Maritime navigation and radiocommunication equipment and systems - Bridge navigational watch alarm system (BNWAS)

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 62616:2010 sisaldab Euroopa standardi EN 62616:2010 ingliskeelset teksti.	This Estonian standard EVS-EN 62616:2010 consists of the English text of the European standard EN 62616:2010.
Standard on kinnitatud Eesti Standardikeskuse 31.05.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.05.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 16.04.2010.	Date of Availability of the European standard text 16.04.2010.
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Maritime navigation and radiocommunication equipment and systems - Bridge navigational watch alarm system (BNWAS)

(IEC 62616:2010)

Equipements et systèmes de navigation et de radiocommunication maritimes - Système d'alarme pour la surveillance de l'activité de navigation sur le pont (CEI 62616:2010)

Navigations- und Funkkommunikationsgeräte und -systeme für die Seeschifffahrt - Wachalarmsystem für die Kommandobrücke (BNWAS) (IEC 62616:2010)

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CENELEC

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

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Foreword

The text of document 80/577/FDIS, future edition 1 of IEC 62616, 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 62616 on 2010-04-01.

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)	2011-01-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2013-04-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62616:2010 was approved by CENELEC as a European Standard without any modification.

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	-	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results	EN 60945	-
IEC 61162	Series	Maritime navigation and radiocommunication equipment and systems - Digital interfaces	EN 61162-1	Series
IEC 61162-1	-	Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 1: Single talker and multiple listeners	EN 61162-1	-
IEC 62288	-	Maritime navigation and radiocommunication equipment and systems - Presentation of navigation-related information on shipborne navigational displays - General requirements, methods of testing and required test results	EN 62288	-
IMO Resolution A.694(17)	-	General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids	-	-
IMO Resolution A.813(19)	-	General requirements for electromagnetic compatibility (EMC) for all electrical and electronic ship's equipment	-	-
IMO Resolution A.830(19)	-	Code on alarms and indicators		-
IMO MSC/Circular 982	-	Guidelines on ergonomic criteria for bridge equipment and layout	-	-
IMO Resolution MSC.128(75)	-	recommendation on performance standards for a bridge navigational watch alarm system (BNWAS)	-	-

CONTENTS

MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – BRIDGE NAVIGATIONAL WATCH ALARM SYSTEM (BNWAS)

1 Scope

This International Standard specifies the minimum performance requirements, technical characteristics and methods of testing, and required test results, for a bridge navigational watch alarm system (BNWAS) as required by Chapter V of the International Convention for the Safety of Life at Sea (SOLAS), as amended. It takes account of the general requirements given in IMO resolution A.694(17) and is associated with IEC 60945. When a requirement in this International Standard is different from IEC 60945, the requirement in this standard takes precedence.

This standard incorporates the parts of the performance standards included in IMO resolution MSC.128(75).

NOTE 1 All text of this standard, whose wording is identical to that of IMO resolution MSC.128(75), is printed in italics, and the resolution and associated performance standard paragraph numbers are indicated in brackets.

(128/A1) *The purpose of a bridge navigational watch alarm system (BNWAS) is to monitor bridge activity and detect operator disability which could lead to marine accidents. The system monitors the awareness of the Officer of the Watch (OOW) and automatically alerts the Master or another qualified OOW if for any reason the OOW becomes incapable of performing the OOW's duties. This purpose is achieved by a series of indications and alarms to alert first the OOW and, if he is not responding, then to alert the Master or another qualified OOW. Additionally, the BNWAS may provide the OOW with a means of calling for immediate assistance, if required. The BNWAS should be operational whenever* the ship is underway at sea (SOLAS V/19.2.2.3).

NOTE 2 BNWAS may not, in practice, be realised as a stand alone equipment. It may be integrated in other equipment such as radar, ECDIS, etc.

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.

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

IEC 61162 (all parts), *Maritime navigation and radiocommunication equipment and systems – Digital interfaces*

IEC 61162-1, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 1: Single talker and multiple listeners*

IEC 62288, *Maritime navigation and radiocommunication equipment and systems – Presentation of navigation-related information on shipborne navigational displays – General requirements – Methods of testing and required results*

IMO Resolution A.694(17), *General requirements for shipborne radio equipment forming part of the Global maritime distress and safety system and for electronic navigational aids*

IMO Resolution A.813(19), *General requirements for electromagnetic compatibility (EMC) for all electrical and electronic ship's equipment*

IMO Resolution A.830(19), *Code on alarms and indicators*

IMO Resolution MSC.128(75), *Recommendation on performance standards for a bridge navigational watch alarm system (BNWAS)*

IMO MSC/Circ.982, *Guidelines on Ergonomic Criteria for Bridge equipment and Layout*

3 Performance requirements

3.1 Functionality

3.1.1 Operational modes

(See 7.4.1)

(128/A4.1.1.1) *The BNWAS shall incorporate the following operational modes:*

- *Automatic (Automatically brought into operation whenever the ship's heading or track control system is activated and inhibited when this system is not activated)*
- *Manual ON (In operation constantly)*
- *Manual OFF (Does not operate under any circumstances)*

NOTE The Automatic mode is not suitable for use on a ship conforming with regulation SOLAS V/19.2.2.3 which requires the BWNAS to be in operation whenever the ship is underway at sea.

3.1.2 Operational sequence of indications and alarms

3.1.2.1 Dormant period

(See 7.4.2)

(128/A4.1.2.1) *Once operational, the alarm system shall remain dormant for a period of between 3 and 12 min (Td).* See Figure 1.

(128/A4.1.2.2) *At the end of this dormant period, the alarm system shall initiate a visual indication on the bridge.*

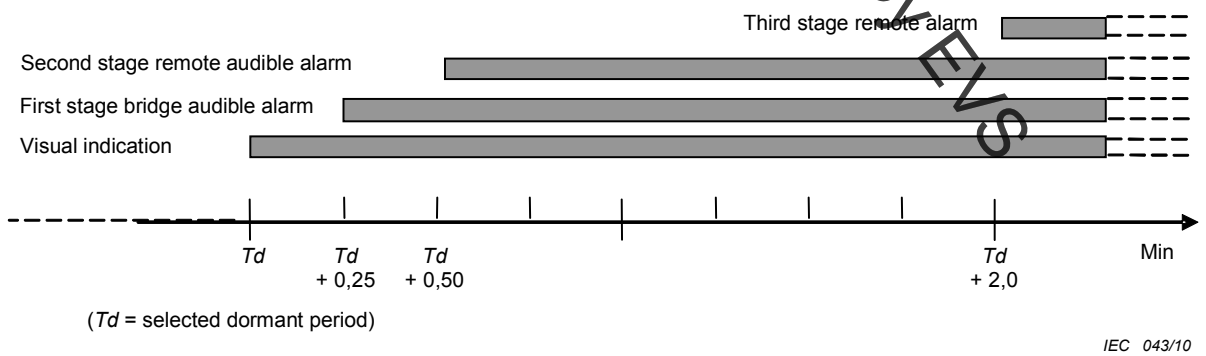

Figure 1 – Alarm sequence without acknowledgements