SLOVENSKI STANDARD
SIST ENV 12315-2:2003

01-oktober-2003

Prometne in potovalne informacije (TTI) ï Sporoļ ila TTI prek posebne komunikacije kratkega dosega ï 2. del: Podatkovna specifikacija ï Navzgornja povezava (od vozila do cestnega roba)

Traffic and Traveller Information (TTI) - TTI Messages via Dedicated Short-Range Communication - Part 2: Data Specification - Uplink (Vehicle to Roadside)

Ta slovenski standard je istoveten z: **ENV 12315-2:1996**

ICS:

35.240.60	Uporabniške rešitve IT v transportu in trgovini	IT applications in transport and trade

SIST ENV 12315-2:2003 **en**

EUROPEAN PRESTANDARD

PRÉNORME EUROPÉENNE

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ENV 12315-2

August 1996

ICS 35.240.60

Descriptors: teleprocessing, road transport, traffic, traffic control, information interchange, radiocommunications, open systems interconnection, data transmission, messages, data, specifications

English version

Traffic and Traveller Information (TTI) - TTI Messages via Dedicated Short-Range Communication - Part 2: Data Specification - Uplink (Vehicle to Roadside)

This European Prestandard (ENV) was approved by CEN on 1996-07-24 as a prospective standard for provisional application. The period of validity of this ENV is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the ENV can be converted into an European Standard (EN).

CEN members are required to announce the existance of this ENV in the same way as for an EN and to make the ENV available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the ENV) until the final decision about the possible conversion of the ENV into an EN is reached.

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

CEN

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

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

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CONTENTS (INFORMATIVE)

FOREWORD (INFORMATIVE)

This Prestandard has been prepared by Working Group 4 (Sub-Working Group 4.2) of Technical Committee CEN/ TC 278 "Road transport and traffic telematics", the secretariat of which is held by NNI to cover the Work Item 4.2.2.

In the field of Traffic and Traveller Information, the innovative rate is high, with many research and development projects under way in many countries, and there is a need to establish prospective standards which allow competitive manufacturers to introduce products to the market in the knowledge that they can accommodate the future issues of the standard(s) without fundamental change to equipment.

It has been submitted as a first draft to TC278 for consideration and review by TC278 plenary meeting members, for initial comment, as CEN Stage 32. All comments have been reviewed and the document updated. It is hereby issued to CEN Central Secretariat for distribution in accordance with Internal Regulations (Part 2, Section 7) at CEN Stage 49, for formal voting.

No known national standards (identical or conflicting) exist on this subject.

This document constitutes: Part 1 of a two-part European Prestandard, being the data specification for one way (roadside to vehicle direction) of a two-way communications link. Part 2 of this Prestandard covers the reverse direction (vehicle to roadside).

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

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Introduction (INFORMATIVE)

Traffic and Traveller Information may be disseminated through a number of services or means of communication, covering static displays, interactive terminals and in-vehicle equipment.

For all such services, the data to be disseminated and the message structures involved in the various interfaces require clear definition and standard formats, in order to allow competitive products to operate with any received data.

This pre-Standard focuses on the data specification for an air-interface via dedicated short-range communication, whereby information is produced at a central location (known as the in-station, central office or traffic information and control centre) and disseminated via a network of roadside beacons (Part 1 of this pre-Standard) and information/data is transferred from in-vehicle units, via roadside beacons, to a central location (Part 2 of this pre-Standard). It enables messages to be exchanged between different systems and service providers adopting a variety of applications' specifications. Other pre-Standards are being produced by the CEN TC278 Working Group 4, to cover TTI dissemination via other means or services.

It is anticipated that the uses of the data set(s) described in this document will be closely linked to the widespread use of in-vehicle equipment which utilises them – known as "beacon data" – in an efficient manner to guide drivers through the road network accurately and safely. The principle of operation is to follow detailed guidance, step by step, from one beacon to another. The in-vehicle equipment is expected to offer "fall-back" fasciliities to assist the driver whenever he or she is travelling in an area unequipped with beacons or if the beacon data is unavailable, for whatever reason.

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Title (NORMATIVE)

Traffic and Traveller Information (TTI)

TTI Messages via Dedicated Short-Range Communication

Part 2: Data Specification – Uplink (Vehicle to Roadside)

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1 Scope (NORMATIVE)

1.1 GENERAL

A Centrally Determined Route Guidance (CDRG) system using Dedicated Short Range Communication (DSRC) is based on infrastructure and equipped vehicles. The Route Guidance Information (RGI) is generated by a Central Office (CO) and distributed via DSRC to the equipped vehicles.

To enable dynamic RGI the Central Office needs real time traffic flow data. This data is provided through the system itself using vehicles as probes.

This document is intended to specify the data telegram containing the measurement values transmitted from the vehicles to the beacons.
The data described here corresponds to the downlink specification, application RGI.

1.2 EMBEDDANCE IN ISO-LAYER MODEL

Figure 1 shows the inclusion of this standard with the seperate communication means - supplementing the deliverables of other WGs, where the protocols and communications 'data frame' structures are defined.

For transmitting the telegrams the transportation services defined by WG 9 (Dedicated Short Range Communication) are used, which ensure the application handling.

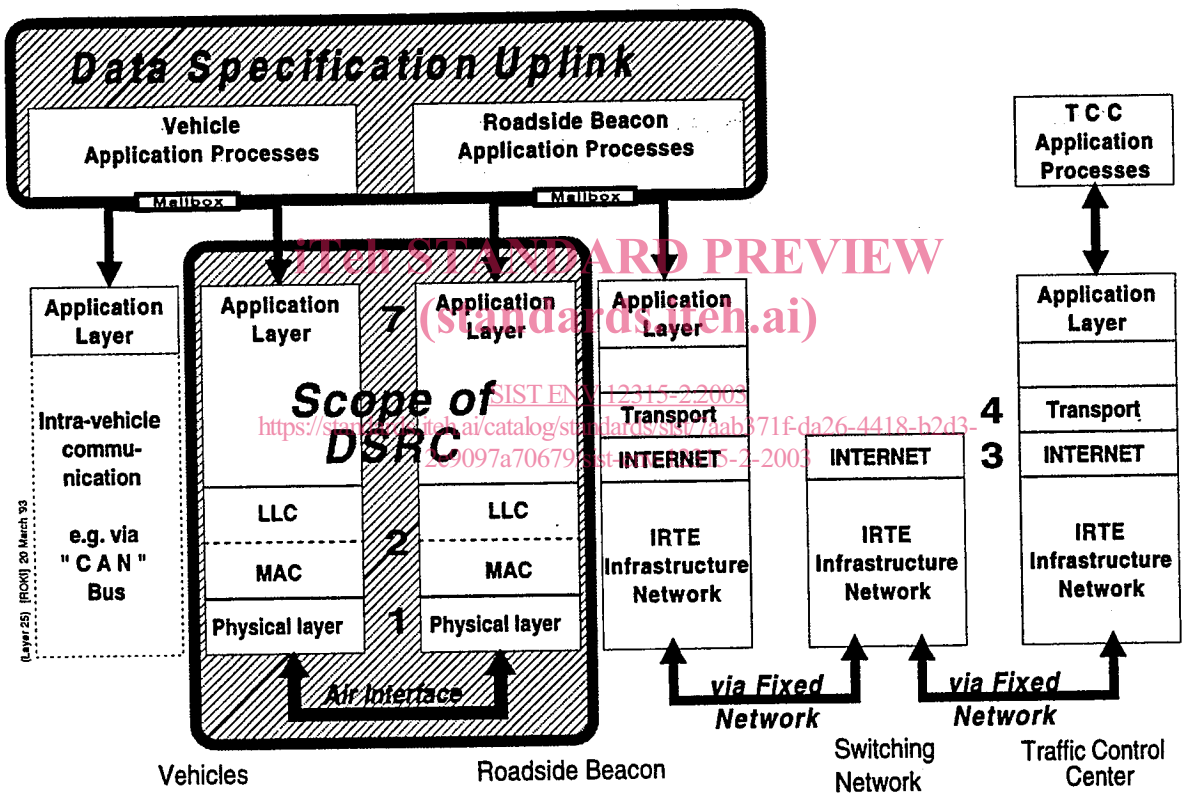

Figure 1 Dedicated Short Range Communication according to ISO-Layer model

2 Normative References (NORMATIVE)

This document complements the "Data Specification RGI Downlink (Beacon to Vehicle)" specification prENV278/4/2/0016-1.

Additional references:

- ISO/IEC 8824 Specification of Abstract Syntax Notation One (ASN.1)
- ISO/IEC 8825 Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1)
- ISO/IEC DIS 8825-2 Information technology - Open Systems Interconnection - Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1) - Part 2: Packed Encoding Rules
- prENV (WI: 00278051) DSRC Application layer (OSI-Layer 7)
- prENV 278/9/#61 DSRC Communication Architecture