



SLOVENSKI STANDARD
oSIST prEN IEC 62386-305:2023
01-januar-2023

Digitalni naslovljivi vmesnik za razsvetljavo - 305. del: Posebne zahteve - Vhodne naprave - Barvni senzor

Digital addressable lighting interface - Part 305: Particular requirements - Input devices - Colour sensor

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ICS:

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

oSIST prEN IEC 62386-305:2023 **en**



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TITLE:

Digital addressable lighting interface – Part 305: Particular requirements – Input devices – Colour sensor

PROPOSED STABILITY DATE: 2026

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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DIGITAL ADDRESSABLE LIGHTING INTERFACE –

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**Part 305: Particular requirements – Input devices –
Colour sensor**

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FOREWORD

- 98 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising
99 all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international
100 co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and
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130 International Standard IEC 62386-305 has been prepared by IEC technical committee 34:
131 Lighting. It is an International Standard.

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

FDIS	Report on voting
-	-

133

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

136 The language used for the development of this International Standard is English.

137 This document has been drafted in accordance with the ISO/IEC Directives, Part 2, and
138 developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC

139 Supplement, available at www.iec.ch/members_experts/refdocs. The main document types
140 developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

141 This Part 305 of IEC 62386 is intended to be used in conjunction with:

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

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

146 The committee has decided that the contents of this document will remain unchanged until the
147 stability date indicated on the IEC website under webstore.iec.ch in the data related to the
148 specific document. At this date, the document will be

- 149 • reconfirmed,
- 150 • withdrawn,
- 151 • replaced by a revised edition, or
- 152 • amended.

153

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156

INTRODUCTION

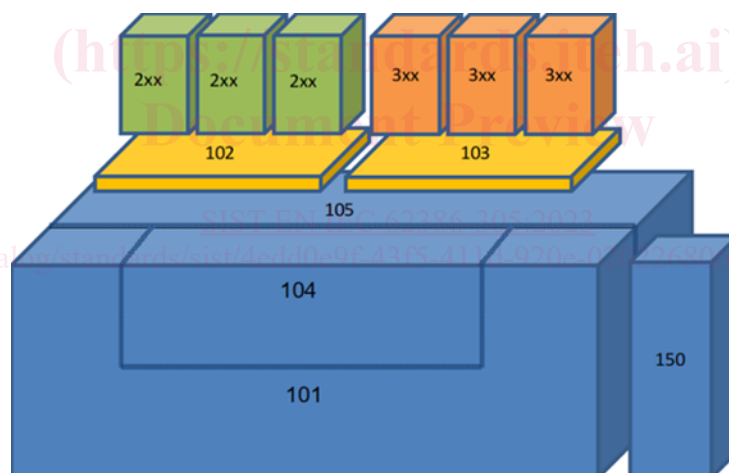
157 IEC 62386 contains several parts, referred to as series. The IEC 62386 series specifies a bus
 158 system for control by digital signals of electronic lighting equipment. The IEC 62386-1xx series
 159 includes the basic specifications. Part 101 contains general requirements for system
 160 components, Part 102 extends this information with general requirements for control gear and
 161 Part 103 extends it further with general requirements for control devices. Part 104 and Part 105
 162 can be applied to control gear or control devices. Part 104 gives requirements for wireless and
 163 alternative wired system components. Part 105 describes firmware transfer. Part 150 gives
 164 requirements for an auxiliary power supply which can be stand-alone, or built into control gear
 165 or control devices.

166 The IEC 62386-2xx series extends the general requirements for control gear with lamp specific
 167 extensions (mainly for backward compatibility with Edition 1 of IEC 62386) and with control gear
 168 specific features.

169 The IEC 62386-3xx series extends the general requirements for control devices with input
 170 device specific extensions describing the instance types as well as some common features that
 171 can be combined with multiple instance types.

172 This first edition of IEC 62386-305 is intended to be used in conjunction with IEC 62386-101,
 173 and IEC 62386-103. The division into separately published parts provides for ease of future
 174 amendments and revisions. Additional requirements will be added as and when a need for them
 175 is recognized.

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



177

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Figure 1 - IEC 62386 graphical overview

179 When this part of IEC 62386 refers to any of the clauses of the other parts of the IEC 62386-
 180 1xx series, the extent to which such a clause is applicable is specified. The other parts also
 181 include additional requirements, as necessary.

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

186 The standardization of the control interface for control devices is intended to achieve compatible
 187 coexistence and multi-master operation between electronic control gear and lighting control
 188 devices, below the level of building management systems. This document describes a method
 189 of implementing colour sensors.

190 All numbers used in this document are decimal numbers unless otherwise noted. Hexadecimal
191 numbers are given in the format 0xVV, where VV is the value. Binary numbers are given in the
192 format XXXXXXXXb or in the format XXXX XXXX, where X is 0 or 1; “x” in binary numbers
193 means “don't care”.

194 The following typographic expressions are used:

195 Variables: “*variableName*” or “*variableName[3:0]*”, giving only bits 3 to 0 of “*variableName*”.

196 Range of values: [lowest, highest]

197 Command: “COMMAND NAME”

198

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200 **DIGITAL ADDRESSABLE LIGHTING INTERFACE –**
201
202 **Part 305: Particular requirements – Input devices –**
203 **Colour sensor**
204
205
206

207 **1 Scope**

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

210 This document is only applicable to IEC 62386-103 input devices that deliver colour information
211 to the lighting control system through colour sensing.

212 **2 Normative references**

213 The following documents are referred to in the text in such a way that some or all of their content
214 constitutes requirements of this document. For dated references, only the edition cited applies.
215 For undated references, the latest edition of the referenced document (including any
216 amendments) applies.

217 IEC 62386-101:—¹, *Digital addressable lighting interface – Part 101: General requirements –*
218 *System components*

219 IEC 62386-103:—², *Digital addressable lighting interface – Part 103: General requirements –*
220 *Control devices*

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

223 **3 Terms and definitions**

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

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

- 228 • IEC Electropedia: available at <http://www.electropedia.org/>
- 229 • ISO Online browsing platform: available at <http://www.iso.org/obp>

230 **3.1**

231 **instance**

232 observed colour signal processing unit of an input device

233 [SOURCE: IEC 62386-101:—, 3.29, modified — addition of "observed colour"]

1 Under preparation. Stage at the time of publication: IEC FDIS 62386-101:—.

2 Under preparation. Stage at the time of publication: IEC FDIS 62386-103:—.