

ICS 29.140.50

CCS K 74



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 30104.222-2025

**Digital addressable lighting interface - Part 222: Particular
requirements for control gear - Thermal lamp protection (device
type 21)**

(English Translation)

Issued on: August 1, 2025

Implemented on: February 1, 2026

**Issued by: State Administration for Market Regulation, Standardization
Administration of China**

Table of Contents

Preface
Introduction
1 Scope
2 Normative references
3 Terms and Definitions
4 General Requirements
5 Electrical Specifications
6 Interface power
7 Transmission Protocol Framework Structure
8 Time Series
9 Operation Method
10 Variable Declaration
11 Instruction Definition
References

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is part 222 of GB/T 30104 Digital Addressable Lighting Interface. GB/T 30104 has been published in the following parts.

- Part 101: General requirements for system components;
- Part 102: General requirements for control devices;
- Part 103: General requirements for control equipment;
- Part 104: General requirements for wireless and other wired system components;
- Part.201.Particular requirements for control gear for fluorescent lamps (equipment type 0);
- Part 202: Particular requirements for control devices Self-contained emergency lighting (equipment type 1);
- Part 203: Particular requirements for control gear for discharge lamps (other than

fluorescent lamps) (equipment type 2);

--- Part 204: Particular requirements for control gear for low-pressure tungsten halogen lamps (equipment type 3);

--- Part 205: Particular requirements for control gear for incandescent lamp supply voltage controllers (equipment type 4);

--- Part 206: Particular requirements for control devices converting digital signals into DC voltage (equipment type 5);

--- Part 207: Particular requirements for control gear LED modules (equipment type 6);

--- Part 208: Particular requirements for control devices switching functions (equipment type 7);

--- Part 209: Particular requirements for control devices Color control (equipment type 8);

--- Part 220: Particular requirements for control devices - Central power supply emergency operation (device type 19);

--- Part 222: Particular requirements for control devices heat lamp protection (device type 21);

--- Part 301: Special requirements for input device buttons;

--- Part 302: Special requirements for input devices, absolute input devices;

--- Part 303: Special requirements for input device occupancy sensors;

--- Part 304: Special requirements for input devices light sensors.

This document is equivalent to IEC 62386-222:2018 "Digital addressable lighting interface Part 222: Particular requirements for control gear" Seeking heat lamp protection (equipment type 21)".

Introduction

GB/T 30104 (all parts) specifies a bus system for controlling electronic lighting equipment through digital signals, which is intended to consist of the following Partial composition.

Part 103 specifies the general requirements for control devices. Part 104 specifies the general requirements for control equipment.

General requirements for wireless and alternative wired system components. Part 105 specifies general requirements for firmware upgrades. Part 150 the requirements for auxiliary power supplies are given. Auxiliary power supplies can be independent or built into the control device or control equipment.

Particular requirements for controlgear for certain types of luminaires.

Special requirements for each type of input device.

The first edition of GB/T 30104.222 is intended to be compatible with GB/T 30104.101-2021, GB/T 30104.102-2021 and GB/T 30104 is published as a series of standards divided into several parts, with specific provisions for each type of equipment, in order to facilitate the standardization of Use and maintenance.

The structure of the series of standards is shown in Figure 1 below.

Figure 1 Overview of GB/T 30104

The scope of application of this clause. Other sections also include additional requirements when necessary.

except.

The standardization of control interface of control device aims to achieve compatibility between electronic control device and lighting control equipment.

This document describes a method for implementing a control device in a building management system.

Unless otherwise specified, all numbers used in this document are decimal. Hexadecimal numbers are given in the format 0xVV.

The "x" in the number means "any value".

Use the following typographical expressions.

Variable. "variable name" or "variable name[3.0]" only gives the 3rd to 0th digits of the variable name.

The range of values is. [minimum, maximum].

Command. "command name".

Digital Addressable Lighting Interface Part 222: Control Particular requirements for devices protecting heat lamps (equipment type 21)

1 Scope

This document specifies the electrical specifications, interface power supply, transmission framework protocol structure of the bus system controlled by digital signals of electronic lighting equipment.

The system complies with the requirements of IEC 61347 (all parts) and has a DC power supply.

power supply.

This document is only applicable to control devices related to heat lamp protection in GB/T

30104.102-2025.

NOTE: Testing requirements for individual products during production are not included.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

IEC 62386-102:2014 Digital addressable lighting interface Part 102: General requirements for control gear IEC 62386-102:2014/AMD1.2018 Note. GB/T 30104.102-2025 Digital addressable lighting interface Part 102: General requirements system components (IEC 62386-102:2022, IDT)

3 Terms and Definitions

For the purposes of this document, the terms and definitions defined in IEC 62386-102 and the following apply.

heat lamp overload thermallampoverload the lamp temperature exceeds the upper limit of the normal operating range, T_{ovl} , and causes the light output to decrease.

heat lamp shutdown

In the thermal lamp overload state, the lamp temperature exceeds the maximum allowable temperature T_{shut} and causes the lamp to be shut down.

4.1 Overview

The requirements of IEC 62386-102:2014 and IEC 62386-102:2014/AMD1.2018, clause 4, apply, with the following limitations, modifications and additions.

Add as follows.

4.2 Version Number

In 4.2 of IEC 62386-102:2014 and IEC 62386-102:2014/AMD1.2018, "102" should be replaced by "222".