

Institut luxembourgeois de la normalisation de l'accréditation, de la sécurité et qualité des produits et services

ILNAS-EN 17358:2020

Intelligent transport systems - ESafety - eCall OAD for multiple Optional Additional Datasets

Intelligente Verkehrssysteme eSicherheit - eCall-OAD für mehrere optionale zusätzliche Datensätze

Systèmes de transport intelligents eSafety - OAD d'eCall pour ensembles de données supplémentaires facultatives multiples

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National Foreword

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English Version

Intelligent transport systems - ESafety - eCall OAD for multiple Optional Additional Datasets

Systèmes de transport intelligents - eSafety - OAD d'eCall pour ensembles de données supplémentaires facultatives multiples

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 17358:2020) has been prepared by Technical Committee CEN/TC 278 "Intelligent transport systems", the secretariat of which is held by NEN.

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of an identical text or by endorsement, at the latest by February 2021, and conflicting national standards shall be withdrawn at the latest by February 2021.

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1 Scope

This document defines an additional data concept that may be transferred as 'optional additional data' part of an eCall MSD, as defined in EN 15722, that may be transferred from a vehicle to a PSAP in the event of a crash or emergency via an eCall communication session.

The purpose of this document is simply to enable the existing MSD to house multiple OADs. This is achieved by providing a short optional additional data concept, which facilitates the inclusion of multiple additional datasets within the currently defined MSD of 140 bytes (every OAD still requires its own specification).

This document can be seen as an addendum to EN 15722; it contains as little redundancy as possible.

NOTE 1 $\,$ The communications media protocols and methods for the transmission of the eCall message are not specified in this document.

NOTE 2 Additional data concepts can also be transferred, and it is advised to register any such data concepts using a data registry as defined in EN ISO 24978 [1]. See www.esafetydata.com for an example.

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 15722:2020, 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, Intelligent transport systems — ESafety — Pan-European eCall operating requirements

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

ISO/IEC 8825-2, Information technology — ASN.1 encoding rules: Specification of Packed Encoding Rules (PER)

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 https://www.iso.org/obp/ui

3.1

ASN.1

abstract syntax notation one as specified in the various parts of ITU Recs 8824 and 8825 (ISO/IEC 8824 and ISO/IEC 8825 various parts)

3.2

contained OAD

optional additional dataset that is contained within the Multi-OAD dataset

3.3

eCall

emergency call generated either automatically via activation of in-vehicle sensors or manually by the vehicle occupants; when activated it provides notification and relevant location information to the most appropriate 'Public Safety Answering Point', by means of mobile wireless communications networks, carries a defined standardised 'Minimum Set of Data' 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'

3.4

MSD

minimum set of data

direct, timely data content of an eCall message to the PSAP operator receiving the emergency call containing information about the location of the incident, providing detail characterising the vehicle, and potentially sometimes also providing additional data that is deemed relevant, as defined in EN 15722

3.5

multi-OAD

combination of two or more optional additional datasets

3.6

optional additional data

data:

- for which the MSD message has a provision,
- which do not include any data concerning or identifying a person (personal data) unless the transfer
 of such data has been explicitly and expressly prior instructed and authorized by the person who is
 identified by the data, and
- which will in any event be provided only in accordance with European Union and National privacy regulations pertaining at the time of the transfer of any such personal data and in accordance with the provisions of EU 2016/679 'General Data Protection Requirements'

EXAMPLES Additional data may contain a reference to an external source of relevant information (such as a phone number, a website URL, etc.) where further information may be found, or additional data specific to the vehicle or incident (e.g. battery temperature in the case of an electric or hybrid vehicle; number of rollovers; URL to the technical specifications to a particular vehicle model; etc.)

4 Symbols and abbreviations

For the purposes of this document, the following symbols and abbreviations apply.

ASN.1 abstract syntax notation one

M mandatory

MSD minimum set of data

0 optional

OAD optional additional dataset or -concept

OID object identifier

PSAP public safety answering point

UPER unaligned packed encoding rules (ASN.1)

5 Conformance

The conformance requirements for this document are simply that the OAD conforms to EN 16072 and either the provisions of EN 16062 in respect of eCall using 2G/3G, or CEN/TS 17184, CEN/TS 17240 in the case of packet switched networks using IMS, and that the total length of the MSD, including this OAD, if used, remains 140 bytes.

6 Requirements

6.1 General

This document describes an addition to the standard EN 15722 for the coding of the MSD message. All requirements from EN 15722 shall be met in respect of this additional OAD.

6.2 Concepts and formats

6.2.1 MSD data concepts

The MSD as defined in EN 15722 is a direct, timely message to the PSAP operator receiving the emergency call.

The MSD has an optional additional data block that may be used to add information elements containing information about the vehicle involved.

The information elements in the additional data block of the MSD will have been selected on the basis of their relevance in an emergency rescue situation and shall in any event only be provided in accordance with European Union and National privacy regulations pertaining at the time of the transfer of any such personal data and in accordance with the provisions of EU 2016/679 'General Data Protection Requirements'.

6.2.2 Representation of MSD data concepts

The MSD is represented in 'Abstract Syntax Notation' (ASN.1) using the 'Unaligned Packed Encoding Rules' (UPER) as defined in ISO/IEC 8825-2 using the ASN.1 definitions defined in Annex A of EN 15722:2020. The message shall be sent in the sequence defined in that same annex.

This additional OAD shall also be defined following the provision made in above named annex.