SLOVENSKI STANDARD
SIST EN 61162-1:2011

01-marec-2011

Nadomešča:
SIST EN 61162-1:2008

Pomorska navigacijska in radiokomunikacijska oprema in sistemi - Digitalni vmesniki - 1. del: Enosmerna komunikacija: en govorec - več poslušalcev (IEC 61162-1:2010)

Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 1: Single talker and multiple listeners (IEC 61162-1:2010)

Navigations- und Funkkommunikationsgeräte und -systeme für die Seeschifffahrt - Digitale Schnittstellen - Teil 1: Ein Datensender und mehrere Datenempfänger (IEC 61162-1:2010)

Matériels et systèmes de navigation et de radiocommunication maritimes - Interfaces numériques - Partie 1: Emetteur unique et récepteurs multiples (CEI 61162-1:2010)

Ta slovenski standard je istoveten z: **EN 61162-1:2011**

ICS:

33.060.01	Radijske komunikacije na splošno	Radiocommunications in general
47.020.70	Navigacijska in krmilna oprema	Navigation and control equipment

SIST EN 61162-1:2011 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61162-1

January 2011

ICS 47.020.70

Supersedes EN 61162-1:2008

English version

Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 1: Single talker and multiple listeners

(IEC 61162-1:2010)

Matériels et systèmes de navigation et de radiocommunication maritimes - Interfaces numériques - Partie 1: Emetteur unique et récepteurs multiples
(CEI 61162-1:2010)

Navigations- und Funkkommunikationsgeräte und -systeme für die Seeschifffahrt - Digitale Schnittstellen - Teil 2: Ein Datensender und mehrere Datenempfänger, Hochgeschwindigkeitsübertragung
(IEC 61162-1:2010)

This European Standard was approved by CENELEC on 2011-01-01. CENELEC 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 Central Secretariat or to any CENELEC member.

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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 61162-1:2011 E

Foreword

The text of document 80/606/FDIS, future edition 4 of IEC 61162-1, prepared by IEC TC 80, Maritime navigation and radiocommunication equipment and systems, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61162-1 on 2011-01-01.

This European Standard supersedes EN 61162-1:2008.

The main changes with respect to EN 61162-1:2008 are listed below:

– in Table 1 the “comment” block delimiter has been renamed “TAG” block delimiter;

– new identifiers have been added to Table 4;

– the following sentences have been removed from 8.3 as they are not used by other standards prepared by IEC technical committee 80: ALM and MLA which described almanac data from satellite navigation systems, DCN which described DECCA data, DSI and DSR which controlled the DSC transponder, GLC and LCD which described LORAN data, and GMP which supported land use of map projections;

– new sentences CBR, GFA, HBT, NAK, MEB, POS, TTD and VER have been added;

– corrections have been made to the following sentences: ABK, BBM, DOR, FIR, SSD, TUT, and VTG;

– extra fields have been added to AIR to support further ITU messages;

– new fields have been added to GBS, GRS, GSA and GSV to support new satellite navigation systems;

– a new navigational status indicator has been added to GNS and RMC;

– a new sentence status flag had been added to DDC, FSI, HSC and NRM;

– three additional tests have been added to Annex B.

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

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2011-10-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2014-01-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61162-1:2010 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61023	NOTE	Harmonized as EN 61023.
IEC 61075	NOTE	Harmonized as EN 61075.

IEC 61097-1	NOTE	Harmonized as EN 61097-1.
IEC 61108 series	NOTE	Harmonized in EN 61108 series (not modified).
IEC 61108-1	NOTE	Harmonized as EN 61108-1.
IEC 61108-2	NOTE	Harmonized as EN 61108-2.
IEC 61108-3	NOTE	Harmonized as EN 61108-3.
IEC 61108-4	NOTE	Harmonized as EN 61108-4.
IEC 61174	NOTE	Harmonized as EN 61174.
IEC 61993-2	NOTE	Harmonized as EN 61993-2.
IEC 61996 series	NOTE	Harmonized in EN 61996 series (not modified).
IEC 61996-1	NOTE	Harmonized as EN 61996-1.
IEC 61996-2	NOTE	Harmonized as EN 61996-2.
IEC 62065	NOTE	Harmonized as EN 62065.
IEC 62252	NOTE	Harmonized as EN 62252.
IEC 62287-1	NOTE	Harmonized as EN 62287-1.
IEC 62288	NOTE	Harmonized as EN 62288.
IEC 62320-1	NOTE	Harmonized as EN 62320-1.
IEC 62320-2	NOTE	Harmonized as EN 62320-2.
IEC 62388	NOTE	Harmonized as EN 62388.
ISO 8728	NOTE	Harmonized as EN ISO 8728.
ISO 9875	NOTE	Harmonized as EN ISO 9875.
ISO 11606	NOTE	Harmonized as EN ISO 11606.
ISO 11674	NOTE	Harmonized as EN ISO 11674.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60945	2002	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results	EN 60945	2002
IEC 61162-2	1998	Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 2: Single talker and multiple listeners, high-speed transmission	EN 61162-2	1998
ISO/IEC 8859-1	1998	Information technology - 8-bit single-byte coded graphic character sets - Part 1: Latin alphabet No.1	-	-
ITU-T X.27/V.11	1996	Electrical characteristics for balanced double-current interchange circuits operating at data signalling rates up to 10 Mbit/s	-	-

IEC 61162-1

Edition 4.0 2010-11

INTERNATIONAL STANDARD

colour inside

Maritime navigation and radiocommunication equipment and systems – Digital interfaces –
Part 1: Single talker and multiple listeners

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – DIGITAL INTERFACES –

Part 1: Single talker and multiple listeners

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61162-1 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

This fourth edition cancels and replaces the third edition published in 2007, and constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

- in Table 1 the "comment" block delimiter has been renamed "TAG" block delimiter,
- new identifiers have been added to Table 4,
- the following sentences have been removed from 8.3 as they are not used by other standards prepared by technical committee 80: ALM and MLA which described almanac data from satellite navigation systems, DCN which described DECCA data, DSI and DSR

which controlled the DSC transponder, GLC and LCD which described LORAN data, and GMP which supported land use of map projections,

- new sentences CBR, GFA, HBT, NAK, MEB, POS, TTD and VER have been added,
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- new fields have been added to GBS, GRS, GSA and GSV to support new satellite navigation systems,
- a new navigational status indicator has been added to GNS and RMC,
- a new sentence status flag had been added to DDC, FSI, HSC and NRM,
- three additional tests have been added to Annex B.

The text of this standard is based on the following documents:

FDIS	Report on voting
80/606/FDIS	80/609/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

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

A list of all parts of the IEC 61162 series, published under the general title *Maritime navigation and radiocommunication equipment and systems – Digital interfaces*, can be found on the IEC website.

The committee has decided that the contents of this publication 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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

IMPORTANT – The "colour inside" logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this publication using a colour printer.

INTRODUCTION

International standard IEC 61162 is a four part standard which specifies four digital interfaces for application in marine navigation, radiocommunication and system integration. The four parts are:

IEC 61162-1 Single talker and multiple listeners;

IEC 61162-2 Single talker and multiple listeners, high speed transmission;

IEC 61162-3 Multiple talkers and multiple listeners – Serial data instrument network;

IEC 61162-4 Multiple talkers and multiple listeners – Ship systems interconnection.

IEC technical committee 80 interface standards are developed with input from manufacturers, private and government organisations and equipment operators. The information is intended to meet the needs of users at the time of publication, but users should recognise that as applications and technology change, interface standards should change as well. Users of this standard are advised to immediately inform the IEC of any perceived inadequacies therein.

The first edition of IEC 61162-1 was published in 1995. The second edition published in 2000 removed some sentences which were no longer in use, added some new sentences and included details of the ship equipment defined in IMO resolutions together with appropriate sentences for communication between them. This information was subsequently removed from the third edition when it became the practice to specify the sentence formatters in the individual standards for equipment.

The third edition published in 2007 introduced a re-arrangement of the text and new sentences particularly to support the Automatic Identification System and the Voyage Data Recorder. The third edition also introduced a further type of start of sentence delimiter. The conventional delimiter "$" was retained for the conventional sentences which are now called parametric sentences. The new delimiter "!" identifies sentences that conform to special purpose encapsulation.

This fourth edition removes some sentences which are not in use, adds some new sentences for new applications and makes some corrections and additions. In particular the sentences of relevance to satellite navigation receivers have been expanded to facilitate the description of new satellite systems.

Liaison has been maintained with NMEA and this edition has been aligned where appropriate with NMEA 0183 version 4.00.