AS/NZS 62386.209:2020

Australian/New Zealand Standard™

Digital addressable lighting interface

Part 209: Particular requirements for control gear — Colour control (device type 8) (IEC 62386-209:2011 (ED. 1.0) MOD)

AS/NZS 62386.209:2020

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 4 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
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Joint Accreditation System of Australia and New Zealand — New Zealand
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Part 209: Particular requirements for control gear — Colour control (device type 8) (IEC 62386-209:2011 (ED. 1.0) MOD)

First published as AS/NZS 62386.209:2020.

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 protocol and test procedures for the control by digital signals of electronic control gear that can change their light colour.

Tests in this document are type tests. Requirements for testing individual control gear during production are not included.

This document is an adoption with national modifications, and has been reproduced from, IEC 62386-209:2011 (ED. 1.0), *Digital addressable lighting interface — Part 209: Particular requirements for control gear — Colour control (device type 8).* 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 62386-209:2011 (ED. 1.0), for the application of this Standard in Australia and New Zealand.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

DIGITAL ADDRESSABLE LIGHTING INTERFACE –

Part 209: Particular requirements for control gear – Colour control (device type 8)

FOREWORD

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International Standard IEC 62386-209 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

This publication contains attached .pdf files, which reproduce the test sequences illustrated in Figures 5 to 127. These files are intended to be used as a complement and do not form an integral part of the publication.

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

FDIS	Report on voting
34C/964/FDIS	34C/978/RVD

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

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

This Part 209 is intended to be used in conjunction with IEC 62386-101 and IEC 62386-102, which contain general requirements for the relevant product type (control gear or control devices).

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 this publication 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

- 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

This first edition of IEC 62386-209 is published in conjunction with IEC 62386-101 and IEC 62386-102. 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 recognised.

This International Standard, and the other parts that make up the IEC 62386-200 series, in referring to any of the clauses of IEC 62386-101 or IEC 62386-102, specifies the extent to which such a clause is applicable and the order in which the tests are to be performed. The parts also include additional requirements, as necessary. All parts that make up the IEC 62386-200 series are self-contained and therefore do not include references to each other.

Where the requirements of any of the clauses of IEC 62386-101 or IEC 62386-102 are referred to in this International Standard 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 101 or Part 102 apply, except any which are inapplicable to the specific type of lamp control gear covered by Part 209.

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, where X is 0 or 1; 'x' in binary numbers means 'don't care'.

DIGITAL ADDRESSABLE LIGHTING INTERFACE –

Part 209: Particular requirements for control gear – Colour control (device type 8)

1 Scope

This International Standard specifies a protocol and test procedures for the control by digital signals of electronic control gear that can change their light colour.

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

2 Normative references

The following referenced documents are indispensable for the application 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 62386-101:2009, *Digital addressable lighting interface – Part 101: General requirements – System*

IEC 62386-102:2009, *Digital addressable lighting interface – Part 102: General requirements – Control gear*

CIE (1932), *Commission internationale de l'Eclairage proceedings, 1931. Cambridge University Press, Cambridge.*

CIE 17-4:1987, *International lighting vocabulary, ISBN 978 3 900734 07 7*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in Clause 3 of IEC 62386-101:2009 and Clause 3 of IEC 62386-102:2009 apply, with the following additional definitions.

3.1
colour type
mechanism to set a colour in an appropriate way

3.2
xy chromaticity
colour type, representing the colour matching functions of a standard observer according to the Commission Internationale de L'Eclairage (CIE) basis for colorimetry of 1931

3.3
colour temperature
T_c
colour type, representing the colour of a light source that matches the temperature of a black body radiator according to Planck's law