



**NSAI**  
Standards

Irish Standard  
I.S. EN 15722:2020&LC:2020

# Intelligent transport systems - ESafety - ECall minimum set of data

**I.S. EN 15722:2020&LC:2020**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

*This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):*

*NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.*

*This document is based on:*

*Published:*

*This document was published  
under the authority of the NSAI  
and comes into effect on:*

2020-12-08

ICS number:

03.220.20

13.200

35.240.60

NOTE: If blank see CEN/CENELEC cover page

NSAI  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

Sales:  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

## National Foreword

I.S. EN 15722:2020&LC:2020 is the adopted Irish version of the European Document EN 15722:2020, Intelligent transport systems - ESafety - ECall minimum set of data

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

**Compliance with this document does not of itself confer immunity from legal obligations.**

*In line with international standards practice the decimal point is shown as a comma (,) throughout this document.*

This page is intentionally left blank

## Correction Notice

**Reference:** EN 15722

**Title:** Intelligent transport systems - ESafety - ECall minimum set of data

**Work Item:** 00278493

Brussels, 2020-11-04

**Please include the following minor editorial correction(s) in the document related to:**

the following language version(s) :

- ☒ English
- ☐ French
- ☐ German

for the following procedure :

- ☐ PQ/UQ
- ☐ Enquiry
- ☐ 2nd Enquiry
- ☐ Parallel Enquiry
- ☐ 2<sup>nd</sup> Parallel Enquiry
- ☐ Formal Vote
- ☐ 2<sup>nd</sup> Formal Vote
- ☐ Parallel Formal Vote
- ☐ 2<sup>nd</sup> Parallel Formal Vote
- ☐ UAP
- ☐ TC Approval
- ☐ 2<sup>nd</sup> TC Approval
- ☒ Publication
- ☐ Parallel Publication

---

It has been brought to our attention that this document, issued on 2020-08-26, requires modification.

In the table in B 3.4, parts of text "010" and "CE" were not visible due to a formatting mistake. The formatting has been corrected to make this text visible.

The same table contained superfluous hidden text "0010", which has been removed.

Please find enclosed the updated English version.

We apologise for any inconvenience this may cause.

*This page is intentionally left BLANK.*

**EUROPEAN STANDARD**  
**NORME EUROPÉENNE**  
**EUROPÄISCHE NORM**

**EN 15722**

August 2020

ICS 03.220.20; 13.200; 35.240.60

Supersedes EN 15722:2015

English Version

**Intelligent transport systems - ESafety - ECall minimum set  
of data**

Systèmes de transport intelligents - ESafety - Ensemble  
minimal de données (MSD) pour l'eCall

Intelligente Transportsysteme - ESicherheit -  
Minimaler Datensatz für den elektronischen Notruf  
eCall

This European Standard was approved by CEN on 5 July 2020.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 4 November 2020.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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

<b>Contents</b>	<b>Page</b>
<b>European foreword .....</b>	<b>4</b>
<b>Introduction .....</b>	<b>5</b>
<b>1 Scope.....</b>	<b>6</b>
<b>2 Normative references.....</b>	<b>6</b>
<b>3 Terms and definitions.....</b>	<b>6</b>
<b>4 Symbols and abbreviated terms.....</b>	<b>7</b>
<b>5 Requirements.....</b>	<b>8</b>
<b>5.1 Concepts and formats.....</b>	<b>8</b>
<b>5.1.1 MSD data concepts.....</b>	<b>8</b>
<b>5.1.2 Representation of MSD data concepts.....</b>	<b>8</b>
<b>5.1.3 Different versions of MSD data .....</b>	<b>9</b>
<b>5.1.4 Distribution of MSD data .....</b>	<b>9</b>
<b>5.1.5 Additional data .....</b>	<b>9</b>
<b>5.2 ISO Object identifier.....</b>	<b>10</b>
<b>5.3 Contents of the ‘Minimum Set of Data’ (MSD).....</b>	<b>11</b>
<b>5.3.1 General.....</b>	<b>11</b>
<b>5.3.2 Basic contents of MSD version 3 .....</b>	<b>11</b>
<b>5.3.3 Previous versions of MSD message .....</b>	<b>15</b>
<b>Annex A (normative) ASN.1 definition of MSD .....</b>	<b>20</b>
<b>A.1 ASN.1 definition of MSD .....</b>	<b>20</b>
<b>A.2 Syntax check of ASN.1 definition of MSD .....</b>	<b>24</b>
<b>A.3 Examples of ASN.1 encoded MSD.....</b>	<b>24</b>
<b>Annex B (informative) ASN.1 Data representation PER and BER explained .....</b>	<b>26</b>
<b>B.1 What is ASN.1.....</b>	<b>26</b>
<b>B.2 Encoding data using ASN.1 .....</b>	<b>27</b>
<b>B.2.1 General.....</b>	<b>27</b>
<b>B.2.2 Basic Encoding Rules (BER) .....</b>	<b>27</b>
<b>B.2.3 Distinguished Encoding Rules (DER).....</b>	<b>27</b>
<b>B.2.4 Packed Encoding Rules (PER/UPER) .....</b>	<b>27</b>
<b>B.2.5 XML Encoding Rules (XER) .....</b>	<b>28</b>
<b>B.3 Examples.....</b>	<b>28</b>
<b>B.3.1 General.....</b>	<b>28</b>
<b>B.3.2 ASN.1 example definition.....</b>	<b>28</b>
<b>B.3.3 Encoding using BER or DER.....</b>	<b>29</b>
<b>B.3.4 Encoding using PER.....</b>	<b>29</b>
<b>B.3.5 Encoding using XER and EXER.....</b>	<b>30</b>



<b>Annex C (informative) Formal XML format description (XSD) for the MSD .....</b>	<b>31</b>
<b>Annex D (informative) Explanation of rationale for MSD data concept elements .....</b>	<b>36</b>
<b>Annex E (informative) Object Identifiers (OID).....</b>	<b>38</b>
<b>E.1 Formal definition of OID .....</b>	<b>38</b>
<b>E.2 What is an object identifier? .....</b>	<b>38</b>
<b>E.3 Object Identifiers and ISO standards.....</b>	<b>38</b>
<b>E.4 OID for eCall data concepts .....</b>	<b>38</b>
<b>Bibliography .....</b>	<b>39</b>

**EN 15722:2020 (E)****European foreword**

This document (EN 15722:2020) 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.

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.

This document supersedes EN 15722:2015.

In comparison with the previous edition, the following modifications have been made:

- Correction of some typing errors;
- Added additional clarifications to solve frequently asked questions;
- Inclusion of recent locations mandatory to support more efficient dispatch of emergency services;
- MSD field “numberOfPassengers” replaced by “numberOfOccupants”;
- The number of vehicle categories supported by this standard has been expanded through revision of the enumeration values to enable support for additional categories of vehicles, which now covers the full UNECE categorization;
- Updated privacy requirements to include EU 2016/679 GDPR.

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

## **Introduction**

The pan-European in-vehicle emergency call, 'eCall', is estimated to have the potential to save up to 2 500 fatalities annually in the EU when fully deployed, and furthermore to reduce the severity of injuries, to bring significant savings to the society in 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 the car occupants may not be in a position to call using a normal mobile phone.

The situation is worse for those travelling abroad. A high (and increasing) number of vehicles travelling outside their home country is thus also contributing to the need for automated emergency call system in vehicles. In EU there are over 100 million trips to another EU country per year, 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 may render proper communication difficult. 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 "Intelligent Transport Systems" or "ITS", (previously known as "Road Traffic and Transport Telematics") 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, and where possible a voice link to the PSAP".

The objective of implementing the pan-European in-vehicle emergency call system (eCall) is to automate the notification of a traffic accident, wherever in the European Union and associated countries, with the same technical standards and the same quality of services objectives of other emergency services (for example the TS12 emergency call of GSM/UMTS).

This document specifies the "Minimum Set of Data" (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 document. See list of referenced standards.

## EN 15722:2020 (E)

## 1 Scope

This document specifies the standard data concepts that comprise the "Minimum Set of Data" (MSD) 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 transaction.

Optional additional data concepts may also be transferred as part of the MSD.

The communications media protocols and methods for the transmission of the eCall message are not specified in this document.

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

EN 16102, *Intelligent transport systems — eCall — Operating requirements for third party support*

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

NOTE Communications standards required for transmission of eCall using GSM/UMTS wireless communications networks are referenced in EN 16062 and EN 16072 [6].

## 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

notation that describes rules and structures for representing, encoding, transmitting, and decoding data enabling representation of objects that are independent of machine-specific encoding techniques; see Annex B

### 3.2

#### 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 standardized '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'

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-