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Electronic railway equipment - On board driving data recording system - Part 1: System specification



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EUROPEAN STANDARD

EN 62625-1

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English version

Electronic railway equipment On board driving data recording system Part 1: System specification

(IEC 62625-1:2013)

Matériel électronique ferroviaire -Système embarqué d'enregistrement de données de conduite -Partie 1: Spécification du système (CEI 62625-1:2013) Elektronische Betriebsmittel für Bahnen -Bordsystem zur Fahrdatenaufzeichnung -Teil 1: Systemspezifikation (IEC 62625-1:2013)

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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

Foreword

The text of document 9/1820/FDIS, future edition 1 of IEC 62625-1, 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 62625-1:2013.

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)	2014-07-17
•	latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2016-10-17

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The text of the International Standard IEC 62625-1:2013 was approved by CENELEC as a European Standard without any modification.

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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60571	3	Railway applications - Electronic equipment used on rolling stock	EN 50155	-
IEC 61375	Series	Electronic railway equipment - Train communication network (TCN)	EN 61375	Series
IEC 62498-1	-	Railway applications - Environmental conditions for equipment - Part 1: Equipment on board rolling stock	EN 50125-1	-
ISO/IEC 8824	Series	Notation One (ASN.1): Specification of basic notation		

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INTRODUCTION

In the railway market over the last decade, the demand for event recorders onboard of trains, metros and trams, has continuously increased. The operators are asking for more and more recorders beyond the simple recording of speed, distance and elapsed time. Consequently, many national safety authorities in many countries around the world require the installation of on board event recording system. Herein some examples are listed:

- In Japan, the Ministry of Land, Infrastructure and Transport revised "Shorei (The Ministerial regulation of Japan)" in 2006 for implementing juridical recorder. This regulation requires the railway authorities having constant operational requirements to install juridical recorders.
- In the USA, the Federal Railroad Administration issued in 2005 the "Final Rule 49 CFR Part 229". The rule requires that the leading locomotives of all the USA trains are equipped with compliant event recorders.
- In the UK, the regulation GM/RT 2472 requires that the majority of trains operating on the network rail controlled by infrastructure are fitted with a compliant on train data recorder.
- In Europe, the technical specifications for interoperability for the control-command system and for Operation require the implementation of a Juridical Recording Unit when running on the trans european network (TEN) (Directive 2008/57/EC of the European parliament and of the council).

Today, it is necessary to set a common specification that can be referred to by the regulations issued by each national safety authority to harmonize these requirements, to simplify the rolling stock design and to ensure a cost effective implementation. The aim of this standard is to fulfil this target.

In addition to the usual benefits of standardization for the railway stakeholders (e.g. cost reduction), this standard has the following benefit:

- Achievement of a specification of a worldwide juridical event recorder that respects the minimum requirements necessary for the interoperability of trains crossing the borders of countries around the world (e.g. Europe, Asia, USA/Canada).
- The goals of the on board driving data recording system are to enable the checking of train operation according to the driving rules through recording the events of train operation. According to national laws, this checking can be used for enquiry after an accident or incident or for the regular monitoring of the driver's ability and qualification to operate the train.