



NSAI
Standards

Irish Standard
I.S. EN 50556:2011

Road traffic signal systems

I.S. EN 50556:2011

Incorporating amendments/corrigenda issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

<i>This document replaces:</i> HD 638 S1:2001+A1:2006	<i>This document is based on:</i> EN 50556:2011	<i>Published:</i> 25 February, 2011
This document was published under the authority of the NSAI and comes into effect on: 2 March, 2011		ICS number: 93.080.30
NSAI 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie
Údarás um Chaighdeáin Náisiúnta na hÉireann		

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 50556

February 2011

ICS 93.080.30

Supersedes HD 638 S1:2001 + A1:2006

English version

Road traffic signal systems

Systèmes de signaux de circulation
routière

Straßenverkehrs-Signalanlagen

This European Standard was approved by CENELEC on 2011-01-02. 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 Central Secretariat 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 Central Secretariat 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

This European Standard was prepared by CENELEC Task Force BTTF 69-3, Road traffic signal systems.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50556 on 2011-01-02.

This document supersedes HD 638 S1:2001 + A1:2006.

The main changes with respect to HD 638 S1:2001 + A1:2006 are the following:

- update of the normative-references;
- editorial revision;
- reduction of the classes;
- adaptation to the level of technology.

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

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2012-01-02
 - latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2014-01-02
-

Contents

Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
4 Electrical supply and limits	10
4.1 Nominal voltages	10
4.2 Operating voltage range	10
4.3 Low voltage	11
4.4 Overvoltage.....	11
4.5 Voltage dip	11
4.6 Mains frequency.....	11
5 Safety	12
5.1 Electrical safety.....	12
5.2 Traffic safety	14
6 Testing	19
6.1 General	19
6.2 Organisation of testing	19
6.3 Environmental tests	20
6.4 Electrical tests.....	22
6.5 Electrical safety tests	23
6.6 Traffic safety tests.....	24
6.7 Electromagnetic compatibility testing.....	25
7 Electrical interfaces	26
7.1 General	26
7.2 Detector interface.....	26
8 Installation	26
8.1 General	26
8.2 Tests carried out during installation	26
8.3 Test of cables following the installation of cables	27
8.4 Inspection of terminations following the installation and termination of all equipment and cables ...	27
8.5 Test of impedance	27
8.6 Insulation of live parts to earth	28
8.7 RCD (residual current detector / earth leakage breaker).....	28
8.8 Fuses	28
8.9 Voltage and polarity of supply	28
8.10 Connections between controllers, signals and ancillary equipment.....	29
8.11 Safety covers	29
8.12 Functional check of road traffic signal systems	29
9 Maintenance	29
9.1 General	29

9.2	Types of maintenance.....	29
9.3	Documentation required for maintenance.....	29
9.4	Equipment not covered by this standard.....	30
9.5	Safety testing procedures	30
9.6	Maintenance testing procedures.....	30
10	Marking and labelling	32
11	Classification of environmental test conditions.....	33

Figure

Figure 1 – Failure consideration of a Road Traffic Signal System – Protection against accidents caused by technical failures	18
--	----

Tables

Table 1 – Classification according to voltage dip.....	11
Table 2 – Requirements for maintenance measures (intervals (PTI) in months).....	31
Table 3 – Environmental testing	33

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.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-