
**Small craft — Carbon monoxide (CO)
detection systems**

Petits navires — Systèmes de détection du monoxyde de carbone (CO)





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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.

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 12133 was prepared by Technical Committee ISO/TC 188, *Small craft*.

Small craft — Carbon monoxide (CO) detection systems

1 Scope

This International Standard specifies requirements for the design, construction and installation of carbon monoxide detection and alarm systems in small craft.

Annex A provides educational material about carbon monoxide relative to boats and boating.

2 Normative references

The following referenced documents are indispensable for the application 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 7240-6, *Fire detection and alarm systems — Part 6: Carbon monoxide fire detectors using electro-chemical cells*

ISO 7240-8, *Fire detection and alarm systems — Part 8: Carbon monoxide fire detectors using an electro-chemical cell in combination with a heat sensor*

ISO 10133, *Small craft — Electrical systems — Extra-low-voltage d.c. installations*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

carbon monoxide

CO

gas formed by the combination of one atom of carbon and one atom of oxygen

NOTE In its chemical formula, C stands for carbon and O for oxygen. For the purposes of this International Standard, the CO level is always expressed in terms of mass fraction of CO in air.

3.2

carboxyhaemoglobin

COHb

stable combination of carbon monoxide and haemoglobin formed in the blood when carbon monoxide is inhaled

NOTE Also called carbonmonoxy-haemoglobin, CO-haemoglobin, blood-COHb, and blood-CO. It is the molecule formed when carbon monoxide, instead of oxygen, combines with blood.