



SLOVENSKI STANDARD
SIST EN 61162-401:2004

01-julij-2004

Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 401: Multiple talkers and multiple listeners - Ship systems interconnection - Application profile (IEC 61162-401:2001)

Maritime navigation and radiocommunication equipment and systems - Digital interfaces -- Part 401: Multiple talkers and multiple listeners - Ship systems interconnection - Application profile

Navigation- und Funkkommunikationsgeräte und -systeme für die Seeschifffahrt - Digitale Schnittstellen -- Teil 401: Mehrere Datensender und mehrere Datenempfänger - Schiffssystemzusammenschaltung - Anwendungsprofil

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Matériels et systèmes de navigation et de radiocommunications maritimes - Interfaces numériques -- Partie 401: Emetteurs multiples et récepteurs multiples - Interconnexion des systèmes embarqués - Couche application

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EUROPEAN STANDARD

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**Maritime navigation and radiocommunication equipment and systems -
Digital interfaces
Part 401: Multiple talkers and multiple listeners –
Ship systems interconnection -
Application profile
(IEC 61162-401:2001)**

Matériels et systèmes de navigation et
de radiocommunications maritimes -
Interfaces numériques
Partie 401: Émetteurs multiples et
récepteurs multiples –
Interconnexion des systèmes embarqués
Couche application
(CEI 61162-401:2001)

Navigations- und Funkkommunikations-
geräte und -systeme für die Seeschifffahrt –
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mehrere Datenempfänger -
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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.

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 80/310/FDIS, future edition 1 of IEC 61162-401, 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 61162-401 on 2002-02-01.

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) 2002-11-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2005-02-01

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annexes A, B, C, and ZA are normative and annex D is informative.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61162-401:2001 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61162-400	- ¹⁾	Maritime navigation and radiocommunication equipment and systems - Digital interfaces Part 400: Multiple talkers and multiple listeners - Ship systems interconnection - Introduction and general principles	EN 61162-400	- ¹⁾
IEC 61162-410	- ¹⁾	Part 410: Multiple talkers and multiple listeners - Ship systems interconnection - Transport profile requirements and basic transport profile	EN 61162-410	- ¹⁾
IEC 61162-420	- ¹⁾	Part 420: Multiple talkers and multiple listeners - Ship systems interconnection - Companion standard requirements and basic companion standards	EN 61162-420	- ¹⁾
IEEE 754	- ¹⁾	IEEE Standard for Binary Floating-Point Arithmetic	-	-
ISO/IEC 8859-1	- ¹⁾	Information technology - 8-bit single-byte coded graphic character sets Part 1: Latin alphabet No.1	-	-
ISO/IEC 10646-1	- ¹⁾	Information technology - Universal Multiple-Octet Coded Character set (UCS) - Part 1: Architecture and Basic Multilingual Plane	-	-
RFC 2500	1999	Internet Official Protocol Standards - Internet Activities Board standard	-	-

¹⁾ Undated reference.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MARITIME NAVIGATION AND RADIOCOMMUNICATION
EQUIPMENT AND SYSTEMS –
DIGITAL INTERFACES –**
**Part 401: Multiple talkers and multiple listeners –
Ship systems interconnection – Application profile**

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.

3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides, and they are accepted by the National Committees in that sense.

4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.

6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61162-401 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

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

FDIS	Report on voting
80/310/FDIS	80/325/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 3.

The special typographical conventions and nomenclature used in this standard are defined in IEC 61162-400, annex A.

Annexes A, B and C form an integral part of this standard. Annex D is for information only.

The committee has decided that the contents of this publication will remain unchanged until June 2005. At this date, the publication will be

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

INTRODUCTION

International Standard IEC 61162 is a four-part standard which specifies four digital interfaces for applications 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.

Part 4 of the standard is sub-divided into a number of individual standards with part numbers in the IEC 61162-400 series. A full reference to part 4 can be found in IEC 61162-400, clause 4.

This part of the standard, IEC 61162-401: A-profile specification, defines the application functionality and its implementation in an application layer protocol.

Relationship with the other parts of the IEC 61162 series of standards is defined in annex B to IEC 61162-400.

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MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – DIGITAL INTERFACES –

Part 401: Multiple talkers and multiple listeners – Ship systems interconnection – Application profile

1 Scope

1.1 General

IEC 61162-4 series specifies a communication system for use in integrated ship control systems.

IEC 61162-400 defines the overall functional scope for the communication system.

1.2 Application profile

This part of IEC 61162 describes the application profile (A-profile – corresponding to ISO-OSI layers 5 to 7 [ISO 7498]) of the communication protocol which is the basis for the communication system. It relies on the realization of layers 1 to 4 (the T-profile) as described in part 410.

The description of the A-profile is in terms of services offered to the application using the protocol and of message contents and sequences used to realize these services.

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2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61162. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 61162 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 61162-400, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 400: Multiple talkers and multiple listeners – Ship systems interconnection – Introduction and general principles*

IEC 61162-410, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 410: Multiple talkers and multiple listeners – Ship systems interconnection – Transport profile requirements and basic transport profile*

IEC 61162-420, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 420: Multiple talkers and multiple listeners – Ship systems interconnection – Companion standard requirements and basic companion standards*

IEEE 754: *IEEE Standard for Binary Floating-Point Arithmetic*

ISO/IEC 8859-1, *Information technology – 8-bit single-byte coded graphic character sets – Part 1: Latin alphabet No. 1*