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# Ships and marine technology — Marine electromagnetic compasses

*Navires et technologie maritime — Compas électromagnétiques de marine*



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# Foreword

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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 8, *Ships and marine technology*, Subcommittee SC 6, *Navigation and ship operations*.

This third edition cancels and replaces the second edition (ISO 11606:2000), which has been technically revised. It also incorporates the Technical Corrigendum ISO 11606:2000/Cor 1:2005.

The main changes are as follows:

— in Clause 1, added text relating to IMO Resolution MSC.166(78) and the applicability of this document;

— in Clause 2, replaced ISO 449:1997 with ISO 25862:2019, and deleted IEC 61162-1, IEC 61162-2 and IMO Resolution MSC.86(70);

— in Clause 3, added term *electromagnetic compass* (3.1);

— in 5.7 and 11.1.12, added a provision on displays for presentation and a reference to IEC 62288;

— in 5.10, updated interface requirements;

— in 7.3, updated failure alarm requirements;

— in 11.2.9, updated other environmental conditions requirements;

— deleted former Annex A;

— in the Bibliography, added ISO 22090-2, IEC 61162-1, IEC 61162-2, IEC 61162-450, IEC 62288, IEC 62923-1, IEC 62923-2, IMO Resolution MSC.86(70), IMO Resolution MSC.166(78), IMO Resolution MSC.191(79), IMO Resolution MSC.302(87) and IMO Resolution MSC.466(101).

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.

# Ships and marine technology — Marine electromagnetic compasses



## 1 Scope

This document specifies general requirements, type tests and individual tests for the marine electromagnetic compasses, intended for steering purposes and/or taking bearings on board ships, required by Chapter V of SOLAS, 1974 and the International Code of Safety for High-Speed Craft (HSC Code). In accordance with IMO Resolution MSC.166(78), this document is applicable to marine electromagnetic compasses fitted before 1 July 2002. For marine electromagnetic compasses installed on or after 1 July 2002, ISO 22090-2 is applicable. The magnetic compasses specified in this document apply to ships the overall length of which is normally not less than 24 m.

NOTE In this document requirements extracted from the recommendations of IMO resolutions are printed in italics.

## 2 Normative references

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.

ISO 1069, *Magnetic compasses and binnacles for sea navigation — Vocabulary*

ISO 25862:2019, *Ships and marine technology — Marine magnetic compasses, binnacles and azimuth reading devices*

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

IMO Resolution A. 694(17), *General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids*

IMO Resolution A. 813(19), *General requirements for electromagnetic compatibility (EMC) for all electrical and electronic ship's equipment*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1069 and the following apply

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

**3.1**
**electromagnetic compass**
item of the electronic equipment that uses the geomagnetic field to obtain information about the ship's heading

Note 1 to entry: This information is conveyed to the main compass (used for steering and taking bearings), to additional repeater indicators and, if required, to other navigational equipment.