



SLOVENSKI STANDARD

SIST-TS CEN/TS 15722:2009

01-april-2009

Cestna transportna in prometna telematika - E-Safety - Minimalni nabor podatkov za elektronski klic v sili (MSD)

Road transport and traffic telematics - ESafety - ECall minimum set of data (MSD)

Straßenverkehrstelematik - E-Safety - Minimaler Datensatz für den elektronischen Notruf

Transport routier et télématique embarquée eSafety - eCall, ensemble minimal de données (MSD)

STANDARD PREVIEW
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Ta slovenski standard je istoveten z: **CEN/TS 15722:2009**

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ICS:

13.200	Preprečevanje nesreč in katastrof	Accident and disaster control
35.240.60	Uporabniške rešitve IT v transportu in trgovini	IT applications in transport and trade
43.040.15	Avtomobilska informatika. Vgrajeni računalniški sistemi	Car informatics. On board computer systems

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TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
TECHNISCHE SPEZIFIKATION

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ICS 03.220.20; 35.240.60

English Version

Road transport and traffic telematics - ESafety - ECall minimum set of data (MSD)

Transport routier et télématique embarquée eSafety - eCall, ensemble minimal de données (MSD)

Straßenverkehrstelematik - E-Safety - Minimaler Datensatz für den elektronischen Notruf

This Technical Specification (CEN/TS) was approved by CEN on 12 February 2008 for provisional application.

The period of validity of this CEN/TS 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 CEN/TS can be converted into a European Standard.

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

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Foreword

This document (CEN/TS 15722:2009) has been prepared by Technical Committee CEN/TC 278 “Road transport and traffic telematics”, the secretariat of which is held by NEN.

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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Introduction

The scale of death and injury on roads around the world needs to be fully comprehended to understand the need for "Emergency Call" (eCall). There are around 41 600 deaths and more than 1,7 million injured in 2005. Roads remain unsafe, and further efforts are needed. The pan-European in-vehicle emergency call, eCall, is estimated to have the potential to save up to 2 500 fatalities annually in EU-25 when fully deployed, and furthermore to reduce the severity of injuries, to bring significant savings to the society in healthcare and other costs and to reduce human suffering.

Emergency calls made from vehicles or mobile telephones using wireless technologies, can assist with the objectives of significantly reducing road deaths and injuries, but drivers often have poor (imprecise) location-awareness, especially on interurban roads or abroad. Additionally, in many situations, a normal mobile phone may not be available for use, or the car occupants may not be in a position to call.

The situation is worse for those travelling abroad. For example, in EU there are over 100 million trips to another EU country per year (EU-15). 65 % of the people feel less protected while abroad and most do not know which number to call in an emergency (in some countries over 60 %). Language problems are pertinent and prohibit proper communication.

Yet, in the most crucial cases, the victim(s) may not be able to call because they have been injured/trapped, do not know the local number to call, and in many cases, particularly in rural situations and late at night, there may be no witnesses who happen to have a mobile phone and a sense of community.

eCall, in the context of "Road Traffic and Transport Telematics" (otherwise known as "Intelligent Transport Systems" or "ITS"), can be described as a "user instigated or automatic system to provide notification to public safety answering points, by means of wireless communications, that a vehicle has crashed, and to provide coordinates and a defined minimum set of data". This Technical Specification defines the "Minimum Set of Data" or "MSD" to be transferred by such an in-vehicle eCall system in the event of a crash or emergency.

NOTE The communications media and means of transferring the eCall MSD are not defined in this Technical Specification.

1 Scope

This Technical Specification defines the standard data concepts that comprise the "Minimum Set of Data" to be transferred from a vehicle to a "Public Safety Answering Point" (PSAP) in the event of a crash or emergency via an "eCall" communication session.

NOTE 1 The communications protocols and methods for the transmission of the eCall message are not specified in this Standard.

NOTE 2 Additional data concepts may also be transferred, and any such data concepts should be registered using a data registry as defined in prEN ISO 24978¹ (*Intelligent transport systems - ITS Safety and emergency messages using any available wireless media - Data Registry procedures*).

2 Conformance

In order to claim conformance with this Technical Specification, communication shall be established using accepted wireless communication standards, and it shall be able to demonstrate that the minimum set of data (MSD) transferred together with any standardised optional data elements defined herein comply with the specifications of this Technical Specification, to the extent that such data is available from the vehicle.

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3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

prEN ISO 24978, *Intelligent transport systems - ITS Safety and emergency messages using any available wireless media - Data Registry procedures (ISO/DIS 24978:2008)*¹

ISO 6709, *Standard representation of geographic point location by coordinates*

4 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

4.1

eCall

automatic or user generated system to provide notification and relevant coordinate information to public safety answering points, by means of cellular wireless networks and carries a defined "Minimum Set of Data" (standardised data), that there has been an incident that requires response from the emergency services, and establishes wherever possible an audio link to the vehicle

5 Symbols and abbreviated terms

3G third generation mobile cellular network system, defined by 3GPP standards

¹ Under development.

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3GPP	third generation partnership protocol
BCD	binary coded decimal
BER	basic encoding rules (ASN.1)
CNG	compressed natural gas
ETSI	European Telecommunications Standards Institute
EC	European Commission
EU	European Union
EU-27	27 countries that formed the European Union from 2007
GSM	global standard mobile
GNSS	global navigation satellite system
ID	identity
IP	Internet protocol
LPG	liquid propane gas
M	mandatory
MSD	minimum set of data
O	optional
PER	packed encoding rules (ASN.1)
PSAP	public safety answering point

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6 Requirements

NOTE The minimum set of data is important information to assist the provision of the most appropriate services to the crash-site and to speed up the response. The minimum set of data makes it possible for the PSAP operator to respond to the eCall even without the voice connection.

6.1 Concepts and formats**6.1.1 MSD data concepts**

The "Minimum Set of Data" shall be a direct, timely message to the PSAP operator receiving the emergency call.

6.1.2 Format definition of MSD data concepts

The formatting and presentation protocols shall be effected as defined in the Standards referenced above according to local regulations. Detail of these data concepts are defined below.

NOTE The information elements in the minimum set of data have been selected on the basis of their relevance in an emergency rescue situation.

6.2 Minimum Set of Data (MSD)

6.2.1 General

The following sub-clauses provide the definition of the minimum set of data that shall be sent from the vehicle in case of an emergency call.

6.2.2 Order of bits and bytes

The message shall be sent in the sequence defined within these sub-clauses.

The "Minimum Set of Data" (MSD) and the acknowledgment shall be transmitted by the network access device according to agreed European Standards. Figure 1 provides the order of the bits and bytes in the MSD frame.

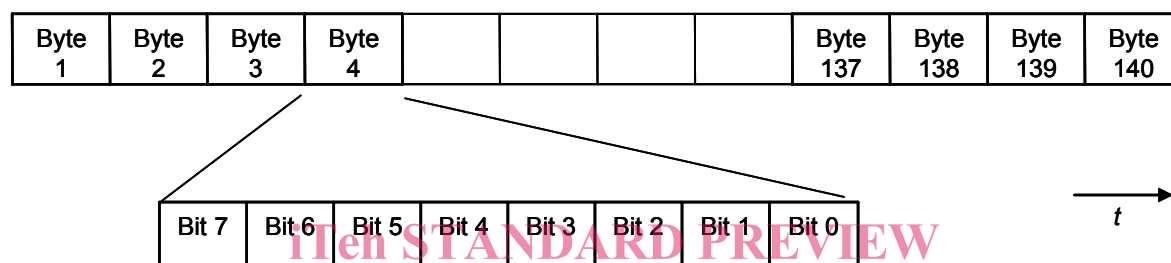


Figure 1 — Order of bits and bytes in MSD Frame

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6.2.3 Contents of the MSD

Table 1 provides a summary of the contents of the MSD.