

SLOVENSKI STANDARD

SIST EN ISO 25197:2018

01-december-2018

Nadomešča:

SIST EN ISO 25197:2013

SIST EN ISO 25197:2013/A1:2015

Mala plovila - Električni/elektronski regulacijski sistemi za krmarjenje, prestavljanje in pogon (ISO 25197:2012, vključno z dopolnilom A1:2014)

Small craft - Electrical/electronic control systems for steering, shift and throttle (ISO 25197:2012, vključno z dopolnilom A1:2014)

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Kleine Wasserfahrzeuge - Elektrische/elektronische Regelungssysteme für Steuerung, Schaltung und Antrieb (ISO 25197:2012, vključno z dopolnilom A1:2014)

[SIST EN ISO 25197:2018](https://standards.iteh.ai/catalog/standards/sist/956404e0-b98b-4c27-b2e5-34a0b5e49e98/sist-en-iso-25197-2018)

Petits navires - Systèmes électriques/électroniques pour le contrôle de la direction, de l'inverseur et des gaz (ISO 25197:2012, vključno z dopolnilom A1:2014)

Ta slovenski standard je istoveten z: EN ISO 25197:2018

ICS:

47.020.60	Električna oprema ladij in konstrukcij na morju	Electrical equipment of ships and of marine structures
47.080	Čolni	Small craft

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en,fr,de

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EUROPEAN STANDARD

EN ISO 25197

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2018

ICS 47.080

Supersedes EN ISO 25197:2012

English Version

Small craft - Electrical/electronic control systems for steering, shift and throttle (ISO 25197:2012, including Amd 1:2014)

Petits navires - Systèmes électriques/électroniques pour le contrôle de la direction, de l'inverseur et des gaz (ISO 25197:2012, y compris Amd 1:2014)

Kleine Wasserfahrzeuge - Elektrische/elektronische Regelungssysteme für Steuerung, Schaltung und Antrieb (ISO 25197:2012, einschließlich Amd 1:2014)

This European Standard was approved by CEN on 16 April 2018.

CEN 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 CEN member.

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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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

The text of ISO 25197:2012, including Amd 1:2014 has been prepared by Technical Committee ISO/TC 188 "Small craft" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 25197:2018.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2019, and conflicting national standards shall be withdrawn at the latest by March 2019.

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

This document supersedes EN ISO 25197:2012.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2013/53/EU.

For relationship with EU Directive 2013/53/EU, see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Endorsement notice

The text of ISO 25197:2012, including Amd 1:2014 has been approved by CEN as EN ISO 25197:2018 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of Directive 2013/53/EU aimed to be covered

This European standard has been prepared under a Commission's standardization request M/542 C(2015) 8736 final to provide one voluntary means of conforming to Essential Requirements of Directive 2013/53/EU.

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Annex I and Annex II of Directive 2013/53/EU

Essential Requirements of Directive 2013/53/EU	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
Annex I, Part A, 5.4 - Steering systems.	Clauses 4 to 11 inclusive	In respect of requirements for the design, construction and testing of electrical/electronic steering, shift and throttle and dynamic position control systems, or combinations thereof.
Emergency control	9.1.4	https://standards.iteh.ai/catalog/standards/sist/956404e0-b98b-4c22-b2a5-30a0b5e49e98/sist-en-iso-25197-2018
Annex I, Part A, 2.5 – Owner's Manual	4.7, 7.2, 8.3, 12	
Annex II (3) - Steering wheels, steering mechanisms and cable assemblies	Clauses 4 to 11 inclusive	In respect of electric/electronic control systems that can steer a watercraft only.

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

INTERNATIONAL
STANDARD

ISO
25197

First edition
2012-12-01

**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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ISO 25197:2012(E)**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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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.

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.

ISO 25197 was prepared by Technical Committee ISO/TC 188, *Small craft*.

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

1 Scope

This International Standard establishes the requirements for design, construction and testing of electrical/electronic steering, shift and throttle and dynamic position control systems, or combinations thereof, on small craft of up to 24 m length of hull.

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 8846, *Small craft — Electrical devices — Protection against ignition of surrounding flammable gases.*

ISO 8848, *Small craft — Remote steering systems*

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

ISO 10240, *Small craft — Owner's manual*

ISO 10592, *Small craft — Hydraulic steering systems*

ISO 11591, *Small craft, engine-driven — Field of vision from helm position*

ISO 12215-8, *Small craft — Hull construction and scantlings — Part 8: Rudders*

ISO 13297, *Small craft — Electrical systems — Alternating current installations*

ISO 16750-2:2010, *Road vehicles — Environmental conditions and testing for electrical and electronic equipment — Part 2: Electrical loads*

ISO 16750-3:2007, *Road vehicles — Environmental conditions and testing for electrical and electronic equipment — Part 3: Mechanical loads*

ISO 16750-4, *Road vehicles — Environmental conditions and testing for electrical and electronic equipment — Part 4: Climatic loads*

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

IEC 60068-2-52, *Environmental testing — Part 2-52: Tests — Test Kb: Salt mist, cyclic (sodium chloride solution)*

IEC 60092-507, *Electrical installations in ships — Part 507: Small vessels*

IEC 60533:1999, *Electrical and electronic installations in ships — Electromagnetic compatibility*

IEC 60945:2002, *Maritime navigation and radiocommunication equipment and systems — General requirements — Methods of testing and required test results*

IEC 61000-4-5, *Electromagnetic compatibility (EMC) — Part 4-5: Testing and measurement techniques — Surge immunity test*

IEC 61508 (all parts), *Functional safety of electrical/electronic/programmable electronic safety-related systems*

ISO 25197:2012(E)

3 Terms and definitions

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

3.1 electric/electronic steering system
all components, including CPU (central processing unit) and cable harnesses, from the manual steering input device up to and including the device (actuator or electrical motor) regulating the rudder or propulsion unit steering angle

NOTE to entry: It includes the joystick and components, i.e. GPS antennas for dynamic positioning, if installed.

3.2 dynamic-positioning system
computer-controlled system to automatically maintain a craft's position and heading by using her own propulsion systems with or without the assistance of bow or stern thrusters

3.3 electrical/electronic shift and throttle system
all components, including CPU (central processing unit) and cable harnesses, from the shift and throttle input device up to and including the device controlling the shift and speed of engines.

3.4 ignition-protected equipment
electrical equipment designed and tested for use in explosive atmospheres, without igniting surrounding flammable gases

3.5 accessible
capable of being reached for inspection, removal or maintenance without removal of permanent structure of the craft

3.6 readily accessible
capable of being reached without the use of tools

3.7 nominal voltage(s)
those commonly used voltages, such as 12 volts, 24 volts, or 36 volts DC

3.8 manoeuvring mode
reduced power mode for manoeuvring, determined by the manufacturer

3.9 cruising mode
power mode above manoeuvring mode up to full power, determined by the manufacturer

3.10 X axis
direction of a craft fore or aft, longitudinally

3.11 Y axis
direction of a craft port or starboard, transversely

3.12 Z axis
axis normal to the X-Y plane