SLOVENSKI STANDARD
SIST EN 62386-304:2018/oprA1:2023

01-maj-2023

Digitalni naslovljivi vmesnik za razsvetljavo - 304. del: Posebne zahteve - Vhodne naprave - Svetlobna tipala - Dopolnilo A1

Amendment 1 - Digital addressable lighting interface - Part 304: Particular requirements - Input devices - Light sensor

Digital adressierbare Schnittstelle für die Beleuchtung - Teil 304: Besondere Anforderungen - Eingabegeräte - Lichtsensor

Amendement 1 - Interface d'éclairage adressable numérique - Partie 304: Exigences particulières - Dispositifs d'entrée - Capteur de luminosité

Ta slovenski standard je istoveten z: **EN 62386-304:2017/prA1:2023**

ICS:

29.140.50	Instalacijski sistemi za razsvetljavo	Lighting installation systems
35.200	Vmesniška in povezovalna oprema	Interface and interconnection equipment

SIST EN 62386-304:2018/oprA1:2023 **en**

34/1014/CDV

COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER:	
IEC 62386-304/AMD1 ED1	
DATE OF CIRCULATION:	CLOSING DATE FOR VOTING:
2023-03-17	**2023-06-09**
SUPERSEDES DOCUMENTS:	
34/781/CD, 34/802A/CC	

IEC TC 34 : LIGHTING

SECRETARIAT:	SECRETARY:
United Kingdom	Mr Petar Luzajic
OF INTEREST TO THE FOLLOWING COMMITTEES:	PROPOSED HORIZONTAL STANDARD: ☐
	Other TC/SCs are requested to indicate their interest, if any, in this CDV to the secretary.

FUNCTIONS CONCERNED:

☐ EMC ☐ ENVIRONMENT ☐ QUALITY ASSURANCE ☐ SAFETY

☒ SUBMITTED FOR CENELEC PARALLEL VOTING	☐ NOT SUBMITTED FOR CENELEC PARALLEL VOTING
Attention IEC-CENELEC parallel voting The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) is submitted for parallel voting. The CENELEC members are invited to vote through the CENELEC online voting system.	

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of

- any relevant patent rights of which they are aware and to provide supporting documentation,
- any relevant “in some countries” clauses to be included should this proposal proceed. Recipients are reminded that the enquiry stage is the final stage for submitting "in some countries" clauses. See AC/22/2007.

TITLE:

Amendment 1 - Digital addressable lighting interface - Part 304: Particular requirements - Input devices - Light sensor

PROPOSED STABILITY DATE: 2026

NOTE FROM TC/SC OFFICERS:

FOREWORD

This amendment has been prepared by committee TC34 Lighting / WG11 Control Interface.

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

FDIS	Report on voting
34C/XX/FDIS	34C/XX/RVD

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

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the maintenance result date[1)] 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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

The following proposals serve to amend IEC 62386-304:2017 according to the decisions of IEC TC34 WG 11at their meeting in October 2021.

Proposal

All pages

Delete all references to IEC 62386-101:2014/AMD1.
Delete all references to IEC 62386-103:2014/AMD1.
Replace all dated references to IEC 62386-101 with IEC 62386-101:2022.
Replace all dated references to IEC 62386-103 with IEC 62386-103:2022.

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INTRODUCTION

Replace the existing Figure 1 by the following new figure 1.

1) The National Committees are requested to note that for this publication the maintenance result date is ....

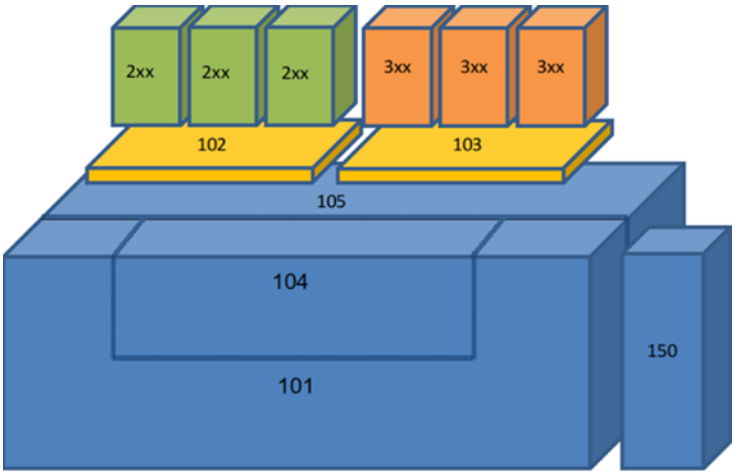

Figure 1 – IEC 62386 graphical overview

Page 8

1 Scope

Replace the existing Scope by the following new Scope:

This part of IEC 62386 specifies a bus system for control by digital signals of electronic lighting equipment.

This document is only applicable to IEC 62386-103:2022 input devices that deliver illuminance level information to the lighting control system through light level sensing.

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2 Normative references

Replace the existing reference to IEC 62386-333 with the following reference:

IEC 62386-333:2018, *Digital addressable lighting interface – Part 333: Particular requirements for control devices – Manual configuration (feature type 33)*

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3.2 strictly monotonic

Delete note 1.

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9.3 Input signal and value

Replace the existing clause by the following new clause:

The *"inputValue"* shall indicate the illuminance of the light at the sensor surface. The resulting "*inputValue*" shall be a strictly monotonic function of the illuminance level.

NOTE 1: The illuminance value is a relative value, not representing absolute lux values.

After receiver start-up, the sensor may take some time before valid illuminance level measurements are obtained. During this time, QUERY INPUT VALUE and QUERY INPUT VALUE

LATCH shall reply as if "*inputValue*" is MASK. After the first valid illuminance level measurement is obtained, "*inputValue*" shall not be MASK, except in the case of physical sensor failure (see 9.6.1).

Examples of "*inputValue*" MASK values and highest valid values, for several values of "*resolution*":

- "*resolution*" = 4: "*inputValue*" is a 1-byte value
  - MASK is 0xFF, resulting in a QUERY INPUT VALUE reply of 0xFF.
  - For a valid illuminance level measurement, the highest possible measured value is 0xE, which results in the 1-byte "*inputValue*" of 0xEE.
- "*resolution*" = 9: "*inputValue*" is a 2-byte value
  - MASK is 0xFFFF, resulting in a QUERY INPUT VALUE reply of 0xFF and a QUERY INPUT VALUE LATCH reply of 0xFF.
  - For a valid illuminance level measurement, the highest possible measured value is 0x1FE, which results in the 2-byte "*inputValue*" of 0xFF7F.
- "*resolution*" = 18: "*inputValue*" is a 3-byte value
  - MASK is 0xFFFFFF, resulting in a QUERY INPUT VALUE reply of 0xFF and replies of 0xFF for each of the two QUERY INPUT VALUE LATCH commands sent after QUERY INPUT VALUE.
  - For a valid illuminance level measurement, the highest possible measured value is 0x3FFFE, which results in the 3-byte "*inputValue*" of 0xFFFFBF.

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9.4.4 Event configuration

Replace the first paragraph by the following new first paragraph:

Events shall be enabled or disabled according to the value of "*eventFilter*". For this document, "*eventFilter*" shall be reduced to one byte. No configuration of "*eventFilter*" shall prevent the periodic "INPUT NOTIFICATION" message triggered by the report timer (9.5.1).

9.4.5 Event generation

Replace the first sentence of the first paragraph with the following new sentence:

The illuminance level event is a report of the measured value (see IEC 62386-103:2022, clause 9.8).

Replace "inputValue" throughout this clause with:

measured value

Replace figure 2 with the following:

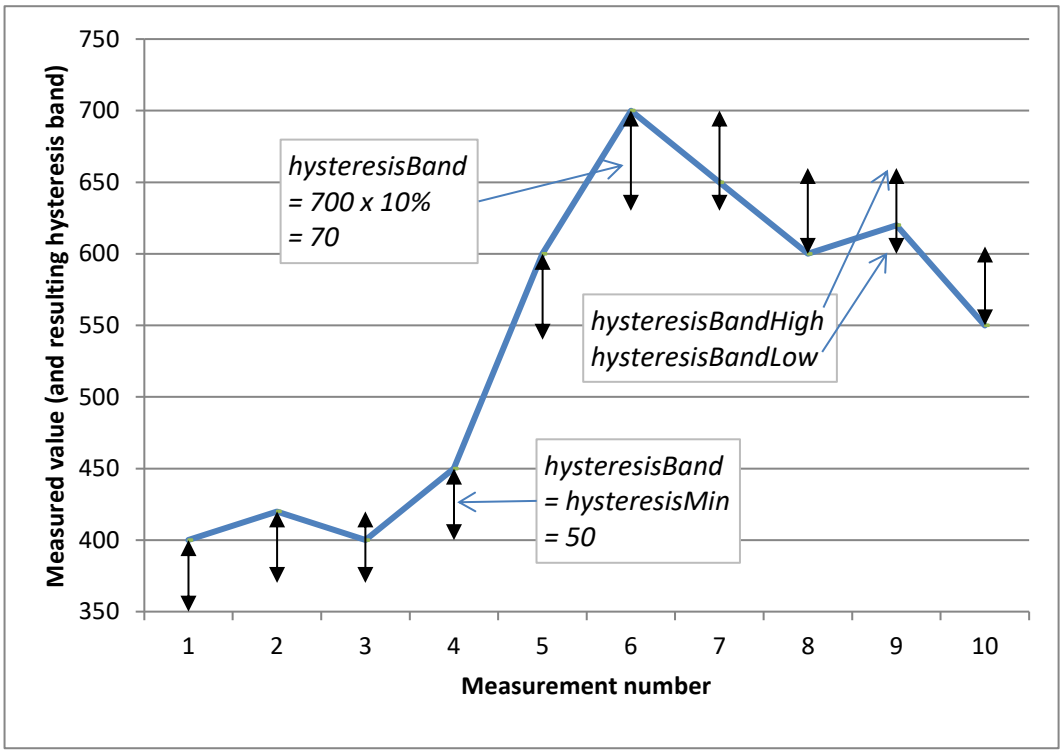

Figure 2 – Example of measured value changes and resultant hysteresis bands

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9.5.1 Using the report timer

Replace the second paragraph with the following new text:

The report timer shall be started,

- at power-on: if enabled, immediately after both the receiver has started up and the illuminance level measurement has become valid, with the time to the first trigger recommended to be shortened to a random time between 0 s and T_{report} s;
- otherwise immediately after enablement.

This implies that the first “INPUT NOTIFICATION” message due to the report timer is sent at a maximum time of T_{report} after starting. This may be delayed by other “INPUT NOTIFICATION” messages, or by bus availability.

*Change the last paragraph, starting “*If multiple devices…*” to a note.*

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9.5.3 Setting the timers

Change the first paragraph to:

The deadtime and report timers shall be programmable as indicated in Table 3.

Append to the first list bullet:

to set or query “*tReport*”;