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Second edition
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Small craft — Electrical/electronic control systems for steering, shift and throttle

Petits navires — Systèmes électriques/électroniques pour le contrôle de la direction, de l'inverseur et des gaz



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 188, *Small craft*.

This second edition cancels and replaces the first edition (ISO 25197:2012), which has been technically revised.

The main changes compared to the previous edition are as follows:

- the terms and definitions have been revised to give coherency with other standard definitions; new terms, such as input device and output device, have been introduced;
- the figures have been revised to clarify the concepts illustrated;
- [7.2](#), on portable helms, has been revised to make it coherent when an electric propulsion motor is used;
- [9.1](#) has been revised to include the fail-safe mode and the alarm policy;
- the main change is in [10.1](#): the request to use three different samples for all tests (except for EMC test) has been deleted because it would have involved a great expense without having significant improvement; only one sample is used for all tests described on the subsequent subclauses;
- the durability test on joystick described in [10.4](#) has been made an operational test;
- [Table 1](#) in [10.5.1](#) has been updated introducing the column “immersion” to handle test on immersed components;
- in [10.5.2](#), all ways to conduct the salt mist test, based on different standards, have been homogenized;
- in [10.7](#), the shock test has been revised;
- in [10.8](#), the free fall test has become the drop test with the addition of the UV test;
- the UV test, described in [10.9](#), has been clarified;

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- in [10.10](#), there are many changes due to the revision of IEC 60533 and the forthcoming release of IEC 62742; to avoid any direct link to those standards, all tests previously required by IEC 60533 have been embedded and all standards cited have been added to the normative reference list.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.