electrical Compliance Testing Association of Australia
Electrical Regulatory Authorities Council
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Joint Accreditation System of Australia and New Zealand
Joint Accreditation System of Australia and New Zealand — New Zealand
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Digital addressable lighting interface

Part 302: Particular requirements — Input devices — Absolute input device (IEC 62386-302:2017 (ED. 1.0) MOD)

First published as AS/NZS 62386.302:2020.

Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-041, Lamps and Related Equipment.

The objective of this document is to specify a bus system for control by digital signals of electronic lighting equipment, with the addition of DC supplies.

This document is only applicable to AS/NZS 62386.103 input devices that make the lighting control system sensitive to absolute input devices such as switches or sliders. An absolute input device always has a deterministic state, such as a position between start and end point.

Requirements for testing individual products during production are not included.

This document is an adoption with national modifications, and has been reproduced from, IEC 62386-302:2017 (ED. 1.0), *Digital addressable lighting interface — Part 302: Particular requirements — Input devices — Absolute input devices.* The modifications are additional requirements and are set out in Appendix ZZ, which has been added at the end of the source text.

Appendix ZZ lists the variations to IEC 62386-302:2017 (ED. 1.0), for the application of this document in Australia and New Zealand.

As this document has been reproduced from an International Standard, the following applies:

(a) In the source text "this part of IEC 62386" should read "this document".

(b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms "normative" and "informative" are used in Standards to define the application of the appendices or annexes to which they apply. A "normative" appendix or annex is an integral part of a Standard, whereas an "informative" appendix or annex is only for information and guidance.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Part 302: Particular requirements – Input devices – Absolute input devices

FOREWORD

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International Standard IEC 62386-302 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

The text of this standard is based on the following documents:

FDIS	Report on voting
34C/1312/FDIS	34C/1332/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

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

This Part 302 of IEC 62386 is intended to be used in conjunction with:

- Part 101, which contains general requirements for system components;
- Part 103, which contains general requirements for control devices.

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 "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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication 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.

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 first edition of IEC 62386-302 is intended to be used in conjunction with IEC 62386-101:2014, IEC 62386-101:2014/AMD1:—, IEC 62386-103:2014 and IEC 62386-103:2014/AMD1:—. The division of IEC 62386 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 recognized.

The setup of the standards is graphically represented in Figure 1 below.

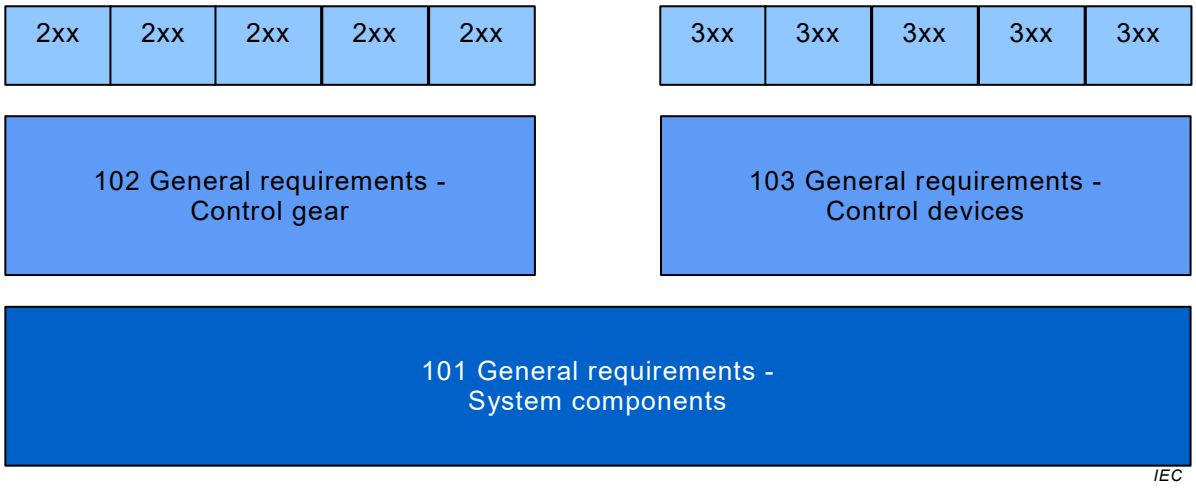

Figure 1 – IEC 62386 graphical overview

This document, and the other parts that make up the IEC 62386-300 series, in referring to any of the clauses of IEC 62386-1XX, specifies the extent to which such a clause is; the parts also include additional requirements, as necessary.

Where the requirements of any of the clauses of IEC 62386-1XX are referred to in this document by the sentence “The requirements of IEC 62386-1XX, Clause “n” apply”, this sentence is to be interpreted as meaning that all requirements of the clause in question of Part 1XX apply, except any which are clearly inapplicable.

The standardization of the control interface for control devices is intended to achieve compatible co-existence and multi-master operation between electronic control gear and lighting control devices, below the level of building management systems. This document describes a method of implementing control devices.

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 302: Particular requirements – Input devices – Absolute input devices

1 Scope

This part of IEC 62386 specifies a bus system for control by digital signals of electronic lighting equipment which is in line with the requirements of IEC 61347, with the addition of DC supplies.

This document is only applicable to IEC 62386-103:2014 and IEC 62386-103:2014/AMD1:— input devices that make the lighting control system sensitive to absolute input devices such as switches or sliders. An absolute input device always has a deterministic state, such as a position between start and end point.

NOTE Requirements for testing individual products during production are not included.

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 62386-101:2014, *Digital addressable lighting interface – Part 101: General requirements – System components*
IEC 62386-101:2014/AMD1:—[1]

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

IEC 62386-333:—[3], *Digital addressable lighting interface – Part 333: Particular requirements for control devices – Manual configuration (feature type 33)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62386-101 and IEC 62386-103 and the following apply.

ISO and IEC maintain terminological 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

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1 Under preparation. Stage at the time of publication: IEC ACDV 62386-101/AMD1:2017.

2 Under preparation. Stage at the time of publication: IEC ACDV 62386-103/AMD1:2017.

3 Under preparation. Stage at the time of publication: IEC CCDV 62386-333:2017.