# **EESTI STANDARD**

Event video data recorder for road vehicle accidents -Part 2: Test methods for evaluating the performance of basic functions



## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 63005-2:2020 sisaldab Euroopa standardi EN IEC 63005-2:2020 ingliskeelset teksti.	
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 06.03.2020.	Date of Availability of the European standard is 06.03.2020.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.
Tagasisidat standardi sisu kohta on võimalik odasta	da, kasutades EVS-i veebilehel asuvat tagasiside vorm
agasisidet standardi sisu kunta un vuimank euastat	

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

#### ICS 33.160.40, 43.040.15

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

# EN IEC 63005-2

March 2020

ICS 33.160.40; 43.040.15

**English Version** 

# Event video data recorder for road vehicle accidents - Part 2: Test methods for evaluating the performance of basic functions (IEC 63005-2:2019)

Enregistreurs de données vidéo pour l'identification et l'analyse des causes des accidents des véhicules routiers -Partie 2: Méthodes d'essai pour l'évaluation des performances des fonctions de base (IEC 63005-2:2019) Video-Ereignisdatenschreiber für Straßenverkehrsunfälle -Teil 2: Prüfverfahren zur Beurteilung des Betriebsverhaltens der grundlegenden Funktionen (IEC 63005-2:2019)

This European Standard was approved by CENELEC on 2020-01-15. 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, 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: Rue de la Science 23, B-1040 Brussels

© 2020 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

#### **European foreword**

The text of document 100/3314/FDIS, future edition 1 of IEC 63005-2, prepared by IEC/TC 100 "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63005-2:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2020-10-15 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2023-01-15 document have to be withdrawn

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

## **Endorsement notice**

The text of the International Standard IEC 63005-2:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60068-2-27 NOTE Harmonized as EN 60068-2-27

#### Annex ZA

(normative)

# Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where 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: <a href="http://www.cenelec.eu">www.cenelec.eu</a>.

Publication	Year	<u>Title</u>	<u>EN/HD</u>	Year
IEC 60068-2-1	2007	Environmental testing - Part 2-1: Tests - Test A: Cold	EN 60068-2	2007
IEC 60068-2-2	2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat	EN 60068-2	2007
IEC 60068-2-6	-	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2	-
IEC 63005-1	2017	Event video data recorder for road vehicle accidents - Part 1: Basic requirements	EN 63005	2017
ISO 12233	-	Photography - Electronic still picture imaging - Resolution and spatial frequency responses	-	-

## CONTENTS

FC	DREWO	RD	3			
1	1 Scope					
2	2 Normative references					
3	Term	s and definitions	5			
4	Abbr	● eviated terms	6			
5		eral requirements for tests				
5						
	5.1	Test environment Simulation of accident events				
	5.2 5.2.1					
	5.2.1 5.2.2	General				
	5.2.3 5.2.4					
	5.2.4 5.3					
	5.3 5.4	Evaluating performance of storing acceleration Test conditions				
	5.4 5.5	Test order				
6		lation of performance of the EVDR				
0						
	6.1	Evaluating the performance of power component				
	6.1.1	Overvoltage test				
	6.1.2		8			
	6.1.3	continuously recording EVDR only)				
	6.1.4	, , , , , , , , , , , , , , , , , , ,				
	6.2	Vehicle dynamics data and other performance	9			
	6.3	Video camera performance	10			
	6.3.1					
	6.3.2					
	6.3.3	<b>o</b> 1				
	6.4	Data storage and cyber security				
	6.4.1					
	6.4.2					
		Environmental reliability test				
	6.5.1	Low-temperature operation test				
	6.5.2					
	6.5.3	5 1 5				
	6.5.4					
	6.5.5					
7	Labe	lling				
	7.1	Details to be displayed on the EVDR	15			
	7.2	Instruction manual	15			
Bi	lbiograp		16			
		$\mathbf{O}$				
Figure 1 – An example of the triangular waveform caused by the acceleration- generating equipment						
5						
Та	ıble 1 –	DC voltage for operation of the subject	7			
Table 2 – Order of test items and number of specimens						
		·				

#### INTERNATIONAL ELECTROTECHNICAL COMMISSION

#### EVENT VIDEO DATA RECORDER FOR ROAD VEHICLE ACCIDENTS -

#### Part 2: Test methods for evaluating performance of basic functions

#### 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 for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 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.

International Standard IEC 63005-2 has been prepared by technical area 17: Multimedia systems and equipment for cars, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
100/3314/FDIS	100/3342/RVD

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

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

A list of all parts in the IEC 63005 series, published under the general title *Event video data recorder for road vehicle accidents*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document 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 nou. Mis on with a set of the set of its contents. Users should therefore print this document using a colour printer.