IEC 61996-1

Edition 2.1 2021-05
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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Maritime navigation and radiocommunication equipment and systems – Shipborne voyage data recorder (VDR) – Part 1: Performance requirements, methods of testing and required test results

Matériels et systèmes de navigation et de radiocommunication maritimes – Enregistreur de données de navigation embarqué (VDR) – Partie 1: Exigences de fonctionnement, méthodes d'essai et résultats d'essai exigés

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MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – SHIPBORNE VOYAGE DATA RECORDER (VDR) –

Part 1: Performance requirements, methods of testing and required test results

FOREWORD

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This consolidated version of the official IEC Standard and its amendment has been prepared for user convenience.

IEC 61996-1 edition 2.1 contains the second edition (2013-05) [documents 80/690/FDIS and 80/699/RVD], its corrigendum 1 (2014-02) and its amendment 1 (2021-05) [documents 80/976/CDV and 80/993/RVC].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 61996-1 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

This second edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition.

a) The description of the protective capsule in 4.3.4 has been changed in line with the requirements of the new IMO performance standards given in Resolution MSC.333(90) which now require a final recording medium comprising three parts; fixed, float-free and long-term.
b) A new requirement for a performance test has been added in 4.3.6.
c) Further data items to be recorded have been added to 4.6 for ECDIS, AIS, rolling motion and electronic logbooks.
d) Clause 5 contains new technical requirements for configuration data, operational performance test and bridge alert management system. In addition, further technical requirements have been added to 5.6 for bridge audio and to 5.8 for radar and ECDIS images.
e) References to “alarm” requirements in the previous edition have been substituted by references to “cautions” in line with current IMO recommendations. The test methods in Clause 6 have been updated to reflect the new requirements.
f) New Annexes E, F and G concerning protocols for interfacing images using a Local Area Network have been added.

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

A list of all parts of the IEC 61996 series, under the general title *Maritime navigation and radiocommunication equipment and systems – Shipborne voyage data recorder (VDR)*, can be found on the IEC website.

NOTE All text of this standard, whose wording is identical to that of IMO Resolution MSC.333(90), is printed in *italics,* and the Resolution and associated performance standard paragraph numbers are indicated in brackets.

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

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MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – SHIPBORNE VOYAGE DATA RECORDER (VDR) –

Part 1: Performance requirements, methods of testing and required test results

1 Scope

This part of IEC 61996 specifies the minimum performance requirements, technical characteristics, methods of testing and required test results, for shipborne voyage data recorder (VDR) installations as required by Chapter V of the International Convention for Safety of Life at Sea (SOLAS), as amended. It takes account of IMO resolution A.694(17) and is associated with IEC 60945. When a requirement in this standard is different from IEC 60945, the requirement in this standard takes precedence.

This standard incorporates the applicable parts of the performance standards included in IMO Resolution MSC.333(90).

NOTE All text of this standard, whose wording is identical to that of IMO Resolution MSC.333(90), is printed in *italics,* and the Resolution and associated performance standard paragraph numbers are indicated in brackets.

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 60068-2-27:2008, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

IEC 60268-16, *Sound system equipment – Part 16: Objective rating of speech intelligibility by speech transmission index*

IEC 60945, *Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results*

IEC 61097-2, *Global maritime distress and safety system (GMDSS) – Part 2: COSPAS-SARSAT EPIRB – Satellite emergency position indicating radio beacon operating on 406 MHz – Operational and performance requirements, methods of testing and required test results*

IEC 61097-7:1996, *Global maritime distress and safety system (GMDSS) – Part 7: Shipborne VHF radiotelephone transmitter and receiver – Operational and performance requirements, methods of testing and required test results*

IEC 61162 (all parts), *Maritime navigation and radiocommunication equipment and systems – Digital interfaces*

IEC 61162-450:2011, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 450: Multiple talkers and multiple listeners – Ethernet interconnection*