



Marine & Offshore

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This certificate is not valid when presented without the full attached schedule composed of 7 sections
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Notified Body 2690 - MARINE EQUIPMENT DIRECTIVE 2014/90/EU

EC TYPE EXAMINATION CERTIFICATE

as per Module B of Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations and Commission Implementing Regulation (EU) 2023/1667 of 8 Aug. 2023

This certificate is issued to:

PRAXIS AUTOMATION TECHNOLOGY B.V.

ZIJLDIJK 24A, 2352 AB, LEIDERDORP, NETHERLANDS

for the type of product

BRIDGE NAVIGATIONAL WATCH ALARM SYSTEM (BNWAS)

Mega-Guard - BNWAS

Requirements:

SOLAS 74 Convention as amended, Regulations V/18, V/19

IMO Res. A.694(17)

IMO Res. MSC.128(75), MSC.191(79), MSC.302(87)

MSC.1/Circ.1474

IEC 60945 (2002) + /Corr. 1 (2008),

IEC 61162 series: IEC 61162-1 (2016) - IEC 61162-2 ed1.0 (1998-09) - IEC 61162-3 ed1.2 Consol. with am1 ed. 1.0 (2010-11)

and am2 ed. 1.0 (2014-07) - IEC 61162-450:2018,

IEC 62616(2010) + /Corr. 1 (2012),

IEC 62288 Ed. 3.0:2021,

IEC 62923-1:2018,

IEC 62923-2:2018.

This certificate is issued on behalf of the French Maritime Authorities to attest that Bureau Veritas Marine & Offshore did undertake the relevant type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations.


This certificate will expire on: 22 Mar 2029**For Bureau Veritas Marine & Offshore Notified Body 2690,**

At BV GRONINGEN, on 22 Mar 2024,

Olaf RUITER

This certificate was created electronically and is valid without signature



This certificate does not allow to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark ) to the products corresponding to this type. To this end, the production-control phase module (D, E or F) of Annex II of the Directive is to be complied with and controlled by a written inspection agreement with a notified body.

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. Bureau Veritas Marine & Offshore is designated by the French Maritime Authority as a "notified body" under the terms of the French Regulations Division 140 Chapter 140-2. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The Bridge Navigational Watch Alarm System **Mega-Guard - BNWAS** monitors the bridge activity and detect operator disability which could lead to marine accidents.

MEGA-GUARD E Series BNWAS - Bridge Navigational Watch Alarm System consisting of components:

- BNWAS TFT 5.7" Touch Operator Panel Part number 93.0.982.x and 93.0.983.x
- BNWAS I/O Module Part Number 98.6.030.805
- BNWAS LCD Operator Panel with buttons and integrated I/O Part number 93.0.970

Specifications

Operating Modes	Watch On, Watch Auto On, Watch Stand-by and Watch Off
System Controls	- Front Control Panel - Reset Box with Buzzer - Emergency Button Box - Buzzer Box for LOP
Digital Inputs	- 4 (Emergency In, Reset In, Autopilot In, ECDIS In)
Officer's Alarms Outputs	- 4 Officers
24VDC Outputs	- 5 (Visual Reset, Bridge Alarm, Crew Alarm, Config.1 Alarm, Config.2 Alarm)
Relay Outputs	- Fail relay output function
Front Panel	- Flat design - Back ground illuminated text
Redundant Ethernet link	- 2 RJ45 connectors for 93.0.970 - 4 RJ45 connectors for 93.0.982.x / 93.0.983.x
USB Port	- 1 USB port 2.0
Serial Link	- 1RS485 output to VDR via NMEA-0183 for 93.0.970 - 1RS485 output to VDR via NMEA-0183 for 93.0.982.x and 93.0.983.x
Main Power Supply	19-32 VDC / 1.25A maximum
Back-up power supply	19-32 VDC / 1.25A maximum
Software Version	- 2.R1.R2.0 for 93.0.982.x / 93.0.983.x / 98.6.030.805 - 1.R1.R2.0 for 93.0.970 where : * R1 changes if completely new functions are added to the software, * R2 changes if functionality has been improved (Bug fixing).

2. DOCUMENTS AND DRAWINGS:

- 2.1 - Operator Guide PTD-LCD-BNwas-Panel-R1.14 26/01/2024
- 2.2 - Drawing N02.98401-M01 Rev.C, dated 06/06/2012
- 2.3 - Drawing 93.0.970-F01 Rev. A, dated 31/10/2011
- 2.4 - Drawing 93.0.970-C01 Rev.A, dated 24/08/2011
- 2.5 - Drawing 93.0.375-M01 Rev.B, dated 06/06/2012
- 2.6 - Drawing 93.0.374-M01, Rev.A, dated 04/05/2012
- 2.7 - Drawing 93.0.354-M01, Rev.G, dated 06/06/2012
- 2.8 - Drawing 93.0.352-M11, Rev.B, dated 06/06/2012
- 2.9 - Drawing 93.0.352-M01, Rev.E, dated 06/06/2012

Documents added in revision B1:

- 2.10 - Drawings - bundle : 93.0.982.x-F01 Rev.C, dated 09/02/2018, 93.0.982.x-M01 Rev.F, dated 20/12/2018, 93.0.983.x-F01 Rev.C, dated 09/02/2018 and 93.0.983.x-M01 Rev.C, dated 20/12/2018
- 2.11 - Drawing 98.6.030.805-F01 Rev.A, dated 23/01/2019
- 2.12 - Drawing 98.6.030.805-M01 Rev.A, dated 15/03/2019
- 2.13 - Drawing 91.9.012-A01 Rev. B, dated 30/03/2018
- 2.14 - Drawing 91.6.010-814-A01 Rev. A, dated 16/01/2018
- 2.15 - Operator Guide PTD-5.7-TFT-Bridge-Navigation-Watch-Alarm-System-R1.002 26/01/2024

Documents added in revision C:

- 2.16 - IEC 62288 ed.2 VS IEC 62288 ed.3 GAP ANALYSIS FOR BNWAS dated 15/01/2024
- 2.17 - IEC 62288 ed.3.0 gap analysis dated 19/10/2022
- 2.18 - Development Guidelines dated 26/11/2020.

3. TEST REPORTS:

- 3.1 - Test Report Sebert Trillingstechniek B.V. N° M12.001-2012.7025, dated 12/03/2012
- 3.2 - Test Report Praxis Cold Endurance Rev.1.0, dated 04/06/2012
- 3.3 - Test Report Praxis Heat Stability Rev.1.0, dated 04/06/2012
- 3.4 - Test Report Praxis Dry Heat Rev.1.2, dated 05/06/2012
- 3.5 - Test Report Sebert Trillingstechniek B.V. N° M12.002-2012.7057, dated 10/05/2012, rev.01
- 3.6 - Test Report Bicon N°PRA-20120426-X1, dated 05/07/2012
- 3.7 - Test Report Bicon N°PRA-20120426-X1ANS, dated 05/07/2012
- 3.8 - Test Report Praxis EMC Rev.1.2, dated 04/06/2012
- 3.9 - Corrosion Document Praxis, dated 05/06/2012
- 3.10 - Test Report Praxis IEC-62288, dated 06/07/2012
- 3.11 - Test Report Praxis IEC-62616, dated 06/07/2012
- 3.12 - Test Report Bicon N°PRA-20110906-X1-CSD, dated 23/09/2011

Documents added in revision B1:

- 3.13 - BICON Test Report (Accredited Laboratory) :
- 3.13.1 - BICON Report PRA-20190415-X1-01-ANS, dated 17/06/2019
- 3.13.2 - BICON Report PRA-20190415-X1-01-CSD, dated 08/08/2019
- 3.13.3 - BICON Report PRA-20190415-X1-01-EMC, dated 08/08/2019
- 3.13.4 - BICON Report PRA-20190415-X1-02-ANS, dated 08/08/2019
- 3.13.5 - BICON Report PRA-20190415-X1-02-CSD, dated 08/08/2019
- 3.13.6 - BICON Report PRA-20190415-X1-02-EMC, dated 08/08/2019
- 3.14 - BNWAS MED 2014-90-EU Test Report-R1.10, dated 27/07/2019
- 3.15 - Type Approval Test Report witnessed by BV Local Inspector :
- 3.15.1 - Type Approval Low Temp Test Report - 2018 MED - R1.00, dated 18/07/2019
- 3.15.2 - Type Approval Dry Heat Test Report - 2018 MED - R1.00, dated 05/07/2019
- 3.15.3 - Type Approval Damp Heat Test Report - 2018 MED - R1.00, dated 26/07/2019
- 3.15.4 - Type Approval Power Failure and Variation Test Report - 2018 MED - R1.00, dated 05/07/2019
- 3.16 - Vibration Test Report M19.001-P19.001 Praxis Automation Report, dated 18/04/2019
- 3.17 - Test reports 5.1 - TFT 5.7 Touch Operator Panel (93.0.982.x) witnessed by BV Local Inspector
- 3.18 - Test reports 5.2 - TFT 5.7 Touch Operator Panel (930.983.x) witnessed by BV Local Inspector
- 3.19 - Test reports 5.3 - DIN IO-Module BNWAS (98.6.030.805) witnessed by BV Local Inspector

Documents added in revision C:

- 3.20 - MED 2014/90/EU TEST REPORT dated 26/07/2019

4. APPLICATION / LIMITATION:

- 4.1 - As per requirements stated on first page.
- 4.2 - Only Hardware and Software successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer are covered by this certificate.
- 4.3 - The following component(s) shall comply with the requirements of MED2014/90/EU, as amended, and be wheelmarked:
- Bridge Navigational Watch Alarm System Mega-Guard - BNWAS.
- 4.4 - IEC 61162-3 (with amendments) are not supported by Bridge Navigational Watch Alarm System Mega-Guard - BNWAS.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - This certificate alone does not allow the applicant to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark) to the products corresponding to this type. To this end, the production-control phase module D "Production Quality Assurance" or E "Product Quality Assurance" or F "Product Verification" of Annex II of the Directive is to be complied with and controlled by a written inspection agreement with a Notified Body.
- 5.2 - For information concerning the production phase modules, **PRAXIS AUTOMATION TECHNOLOGY B.V** has declared the following manufacturing site:

**ZIJLDIJK 24A 2352 AB LEIDERDORP
NETHERLANDS**

6. MARKING OF PRODUCT:

Reference is made to MED 2014/90/EU chapter 2.

In particular Article 10.3 specifies that the wheelmark shall be followed by the identification number of the Notified Body involved in the production control phase (module D, E or F) and by the year in which the mark is affixed (4 digits or last 2 digits).

7. OTHERS:

7.1 - It is PRAXIS AUTOMATION TECHNOLOGY B.V.'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate No. 28059/B1 issued on 26 November 2022 by the Society.

***** END OF CERTIFICATE *****