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STN	Systémy cestnej dopravnej signalizácie	STN EN 50556 36 5601

Road traffic signal systems

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/19

Obsahuje: EN 50556:2018

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 50556

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ICS 93.080.30

Supersedes EN 50556:2011

English Version

Road traffic signal systems

Systèmes de signaux de circulation routière

Straßenverkehrs-Signalanlagen

This European Standard was approved by CENELEC on 2017-12-18. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN 50556:2018 E

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European foreword

This document (EN 50556:2018) has been prepared by CENELEC Task Force CLC/BTTF 69-3 "Road traffic signal systems".

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2019-03-28
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2021-09-28

This document supersedes EN 50556:2011.

EN 50556:2018 includes the following significant technical changes with respect to EN 50556:2011:

— change in the Scope to cover non-permanent signals of a certain level of complexity;

— correct the normative usage of shall and should within the whole document;

— update of the normative references to add EN 50159;

— updated invalid reference in 3.3.5 to IEC 60050-826;

— updated invalid reference from HD 384.4 to the HD 60364-4 series;

— updated invalid reference from IEC 60536 to EN 61140;

— clarified wording of requirements in 5.2.3.2;

— change of the definition of “Road traffic signal system” to fulfil formal requirements;

— additions to terms and definitions in 3.2.7 to 3.2.10;

— modification of 5.1.2 to accommodate new forms of architecture that are seen as possible in the future, an adaptation to the level of technology;

— modification of 5.2.3.3 (last sentence) to reference the changes made to 5.1.2;

— modification of 5.2.3.4, Class X1 last paragraph, to reference the changes made to 5.1.2;

— modification of 5.2.3.4, Class X2 note added to reference the changes made to 5.1.2;

— added a note at 6.3.1.3 b) for clarification about the test setup.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Introduction

To satisfy the legal and regulatory requirements and specific provisions of each CENELEC country, certain characteristics in this standard contain a range, which is defined by a number of discrete classes. The class to be used in the country will be selected by the Standards Authority of the CENELEC member of that country from the range specified.

Thus, this European Standard contains the essential electrotechnical requirements of all CENELEC countries and permits through the class selection procedure, countries to incorporate their own requirements.

It is believed that this first step will allow, over a period of time, a gradual alignment of Road Traffic Signal Systems in Europe.

1 Scope

This document specifies requirements for Road Traffic Signal Systems, including their development, design, testing, installation and maintenance.

In particular, it forms the electrotechnical part of the following two standards issued by CEN:

— EN 12368, *Traffic control equipment — Signal heads*;

— EN 12675, *Traffic signal controllers — Functional safety requirements*.

Each of these standards above will be used with this standard either singly or together to define an operational equipment or system. This will be achieved by using the electrotechnical methods and testing defined in this standard.

Where Road Traffic Signal Systems are to be used with other systems, e.g. public lighting or railway signalling and communication, this document will be used with any other respective standard(s) for the other associated systems to ensure that overall safety is not compromised.

This document is applicable to traffic signal control equipment permanently and temporarily installed, and portable traffic control equipment, with the exception of portable traffic signal equipment only capable of controlling alternate / shuttle working lanes (as further defined in 3.2.10).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 12368, *Traffic control equipment - Signal heads*

EN 12675:2017, *Traffic signal controllers - Functional safety requirements*

EN 50102, *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*

EN 50110-1, *Operation of electrical installations – Part 1: General requirements*

EN 50129, *Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling*

EN 50159:2010, *Railway applications - Communication, signalling and processing systems - Safety-related communication in transmission systems*

EN 50293, *Road traffic signal systems - Electromagnetic compatibility*

EN 60068-2-1:2007, *Environmental testing – Part 2-1: Tests – Test A: Cold (IEC 60068-2-1:2007)*

EN 60068-2-2:2007, *Environmental testing – Part 2-2: Tests – Test B: Dry heat (IEC 60068-2-2:2007)*

EN 60068-2-5:2011, *Environmental testing – Part 2: Tests – Test Sa: Simulated solar radiation at ground level (IEC 60068-2-5:2010)*

EN 60068-2-14:2009, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature (IEC 60068-2-14:2009)*

EN 60068-2-30:2005, *Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12 h + 12 h cycle) (IEC 60068-2-30:2005)*

EN 60068-2-64:2008, *Environmental testing – Part 2-64: Tests – Test Fh: Vibration, broadband random and guidance (IEC 60068-2-64:2008)*

HD 60364-4-41:2007, *Low-voltage electrical installations – Part 4-41: Protection for safety - Protection against electric shock (IEC 60364-4-41:2005)*

HD 60364-4 (all parts), *Low-voltage electrical installations – Part 4: Protection for safety (IEC 60364-4 series)*

HD 60364-5-54, *Low-voltage electrical installations – Part 5-54: Selection and erection of electrical equipment - Earthing arrangements and protective conductors (IEC 60364-5-54)*

EN 60529:1991, *Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)*

EN 60950-1:2006, *Information technology equipment – Safety – Part 1: General requirements (IEC 60950-1:2005, modified)*

EN 61008 (all parts), *Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCB's) (IEC 61008 series)*

EN 61140:2016, *Protection against electric shock - Common aspects for installation and equipment (IEC 61140:2016)*

IEC 60050-191, *International Electrotechnical Vocabulary – Chapter 191: Dependability and quality of service*

IEC 60050-192, *International electrotechnical vocabulary – Part 192: Dependability*

IEC 60183, *Guidance for the selection of high-voltage A.C. cable systems*

IEC 60417, *Graphical symbols for use on equipment* [database]