Fixed, vertical road traffic signs - Part 1: Fixed signs

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 12899-1:2002 sisaldab Euroopa standardi EN 12899-1:2001 ingliskeelset teksti. Käesolev dokument on jõustatud 19.06.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 12899-1:2002 consists of the English text of the European standard EN 12899-1:2001. This document is endorsed on 19.06.2002 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This part of the Standard specifies requirements for new fixed signs: non-retroreflective and retroreflective fixed signs; non-retroreflective and retroreflective fixed signs when they are illuminated at night by external lighting luminaries; and transilluminated signs.	**Scope:** This part of the Standard specifies requirements for new fixed signs: non-retroreflective and retroreflective fixed signs; non-retroreflective and retroreflective fixed signs when they are illuminated at night by external lighting luminaries; and transilluminated signs.

ICS 93.080.30

Võtmesõnad: management, measurement, perform, properties, reflective, retroreflecting, road safety, road signs, road transport, signal systems, specification (approval), specifications, stationary, testing, tolerances, tolerances (measurement), traffic signals, traffic signs

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EN 12899-1

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English version

Fixed, vertical road traffic signs - Part 1: Fixed signs

Signaux fixes de signalisation routière verticale - Partie 1: Panneaux fixes

Ortsfeste, vertikale Straßenverkehrszeichen - Teil 1: Ortsfeste Verkehrszeichen

This European Standard was approved by CEN on 20 January 2001.

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 Management Centre or to any CEN 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 CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This European Standard has been prepared by the 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 June 2002, and conflicting national standards shall be withdrawn at the latest by December 2005.

EN 12699 consists of the following parts, under the general title *Fixed, vertical road traffic signs*

— *Part 1 : Fixed signs*

— *Part 2 : Transilluminated traffic bollards*

— *Part 3 : Road delineators and road reflective devices (delineation posts)*

— *Part 4 : Evaluation of conformity, factory production control*

— *Part 5 : Evaluation of conformity, initial type testing*

It derives from performance requirements and test methods published in CEN, CENELEC, CIE and ISO documents together with standards of the CEN member organisations.

The annexes A and B are informative. Annex C is normative.

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

This standard is for use by Road Authorities and private developers who wish to use signs similar to those used on public highways on their own land.

The standard may be used to implement type approval and certification testing.

1 Scope

This part of EN 12899:2001 specifies requirements for new fixed signs :

— non-retroreflective and retroreflective fixed signs ;

— non-retroreflective and retroreflective fixed signs when they are illuminated at night by external lighting luminaires ; and

— transilluminated signs.

The main intended use of fixed signs is for the instruction and guidance of road users on public and private land.

It defines performance limits and a range of performance classes for both sign assemblies without vertical supports and assemblies complete with vertical supports, as well as sign faces and supporting substrates, sign fixings and supports and external lighting luminaires.

Colorimetric and retroreflective properties as well as the luminance are specified. The retroreflective properties are in respect of materials based on the use of glass bead technology only. Structural requirements for signs and sign supports include performance under static and dynamic loading.

It also defines performance levels to be maintained after natural weathering exposure.

NOTE Where tests for extremely low temperatures are required they should be in accordance with the customer's requirements.

This standard does not require the replacement of existing signs.

Products and requirements not covered by this standard :

a) sign gantries, cantilevers and sign foundations ;

b) signs constructed from light emitting diodes (LED) or fibre optics ;

c) variable message signs ;

d) transilluminated retroreflective signs ;

e) passive safety performance requirements of sign support structures against vehicle impact ;

f) signs used for temporary purposes.

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 (including amendments).

EN 40-5, *Lighting columns – Part 5 : Specification for steel lighting columns.*

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

EN 12767, *Passive safety of support structures for road equipment – Requirements and test methods.*

EN 60598-1:1990, *Luminaires – Part 1 : Specification for general requirements and tests (IEC 60598-1:1996, modified).*

ENV 1995-1-1, *Eurocode 5 - Design of timber structures – Part 1-1 : General rules and rules for buildings.*

ENV 1999-1-1, *Eurocode 9 : Design of aluminium structures - Part 1-1 : General rules and rules for buildings.*

ENV 1991-2-4:1995, *Eurocode 1 : Basis of design and actions on structures – Part 2-4 : Actions on structures – Wind actions.*

ENV 1993-1-1:1992, *Eurocode 3 : Design of steel structures - Part 1-1 : General rules and rules for buildings.*

ISO 4, *Information and documentation – Rules for the abbreviation of title words and titles of publications.*

ISO 139, *Textiles - Standard atmospheres for conditioning and testing.*

ISO 877, *Plastics - Methods of exposure to direct weathering, to weathering using glass - Filtered daylight, and to intensified weathering by daylight using Fresnel mirrors*.

ISO 1459, *Metallic coatings – Protection against corrosion by hot dip galvanised – Guiding principles.*

ISO 1461, *Hot dip galvanised coatings on fabricated iron and steel articles - Specifications and test methods.*

ISO 6272, *Paints and varnishes - Falling-weight test.*

ISO 9227, *Corrosion tests in artificial atmospheres - Salt spray tests.*

CIE 15.2, *Colorimetry.*

CIE 17.4, *International lighting vocabulary.*

CIE 39.2, *Recommendations for surface colours for visual signalling*.

CIE 54, *Retroreflection definition and measurement*.

CIE 74, *Roadsigns*.

3 Terms and definitions, symbols and abbreviations

For the purposes of this European Standard, the symbols and abbreviations given in ISO 4 apply. The photometric terms and definitions given in CIE 17.4 and the sign descriptions given in CIE 74 also apply, together with the following :

3.1
fixed sign
sign which is intended to remain fixed in position and whose supports are usually set into the ground

3.2
protective edge
fabrication intended to reinforce the edge of the sign and to reduce the severity of personal injury in the event of bodily impact with the sign edge

3.3
substrate
material used to support the non-retroreflective and retroreflective sign face materials

3.4
standard shape sign faces
circles, triangles, squares, diamonds and octagons containing legends in accordance with the provisions of the Vienna Convention