SLOVENSKI STANDARD
SIST EN 62625-2:2017

01-april-2017

Železniške elektronske naprave - Sistem registriranja podatkov o vožnji vlaka - 2. del: Preskušanje skladnosti

Electronic railway equipment - On board driving data recording system - Part 2: Conformity testing

Ta slovenski standard je istoveten z: EN 62625-2:2016

ICS:

03.220.30	Železniški transport	Transport by rail
45.020	Železniška tehnika na splošno	Railway engineering in general

SIST EN 62625-2:2017 **en,fr,de**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62625-2

September 2016

ICS 45.060

English Version

Electronic railway equipment - On board driving data recording system - Part 2: Conformity testing (IEC 62625-2:2016)

Matériel électronique ferroviaire - Système embarqué d'enregistrement de données de conduite - Partie 2: Essais de conformité (IEC 62625-2:2016)

Elektronische Betriebsmittel für Bahnen - Bordsystem zur Fahrdatenaufzeichnung - Teil 2: Konformitätsprüfungen (IEC 62625-2:2016)

This European Standard was approved by CENELEC on 2016-03-02. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 62625-2:2016 E

European foreword

The text of document 9/2081/FDIS, future edition 1 of IEC 62625-2, prepared by IEC/TC 9 "Electrical equipment and systems for railways" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62625-2:2016.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2017-03-09
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-09-09

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

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

Endorsement notice

The text of the International Standard IEC 62625-2:2016 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61025	NOTE	Harmonized as EN 61025.
ISO/IEC 9646 (series)	NOTE	Harmonized as EN 9646 (series).
ISO/IEC 17000	NOTE	Harmonized as EN 17000.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60571	-	Railway applications - Electronic equipment used on rolling stock	-	-
IEC 61375	series	Electronic railway equipment - Train communication network (TCN) -- Part 1: General architecture	EN 61375	series
IEC 62498-1	-	Railway applications - Environmental conditions for equipment - Part 1: Equipment on board rolling stock	-	-
IEC 62625-1	2013	Electronic railway equipment - On board driving data recording system -- Part 1: System specification	EN 62625-1	2013
ISO/IEC 8824	series	Information technology -- Abstract Syntax Notation One (ASN.1): Specification of basic notation		series

Annex ZZ
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2008/57/EC

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant essential requirements as given in Annex III of the EC Directive 2008/57/EC (also named as New Approach Directive 2008/57/EC Rail Systems: Interoperability).

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard given in Table ZZ.1 relating to the 'rolling stock - locomotives and passenger rolling stock' subsystem of the rail system in the European Union, confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZZ.1 - Correspondence between this European Standard, the RST LOC&PAS TSI (published in the Official Journal L 356 on 12 December 2014, p. 228) and Directive 2008/57/EC

Clauses of this European Standard	Chapter / § / points / of RST LOC&PAS TSI	Essential Requirements (ER) of Directive 2008/57/EC	Comments
Clauses 1 to 7 are applicable	4.2.9.6 Recording device	2. Requirements specific to each sub-subsystem 2.4. Rolling Stock 2.4.3. Technical compatibility 2.4.4 Controls	

WARNING: Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

IEC 62625-2

Edition 1.0 2016-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Electronic railway equipment – On board driving data recording system – Part 2: Conformity testing

Matériel électronique ferroviaire – Système embarqué d'enregistrement de données de conduite – Partie 2: Essais de conformité

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRONIC RAILWAY EQUIPMENT – ON BOARD DRIVING DATA RECORDING SYSTEM –

Part 2: Conformity testing

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

Internationals Standard IEC 62625-2 has been prepared by IEC Technical Committee 9: Electrical equipment and systems for railways.

The text of this standard is based on the following documents:

FDIS	Report on voting
9/2081/FDIS	9/2118/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62625 series, published under the general title *Electronic railway equipment – On board driving data recording system*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

In consideration that IEC 62625-1 specifies the ODDRS (On Board Driving Data Recording System) requirements in terms of functional and system descriptions, a standardized conformity testing approach was developed in this standard on the base of the ISO/IEC 9646 series standards.

The ISO/IEC 9646 series standards apply to the assessment of communication protocol and are based on the concept of PICS (Protocol Implementation Conformity Statement) and PIXIT (Protocol Implementation eXtra Information for Testing). This standard extends the concepts to functional and system description introducing FICS (Function Implementation Conformity Statement), SICS (System Implementation Conformity Statement) and IXIT (Implementation eXtra Information for Testing).

The IEC 62625-1 requirements implementation, formally described by FICS, SICS and IXIT are verified by design review and other test methods applied to ODDR Unit and ODDRS installed on the train.

ELECTRONIC RAILWAY EQUIPMENT – ON BOARD DRIVING DATA RECORDING SYSTEM –

Part 2: Conformity testing

1 Scope

This part of IEC 62625 covers the standardized test methods for verifying the compliance of an On board Driving Data Recording System implementation with the requirements specified by IEC 62625-1.

Furthermore, it covers the conformity testing criteria for designed and manufactured ODDRS. This part of IEC 62625 includes the list of the requirements specified by IEC 62625-1 and the relevant acceptance conditions for ODDRS at design review, type test and routine test phases. For the train level design review and train level test phases, this part provides guidelines for the conformity testing methods to be applied to the ODDRS installed on the train.

This part does not cover the conformity assessment schemes that, according to ISO/IEC Directives Part 2, are the responsibility of ISO policy committee "Committee on conformity assessment" (ISO/CASCO). Consequently, this part does not include elements related to conformity assessment aspects other than design review and testing provisions for the products, processes or services which implements the requirements specified in IEC 62625-1. This part does not delete, change or interpret the general requirements for conformity assessment procedures and vocabulary detailed in ISO/IEC 17000.

2 Normative references

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

IEC 60571, *Railway applications – Electronic equipment used on rolling stock*

IEC 61375 (all parts), *Electronic railway equipment – Train communication network (TCN)*

IEC 62498-1, *Railway applications – Environmental conditions for equipment – Part 1: Equipment on board rolling stock*

IEC 62625-1:2013, *Electronic railway equipment – On board driving data recording system – Part 1: System specification*

ISO/IEC 8824 (all parts), *Information technology – Abstract Syntax Notation One (ASN.1)*

3 Terms, definitions, abbreviations, acronyms, and conventions

3.1 Terms and definitions

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

3.1.1
accident
unintended event or series of events that results in death, injury, loss of a system or service, or environmental damage

Note 1 to entry: Accidents are divided into the following categories: collisions, derailments, level crossing accidents, accidents to persons caused by rolling stock in motion, fires and others.

3.1.2
consist
single vehicle or a group of vehicles which are not separated during normal operation

EXAMPLE The vehicles of a consist are steadily connected in a workshop, and automatic couplers are mounted at both ends of the consist to facilitate the coupling and de-coupling of complete consists in the workshop or during operation.

Note 1 to entry: A consist may contain one or more traction units.

3.1.3
incident
any occurrence, other than accident or serious accident, associated with the operation of trains and affecting the safety of operation

3.1.4
non-volatile storage medium
memory and the relevant interface circuitry, which store the data for investigative use in case of accidents and incidents

Note 1 to entry: The non-volatile storage medium may be protected.

3.1.5
ODDR unit
physical unit which implements the ODDRS

Note 1 to entry: ODDRS may be implemented by one or more ODDR units.

3.1.6
resolution
smallest change in the measurand, or stored quantity, which causes a perceptible change in the indication

[SOURCE: IEC 60050-311:2001, 311-03-10, modified – ‘stored quantity’ instead of ‘quantity supplied’ has been used]

3.1.7
test verdict
statement of “pass”, “fail”, or “inconclusive”, as specified in an abstract test case, concerning conformity of an IUT with respect to the test case when it is executed

3.1.8
train safety function
technical barrier to prevent a hazard to become an accident during the train operation

3.2 Abbreviations and acronyms

CSV	Comma Separated Values
DR	Design Review
EMC	Electromagnetic Compatibility
FICS	Function Implementation Conformity Statement
GPS	Global Positioning System