

# norm

# NEN-EN-IEC 61174 (en; fr)

Maritieme navigatie- en radiocommunicatie-apparatuur en -systemen - Elektronische zeekaart op beeldscherm en elektronisch informatie systeem (ECDIS) - Operationele en gebruikseisen, beproevingsmethoden en vereiste beproevingsresultaten (IEC 61174:2001, IDT)

Maritime navigation and radiocommunication equipment and systems - Electronic chart display and information system (ECDIS) - Operational and performance requirements, methods of testing and required test results (IEC 61174:2001, IDT)

januari 2002  
ICS 33.060.01; 47.020.70

Vervangt NEN-EN-IEC 61174:1998

- EN 61174:2001, IDT  
- IEC 61174:2001, IDT

Nederlands Elektrotechnisch Comité  
Normcommissie NEC 80 "Geavanceerde navigatieinstrumenten"

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Voor de in deze norm vermelde normatieve verwijzingen bestaan in Nederland de volgende equivalenten:

<u>vermelde norm</u>	<u>Nederlandse norm</u>	<u>titel</u>
IEC 60872-1	NEN-EN-IEC 60872-1	Maritieme navigatie- en radiocommunicatie-apparatuur en -systemen - Hulpmiddelen voor het plotten van radarecho's - Deel 1: Hulpmiddelen voor het automatisch plotten van radarecho's (ARPA) - Beproevingmethoden en vereiste beproevingsresultaten (en,fr)
IEC 60945	NEN 10945	Maritieme navigatie- en radiocommunicatie-apparatuur en systemen - Algemene eisen - Beproevingmethoden en vereiste beproevingsresultaten (en)
IEC 60112:series ISO 9000:series	- NEN-ISO 9000:reeks	- Normen voor kwaliteitszorg en kwaliteitsborging (nl)

Preview

English version

**Maritime navigation and radiocommunication equipment and systems -  
Electronic chart display and information system (ECDIS) -  
Operational and performance requirements,  
methods of testing and required test results  
(IEC 61174:2001)**

Matériels et systèmes de navigation  
et de radiocommunications maritimes -  
Systèmes de visualisation des cartes  
électroniques et d'information (ECDIS) -  
Exigences d'exploitation  
et de fonctionnement, méthodes d'essai  
et résultats d'essai exigés  
(CEI 61174:2001)

Navigations- und  
Funkkommunikationsgeräte  
und -systeme für die Seeschifffahrt -  
Elektronisches Kartendarstellungs-  
und Informationssystem (ECDIS) -  
Betriebs- und Leistungsanforderungen,  
Prüfverfahren und geforderte  
Prüfergebnisse  
(IEC 61174:2001)

This European Standard was approved by CENELEC on 2001-12-01. 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.

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CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CENELEC**

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 80/308/FDIS, future edition 2 of IEC 61174, 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 61174 on 2001-12-01.

This European Standard supersedes EN 61174:1998.

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) 2002-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2004-12-01

Annexes designated "normative" are part of the body of the standard. In this standard, annexes A, B, C, D, E, F, G, H, I, J and ZA are normative. Annex ZA has been added by CENELEC.

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### Endorsement notice

The text of the International Standard IEC 61174:2001 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 60872-1	- <sup>1)</sup>	Maritime navigation and radiocommunication equipment and systems - Radar plotting aids Part 1: Automatic radar plotting aids (ARPA) - Methods of testing and required test results	EN 60872-1	1998 <sup>2)</sup>
IEC 60945	- <sup>1)</sup>	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results	EN 60945	1997 <sup>2)</sup>
IEC 61162	Series	Maritime navigation and radiocommunication equipment and systems - Digital interfaces	EN 61162	Series
ISO 9000	Series	Quality management and quality assurance standards	EN ISO 9000	Series
IMO SOLAS	1997	IMO International Convention for the Safety of Life at Sea (SOLAS)	-	-
IMO A.424	1979	Performance standards for gyrocompasses	-	-
IMO A.694	1991	General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids	-	-
IMO A.817	1995	Performance standards for electronic chart display and information systems (ECDIS)	-	-

1) Undated reference.

2) Valid edition at time of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IMO A.821	1995	Performance standards for gyro-compasses for high-speed craft	-	-
IMO A.823	1995	Performance standards for automatic radar plotting aids (ARPAs)	-	-
IMO A.824	1995	Performance standards for devices to indicate speed and distance	-	-
IMO MSC.64(67) Annex 4	1996	Performance standards for radar equipment	-	-
IMO MSC.64(67) Annex 5	1996	Amendments to IMO A.817	-	-
IMO MSC.86(70) Annex 4	1998	Amendments to IMO A.817	-	-
IHO S-52	1996	Specifications for chart content and display aspects of ECDIS	-	-
IHO S-52 appendix 1	1996	Guidance on updating the electronic navigational chart	-	-
IHO S-52 appendix 2	1997	Colour and symbol specifications for ECDIS	-	-
IHO S-52 appendix 3	1997	Necessary of ECDIS - Related terms	-	-
IHO S-52 appendix 4	1997	Test data set for use with IEC 61174	-	-
IHO S-57	1996	Transfer standard for digital hydrographic data	-	-
IHO S-61	1999	Product specification for raster navigational charts (RNC)	-	-

# INTERNATIONAL STANDARD

**IEC**  
**61174**

Second edition  
2001-10

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**Maritime navigation and radiocommunication  
equipment and systems –  
Electronic chart display and information  
system (ECDIS) – Operational and performance  
requirements, methods of testing and required  
test results**

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Reference number  
IEC 61174:2001(E)

## Publication numbering

As from 1 January 1997 all IEC publications are issued with a designation in the 60000 series. For example, IEC 34-1 is now referred to as IEC 60034-1.

## Consolidated editions

The IEC is now publishing consolidated versions of its publications. For example, edition numbers 1.0, 1.1 and 1.2 refer, respectively, to the base publication, the base publication incorporating amendment 1 and the base publication incorporating amendments 1 and 2.

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# INTERNATIONAL STANDARD

# IEC 61174

Second edition  
2001-10

**Maritime navigation and radiocommunication  
equipment and systems –  
Electronic chart display and information  
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test results**

Preview

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MARITIME NAVIGATION AND RADIOCOMMUNICATION  
EQUIPMENT AND SYSTEMS –**
**Electronic chart display and information system (ECDIS) –  
Operational and performance requirements,  
methods of testing and required test results**

## 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.
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International Standard IEC 61174 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

This second edition of IEC 61174 cancels and replaces the first edition published in 1998, of which it constitutes a technical revision.

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

FDIS	Report on voting
80/308/FDIS	80/316/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.

Annexes A, B, C, D, E, F, G, H, I and J form an integral part of this standard.

The committee has decided that the contents of this publication will remain unchanged until June 2004. At this date, the publication will be

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

Prohibited  
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## INTRODUCTION

For this second edition of this International Standard, the maintenance team completed the following tasks:

- a) developed minimum operational and performance requirements for the RCDS mode of operation in accordance with appendix 7 of the IMO performance standards as amended by IMO resolution MSC.86, importing much of the text from appendix 7 to produce an unambiguous and user-friendly annex H to this standard;
- b) developed separate tests for back-up arrangements as defined by appendix 6 of the IMO performance standards (see annex G);
- c) clarified the colour tolerance requirements and created allowances for the separate testing of monitors;
- d) performed an extensive review of the standard to ensure proper referencing and language throughout.

Technical committee 80 recognizes that there is further work to be accomplished in this standard, and a future revision is anticipated within 12 to 18 months, to incorporate some critical hydrographic considerations including the RNC test data set, several S-57 definitions and tests and harmonisation of the navigation related symbols.

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