

Traffic signal controllers - Functional safety requirements

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12675:2001 sisaldab Euroopa standardi EN 12675:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 09.03.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12675:2001 consists of the English text of the European standard EN 12675:2000.</p> <p>This document is endorsed on 09.03.2001 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This Standard defines the functional safety requirements for traffic signal controllers. It is applicable to traffic signal control equipment permanently and temporarily installed, but excludes portable traffic control equipment. Traffic signal controllers, as defined by this European Standard, are required to control conflicting traffic, both vehicular and pedestrian, e.g. junction signals, pedestrian crossings, shuttle signals, public transport signals, in a safe manner.</p>	<p>Scope:</p> <p>This Standard defines the functional safety requirements for traffic signal controllers. It is applicable to traffic signal control equipment permanently and temporarily installed, but excludes portable traffic control equipment. Traffic signal controllers, as defined by this European Standard, are required to control conflicting traffic, both vehicular and pedestrian, e.g. junction signals, pedestrian crossings, shuttle signals, public transport signals, in a safe manner.</p>
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Võtmesõnad: inspect, interfaces (data processing), protective measures, road transport, safety measures, safety requirements, signal devices, signal lamps, signal systems, specification (approval), testing, traffic control, traffic lights, traffic signals, transportation safety

ICS 93.080.30

English version

**Traffic signal controllers
Functional safety requirements**

Contrôleurs de signaux de circulation
routière – Exigences de sécurité
fonctionnelle

Steuergeräte für Lichtsignalanlagen –
Funktionale Sicherheitsanforderungen

This European Standard was approved by CEN on 2000-03-09.

CEN 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 CEN member.

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CEN

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

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Contents

	Page
Foreword	2
Introduction	2
1 Scope	3
2 Normative references	3
3 Definitions	3
4 Functional safety requirements	6
5 Fault condition	12
6 User documentation	13
7 Marking and labelling	14
Annex ZB (informative) A-TYPE NATIONAL DEVIATION	15

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 226 "Road equipment", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2001, and conflicting national standards shall be withdrawn at the latest by April 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

The objective of this European Standard is to specify the functional safety requirements of equipment used for the control of traffic signals. It relates to the control of signals to traffic, and any associated signalled traffic movements. The primary concern is to safeguard persons and objects against hazards due to conflicting signals to traffic.

The hazards to be considered include, but are not limited to, the following types of possible signal failures:

- a) the failure to display a red signal to traffic;
- b) the display of a green signal to conflicting traffic;
- c) the failure to display the correct signal sequence to traffic;
- d) the failure to provide the correct timing of all signals.

Persons to be safeguarded are:

- a) users of traffic signals, drivers and passengers of vehicles (including public transport), pedestrians, cyclists and equestrians, persons with physical disabilities;
- b) maintenance and inspection personnel.

1 Scope

This European Standard specifies the functional safety requirements for traffic signal controllers. It is applicable to traffic signal control equipment permanently and temporarily installed, but excludes portable traffic control equipment. Traffic signal controllers, as defined by this European Standard, are required to control conflicting traffic, both vehicular and pedestrian, e.g. junction signals, pedestrian crossings, shuttle signals, public transport signals, in a safe manner.

The electrical safety requirements and additional traffic safety requirements, the interfacing with external equipment and the test methods for verifying compliance with this European Standard are contained in HD 638.

NOTE National requirements may specify special conditions for public transport signals (PT) and for any other signal that is not specified in a European Standard.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 12368
Traffic control equipment - Signal heads and poles

HD 638:1999
Road traffic signal systems

3 Definitions

For the purposes of this European Standard, the following definitions apply.

3.1

absent signal

an intended signal the luminous intensity of which does not comply with the signal "ON" requirements as specified in HD 638:1999

3.2

bicycle signal

a traffic signal for the exclusive purpose of directing bicycle traffic at signalized locations

3.3

central control

a system for co-ordinating and monitoring a network or group of traffic signals using a central computer, or equivalent device, and transmission systems

3.4

conflicting green (green/green conflict)

the simultaneous display of green signals allowing conflicting traffic movements

3.5

conflicting signal groups

two or more signal groups that will cause conflicting traffic movements if operated concurrently