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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) 2025/1533 of 23 July 2025

This certificate is issued to:

AMI MARINE LTD

Unit 9 Crosshouse Centre, Crosshouse Road, Hampshire, SO14 5GZ, Southampton, UNITED KINGDOM

for the type of product

BRIDGE NAVIGATIONAL WATCH ALARM SYSTEM (BNWAS)

X160 - BNWAS

Requirements:

Row 2 of 2 of Regulation (EU) 2025/1533:

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 61162-1:2024 - IEC 61162-2:2024 - IEC 61162-3 ed1.2 Consol. with am1 ed. 1.0 (2010-11) and am2 ed.

1.0 (2014-07) - IEC 61162-450:2024,

IEC 62288 Ed. 3.0:2021 including A1:2024,

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

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: 23 Jun 2031

For Bureau Veritas Marine & Offshore Notified Body 2690,

At BV LONDON, on 23 Jun 2026,

Spencer Yule

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 (BNWAS), X160, monitors the bridge activity and detect operator disability which could lead to marine accidents.

1.1 - BNWAS Components:

Component	AMI Marine Model Number	Marble Model Number
Watch Alarm Front Panel	MAR-0001	MS 421B
BNWAS Selection Switch	MAR-0007	MS 422
Alarm Buzzer	MAR-0004/15	MS 410
Remote Reset	MAR-0005/14	MS 411
Water Tight Remote Reset	MAR-0006	MS 415
PIR Sensor	MAR-0009	IME 306

1.2 - Technical Specifications

Operating Modes	Manual ON, Manual OFF and Automatic Mode
Inputs	Autopilot Reset
Outputs	4 potential free outputs Communication interface to VDR
Reset Sensors	Reset units type MS 411, MS 415 and IME 306
Main Power Supply	24 VDC (18 - 33VDC, 154 mA max.)

2. DOCUMENTS AND DRAWINGS:

- 2.1 - Drawing N° MS421B RELAISDEEL, rev.0, dated 27/05/2009
- 2.2 - Drawing N° KOK-00360, rev.0, dated 03/09/2009
- 2.3 - Drawing N° BEV-0363, rev.0, dated 04/12/2008
- 2.4 - Drawing N° MS421B-FRONT, rev.0, dated 04/02/2009
- 2.5 - Drawing N° MS421B-PWR, rev.0, dated 07/04/2009
- 2.6 - Drawing N° KITVOORSCHRIFT MS421B, rev.0, dated 03/09/2009
- 2.7 - Drawing N° SC-9040, rev.0, dated 26/08/2009
- 2.8 - Drawing N° MON-6K310BIBI, rev.0, dated 17/10/2010
- 2.9 - Drawing N° AFWERKVOORSCHRIFT MS421B, rev.0, dated 03/09/2009
- 2.10 - Drawing N° BEV-0361, rev.0, dated 04/09/2009
- 2.11 - Drawing N° MS421B-UC, rev.0, dated 07/04/2009
- 2.12 - Components List MARBLE-MS421B, dated 30/03/2009
- 2.13 - Drawing N° AFSCHERMING STAART FRONT FOLIE, rev.0, dated 26/08/2009
- 2.14 - Technical descriptions data sheets MARBLE Automation MS421B, unreferenced and undated
- 2.15 - MARBLE BNWAS Inspection Report including PIR Sensor MS PIR
- 2.16 - MARBLE PIR Corrosion declaration ref : 20140902
- 2.17 - Declaration from Marble Automation No. 20241016112845396
- 2.18 - IEC62288 Letter_Marble Automation B.V.
- 2.19 - Risk Analysis Assessment dated 01 April 2026
- 2.20 - BNWAS X160 based Datasheet Iss01 rev.02

3. TEST REPORTS:

- 3.1 - KEMA Certificate of Electromagnetic Compatibility N° 2124242.0551-QUA/EMC and annex 1, dated 02/04/2009
- 3.2 - KEMA Test Report N° 2124242.0501-QUA/EMC, dated 02/04/2009
- 3.3 - THALES Test Report N° 9505 003 855XX 001, dated 30/03/2009
- 3.4 - BSH Compass Safe Distance Test Report N°609, dated 27/05/2009
- 3.5 - MARBLE Inspection Report (IEC62616), unreferenced and undated
- 3.6 - MARBLE Inspection Report (IEC62288), unreferenced and undated
- 3.7 - THALES Test Report N° 9505 330 956XX 001, dated 08/12/2011
- 3.8 - MARBLE Inspection Report (IEC60529) N°20120130 IP, dated 01/02/2012
- 3.9 - MARBLE Inspection Report (IEC61162) N°20120130 NMEA, dated 01/02/2012
- 3.10 - MARBLE Inspection Report N°20120130 Corrosion, dated 01/02/2012
- 3.11 - HELLENIC ELECTRONICS EQUIPMENT QUALITY ASSURANCE CENTRE TEST REPORT - 503697-E dated 28/12/2011
- 3.12 - IEC62923 Inspection Report, witnessed by BV surveyor on 04/02/2026.
- 3.13 - IEC61162-1 Test Report dated 04/02/2026

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 - IEC 61162-2, IEC 61162-3, IEC 61162-450 are not applicable

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 module E Product Quality Assurance or module 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, **AMI MARINE LTD** has declared the following manufacturing site(s):

**AMI MARINE LTD
Unit 9 Crosshouse Centre
Crosshouse Road
Hampshire
Southampton
United Kingdom**

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 **AMI MARINE LTD**'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.

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