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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB 25280-2016

Replacing GB 25280-2010

Road traffic signal controller

道路交通信号控制机

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Foreword

5.3.4,5.3.10,5.4.2,5.4.3.1,5.4.4,5.4.5,5.5.2,5.5.3,

5.8 this standard is mandatory, the rest are recommended. This standard was drafted in accordance with rules GB/T 1.1-2009 given. This standard replaces GB 25280-2010 "Road traffic signal control machine" and GB/T 30502-2014 "urban road lane control signal

System machine. " Compared with GB 25280-2010, editorial changes except main technical changes are as follows:

--- modify the normative references (see Chapter 2, the 2010 version of Chapter 2);

--- modify the terms and definitions (see Chapter 3, Chapter 3, 2010 edition);

--- revised classification (see 41, 2010 version 4.1, 4.2.);

--- increasing the model designation of the rules (see 4.2) and the identification code compiled rules (see 4.3);

--- Cabinet modified the structural design requirements, modify the cabinet main structural requirements (see 5.1 2, 2010 version 5.1.2), increase The bottom of the mounting hole size requirements [see 5.1.2e)];

--- increased inlet emergency power requirements (see 5.1.4.4);

--- modify the lightning protection requirements (see 534, 2010 edition of 5.3.4.);

--- modify the grounding requirements (see 5310, 2010 edition of 5.3.10.);

--- modify the basic conversion signal sequence, cited GB 14886 "Road Traffic lights setup and installation standard" requirement (see 5.4.3.1, 2010 version of 5.4.3.1);

--- modify the signal duration requirements (see 5432, 2010 version 5.4.3.2...);

--- the yellow flashing control means modify requirements (see 552, 2010 edition 5.5.2.);

--- Under the new classification, redefining the control requirements of various road traffic signal controller (see 5.6.1,

1 Scope

GB 25280-2016 is the Chinese national standard on road traffic signal controller, in the field of civil engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 13 December 2016 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 13 December 2016. Classification: ICS 93.080.30, CCS R87. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the classification of road traffic signal control machine, technical requirements, test methods, inspection rules, marking, labeling and packaging. This standard applies to the traffic signal controller used on the road. Other places to use traffic

signal controller can be implemented by reference.

2 Normative references

The following documents for the application of this document is essential. For dated references, only applies to the version dated paper Pieces. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 2423.1 electric and electronic products Environmental testing - Part 2. Test methods Test A. Cold

GB/T 2423.2 electric and electronic products Environmental testing - Part 2. Test Test Method B. High Temperature

GB/T 2423.3 electric and electronic products environmental testing - Part 2. Test Method Test Cab. Damp heat test

GB/T 2423.6 electric and electronic products environmental testing - Part 2. Test methods Test Eb and guidance. Bump

GB/T 2423.10 Environmental testing for electric and electronic products - Part 2. Test methods Test the Fc. vibration (sine)

GB/T 2423.38 Environmental testing for electric and electronic products - Part 2. Test Test Method R. Water test method and guidance

GB 4943.1 Safety of Information Technology Equipment Part 1. General Requirements

GB 14886 road traffic lights setup and installation specifications

GB/T 17626.2 Electromagnetic compatibility testing and measurement techniques electrostatic discharge immunity test

GB/T 17626.4 Electromagnetic compatibility testing and measurement techniques Electrical fast transient burst immunity test

GB/T 17626.5 Electromagnetic compatibility testing and measurement techniques surge (impact) immunity test

GB/T 17626.11 Electromagnetic compatibility Testing and measurement techniques - Voltage dips, short interruptions immunity tests and voltage variations

GB/T 19520.1-2007 electronic apparatus mechanical structure 482.6mm (19in) dimensions series of mechanical structures - Part 1. Panel And rack

3 Terms and Definitions

GB/T 31418 defines the terms and definitions apply to this document.

4.1 Classification

4.1.1 functional classification Road traffic signal controller (hereinafter, simply referred to as signal) divided by control signals A, B, C three categories (Table 1). Table 1 signal classification categories and basic control functions Reference signal type control signal A Class B Class C signal signal 1 yellow flashing control - - - Over 2 - - - Control period

3 Manual control - - - Induction - - Control 4 5 cable without coordinating control - - 6 networking control - - - 7 a single point of control to optimize - - 8 bus signal priority - 9 emergency priority -

Note. "-" should have the function of, "-" have appropriate functions.

4.1.2 Classification by installation environment Signal according to the installation environment can be divided into indoor and outdoor units. An indoor unit placed in the indoor or outdoor cabinet work and other non-open-air environment, the outdoor unit can be directly installed in the open air work.

4.1.3 by using a form of classification Signal by the use forms can be divided into fixed and mobile signal signal.

4.2 Model Rules for the Signal models include the functional classification, installation environment, use the form, working temperature levels, corporate self-encoded, shown in Figure 1.

1 signal Model Rules for the map

4.3 Rules for the identification code Rules for the identification code signal shown in Figure 2. Identifier used to uniquely identify each signal. FIG

5.1 Physical Structure performance requirements

5.1.1 Appearance Signal within the cabinet, the outer surface and the control panel should be smooth, flat, should not have dents, scratches, defects cracks, deformation and the like. Cabinet surfaces should There are strong anti-rust, anti-corrosion coating or painting, there should be no corrosion of metal parts and other mechanical damage, the sliding or rotating moving parts shall Ling Live, no loose fastening member, the outer surface of the cabinet may result should not have sharp corners or projections injury.

5.1.2 Cabinet structural design Signal enclosure design should satisfy.

a) the inner space of the cabinet should be large enough signal should facilitate cooling and installation, use and maintenance;

b) the cabinet shall be designed to reduce the intrusion of rain and dust and harmful substances as much as possible, and rack mount chassis design but also to prevent Water top surface area; Design