SLOVENSKI STANDARD
SIST-TS CEN/TS 17249-6:2019

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Inteligentni transportni sistemi - e-Varnost - 6. del: e-Klic za trikolesna in štirikolesna vozila UN/ECE kategorij L2, L4, L5, L6 in L7

Intelligent transport systems - eSafety - Part 6: eCall for UNECE Category L2, L4, L5, L6 and L7 tricycles and quadricycles

Intelligente Verkehrssysteme - ESicherheit - Teil 6: ECall für UNECE-Kategorie L2, L4, L5, L6 und L7 Dreiräder und Quads

Systèmes de transport intelligents - eSécurité - Partie 6 : eCall pour les tricycles et quadricycles des catégories L2, L4, L5, L6 et L7 de l'UNECE

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English Version

Intelligent transport systems - eSafety - Part 6: eCall for UNECE Category L2, L4, L5, L6 and L7 tricycles and quadricycles

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This Technical Specification (CEN/TS) was approved by CEN on 11 February 2019 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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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Contents

Page

European foreword

This document (CEN/TS 17249-6:2019) has been prepared by Technical Committee CEN/TC 278 "Intelligent transport systems", 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 shall not be held responsible for identifying any or all such patent rights.

The present series is composed with the following parts:

— CEN/TR 17249-1, *Intelligent transport systems – eSafety – Part 1: Extending eCall to other categories of vehicle*;

— CEN/TS 17249-2, *Intelligent transport systems – eSafety – Part 2: eCall for HGVs and other commercial vehicles*;

— CEN/TS 17249-3, *Intelligent transport systems – eSafety - Part 3: eCall for Coaches and buses*;

— CEN/TS 17249-4, *Intelligent transport systems – eSafety – Part 4: eCall for UNECE Category T, R, S agricultural/forestry vehicles*;

— CEN/TS 17249-5, *Intelligent transport systems – eSafety – Part 5: eCall for UNECE Category L1 and L3 powered two wheel vehicles (vehicle based)*;

— CEN/TS 17249-6, *Intelligent transport systems – eSafety – Part 6: eCall for UNECE Category L2, L4, L5, L6 and L7 tricycles and quadricycles*.

NOTE This document is complementary to EN 16072 and EN 15722 and presents adaptation requirements for the provision of eCall for *tricycle* and quadri*cycle* vehicles.

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

Introduction

In accordance with European Regulation, from March 31, 2018, all new model Category M1/N1 vehicles will be, as a result of European Regulation, from 2018, equipped with 112- eCall. Other model Category M1/N1 vehicles may be voluntarily equipped with 112-eCall .

The current eCall Regulation covers only M1 and N1 Category vehicles (cars and vans). The European Commission's "ICT Rolling Plan (2017) states the objective "Action 1 Develop technical specification/standards for the implementation of eCall in vehicles of categories other than M1 and N1 and for other user types, taking into account requirements included within type approval regulation as well as ongoing activities in this area (pilots, CEF,…)." And goes on to explain "… for the extension to other vehicles types and services, such as Heavy Duty Vehicles, Power Two Wheelers or Hazardous Goods tracking, and other classes of vulnerable road users".

See EN/TR 17249-1.

Tricycle and quadricycle vehicles (vehicle based) 112-eCall, using OEM systems included during the manufacture of the vehicle, present challenges to the eCall paradigm, because these vehicles are designed for different uses, and some of these vehicles share similar characteristics to P2WVs. For this reason the requirements, for eCall system, shall be appropriate to the characteristics of other categories of vehicles.

Tricycle and quadricycle vehicles are categorized in detail by UNECE (UNECE ECE/TRANS/WP.29/78/Rev.4) Categories L2, L4, L5, L6, L7, and are also categorized in greater detail in Regulation (EU) No 168/2013. Some of these categories of vehicle have 4 wheels (Category L6, and L7), while other categories (Category L2, L4, and L5) range from traditional motor-cycles with sidecar, to motorcycles with two front wheels, to three wheeled cars.

This document defines the additional high level service requirements for the provision of eCall to UNECE Categories L2, L4, L5, L6, L7 Tricycles and Quadricycles (vehicle based). As with the existing provisions for eCall for Category M1/N1 vehicles, and the other specifications in this series, these are specified within the paradigm of being OEM fit equipment supplied with new vehicles.

NOTE The provision of eCall for vehicles via the aftermarket (post sale and registration) will be the subject of other work, and in respect of the operational requirements for any such aftermarket solutions for regulated vehicles, will use the specifications of this Technical Specification as a principle reference point.

1 Scope

In respect of 112-eCall (operating requirements defined in EN 16072), this document defines adaptations to eCall specifications defined in EN 16072 and other related Standards to enable the provision of eCall for *tricycle* and *quadricycle* vehicles (vehicle centred) UNECE (UNECE ECE/TRANS/WP.29/78/Rev.4) vehicle categories L2, L4, L5, L6, L7. As with the existing provisions for eCall for Category M1/N1 vehicles, these are specified within the paradigm of being OEM fit equipment supplied with new vehicles.

This document includes only the requirements for Category L2, L4, L5, L6 and L7 *Tricycles* and *Quadricycles* (vehicle centred).

NOTE 1 The *112-eCall* paradigm involves a direct call from the vehicle to the *most appropriate PSAP* (Third party service provision by comparison, involves the support of an intermediary third party service *provider* before the call is forwarded to the *PSAP*). The specifications herein relate only to the provision of *112-eCall* or *IMS-112-eCall*, and do not provide specifications for third party service provision of eCall.

NOTE 2 Some of the elements of this document will require further in-depth analysis before they can be implemented in a European Standard. The current state of development on these elements justifies their inclusion in this document, but further assessment and analysis might require an amendment before implementation into a European Standard.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 15722:2015, *Intelligent transport systems - ESafety - ECall minimum set of data*

EN 16062, *Intelligent transport systems - ESafety - eCall high level application requirements (HLAP) using GSM/UMTS circuit switched networks*

EN 16072:2015, *Intelligent transport systems - ESafety - Pan-European eCall operating requirements*

CEN/TS 16405, *Intelligent transport systems - Ecall - Additional data concept specification for heavy goods vehicles*

EN 16454, *Intelligent transport systems - ESafety - ECall end to end conformance testing*

CEN/TS 17184, *Intelligent transport systems - eSafety - eCall High level application Protocols (HLAP) using IMS packet switched networks*

CEN/TS 17240, *Intelligent transport systems - ESafety - ECall end to end conformance testing for IMS packet switched based systems*

CEN/TS 17249-4, *Intelligent transport systems – eSafety – Part 4: eCall for UNECE Category T, R, S agricultural/forestry vehicles*

CEN/TS 17249-5, *Intelligent transport systems – eSafety – Part 5: eCall for UNECE Category L1 and L3 powered two wheel vehicles (vehicle based)*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
112
single European emergency call number supporting Teleservice 12

[SOURCE: ETSI/TS 122 003]

3.2
112-eCall
eCall via single European emergency call number supporting Teleservice 12 in accordance with EN 16072 and EN 16062 or CEN/TS 17184

3.3
112-European eCall
See 112-eCall

3.4
data
representations of static or dynamic objects in a formalized manner suitable for communication, interpretation, or processing by humans or by machines

3.5
data concept
any of a group of data structures (i.e. object class, property, value domain, data elements, message, interface dialogue, association) referring to abstractions or things in the natural world that can be identified with explicit boundaries and meaning and whose properties and behaviour all follow the same rules

3.6
data element
single unit of information of interest (such as a fact, proposition, observation, etc.) about some (entity) class of interest (e.g. a person, place, process, property, concept, state, event) considered to be indivisible in a particular context

3.7
eCall
emergency call which is generated either automatically via activation of in-vehicle sensors or manually by the vehicle occupants, and which, when activated, provides notification and relevant location information to the most appropriate Public Safety Answering Point (3.22), by means of mobile wireless communications networks, carries a defined standardized minimum set of data (MSD) notifying that there has been an incident that requires response from the emergency services, and establishes an audio channel between the occupants of the vehicle and the most appropriate Public Safety Answering Point

3.8
eCall service
end-to-end emergency service to connect occupants of an affected vehicle to the *most appropriate PSAP* via an audio link across a PLMN together with the transfer of a *minimum set of data* to the *PSAP* *(3.22)*

3.9
eCall transaction
establishment of a mobile wireless communications session across a *public mobile communications network* and the transmission of a *minimum set of data* from a vehicle to a *Public Safety Answering Point* and the establishment of an audio channel between the vehicle and the *PSAP*

3.10
highway
publicly adopted road of any classification that all may use

3.11
wireless communications network
network operating using an air-interface capable of bi-directional transfer of data and or voice

3.12
IMS-112-eCall
eCall via single European emergency call number using IMS in accordance with EN 16072 and CEN/TS 17184

3.13
in-vehicle equipment
equipment within the vehicle that provides or has access to in-vehicle data required for the minimum set of data and any other data that is to be sent as part of or complementary to the minimum set of data to effect the eCall transaction via a public mobile wireless communications network providing a link between the vehicle and a means of enacting the eCall service via a public mobile wireless communications network

3.14
in-vehicle system
IVS
in-vehicle equipment together with the means to trigger, manage and effect the eCall transaction

3.15
minimum set of data
MSD
standardized data concept comprising data elements of relevant vehicle generated data essential for the performance of the eCall service

[SOURCE: EN 15722:2015, 3.3, modified – The original definition was fully revised here.]

3.16
mobile wireless communications network
wireless communications network with homogeneous handover between network access points