SLOVENSKI STANDARD

SIST HD 638 S1:2002/A1:2007

januar 2007

Signalizacija v cestnem prometu

(istoveten HD 638 S1:2001/A1:2006)

Road traffic signal systems

ICS 93.080.30

Referenčna številka
SIST HD 638 S1:2002/A1:2007(en)

HARMONIZATION DOCUMENT

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

HD 638 S1/A1

September 2006

ICS 93.080.30

English version

Road traffic signal systems

Systèmes de signaux de circulation routière

Straßenverkehrs-Signalanlagen

This amendment A1 modifies the Harmonization Document HD 638 S1:2001; it was approved by CENELEC on 2006-09-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this amendment at national level.

Up-to-date lists and bibliographical references concerning such national implementations may be obtained on application to the Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French, German).

CENELEC members are the national electrotechnical committees of Austria, Belgium, 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

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Ref. No. HD 638 S1:2001/A1:2006 E

Foreword

This amendment to the Harmonization Document HD 638 S1:2001 was prepared by the CENELEC 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 amendment A1 to HD 638 S1:2001 on 2006-09-01.

The following dates were fixed:

– latest date by which the existence of the amendment has to be announced at national level	(doa)	2007-03-01
– latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2007-09-01
– latest date by which the national standards conflicting with the amendment have to be withdrawn	(dow)	2009-09-01

2 Normative references

Add the following new reference:

EN 60950-1:2001 Information technology equipment – Safety – Part 1: General requirements (IEC 60950-1:2001, modified)

3 Definitions

Add the following new definition:

3.3.17
insulation
see EN 60950-1, Subclause 1.2.9

5 Safety

Add the following new subclause:

5.1.7 Insulation

5.1.7.1 Isolated circuits

In case of electrically isolated circuits:

The insulation between the live parts of these circuits shall be calculated for the higher operating voltage.

5.1.7.2 Linked circuits

In case of circuits linked in an electrically conductive manner and with different voltages:

The calculation of the reference voltage for the insulation between live parts shall be orientated to the highest operating voltage.

5.1.7.3 Insulation paths

For insulation paths EN 60950-1 applies, clearance and creepage distances and thickness of insulation see EN 60950-1, Subclause 2.10.

5.1.7.3 1 Live parts and bodies

In addition to reliable electrical isolation of live parts in any types of circuits from live parts in power circuits, insulation paths shall be dimensioned for the following criteria.

Between live parts and bodies, the insulation paths of equipment for road traffic signal systems in an enclosure (cabinet) in accordance with 5.1.1.3 shall be dimensioned for overvoltage category II and degree of soiling 2.

NOTE Overvoltage category II: It has to be assured that no overvoltage ≥ 2 500 V can be applied, otherwise protection measures are necessary.

Degree of soiling 2: It has to be assured that in general no conductive soiling can be applied (EN 60664-1/VDE 0110-1).

5.1.7.3.2 Live parts

Insulation paths between live parts of equipment for road traffic signal systems in an enclosure (cabinet) in accordance with 5.1.1.3 shall be dimensioned:

All terminals and other connection elements for incoming and outgoing cables or wires whose operating voltage is in excess of the extra-low voltage range shall be dimensioned in accordance with overvoltage category III and degree of soiling 3 (e.g. the output connector blocks in controllers, the distributors in the poles and the connection terminals in the signal heads).

5.1.7.4 Insulated devices

On equipment with an insulating enclosure and if reinforced insulation is used, the test voltage between live parts to bodies or to metal films mounted on the outer faces of insulating enclosures shall at least have double the values of the rated voltage. Insulation paths between live parts and bodies shall be dimensioned for overvoltage category III and degree of soiling 3 for the rated voltage.

When the cabinet is in accordance with IP54 and an overvoltage protection is provided the insulation paths may be dimensioned in accordance with overvoltage category II and degree of soiling 2.

Pole distributors are considered to have reinforced insulation if the test voltage between live parts and bodies has at least three times the value of the rated voltage and the insulation paths are dimensioned in accordance with overvoltage category III and degree of soiling 3 for three times the rated voltage.